



# Standard Classification for Serviceability of an Office Facility for Support for Office Work<sup>1,2</sup>

This standard is issued under the fixed designation E 1660; 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 ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

## 1. Scope

1.1 This classification contains pairs of scales for classifying an aspect of the serviceability of an office facility, that is, the capability of an office facility to meet certain possible requirements for performance to support typical office work.

1.2 Within that aspect of serviceability, each pair of scales, shown in Fig. 1 through Fig. 6, are for classifying one topic of serviceability. Each paragraph in an Occupant Requirement Scale (see Figs. 1 through 6) summarizes one level of serviceability on that topic, which occupants might require. The matching entry in the Facility Rating Scale (see Figs. 1 through 6) is a translation of the requirement into a description of certain features of a facility which, taken in combination, indicate that the facility is likely to meet that level of required serviceability.

1.3 The entries in the Facility Rating Scale (see Figs. 1 through 6) are indicative and not comprehensive. They are for quick scanning to estimate approximately, quickly, and economically, how well an office facility is likely to meet the needs of one or another type of occupant group over time. The entries are not for measuring, knowing, or evaluating how an office facility is performing.

1.4 This classification can be used to estimate the level of serviceability of an existing facility. It can also be used to estimate the serviceability of a facility that has been planned but not yet built, such as one for which single-line drawings and outline specifications have been prepared.

1.5 This classification indicates what would cause a facility to be rated at a certain level of serviceability but does not state how to conduct a serviceability rating nor how to assign a serviceability score. That information is found in Practice E 1334. The scales in this classification are complimentary to and compatible with Practice E 1334. Each requires the other.

<sup>1</sup> This classification is under the jurisdiction of ASTM Committee E-6 on Performance of Buildings and is the direct responsibility of Subcommittee E06.25 on Whole Buildings and Facilities.

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<sup>2</sup> Portions of this document are based on material originally prepared by the International Centre for Facilities (ICF) and © 1993 by ICF and Minister of Public Works and Government Services Canada. Their cooperation in the development of this standard is acknowledged.

## 2. Referenced Documents

### 2.1 ASTM Standards:

E 631 Terminology of Building Constructions<sup>3</sup>

E 1334 Practice for Rating Serviceability of a Building or Building-Related Facility<sup>3</sup>

E 1679 Practice for Setting Requirements for Serviceability of a Building or Building-Related Facility<sup>3</sup>

### 2.2 ISO Document<sup>4</sup>

ISO 6240 International Standard, Performance Standards in Building—Contents and Presentation

## 3. Terminology

### 3.1 Definitions:

3.1.1 *facility*—a physical setting used to serve a specific purpose.

3.1.1.1 *Discussion*—A facility may be within a building, a whole building, or a building with its site and surrounding environment; or it may be a construction that is not a building. The term encompasses both the physical object and its use (see Terminology E 631).

3.1.2 *facility serviceability*—the capability of a facility to perform the function(s) for which it is designed, used, or required to be used.

3.1.2.1 *Discussion*—The scope of this performance is of the facility as a system, including its subsystems, components and materials and their interactions, such as acoustical, hydrothermal, air purity, and economic; and of the relative importance of each performance requirement (see Terminology E 631).

3.1.3 *office*—a place, such as a room, suite, or building, in which business, clerical or professional activities are conducted (see Terminology E 631).

3.1.4 For standard definitions of additional terms applicable to this classification, see Terminology E 631.

### 3.2 Definitions of Terms Specific to This Standard:

3.2.1 *enclosure*—floor-to-ceiling (full height) partitions around a space.

3.2.2 *convenience copiers*—medium-size photocopy machines, typically on a stand or worktable, located in or near

<sup>3</sup> *Annual Book of ASTM Standards*, Vol 04.11.

<sup>4</sup> Available from American National Standards Institute, 11 W. 42nd St., 13th Floor, New York, NY 10036.



A.1. Support for Office Work

Scale A.1.1. Photocopying

Occupant Requirement Scale	
<p>9</p> <p><input type="checkbox"/> <b>ACCESS TO COPIERS:</b> Have sufficient copiers that staff do not need to wait for access to an appropriate machine.</p> <p><b>LOCATION OF COPIERS:</b> Must be able to use small convenience copiers in open plan, and large copiers in rooms, without causing problems of distraction, pollution or power surges.</p> <p><b>MINIMIZE DISRUPTION FROM COPIERS:</b> In open plan, fitup policy is to provide spaces dedicated to copiers, with 5 m minimum distance to nearest individual workstation, to minimize noise, distraction and pollution.</p>	8
<p>7</p> <p><input type="checkbox"/> <b>ACCESS TO COPIERS:</b> Have sufficient copiers that staff rarely wait more than one minute to use an appropriate machine.</p> <p><b>LOCATION OF COPIERS:</b> Need small convenience copiers in open plan, and large copiers in rooms, without causing problems of pollution or power surges. Can tolerate specified locations if centralized and adjacent to circulation.</p> <p><b>MINIMIZE DISRUPTION FROM COPIERS:</b> Can tolerate minor disruption to nearby workers. In open plan, fitup policy is to provide spaces dedicated to copiers, with 3 m minimum distance to nearest individual workstation, to reduce noise, distraction and pollution.</p>	6

Facility Rating Scale	
<p>9</p> <p><input type="checkbox"/> <b>Power supply:</b> Each copier is on a dedicated circuit.</p> <p><input type="checkbox"/> <b>Small table-top copiers:</b> Air exhaust from locations with table-top copiers, whether in small rooms or in open plan (e.g. by hood over copiers), is not recirculated within the building. Such exhaust can easily and at low cost be provided to any location in the building. There is ample separation, e.g. minimum 5 m, from nearest workstation in open plan to a table-top copier in open plan, or to entrance of room containing a table-top copier.</p> <p><b>Convenience copiers:</b> Located in separate rooms, with air exhaust not recirculated within the building. Added exhaust for copier rooms for convenience copiers is easily available in any location. There is ample separation, e.g. minimum 5 m, from entrance to copier rooms to the nearest workstation.</p> <p><b>Large copiers:</b> Rooms for large copiers are provided and conveniently located. Exhaust air from the copier room is not recirculated within the building and the room is sound isolated from the nearest workstations. If rooms for large copiers are not provided, fitup to this level would be at minimal effort and cost.</p>	8
<p>7</p> <p><input type="checkbox"/> <b>Power supply:</b> Each copier is on a dedicated circuit.</p> <p><input type="checkbox"/> <b>Small table-top copiers:</b> Air exhaust from small rooms with table-top copiers is not recirculated within the building but is recirculated from copiers in open plan areas. Added exhaust ventilation to the outside exists or is readily available in specific locations or zones; but elsewhere, added exhaust would be mixed with return air. There is at least 3 m separation from nearest workstation in open plan to a table-top copier in open plan or to entrance to a room containing a table-top copier.</p> <p><b>Convenience copiers:</b> Located in separate rooms or separated from the nearest individual workstations by at least 3 m, or a wall, or equivalent separation. For convenience copiers, added exhaust ventilation to the outside exists or is readily available in specific locations or zones; but elsewhere, added exhaust would be mixed with return air.</p> <p><b>Large copiers:</b> Rooms for large copiers are provided and well located for most people. Air from the copier room is exhausted to the outside (not recirculated) and noise is not heard in adjacent workplaces. If copier rooms are not provided, fitup to this level would be at moderate effort and cost.</p>	6

Scale A.1.1. continued on next page

FIG. 1 Scale A.1.1 for Photocopying

work areas and used on a self-help basis. They typically accommodate two or more sizes of paper tray, and copy larger and smaller than the original. Many have collating bins for ten or twenty copies or automatic feeding of originals, or both.

3.2.3 *interview room*—place for meetings at which one or two staff interview or meet with one or two others, typically from outside the organization, for example: staff to be hired,

clients with questions, clients who are filing a report or application, contractors or suppliers, etc.

3.2.4 *large copiers*—includes larger photocopy machines, typically floor mounted, with large collating and stapling functions, etc., located centrally and operated by trained personnel; or copiers for large sheets or drawings.



A.1. Support for Office Work

Scale A.1.1. Photocopying (continued)

Occupant Requirement Scale	Facility Rating Scale
<p><b>5</b> <input type="checkbox"/> ○ <b>ACCESS TO COPIERS:</b> Have sufficient copiers that staff rarely wait more than 2 or 3 minutes to use an appropriate machine.</p> <p>○ <b>LOCATION OF COPIERS:</b> Need convenience copiers in open plan, and large copiers in rooms spaced throughout the work area, without causing power surges. Can tolerate specified locations if centralized and adjacent to circulation.</p> <p>○ <b>MINIMIZE DISRUPTION FROM COPIERS:</b> Can tolerate minor disruption to nearby workers. Can tolerate added heat and some recirculation of exhaust air if compensating features are provided, e.g. openable windows. In open plan, fitup policy is to provide spaces dedicated to copiers, with 3 m minimum distance to nearest individual workstation, to reduce noise, distraction and pollution.</p> <p><b>3</b> <input type="checkbox"/> ○ <b>ACCESS TO COPIERS:</b> Minimal need for convenience photocopiers, e.g. one copier per 100 people.</p> <p>○ <b>LOCATION OF COPIERS:</b> Located well away from areas where most people work.</p> <p>○ <b>MINIMIZE DISRUPTION FROM COPIERS:</b> If more copiers are required, say one copier per 50 people, then need compensating features, e.g. get added ventilation to copier room by openable windows, or by putting copier in poor location.</p>	<p><b>5</b> <input type="checkbox"/> ○ <b>Power supply:</b> There are separate circuits for copiers, not shared with other office machines, e.g. computers, but may have two small copiers on one circuit.</p> <p>○ <b>Small table-top copiers:</b> Workstations in open plan can have separation from a table-top copier by a wall, or at least 3 m distance to copier or to entrance to a room containing a copier.</p> <p>○ <b>Convenience copiers:</b> Added exhaust ventilation for copiers exists, or is readily available in specific locations. This exhaust is diluted with extra outdoor air before recirculation, or outdoor air is available through openable windows. There is adequate separation, e.g. minimum 3 m, from the nearest workstation.</p> <p>○ <b>Large copiers:</b> Rooms for large copiers are provided, but only to a basic quality. If copier rooms are not provided, building layout and services are capable, at substantial effort or cost, of providing dedicated rooms for large copiers to a basic quality, e.g. air from the copier room is exhausted directly into the return air system. Noise can just be heard at adjacent workplaces. The location of copiers is adequate for most people.</p> <p><b>3</b> <input type="checkbox"/> ○ <b>Power supply:</b> Copiers are on the same circuits as other machines, e.g. computers. There is capacity for added dedicated circuits at moderate effort and cost.</p> <p>○ <b>Small table-top copiers:</b> Workstations in open plan cannot be separated from a table-top copier by a wall, and these copiers cause noticeable heat gain, odours and noise.</p> <p>○ <b>Convenience copiers:</b> Added exhaust ventilation for copiers does not exist. Added ventilation is possible but only by mixing with return air, and it is difficult and costly. Noise control is not feasible. Convenience copiers cause noticeable heat gain, odours, and noise.</p> <p>○ <b>Large copiers:</b> Rooms for copiers are not provided, or if provided, are not to basic quality. The building layout and services are not capable of providing copier rooms to a basic quality except at prohibitive cost, e.g. air exhausted from copier space is recirculated to the rest of the building. Noise of the copier is heard at many workplaces in the general area.</p>

Scale A.1.1. continued on next page

FIG. 1 Scale A.1.1 for Photocopying (continued)

3.2.5 *small table-top copiers*—small personal copiers with limited features. They are typically placed on a work surface and used for low-volume copying.

**A.1. Support for Office Work**

**Scale A.1.1. Photocopying (continued)**

<b>Occupant Requirement Scale</b>	<b>Facility Rating Scale</b>
<p><b>1</b>    <input type="checkbox"/> <b>ACCESS TO COPIERS:</b> No need for photocopiers, or only one copier required for occasional use.</p> <p><input type="checkbox"/> <b>LOCATION OF COPIERS:</b> Located away from densely populated office areas, or other arrangements, e.g. can use commercial copying service, or copy centre located elsewhere.</p>	<p><b>1</b>    <input type="checkbox"/> <b>Power supply:</b> Copiers are on the same circuits as other machines, e.g. computers, with no potential for dedicated power, or it is very difficult.</p> <p><input type="checkbox"/> <b>Small table-top copiers:</b> Table-top copiers cause problems, e.g. heat gain, pollution, odours and noise.</p> <p><input type="checkbox"/> <b>Convenience Copiers:</b> No added exhaust ventilation is possible and copiers cannot be in separate rooms. No noise control is possible. Convenience copiers cause problems, e.g. heat gain, pollution, odours, and noise.</p> <p><input type="checkbox"/> <b>Large copiers:</b> No added exhaust ventilation is possible and all exhaust air from spaces with copiers is treated like other air from office areas. All possible locations for copiers are also near workplaces, e.g. within 3m. There is negligible noise control and large copiers cause serious problems, e.g. heat, noise, and pollution.</p>
<p><input type="checkbox"/> Exceptionally important.   <input type="checkbox"/> Important.   <input type="checkbox"/> Minor Importance.</p>	
<p>Minimum Threshold level =    <input type="checkbox"/> NA   <input type="checkbox"/> NR   <input type="checkbox"/> Zero   <input type="checkbox"/> DP</p>	

**NOTES** Space for handwritten notes on Requirements or Ratings

FIG. 1 Scale A.1.1 for Photocopying (continued)

**4. Significance and Use**

4.1 Each Facility Rating Scale (see Figs. 1 through 6) in this classification provides a means to estimate the level of serviceability of a building or facility for one topic of serviceability and to compare that level against the level of any other building or facility.

4.2 This classification can be used for comparing how well different buildings or facilities meet a particular requirement for serviceability. It is applicable despite differences such as location, structure, mechanical systems, age, and building shape.

4.3 This classification can be used to estimate the amount of variance of serviceability from target or from requirement, for a single office facility, or within a group of office facilities.

4.4 This classification can be used to estimate the following:

4.4.1 Serviceability of an existing facility for uses other than its present use.

4.4.2 Serviceability (potential) of a facility that has been planned but not yet built.

4.4.3 Serviceability (potential) of a facility for which remodeling has been planned.

4.5 Use of this classification does not result in building evaluation or diagnosis. Building evaluation or diagnosis

generally requires a special expertise in building engineering or technology and the use of instruments, tools, or measurements.

4.6 This classification applies only to facilities that are building constructions, or parts thereof. (While this classification may be useful in rating the serviceability of facilities that are not building constructions, such facilities are outside the scope of this classification.)

4.7 This classification is not intended for, and is not suitable for, use for regulatory purposes, nor for fire hazard assessment nor for fire risk assessment.

**5. Basis of Classification**

5.1 The scales in Figs. 1 through 6 contain the basis for classification.

5.2 Instructions for the use of this classification are contained in Practices E 1334 and E 1679.

**6. Keywords**

6.1 building; copiers; facility; facility occupants; function; office; performance; rating; rating scale; requirements; serviceability



A.1. Support for Office Work

Scale A.1.2. Training rooms, general

Occupant Requirement Scale	Facility Rating Scale
<p>9 <input type="checkbox"/> ○ <b>ROOM SIZES:</b> Require training sessions (without computers) to run for various group sizes, sometimes concurrently. Need breakout rooms nearby, accessible to trainees.</p> <p>○ <b>OCCUPANT COMFORT:</b> Need excellent ventilation, lighting and sound control for concentration.</p> <p>○ <b>LOCATION OF ROOMS:</b> Need to locate training rooms in any part of the office, e.g. to be close to trainees, or convenient for trainees from outside the facility. Need to let trainees go from building entry to training rooms, toilet and food service, without compromising security zones.</p>	<p>9 <input type="checkbox"/> ○ <b>Mix, quantity, future capability:</b> Suitable mix of capacities of dedicated training rooms exist, e.g. for 12, 25 and 35 people. Sufficient quantity. Adjacent meeting rooms are easy to enhance to meet requirements for a training room, if more training rooms become needed.</p> <p>○ <b>Environment:</b> Excellent, e.g. ventilation rates and volume of air entering the space exceed or meet target (current ASHRAE Standards 62 and 55) at all times that the training rooms are in use. Rooms are comfortable for full-day use. Local control of lighting, ventilation and temperature exists in all training rooms. Separate illumination for wall-wash, for presentation at end of the room, and for work surfaces, all under instructor control. Instructor can augment ventilation, including 100% outdoor air, on demand.</p> <p>○ <b>Acoustic control:</b> Excellent, e.g. raised voices or amplified sounds are not heard in adjacent spaces, and sounds from adjacent spaces are never distracting. It is easy to understand soft-spoken speech from across the room, and no echo or reverberation from loud or abrupt sounds.</p> <p>○ <b>Fixtures and fixed equipment:</b> There is provision for full audio-visual presentations, including projection of TV and computer images with quality sound system. Large screens with rear projection are installed in existing training rooms, with sufficient ceiling height at screen end of room to provide good visibility, e.g. 2.7 m for capacity of up to 10 trainees and 3 m for larger rooms. The present high-quality standards for training rooms is achievable in any location on the floor.</p> <p>○ <b>Breakout/syndicate rooms:</b> Adjacent cluster of small and medium meeting rooms has capacity for all trainees.</p> <p>○ <b>Floorplate and access:</b> No wayfinding difficulties for visitors. There is sufficient space to add or enlarge a training room.</p>
<p>7 <input type="checkbox"/> ○ <b>ROOM SIZES:</b> Need to run concurrent training sessions for two different group sizes, the larger up to about 25 trainees. Need several breakout rooms nearby.</p> <p>○ <b>OCCUPANT COMFORT:</b> Need high quality ventilation, lighting and sound control for concentration.</p> <p>○ <b>LOCATION OF ROOMS:</b> For some courses, some or most of the trainees come from outside the facility so access from building entry must not compromise security zones.</p>	<p>7 <input type="checkbox"/> ○ <b>Mix, quantity, future capability:</b> Suitable number and capacities of dedicated training rooms exist, e.g. for 12 and 25 people. Sufficient quantity. Additional training rooms can be installed with moderate cost and difficulty.</p> <p>○ <b>Environment:</b> Good, e.g. ventilation rates per person reach target (current ASHRAE Standards 62 and 55) for training rooms, making them comfortable for full-day use. There is a thermostat for occupant control of ventilation and temperature. Local control of lighting exists in all training rooms. Instructor can augment ventilation, on demand.</p> <p>○ <b>Acoustic control:</b> Good, e.g. never hear sounds from outside the room. Raised voices or amplified sounds are not understood in adjacent spaces. Soft-spoken speech from across the room can be understood. Only slight echo or reverberation from loud or abrupt sounds; or, only slight muffling of speech and loud sounds.</p> <p>○ <b>Fixtures and fixed equipment:</b> There is provision for full audio-visual presentations, using built-in projection of TV and computer images, and extra ceiling height, e.g. 3 m at screen end of room, for training rooms for more than 20 people.</p> <p>○ <b>Breakout/syndicate rooms:</b> Adjacent to training room cluster is cluster of small and medium meeting rooms with at least half capacity of training rooms.</p> <p>○ <b>Floorplate and access:</b> No wayfinding difficulties for visitors.</p>
<p>6 <input type="checkbox"/></p>	<p>8 <input type="checkbox"/></p>

Scale A.1.2. continued on next page

FIG. 2 Scale A.1.2 for Training Rooms, General





A.1. Support for Office Work

Scale A.1.2. Training rooms, general (continued)

Occupant Requirement Scale	Facility Rating Scale
<p><input type="checkbox"/> 5 ○ <b>ROOM SIZES:</b> Training sessions are required to run for a single group size and may require additional larger or smaller size rooms in the future.</p> <p>○ <b>OCCUPANT COMFORT:</b> Typical training sessions to be half day or less. The content of training requires average concentration.</p> <p>○ <b>LOCATION OF ROOMS:</b> Within the facility, location of training room(s) is not significant.</p> <p><input type="checkbox"/> 3 ○ <b>ROOM SIZES:</b> No special requirements for training rooms. Basic instruction can occur in a standard large meeting room. May require medium-size training room in the future.</p> <p>○ <b>LOCATION OF ROOMS:</b> If no large meeting room, can rent space in a hotel or conference centre nearby.</p>	<p><input type="checkbox"/> 5 ○ <b>Mix, quantity, future capability:</b> One or two dedicated training rooms exist. Would be difficult and costly to install more. It is difficult to locate training rooms near reception.</p> <p>○ <b>Environment:</b> Adequate, e.g. ventilation rates per person reach target (current ASHRAE standards 62 and 55) for training rooms, making them comfortable for half-day use. Ventilation and temperature are controlled by thermostat with fixed settings which cannot be adjusted by occupants. Limited capability exists for added ventilation. Local control of lighting is possible, but costly to install.</p> <p>○ <b>Acoustic control:</b> Good, e.g. raised voices or amplified sounds are not understood in adjacent spaces, and sounds from adjacent spaces are rarely distracting. Easy to understand normal speaking voice across the room. Soft-spoken speech is sometimes hard to understand, or, distinct but hard to hear.</p> <p>○ <b>Fixtures and fixed equipment:</b> There is basic provision for audio-visual presentations, e.g. screens are installed and basic sound system and video monitors can conveniently be used. Ceiling height is 2.6 m to 2.7 m.</p> <p>○ <b>Breakout/syndicate rooms:</b> A few medium size meeting rooms are nearby.</p> <p>○ <b>Floorplate and access:</b> Some wayfinding difficulties for visitors to find training rooms, but potential to resolve problems easily.</p> <p><input type="checkbox"/> 4</p> <p><input type="checkbox"/> 3 ○ <b>Mix, quantity, future capability:</b> No dedicated training rooms exist. Would be difficult and costly to install, and ventilation would be unlikely to meet target. It is difficult to locate training rooms near reception.</p> <p>○ <b>Environment:</b> Poor, e.g. ventilation rates do not meet target (current ASHRAE standards 62 and 55) for training rooms. No local control of ventilation or temperature. Limited capability exists for added ventilation, but not sufficient to meet target. Local control of lighting in training rooms is possible, but difficult and costly.</p> <p>○ <b>Acoustic control:</b> Only raised voices or amplified sounds are understood in adjacent spaces. Sounds from adjacent spaces are occasionally distracting; difficult and costly to fix. In some parts of the room, a normal speaking voice is hard to understand, or hard to hear.</p> <p>○ <b>Fixtures and fixed equipment:</b> Limited provision exists for audio-visual presentations, e.g. screens only, and low ceilings (2.4 m) which prevent the use of projection screens higher than 1.5 m.</p> <p>○ <b>Breakout/syndicate rooms:</b> None nearby.</p> <p>○ <b>Floorplate and access:</b> Floorplate permits large training room. It is difficult to place training rooms near reception from the public access zone. Some wayfinding difficulties for visitors.</p> <p><input type="checkbox"/> 2</p>

Scale A.1.2. continued on next page

FIG. 2 Scale A.1.2 for Training Rooms, General (continued)

**A.1. Support for Office Work**

**Scale A.1.2. Training rooms, general (continued)**

<b>Occupant Requirement Scale</b>	<b>Facility Rating Scale</b>
<p><b>1</b>    <input type="radio"/> <b>ROOM SIZES:</b> No requirements for training rooms. May require a small training room in the future.</p> <p><input type="checkbox"/>    <b>OCCUPANT COMFORT:</b> Can tolerate conditions for such a room that are similar to a basic meeting room, but below the standard recommended for training rooms.</p>	<p><b>1</b>    <input type="radio"/> <b>Present provision for training rooms:</b> No dedicated training rooms exist. Training is done in an open plan area.</p> <p><input type="checkbox"/>    <b>Future capability for training rooms:</b> The dimensions or areas are sufficient for a small training room only, e.g. a maximum capacity of 4 to 6 people, with equipment. Local control of lighting and adequate sound isolation are not practicable. No capability exists for added ventilation. It is difficult or impossible to locate training rooms near reception.</p>
<p><input type="checkbox"/> Exceptionally important.   <input type="checkbox"/> Important.   <input type="checkbox"/> Minor Importance.</p>	
<p>Minimum Threshold level =</p>	<p><input type="checkbox"/> NA   <input type="checkbox"/> NR   <input type="checkbox"/> Zero   <input type="checkbox"/> DP</p>

**NOTES** *Space for handwritten notes on Requirements or Ratings*

FIG. 2 Scale A.1.2 for Training Rooms, General (continued)



### A.1. Support for Office Work

## Scale A.1.3. Training rooms for computer skills

Occupant Requirement Scale	
9	<input type="checkbox"/> <b>ROOM SIZES:</b> Concurrent training sessions are required for two group sizes, one up to 6 trainees, and one up to 12 trainees. Also, at times have sessions for a single group of up to 18 trainees, e.g. may combine two smaller training rooms into one larger room. <b>OCCUPANT COMFORT:</b> Need excellent ventilation, illumination and sound control for concentration. No glare on visual display unit screens <b>LOCATION OF ROOMS:</b> Need to locate training rooms adjacent or close to informatics support group, and/or to building entry, for trainees from outside the facility.
8	
7	<input type="checkbox"/> <b>ROOM SIZES:</b> Concurrent training sessions are required for two group sizes, 6 and 12 trainees. <b>OCCUPANT COMFORT:</b> Need high quality ventilation, illumination and sound control for concentration. No glare on visual display unit screens. <b>LOCATION OF ROOMS:</b> Need to locate training rooms convenient to informatics support group, or to building entry, for trainees from outside the facility.
6	

Facility Rating Scale	
9	<input type="checkbox"/> <b>Quantity, location, future capability:</b> Suitable number of rooms, which can be subdivided to groups of about 6, or combined for groups up to about 18. Easy to install more such rooms nearby. Close to informatics group. <input type="checkbox"/> <b>Environment:</b> Excellent, e.g. ventilation rates exceed or reach target (current ASHRAE Standards 62 and 55). Rooms are comfortable for full-day use. Local control of lighting, ventilation and temperature exists in all training rooms. Separate illumination for wall-wash, for presentation at end of the room, and for work surfaces, all under instructor control. Instructor can augment ventilation, including 100% outdoor air, on demand. <input type="checkbox"/> <b>Acoustic control:</b> Excellent, e.g. raised voices or amplified sounds are not heard in adjacent spaces, and sounds from adjacent spaces are never distracting. It is easy to understand soft-spoken speech from across the room, and no echo or reverberation from loud or abrupt sounds. <input type="checkbox"/> <b>Fixtures and fixed equipment:</b> There is provision for full audio-visual presentations, e.g. screens and sound system, including projection of TV and computer images and quality sound system. Large screens with rear projection are installed in existing training rooms. Ceiling heights at screen end of room are sufficient so that large screens are high enough for good visibility, e.g. 2.7 m for smaller rooms for a capacity of up to 10 trainees, and 3 m for larger ones. The present high-quality standards for meeting rooms is achievable in any location on the floor. <input type="checkbox"/> <b>Information technology:</b> Each instructor and student workstation has the same electrical and data connections as do office workstations, and all workstations are networked to the instructor's station. Cable capacity allows a second, local network, for instruction purposes. <input type="checkbox"/> <b>Floorplate and access:</b> No wayfinding difficulties for visitors. There is also sufficient space to add or enlarge a training room.
7	<input type="checkbox"/> <b>Quantity, location, future capability:</b> Suitable number of rooms sized for about 12 trainees, and can be subdivided into two rooms for about 6 trainees each. Can install additional rooms with moderate cost and difficulty. Location is convenient to informatics group. <input type="checkbox"/> <b>Environment:</b> Good, e.g. ventilation rates per person reach target (current ASHRAE Standards 62 and 55) for training rooms, making them comfortable for full-day use. There is a thermostat for occupant control of ventilation and temperature. Local control of lighting exists in all training rooms. Instructor can augment ventilation, on demand. <input type="checkbox"/> <b>Acoustic control:</b> Good, e.g. never hear sounds from outside the room. Raised voices or amplified sounds are not understood in adjacent spaces. Soft-spoken speech from across the room can be understood. Only slight echo or reverberation from loud or abrupt sounds; or, only slight muffling of speech and loud sounds. <input type="checkbox"/> <b>Fixtures and fixed equipment:</b> There is provision for full audio-visual presentations, using built-in projection of computer and TV images, or large computer/video monitors. Ceiling height at screen end of room is 2.7 m or higher for capacity of more than 10 people. <input type="checkbox"/> <b>Information technology:</b> Each instructor and student workstation has the same electrical and data connections as do office workstations, and all workstations are networked to the instructor's station. <input type="checkbox"/> <b>Floorplate and access:</b> No wayfinding difficulties for visitors.
6	

Scale A.1.3. continued on next page

FIG. 3 Scale A.1.3 for Training Rooms for Computer Skills



A.1. Support for Office Work

Scale A.1.3. Training rooms for computer skills (continued)

Occupant Requirement Scale	Facility Rating Scale
<p><input type="checkbox"/> 5 ○ ROOM SIZES: Training sessions are required for two group sizes, 6 or 12 trainees, which may be concurrent. ○ OCCUPANT COMFORT: The content of training requires average concentration. ○ LOCATION OF ROOMS: Location of training room(s) is not significant.</p>	<p><input type="checkbox"/> 5 ○ <b>Quantity, location, future capability:</b> One or two rooms for about 12 trainees exist. Would be difficult and costly to install more. ○ <b>Environment:</b> Adequate, e.g. ventilation rates per person reach target (current ASHRAE Standards 62 and 55) for training rooms, making them comfortable for half-day use. Ventilation and temperature are controlled by thermostat with fixed settings which cannot be adjusted by occupants. Limited capability exists for added ventilation. Local control of lighting is possible, but costly to install. ○ <b>Acoustic control:</b> Good, e.g. raised voices or amplified sounds are not understood in adjacent spaces, and sounds from adjacent spaces are rarely distracting. Easy to understand normal speaking voice across the room. Soft-spoken speech is sometimes hard to understand, or distinct but hard to hear. ○ <b>Fixtures and fixed equipment:</b> There is provision for basic audio-visual presentations, e.g. screens and front projection of computer images or large computer display monitors. ○ <b>Information technology:</b> Each instructor and student workstation has the same electrical and data connections as do office workstations. ○ <b>Floorplate and access:</b> No wayfinding difficulties for visitors.</p>
<p><input type="checkbox"/> 3 ○ ROOM SIZES: No special requirements for training. Basic instruction can occur in a standard large meeting room where personal computers can be temporarily installed. May require training room in the future, but can train in a standard meeting room.</p>	<p><input type="checkbox"/> 3 ○ <b>Quantity, location, future capability:</b> No dedicated training rooms for computer skills exist. Would be difficult and costly to install, and ventilation and cooling likely would not meet target. ○ <b>Environment:</b> Poor, e.g. ventilation rates do not reach target (current ASHRAE Standards 62 and 55) for training rooms. No local control of ventilation or temperature. Limited capability exists for added ventilation, but not sufficient to meet target. Local control of lighting in training rooms is possible, but difficult and costly. ○ <b>Acoustic control:</b> Only raised voices or amplified sounds are understood in adjacent spaces. Sounds from adjacent spaces are occasionally distracting; difficult and costly to fix. In some parts of the room, a normal speaking voice is hard to understand, or hard to hear. ○ <b>Fixtures and fixed equipment:</b> Limited provision exists for audio-visual presentations, e.g. screens only, which must be small due to low ceiling height. Computer monitors must be wheeled on stands. ○ <b>Information technology:</b> Cables are taped to the carpet or dropped from ceiling using temporary utility poles. ○ <b>Floorplate and access:</b> Floorplate permits large training room. It is difficult to place the training room near reception from the public access zone. Some wayfinding difficulties for visitors.</p>
<p><input type="checkbox"/> 1 ○ ROOM SIZES: No requirements for training. May require a small training room in the future.</p>	<p><input type="checkbox"/> 1 ○ <b>Present provision for training rooms:</b> No dedicated training rooms exist. Training is done in an open plan area. ○ <b>Future capability for training rooms:</b> The dimensions or areas are sufficient for a small dedicated training room only, e.g. a maximum capacity of 6 to 8 people, with equipment. Local control of lighting and adequate sound isolation are not practicable. No capability exists for added ventilation.</p>

<input type="checkbox"/> Exceptionally important.	<input type="checkbox"/> Important.	<input type="checkbox"/> Minor Importance.
Minimum Threshold level =		
<input type="checkbox"/> NA	<input type="checkbox"/> NR	<input type="checkbox"/> Zero <input type="checkbox"/> DP

NOTES Space for handwritten notes on Requirements or Ratings.

FIG. 3 Scale A.1.3 for Training Rooms for Computer Skills (continued)



A.1. Support for Office Work

Scale A.1.4. Interview rooms

Occupant Requirement Scale	
9 <input type="checkbox"/>	<p>○ <b>FREQUENCY OF USE:</b> Interviews by one or two staff of one or two people from outside the organization are a vital feature of operations. Concurrent use of several interview rooms is normal during most of the day.</p> <p>○ <b>VISUAL AND SPEECH PRIVACY:</b> Complete visual and speech privacy is required.</p> <p>○ <b>LOCATION IN OFFICE:</b> Interview rooms must be located between operation zone and reception area.</p> <p>○ <b>FUTURE EXPANSION:</b> Important to be able to increase count of interview rooms if needed.</p> <p>○ <b>SAFETY:</b> Some risk of physical attack on the interviewer, so interview rooms must have a second exit door.</p>
7 <input type="checkbox"/>	<p>○ <b>FREQUENCY OF USE:</b> Interviews by one or two staff of one or two people from outside the organization are a regular feature of operations, and may require concurrent use of two or more interview rooms.</p> <p>○ <b>VISUAL AND SPEECH PRIVACY:</b> Good visual and audio privacy is required.</p> <p>○ <b>LOCATION IN OFFICE:</b> Interview rooms must be located between operation zone and reception area.</p> <p>○ <b>FUTURE EXPANSION:</b> May need several additional interview rooms in future years.</p> <p>○ <b>SAFETY:</b> Some risk of physical attack on the interviewer, so interview rooms must have a second exit door.</p>

Facility Rating Scale	
9 <input type="checkbox"/>	<p>○ <b>Present and potential quantity of interview rooms:</b> Sufficient well located interview rooms exist with a high level of privacy and physical protection. Additional rooms can be added when needed, at low fitup cost.</p> <p>○ <b>Ventilation:</b> Meets target for meeting rooms.</p> <p>○ <b>Enclosure and speech privacy:</b> All interview rooms are enclosed. Raised voices cannot be heard in adjacent spaces.</p> <p>○ <b>Access and physical protection:</b> Visitors enter directly from reception zone. Staff use separate entry from operations zone, where other staff are normally present and are close to and can see the entrance to interview room(s). An emergency alarm is provided for use by staff person conducting the interview.</p>
8 <input type="checkbox"/>	
7 <input type="checkbox"/>	<p>○ <b>Present and potential quantity of interview rooms:</b> Sufficient well located interview rooms exist with adequate speech privacy and physical protection. Additional rooms can be added, but at significant cost, e.g. for changing ventilation. Space is available to add two or more rooms between reception and operation zones, each with doors from reception and operations areas. High speech privacy is possible at moderate cost.</p> <p>○ <b>Ventilation:</b> Meets target for meeting rooms.</p> <p>○ <b>Enclosure and speech privacy:</b> All interview rooms are enclosed. Raised voices can be heard but not understood in adjacent spaces, but normal voice levels for conversation cannot be heard.</p> <p>○ <b>Access and physical protection:</b> Visitors enter directly from reception zone. Staff use separate entry from corridor or aisle in operations zone, where other staff are normally present. Emergency alarm is provided for use by staff person conducting the interview.</p>
6 <input type="checkbox"/>	

Scale A.1.4. continued on next page

FIG. 4 Scale A.1.4 for Interview Rooms



A.1. Support for Office Work

Scale A.1.4. Interview Rooms (continued)

Occupant Requirement Scale	
5 <input type="checkbox"/>	<p>○ <b>FREQUENCY OF USE:</b> Interviews by one or two staff of one or two people from outside the organization occur occasionally.</p> <p>○ <b>VISUAL AND SPEECH PRIVACY:</b> In future, interview rooms may be required for improved privacy and to allow interviews to run concurrently.</p> <p>○ <b>LOCATION IN OFFICE:</b> For the present, interviews can be held in a screened area in the reception zone or in a meeting room near the reception zone.</p> <p>○ <b>FUTURE EXPANSION:</b> Need for additional interview rooms is possible but not likely.</p> <p>○ <b>SAFETY:</b> Minimal risk of physical attack on interviewer.</p>
4 <input type="checkbox"/>	<p>○ <b>FREQUENCY OF USE:</b> Interviews occur rarely.</p> <p>○ <b>VISUAL AND SPEECH PRIVACY:</b> Speech privacy is not critical, and normal speech privacy is sufficient.</p> <p>○ <b>LOCATION IN OFFICE:</b> May be held in a normal meeting room near the reception zone.</p> <p>○ <b>FUTURE EXPANSION:</b> These needs will not change.</p> <p>○ <b>SAFETY:</b> Minimal risk of physical attack on the interviewer.</p>
3 <input type="checkbox"/>	<p>○ <b>FREQUENCY OF USE:</b> No interviews held, or interviews may be held in a normal office.</p> <p>○ <b>FUTURE EXPANSION:</b> No foreseeable need for special interview facilities.</p>

Facility Rating Scale	
5 <input type="checkbox"/>	<p>○ <b>Present and potential quantity of interview rooms:</b> Sufficient adequately located interview rooms exist with basic speech privacy and physical protection. Additional rooms can be added with difficulty and substantial cost, e.g. for changing ventilation.</p> <p>○ <b>Ventilation:</b> Meets target for meeting rooms.</p> <p>○ <b>Enclosure and speech privacy:</b> Interview spaces may be enclosed or in open plan. Normal conversation cannot be understood in adjacent spaces, but raised voices can be partly understood in adjacent spaces. If in open plan, this speech privacy is achieved by the use of screens and acoustically absorbent surfaces, the absence of flanking paths for sound, and adequate level of masking sounds.</p> <p>○ <b>Access and physical protection:</b> Visitors and staff enter directly from reception zone, or from operations zone very near entrance from reception zone. Emergency alarm is, or easily could be, provided for use by staff person conducting the interview.</p>
3 <input type="checkbox"/>	<p>○ <b>Present and potential quantity of interview rooms:</b> Limited capability makes it difficult and costly to provide for suitable rooms and conditions. Space is available for only one room between reception and operation zones.</p> <p>○ <b>Ventilation:</b> Meets target for typical open office, but not for meeting rooms.</p> <p>○ <b>Enclosure and speech privacy:</b> Interview spaces can only be in open plan, or in a reception area. Normal conversation can be understood in adjacent spaces.</p> <p>○ <b>Access and physical protection:</b> Access is not shielded from public zone, or is visible from reception zone. It can be difficult for staff person conducting the interview to raise an emergency alarm. Physical protection is minimal.</p>
1 <input type="checkbox"/>	<p>○ <b>Present provision for interview rooms:</b> No interview rooms exist. Interviews are conducted in open area or office located in operations zone. There is no speech privacy and no physical protection.</p> <p>○ <b>Capability for future interview rooms:</b> No capability exists to improve the present provision.</p>

<input type="checkbox"/> Exceptionally important. <input type="checkbox"/> Important. <input type="checkbox"/> Minor Importance.	
Minimum Threshold level =	<input type="checkbox"/> NA <input type="checkbox"/> NR <input type="checkbox"/> Zero <input type="checkbox"/> DP

NOTES Space for handwritten notes on Requirements or Ratings

FIG. 4 Scale A.1.4 for Interview Rooms (continued)



A.1. Support for Office Work

Scale A.1.5. Storage and floor loading

Occupant Requirement Scale	Facility Rating Scale
<p><b>9</b> <input type="checkbox"/> ○ <b>OFFICE FLOOR STORAGE:</b> Operations require large areas of heavy storage ON office floors, (e.g. up to 10% of floor area), including very heavy loads such as compact rolling shelving, flat plan-files, or large heavy safes. ○ <b>OFFICE FLOOR GOODS MOVEMENT:</b> OK to locate very heavy loads in designated areas, provided there is good access to an elevator, and floor loading and surface are suitable for a pallet transporter, including ON-floor access routes. ○ <b>OFF THE FLOOR STORAGE:</b> Storage OFF office floors, e.g. in basement, is needed for at least 10% of office floor area, and must be suitable for storing items requiring a clean, dry, ventilated environment, e.g. for computers. Require storage for accumulating up to a large truckload (but not a semi-) of office furniture for shipment off-site. ○ <b>OFF THE FLOOR GOODS MOVEMENT:</b> Require secure access by elevator to this OFF-floor storage. Forklift or other transporter is needed to handle goods in storage and loading area. Pallet transporter is used to take goods to specified working locations ON office floor, e.g. pallets of paper to computer rooms and to large photocopiers, and pallets of file boxes to central records room.</p>	<p><b>9</b> <input type="checkbox"/> ○ <b>Floor load capacity on office floor:</b> (Refer to structural engineer's design/use criteria, or report.) Storage area and loading allowances are generous, e.g. 10% or more of usable area. It is OK to use a basic hand trolley to move a pallet-load on route from elevator to storage. Battery-powered pallet transporter is OK if pallet of copier or printer paper is only stacked 2 cartons high, and transporter is only used in area approved by structural engineer. Use of compact shelving, flat plan-files or heavy files or security container (safe) requires structural engineer's report to confirm that the location is OK. ○ <b>Storage off office floors, including in basement:</b> Storage area is generous, e.g. more than 10% of office floor area. Floor load capacity is twice that of a typical office floor. Basement conditions are excellent, e.g. very clean, well ventilated to office standards for staff who must work there, dry and well lit. ○ <b>Access to storage off office floors, including basement:</b> Access to storage is by freight elevator. Passenger elevators can stop at the storage or basement floors when under key or card control. Elevator, corridors and storage areas can support floor loads and are adequate for forklift plus load. Door widths, corridor widths, and turning radii, including to elevator, are generous. ○ <b>Goods handling to and in storage off office floors:</b> Floor load capacity is sufficient for forklift, trolley, or battery driven transporter plus fully loaded pallets. There is level access to the loading area.</p>
<p><b>7</b> <input type="checkbox"/> ○ <b>OFFICE FLOOR STORAGE:</b> Operations require above-average areas of heavy storage ON office floors, e.g. up to 5% of floor area. Limited anticipated need for very heavy loads, such as compact rolling shelving, flat plan-files or a heavy safe, and these can be in areas designated as having extra structural capacity. ○ <b>OFFICE FLOOR GOODS MOVEMENT:</b> Can be located in designated areas provided there is good access to an elevator. Hand trolley or battery-operated transporter with pallet is sufficient to move goods ON office floor. ○ <b>OFF THE FLOOR STORAGE:</b> Storage OFF the office floor is needed for up to 5% of office floor area, with good environmental conditions, e.g. not high humidity, clean, ventilated. Require storage for accumulating a small truckload of office furniture for shipment off-site ○ <b>OFF THE FLOOR GOODS MOVEMENT:</b> Require secure access by elevator to this storage. Hand trolley or battery-powered transporter for pallets is sufficient to move goods in elevators, storage and loading areas.</p>	<p><b>7</b> <input type="checkbox"/> ○ <b>Floor load capacity on office floor:</b> (Refer to structural engineer's design/use criteria, or report.) Storage area and loading are limited by floor load capacity, e.g. 5% of usable area. Use of compact shelving, flat plan-files or heavy files or security container (safe) requires structural engineer's report to confirm that the location is OK. Battery-powered pallet transporter is OK if pallet of copier or printer paper is only stacked 2 cartons high, and transporter is only used in area approved by structural engineer. It is OK to use a basic hand trolley to move a pallet-load on route from elevator to storage. ○ <b>Storage off office floors, including in basement:</b> Storage area is good, e.g. 5% of office floor area. Floor load capacity allows all normal office storage loads. Basement conditions are good, e.g. clean, well lit, basic ventilation that can be activated when staff are working there, with provision to prevent flooding. ○ <b>Access to storage off office floors, including basement:</b> Access to storage is by freight elevator in large buildings, or passenger elevator when used for freight and under key control, and by stairs in smaller buildings. Door widths, corridor widths, and turning radii, including to elevator, are adequate. ○ <b>Goods handling to and in storage off office floors:</b> Floor load capacity is sufficient for trolley or transporter, battery-power driven, with fully loaded pallet. There is level access to the loading area.</p>
<p><b>6</b> <input type="checkbox"/></p>	<p><b>8</b> <input type="checkbox"/></p>

Scale A.1.5. continued on next page  
FIG. 5 Scale A.1.5 for Storage and Floor Loading



A.1. Support for Office Work

Scale A.1.5. Storage and floor loading (continued)

Occupant Requirement Scale	Facility Rating Scale
<p><b>5</b> <input type="checkbox"/> <b>OFFICE FLOOR STORAGE:</b> Operations require moderate areas of heavy storage ON office floors, e.g. about 1% of floor area.  <b>OFFICE FLOOR GOODS MOVEMENT:</b> Can be located in designated areas provided there is good access to an elevator. Hand trolley is sufficient, without pallet, to move goods ON office floor.  <b>OFF THE FLOOR STORAGE:</b> Storage OFF the office floor, e.g. in basement, is needed for up to 3% of office floor area, in basic environmental conditions.  <b>OFF THE FLOOR GOODS MOVEMENT:</b> Require secure access by elevator to this storage. Hand trolley or transporter (not battery driven) for cartons or lightly-loaded pallets is sufficient to move goods in elevators, storage and loading areas.</p> <p><b>3</b> <input type="checkbox"/> <b>OFFICE FLOOR STORAGE:</b> Operations require minimal areas of storage ON office floors, e.g. some shelves, located in designated areas.  <b>OFFICE FLOOR GOODS MOVEMENT:</b> No trolley is needed to move goods ON office floor.  <b>OFF THE FLOOR STORAGE:</b> Minimal storage is needed OFF the office floors, e.g. less than 1% of office floor area. Environmental conditions are not critical. Sufficient security is provided by local locking, e.g. locks on cupboards or wire mesh enclosure.  <b>OFF THE FLOOR GOODS MOVEMENT:</b> Access by stair is sufficient.</p> <p><b>1</b> <input type="checkbox"/> <b>OFFICE FLOOR STORAGE:</b> No storage required ON office floors.  <b>OFF THE FLOOR STORAGE:</b> No storage required OFF office floor, e.g. in basement area.</p>	<p><b>5</b> <input type="checkbox"/> <b>Floor load capacity on office floor:</b> (Refer to structural engineer's design/use criteria, or report.) Storage area and loading are limited by floor load capacity, e.g. 1% of usable area. No compact shelving, flat plan-files or heavy files, e.g. shelving for central records files must be spaced out as specified by a structural engineer. A hand truck can be used, but not pallets, to move or store copier or printer paper. A heavy security container (safe) requires a special structural engineer's report.  <b>Storage off office floors, including in basement:</b> Storage area is adequate, e.g. 3% of office floor area. Floor load capacity allows all normal office storage. Basement conditions are adequate, e.g. acceptably clean, basic lighting, with provision to prevent flooding.  <b>Access to storage off office floors, including basement:</b> Access to storage areas is by passenger elevator and stairs, or by freight elevator in a large building. Door widths and corridor widths, including to elevator, are adequate, but some turning radii are tight.  <b>Goods handling to and in storage off office floors:</b> Floor load capacity is sufficient for trolley or transporter, if not battery driven, plus pallet with not more than 4 layers of cartons. There is level access to the loading and shipping/receiving area.</p> <p><b>3</b> <input type="checkbox"/> <b>Floor load capacity on office floor:</b> (Refer to structural engineer's design/use criteria, or report.) Storage area, and storage loading are very limited, due to floor load capacity, e.g. a few shelves are permitted next to a structural wall.  <b>Storage off office floors, including in basement:</b> Storage area is very limited, e.g. less than 1% of office floor area. Floor load capacity allows all or most normal office storage. Basement conditions are marginal, e.g. dirty, poor security or vulnerable to flooding.  <b>Access to storage off office floors, including basement:</b> Access to storage is by the stairs or from the loading area. Door and corridor widths are marginal, and require breaking some loads.  <b>Goods handling to and in storage off office floors:</b> Floor load capacity is limited to a 2-wheel handtruck with possible limited use of a trolley.</p> <p><b>1</b> <input type="checkbox"/> <b>Floor load capacity on office floor:</b> (Refer to structural engineer's design criteria, or report.) No storage is allowed due to the floor load capacity limits.  <b>Storage off office floors, including in basement:</b> There is no storage space off office floors, or the space is unsuitable, e.g. dirty, subject to flooding, or with steep slopes.  <b>Access to storage off office floors, including basement:</b> If a storage or a basement exists, access is very awkward, e.g. from the outside, or via a narrow door, or by narrow stairs.  <b>Goods handling to and in storage off office floors:</b> Goods are carried by hand to the storage area.</p>

Exceptionally important.  Important.  Minor Importance.

Minimum Threshold level =  NA  NR  Zero  DP

NOTES Space for handwritten notes on Requirements or Ratings

FIG. 5 Scale A.1.5 for Storage and Floor Loading (continued)





A.1. Support for Office Work

Scale A.1.6. Shipping and receiving

Occupant Requirement Scale	
<p>9 <input type="checkbox"/></p> <p>○ <b>DOCK CAPACITY:</b> Frequent and heavy use is made of loading dock by all types of vehicles, including those that require extra clearance, e.g. articulated trucks and high vans.</p> <p>○ <b>GOODS MOVEMENT:</b> Require shipping, receiving and elevator facilities, including suitable loading dock heights, that will provide for efficient handling of a high volume of movement of goods in and out of the office, including frequent 45 ft semi-trailer rigs.</p> <p>○ <b>PROTECTION OF GOODS:</b> A high level of security is required outside, in the loading dock, holding area and storage area with continuous control and supervision of all movements. Must have protection from weather or other damage to fragile goods, and separation of goods from staff or visitors. Holding area needs to accommodate peak demand.</p> <p>○ <b>COURIER PARKING:</b> Need parking for courier vehicles.</p>	8 <input type="checkbox"/>
<p>7 <input type="checkbox"/></p> <p>○ <b>DOCK CAPACITY:</b> Loading dock capacity needs to be adequate most of the time, and able to accommodate all types of vehicles, with infrequent delays.</p> <p>○ <b>GOODS MOVEMENT:</b> Require shipping, receiving and elevator facilities that will provide for efficient handling of a substantial volume of movement of goods in and out of the office, including 45 ft semi-trailer rigs at least several times per week, and daily during some periods. Dock height must be suitable for large trucks.</p> <p>○ <b>PROTECTION OF GOODS:</b> Good security is required in holding area and storage area, e.g. secured storage and supervision of all movements. Must have protection from weather damage to most goods.</p> <p>○ <b>COURIER PARKING:</b> Need parking for courier vehicles.</p>	6 <input type="checkbox"/>

Facility Rating Scale	
<p>9 <input type="checkbox"/></p> <p>○ <b>Loading dock:</b> The loading area is protected from the weather and heated if needed. It has a generous size and good design and is not accessible to the public. Dock heights are suitable for semi-rigs and city delivery trucks. Truck manoeuvring and standing area are enclosed and secure.</p> <p>○ <b>Truck loading capacity:</b> Loading bays and loading docks are adequate for peak demand. There is generous clearance for all vehicles, including articulated trucks and high vans.</p> <p>○ <b>Holding area at loading dock:</b> There is a holding area at the loading dock which is adequate for peak demand. The holding area is located in a controlled access zone with a secure gate to the street or alley. Shipping and receiving facilities are staffed during all active and transition hours. During silent hours, the alarm system and closed-circuit TV are connected to a staffed guard station in the building.</p> <p>○ <b>Elevator access:</b> Direct controlled access to an adequate number of adjacent elevator(s) for freight only, with cab size for lift trucks, transporters and dollies. Door(s) wide enough for pallet with some overhang, and load capacity the same as maximum floor loading. Corridors also have adequate load capacity.</p> <p>○ <b>Couriers:</b> There is parking space for courier vehicles. Racks for courier bicycles are provided as needed, depending on the number of reception locations within the facility, and the frequency of use of courier services in the facility. Bicycle racks are unobtrusive to visitors and persons in the building, and are protected from the weather.</p>	8 <input type="checkbox"/>
<p>7 <input type="checkbox"/></p> <p>○ <b>Loading dock:</b> The loading dock is protected from the weather. It has an adequate size and design and is not accessible to the public. Dock height is suitable for large trucks. Truck manoeuvring and standing area are adequate and under observation.</p> <p>○ <b>Truck loading capacity:</b> Loading bays are at capacity during busy times. Trucks rarely have to wait. There is adequate clearance for all vehicles.</p> <p>○ <b>Holding area at loading dock:</b> Holding area at the loading dock has adequate capacity on all but a few times a year. It is adjacent to the loading dock and elevator, or stairs in a building without elevators. The holding area is supervised during active and transition hours, and the storage is secure.</p> <p>○ <b>Elevator access:</b> Elevators used for freight have cab size and door(s) wide enough for pallet on transporter, with some overhang, and load capacity the same as maximum floor loading. In small buildings with no dedicated freight elevator, a passenger elevator with key control is used, with direct access from the loading area. In large buildings there is an adequate number of elevators for freight only. Corridors to elevator(s) for freight have adequate floor load capacity.</p> <p>○ <b>Couriers:</b> There is parking space for courier vehicles. Quantity of racks for courier bicycles is adequate, and can be augmented if needed, depending on the number of reception locations within the facility, and the frequency of use of courier services in the facility. Bicycle racks are unobtrusive for occupants and visitors to the building.</p>	6 <input type="checkbox"/>

Scale A.1.6. continued on next page

FIG. 6 Scale A.1.6 for Shipping and Receiving



A.1. Support for Office Work

Scale A.1.6. Shipping and receiving (continued)

<b>Occupant Requirement Scale</b>	<b>Facility Rating Scale</b>
<p><input type="checkbox"/> <b>5</b> ○ <b>DOCK CAPACITY:</b> Loading dock capacity needs to be adequate most of the time, and able to accommodate all types of vehicles, with care, with delays of less than half an hour. ○ <b>GOODS MOVEMENT:</b> Shipping and receiving require average facilities that are adequate for a steady flow of goods in and out of the office. Movement of goods by semi rigs is rare. ○ <b>PROTECTION OF GOODS:</b> Basic security is required, e.g. for a small organization, key control of access and staffing in busy periods is adequate; large organizations need continuous staffing of loading area. Must have protection from weather damage. ○ <b>COURIER PARKING:</b> Need parking for courier vehicles.</p> <p><input type="checkbox"/> <b>3</b> ○ <b>DOCK CAPACITY:</b> Infrequent use of loading dock and holding area. Short delays (up to an hour) for access to loading dock are tolerable. ○ <b>GOODS MOVEMENT:</b> Minimal facilities are required for goods handling, e.g. few deliveries in a working day. ○ <b>PROTECTION OF GOODS:</b> No special security needed, most packages are small and easily carried. Staff can be instructed to receive larger deliveries or valuables, if any. No requirement for holding area. ○ <b>COURIER PARKING:</b> Parking for courier traffic not needed.</p> <p><input type="checkbox"/> <b>1</b> ○ <b>DOCK CAPACITY:</b> No need for loading dock or bay. ○ <b>GOODS MOVEMENT:</b> No special facilities needed for goods handling. Almost all deliveries and pickups can be handled through a pedestrian entrance and managed by a receptionist or other staff person. ○ <b>COURIER PARKING:</b> Parking for courier traffic not needed.</p>	<p><input type="checkbox"/> <b>5</b> ○ <b>Loading dock:</b> The loading dock is protected from the weather, is of adequate size and design, and is exposed to public view. Truck manoeuvring to the loading dock is adequate, but that area is not enclosed or secure. ○ <b>Truck loading capacity:</b> Loading bays function at capacity during busy times. Trucks wait up to 1/2 hour. With care, there is sufficient clearance for all vehicles. ○ <b>Holding area at loading dock:</b> A holding area at the loading dock has adequate capacity on all but a few times a month. The holding area is adjacent to the loading dock and elevator, or stairs in a building without elevators. In small buildings, the holding area has key security and is occasionally staffed; in large buildings, it is staffed continuously during active and transition hours. ○ <b>Elevator access:</b> Elevator and adjacent corridors have load capacity adequate to match floor loading capacity. In small buildings there is no dedicated freight elevator, so freight is moved from the loading area by using a passenger elevator with key control. In large buildings a freight elevator is available. ○ <b>Couriers:</b> There is limited parking space for courier vehicles. The quantity of racks for courier bicycles is usually adequate, and near an entrance used by couriers, or near shipping and receiving.</p> <p><input type="checkbox"/> <b>4</b></p> <p><input type="checkbox"/> <b>3</b> ○ <b>Loading dock:</b> There is no protection of the loading dock area from the weather. The area is small or inadequate, e.g. no leveller, insufficient head height and is exposed to public view. ○ <b>Truck loading capacity:</b> Trucks frequently must wait up to 1 hour to gain access to loading bay. ○ <b>Holding area at loading dock:</b> The holding area is almost always full, with no space for expansion. The unattended shipping entrance opens to public corridors and has no security, or minimal security. ○ <b>Elevator access:</b> There is no dedicated freight elevator. Freight is moved by using the passenger elevator with key control, or by stairs where no elevator exists in a building. ○ <b>Couriers:</b> There is no parking for courier vehicles, nor racks for courier bicycles.</p> <p><input type="checkbox"/> <b>2</b></p> <p><input type="checkbox"/> <b>1</b> ○ <b>Loading dock:</b> There is no loading dock provided, or it is not operational. ○ <b>Truck loading capacity:</b> There is no loading dock or bay. ○ <b>Holding area at loading dock:</b> There is no holding area provided, and no space for future installation. There are no shipping or receiving zones. All goods are moved through pedestrian entrances and there is no security. ○ <b>Elevator access:</b> There is no dedicated freight elevator. Freight is moved by using the passenger elevator from the lobby or by stairs where no elevator exists in a building. ○ <b>Couriers:</b> There is no parking for courier vehicles, nor racks for courier bicycles, and no space for temporary standing.</p>
<p><input type="checkbox"/> Exceptionally important. <input type="checkbox"/> Important. <input type="checkbox"/> Minor Importance.</p>	
<p>Minimum Threshold level = <input type="checkbox"/> NA <input type="checkbox"/> NR <input type="checkbox"/> Zero <input type="checkbox"/> DP</p>	

NOTES Space for handwritten notes on Requirements or Ratings

FIG. 6 Scale A.1.6 for Shipping and Receiving (continued)



## **E 1660 – 95a (1999)**

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