

Standard Practice for Setting the Requirements for the Serviceability of a Building or Building-Related Facility, and for Determining What Serviceability is Provided or Proposed^{1,2}

This standard is issued under the fixed designation E1679; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

INTRODUCTION

Most organizations and work groups have only a few generic types of functions, such as general purpose office functions, or office functions requiring special security provisions because receiving many visitors, or having a mix of office and “dry” laboratory functions, and so on. For each typical or generic type of function, facilities are required to have a different mix of functional capabilities to support the activities of those who use, own, or manage that function.

This document is a definitive procedure to (1) ascertain the profile of required levels of functionality (functional support) for a specific occupant group, (2) ascertain the profile of levels of serviceability (functional capability) that are provided in an existing facility, or called for in the design for a facility, and (3) compare what is provided to what is required.

To ascertain the profile provided by a facility, or the profile of an organization’s requirements, this practice uses scales that look like multiple choice questionnaires for discrete topics related to buildings and their use. One set of scales is for user functional requirements (demand) and a matching set of scales is for building serviceability (supply).

For each topic of required functionality (demand), the user of this practice employs a classification scale called a “requirement scale” to set the level required. Each requirement scale contains several descriptions of required functionality for that topic, classified in a range from low to high, for example, from Level 0 to Level 9. For each topic of serviceability provided (supply), the user of this practice employs a classification scale called a “rating scale” to ascertain the level of serviceability that is found in the facility. Each rating scale contains several descriptions of serviceability provision for that topic, classified in a range from low to high, for example, from Level 0 to Level 9.

Each such scale, demand or supply, is used like a multiple choice questionnaire to select the level of functionality or of serviceability. Overall required functionality is displayed as a profile of levels (that is, not as a single number) and may be presented as a bar chart. Similarly, overall serviceability provided may be presented as a bar chart. When the two bar charts are compared (gap analysis) the closeness of functional fit of a facility for an organization is displayed.

When comparing the requirement profile prepared by one organization with that prepared by another organization, it is essential that both use the same set of requirement scales. Organizations may use an ASTM standard set of scales; they may create their own; or they may adapt ASTM standard classification scales for specialized, internal application. The organization forgoes the possibility of external comparison in the latter two cases.

This standard practice is an updated version of Practice E1679, to which has been added the provisions of the companion standard, Practice E1334. A whole family of scales which comply with this version of Practice E1679, for use in North America, has been standardized by ASTM, under the jurisdiction of ASTM Subcommittee E06.25 on Whole Buildings and Facilities. A version in French was created by Public Works and Government Services Canada. A set of scales in French, adapted for ways of building and managing facilities in France was created by the French public entity Centre Scientifique et Technique du Bâtiment (CSTB). All the ASTM scales are included in ASTM Standards for Whole Building Functionality and Serviceability, ASTM stock number WBDG2009 or later edition. After Practice E1334 and Practice E1679 were standardized, a version of the practice as modified for use in other countries was created as ISO 11863.