



Standard Classification for Serviceability of an Office Facility for Location, Access and Wayfinding^{1,2}

This standard is issued under the fixed designation E1669; 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.

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 locating the building and finding the way inside the building.

1.2 Within that aspect of serviceability, each pair of scales, shown in Figs. 1-6, are for classifying one topic of serviceability. Each paragraph in an Occupant Requirement Scale (see Figs. 1-6) summarizes one level of serviceability on that topic, which occupants might require. The matching entry in the Facility Rating Scale (see Figs. 1-6) 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. 1-6) 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

E2334. The scales in this classification are complimentary to and compatible with Practice E2334. Each requires the other.

2. Referenced Documents

2.1 *ASTM Standards*:³

E631 Terminology of Building Constructions

E2334 Practice for Setting an Upper Confidence Bound For a Fraction or Number of Non-Conforming items, or a Rate of Occurrence for Non-conformities, Using Attribute Data, When There is a Zero Response in the Sample

E1679 Practice for Setting the Requirements for the Serviceability of a Building or Building-Related Facility

2.2 *ISO Document*:⁴

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. E631

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.

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. E631

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.

3.1.3 *office*—a place, such as a room, suite, or building, in which business, clerical or professional activities are conducted. E631

¹ This classification is under the jurisdiction of ASTM Committee E06 on Performance of Buildings and is the direct responsibility of Subcommittee E06.25 on Whole Buildings and Facilities.

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² 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.

³ For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

⁴ Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036, http://www.ansi.org.

A.14. Location, Access and Wayfinding

Scale A.14.1. Public transportation (urban sites)

Occupant Requirement Scale	
9 <input type="checkbox"/>	<p><input type="radio"/> ORIGIN OF STAFF AND VISITORS: Staff and visitors come from all parts of the city or town.</p> <p><input type="radio"/> PROXIMITY TO TRANSIT ROUTES: The office must be near a major transit centre.</p> <p><input type="radio"/> FREQUENCY OF VISITORS: There are many visitors each day, e.g. more than 100 members of the public per day.</p> <p><input type="radio"/> OFFICE HOURS: Office hours are fixed, e.g. no flex-time.</p>
7 <input type="checkbox"/>	<p><input type="radio"/> ORIGIN OF STAFF AND VISITORS: Staff and visitors come from most parts of the city or town.</p> <p><input type="radio"/> PROXIMITY TO TRANSIT ROUTES: The office must be within walking distance of most major transit route(s).</p> <p><input type="radio"/> FREQUENCY OF VISITORS: There are many visitors each day, e.g. 50 per day.</p> <p><input type="radio"/> OFFICE HOURS: Office hours are fixed for many staff, e.g. limited flex-time.</p>
5 <input type="checkbox"/>	<p><input type="radio"/> ORIGIN OF STAFF AND VISITORS: Staff come from many parts of the city or town.</p> <p><input type="radio"/> PROXIMITY TO TRANSIT ROUTES: The office must be within walking distance of several major transit routes.</p> <p><input type="radio"/> FREQUENCY OF VISITORS: There are some visitors each day, e.g. less than 35 per day, a few from homes, but most from work locations.</p> <p><input type="radio"/> OFFICE HOURS: Flex-time is available to most staff.</p>
3 <input type="checkbox"/>	<p><input type="radio"/> ORIGIN OF STAFF AND VISITORS: Staff come from the local community, or a few parts of town. Some staff drive to work.</p> <p><input type="radio"/> FREQUENCY OF VISITORS: There are a few visitors, and most do not return. Visitors typically come by car or taxi.</p>
1 <input type="checkbox"/>	<p><input type="radio"/> ORIGIN OF STAFF AND VISITORS: Staff come from the local community, most within walking distance, or drive to work.</p> <p><input type="radio"/> FREQUENCY OF VISITORS: There are no visitors, or visitors are rare and tend to come by car or taxi.</p>

Facility Rating Scale	
9 <input type="checkbox"/>	<p><input type="radio"/> Staff commuting during peak hours: Staff can commute by transit from all parts of the community, with frequent service and express options during peak hours.</p> <p><input type="radio"/> Distance to transit stops: Transit stops are within two blocks.</p> <p><input type="radio"/> Visitors use of public transportation during off-peak hours: Transit frequency is 20 minutes or less during off-peak hours.</p>
8 <input type="checkbox"/>	
7 <input type="checkbox"/>	<p><input type="radio"/> Staff commuting during peak hours: Staff can commute by transit from all parts of the community with frequent service during peak hours.</p> <p><input type="radio"/> Distance to transit stops: Transit stops are within close walking distance, e.g. 10 minutes.</p> <p><input type="radio"/> Visitors use of public transportation during off-peak hours: Visitors can reach the site from homes or offices by transit. Transit frequency is half-hour or less.</p>
6 <input type="checkbox"/>	
5 <input type="checkbox"/>	<p><input type="radio"/> Staff commuting during peak hours: Staff can commute by transit from most parts of the community.</p> <p><input type="radio"/> Distance to transit stops: Transit stops are within walking distance, e.g. 15 minutes.</p> <p><input type="radio"/> Visitors use of public transportation during off-peak hours: Visitors can reach the site from homes or offices by transit, but service is not convenient. Transit frequency is longer than half-hour intervals.</p>
4 <input type="checkbox"/>	
3 <input type="checkbox"/>	<p><input type="radio"/> Staff commuting during peak hours: Staff can commute by public transit from a few parts of the community.</p> <p><input type="radio"/> Distance to transit stops: Transit stops are within a long walking distance.</p> <p><input type="radio"/> Visitors use of public transportation during off-peak hours: Few visitors can reach the site by public transit from homes or offices.</p>
2 <input type="checkbox"/>	
1 <input type="checkbox"/>	<p><input type="radio"/> Staff commuting during peak hours: There is no public transit for commuting to the building.</p> <p><input type="radio"/> Distance to transit stops: Transit stops are an unacceptably long walking distance.</p> <p><input type="radio"/> Visitors use of public transportation during off-peak hours: There is no public transit for visitors to the building.</p>

Exceptionally important. Important. Minor Importance.

Minimum Threshold level = NA NR Zero DP

NOTES Space for handwritten notes on Requirements or Ratings

FIG. 1 Scale A.14.1 for Public Transportation (Urban Sites)

A.14. Location, Access and Wayfinding

Scale A.14.2. Staff visits to other offices

Occupant Requirement Scale	
<p><input type="checkbox"/> 9 ○ PROXIMITY TO DESTINATION: Operations require very close proximity. ○ ACCESS TO DESTINATION: Sheltered access to external organizations, or to other offices of the same organization, e.g. staff hand-deliver documents or visit others nearby on a regular basis.</p>	<p>8 <input type="checkbox"/></p>
<p><input type="checkbox"/> 7 ○ PROXIMITY TO DESTINATION: Operations require close proximity. ○ ACCESS TO DESTINATION: Within walking distance, to external organizations, or to offices of other branches or divisions of the same organization.</p>	<p>6 <input type="checkbox"/></p>
<p><input type="checkbox"/> 5 ○ PROXIMITY TO DESTINATION: Operations require reasonably close proximity. ○ ACCESS TO DESTINATION: Within one-half hour driving time. This is typically for staff or managers needing to visit others on a regular basis, or for outside staff needing to visit the office.</p>	<p>4 <input type="checkbox"/></p>
<p><input type="checkbox"/> 3 ○ PROXIMITY TO DESTINATION: ○ ACCESS TO DESTINATION: Staff, or people from other offices, rarely need to visit each other. When visits are necessary, access is normally by car.</p>	<p>2 <input type="checkbox"/></p>
<p><input type="checkbox"/> 1 ○ PROXIMITY TO DESTINATION: ○ ACCESS TO DESTINATION: There is no need for staff, or people from other offices, to visit each other.</p>	

Facility Rating Scale	
<p><input type="checkbox"/> 9 ○ Location of other offices visited during work: Frequently visited sites are on the same or adjacent block. ○ Convenience of access to other sites: Other sites are within close walking distance, and the route is sheltered from extremes of weather, e.g. it is indoors or covered.</p>	
<p><input type="checkbox"/> 7 ○ Location of other offices visited during work: Frequently visited sites are within walking distance. ○ Convenience of access to other sites: The route to other sites is out of doors and not sheltered. Transit or car are not needed.</p>	
<p><input type="checkbox"/> 5 ○ Location of other offices visited during work: Frequently visited sites are beyond walking distance. Driving time, office to office, is up to one-half hour. Visitor parking at the destination is within walking distance. ○ Convenience of access to other sites: Transit to other sites takes more than one-half hour. Visitor parking is usually available at the destination.</p>	
<p><input type="checkbox"/> 3 ○ Location of other offices visited during work: Frequently visited sites are remote. Driving time, office to office, is between one-half hour and one hour. ○ Convenience of access to other sites: There is no transit to other sites, or, transit takes more than one hour. Visitor parking at the destination is usually full during working hours.</p>	
<p><input type="checkbox"/> 1 ○ Location of other offices visited during work: Frequently visited sites are remote. Driving time, office to office, is one hour or more. ○ Convenience of access to other sites: There is no transit or visitor parking at most other sites.</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. 2 Scale A.14.2 for Staff Visits to Other Offices



A.14. Location, Access and Wayfinding

Scale A.14.3. Vehicular entry and parking

Occupant Requirement Scale	Facility Rating Scale
<p><input type="checkbox"/> 9 ○ MINIMIZE PEDESTRIAN / VEHICLE ACCIDENTS: Operations require complete separation between pedestrians and vehicles, and between cars and delivery/service vehicles, e.g. to avoid the risk of an accident, despite a high volume of traffic and a large population.</p> <p>○ PARKING AT URBAN SITES: The parking policy for urban sites is to provide parking for all the organization's owned vehicles. Parking for staff and visitor cars is provided within 1 block, at a low charge.</p> <p>○ PARKING AT SMALL TOWN OR SUBURBAN SITES: The parking policy for a small town or suburban site is to provide parking on-site for all who need space, at a low charge or no charge.</p>	<p><input type="checkbox"/> 9 ○ Separation of pedestrians and vehicles: Vehicle routes are separate from pedestrian approaches and entry. Vehicles are not a hazard to pedestrians.</p> <p>○ Separation of cars and trucks: The entry route for cars is separate from the route for trucks. The route and holding area for service vehicles is separate from both.</p> <p><i>Only one of the next two features can be applicable:</i></p> <p>○ Parking at urban site: There is reserved parking on-site for all the organization's owned vehicles. Reserved parking for staff is on-site or within 1 block and is not expensive. Visitor parking is available within 1 block, at typical hourly charges in that locality.</p> <p>○ Parking at small town or suburban site: There is adequate on-site parking for occupants plus adequate parking for overlap during shift change. Visitor parking is separate from occupant parking, with adequate capacity for peak requirement, with no charge.</p>
<p><input type="checkbox"/> 7 ○ MINIMIZE PEDESTRIAN / VEHICLE ACCIDENTS: Operations require complete separation between pedestrians and vehicles, and between cars and delivery/service vehicles, to avoid the risk of accident, despite a high volume of traffic or a large population.</p> <p>○ PARKING AT URBAN SITES: The parking policy for urban sites is to provide parking for all the organization's owned vehicles. Parking for staff and visitor cars is to be provided within 1 block, at a low charge.</p> <p>○ PARKING AT SMALL TOWN OR SUBURBAN SITES: The parking policy for a small town or suburban site is to provide parking on-site or within walking distance for all on-site staff and visitors, except at peak hours.</p>	<p><input type="checkbox"/> 7 ○ Separation of pedestrians and vehicles: Vehicle routes are separate from pedestrian approaches and entry. Vehicles are a minor hazard to pedestrians.</p> <p>○ Separation of cars and trucks: The entry route for cars is separate from the route for trucks and service vehicles.</p> <p><i>Only one of the next two features can be applicable:</i></p> <p>○ Parking at urban site: There is reserved parking on-site or in the same block for the organization's owned vehicles. Public parking is available for most staff within 1 block. Public parking for visitors is available within walking distance, at typical hourly charges in that locality.</p> <p>○ Parking at small town or suburban site: There is adequate reserved parking on-site, or within 500 m, for all the organization's owned vehicles and 75% of one shift of staff. For visitors, separate parking is available with adequate capacity except at occasional peak visiting hours, with no charge.</p>
<p><input type="checkbox"/> 5 ○ MINIMIZE PEDESTRIAN / VEHICLE ACCIDENTS: Operations require normal caution between pedestrians and drivers of vehicles entering the site or making deliveries, e.g. to reduce the risk of accident in moderate volumes of traffic and moderate population.</p> <p>○ PARKING AT URBAN SITES: The required ratio of parking stalls to staff: in central core of town or city is 1:20 with no special provision for visitors.</p> <p>○ PARKING AT SMALL TOWN OR SUBURBAN SITES: The required ratio in periphery of core area is 1:3 plus visitor parking if none is available within walking distance; if public transit is not an available option for staff to come to work during peak hours, then the ratio is 1:1</p>	<p><input type="checkbox"/> 5 ○ Separation of pedestrians and vehicles: Vehicle routes are adjacent to pedestrian approaches and entry. Pedestrians are expected to pay attention in order to avoid vehicles.</p> <p>○ Separation of cars and trucks: The entry route for cars is adjacent to the route for trucks or service vehicles, so special driver caution is required.</p> <p><i>Only one of the next two features can be applicable:</i></p> <p>○ Parking at urban site: Reserved parking is available on the same or adjacent block for the organization's owned vehicles. Public parking is available within 1 block for up to half of the staff but is considered by staff to be expensive. For visitors, public parking is within walking distance at typical hourly charges in that locality.</p> <p>○ Parking at small town or suburban site: There is adequate parking on-site, or within walking distance, for the organization's owned vehicles and 75% of occupants and visitors, except at peak visiting hours. Charge for parking, if any, is consistent/competitive with normal practice in that locality.</p>

Scale A.14.3. continued on next page

FIG. 3 Scale A.14.3 for Vehicular Entry and Parking

A.14. Location, Access and Wayfinding

Scale A.14.3. Vehicular entry and parking (continued)

Occupant Requirement Scale	Facility Rating Scale
<p><input type="checkbox"/> 3 ○ MINIMIZE PEDESTRIAN / VEHICLE ACCIDENTS: Operations involve minimal risk of accident between pedestrians and vehicles, e.g. there are very few vehicular movements and most are at times when few people need to enter or leave the building. ○ PARKING AT URBAN SITES: The parking policy for urban sites is to provide parking for a few of the organization's owned vehicles, but no provision for on-site parking for staff or visitors. Staff and visitors must rely on public parking facilities within walking distance. ○ PARKING AT SMALL TOWN OR SUBURBAN SITES: The parking policy for a small town or suburban site is to provide on-site parking or parking within walking distance for 50% of staff and visitors, except at peak hours.</p> <p><input type="checkbox"/> 2</p> <p><input type="checkbox"/> 1 ○ MINIMIZE PEDESTRIAN / VEHICLE ACCIDENTS: Operations involve negligible risk of accident between pedestrians and vehicles, e.g. there are no deliveries by truck on a regular basis, and the organization has no owned vehicles. ○ PARKING AT URBAN SITES: The parking policy for urban sites does not provide for any parking. ○ PARKING AT SMALL TOWN OR SUBURBAN SITES: The parking policy for a small town or suburban site is to provide on-site parking or parking within walking distance for less than 50% of staff, and visitors park at the curb.</p>	<p><input type="checkbox"/> 3 ○ Separation of pedestrians and vehicles: Vehicle routes cross pedestrian approaches and entry. There is a potential hazard to pedestrians, and pedestrians must take care to avoid an accident. ○ Separation of cars and trucks: Truck delivery and service vehicles use the same routes as cars, creating a potential accident hazard. <i>Only one of the next two features can be applicable:</i> ○ Parking at urban site: Limited reserved parking is available for the organization's owned vehicles. Public parking for staff and visitors is within walking distance, but is limited or expensive compared to market rates, or both. ○ Parking at small town or suburban site: There is parking on-site, or within a short walking distance, for 50% of staff. Visitor parking is limited to a few spaces on-site, or at the curb with parking meters.</p> <p><input type="checkbox"/> 1 ○ Separation of pedestrians and vehicles: Vehicle routes cross pedestrian approaches and entry. There is a significant hazard to pedestrians. ○ Separation of cars and trucks: Truck delivery and service vehicles use the same routes as cars, creating a significant accident hazard. <i>Only one of the next two features can be applicable:</i> ○ Parking at urban site: There is no parking within walking distance. ○ Parking at small town or suburban site: Parking is on-site or within a short walking distance for less than 50% of staff. Visitor parking is only at the curb with parking meters.</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.14.3 for Vehicular Entry and Parking (continued)

A.14. Location, Access and Wayfinding

Scale A.14.4. Wayfinding to building and lobby

Occupant Requirement Scale	Facility Rating Scale
<p><input type="checkbox"/> 9 ○ EASE OF WAYFINDING TO BUILDING AND LOBBY: Wayfinding to the building, to the building entrance, and to the building lobby, must be exceptionally easy and simple. ○ TYPE OF VISITORS: There are large numbers of visitors to the facility daily, most of them for the first time, and many with cultural expectations that differ from the norm for that locality, or different languages, etc.</p>	<p><input type="checkbox"/> 9 ○ Locating the building: The signage is excellent, e.g. the name, signage and street number are all obvious and easily readable from the sidewalk or from a passing car. ○ Wayfinding to entry: The entrance is obvious from the sidewalk, car park or mall. Signage is excellent. There is a direct entry from visitor parking and drop-off. There is a convenient entry from staff parking. ○ Visitor drop-off: There is a turning-in area for visitor drop-off near the main entry with room for attended cars to stand while waiting. ○ Wayfinding to lobby: The entry to the lobby is direct and obvious from all main entrance points and parking.</p>
<p><input type="checkbox"/> 7 ○ EASE OF WAYFINDING TO BUILDING AND LOBBY: Wayfinding to the building, to the building entrance, and to the building lobby, must be easy and clear. ○ TYPE OF VISITORS: There are many visitors to the facility daily, some of them for the first time, and some with cultural expectations that differ from the norm for that locality, or different languages, etc.</p>	<p><input type="checkbox"/> 7 ○ Locating the building: The signage is very good, e.g. the name, signage and street number are all clearly visible and obvious from the sidewalk or from a passing car. ○ Wayfinding to entry: The entrance is obvious from the street or sidewalk and is easily found from the car park or mall. Signage is fully adequate and appropriate. ○ Visitor drop-off: A turning-in area is provided near the main entry. ○ Wayfinding to lobby: The lobby is easily found from all entrance points and by direct access from parking.</p>
<p><input type="checkbox"/> 5 ○ EASE OF WAYFINDING TO BUILDING AND LOBBY: Wayfinding to the building, to the building entrance, and to the building lobby is not likely to be a problem. ○ TYPE OF VISITORS: Most visitors are from the local community and are therefore conversant with the layout and names of streets and landmarks. Most visitors have been to the office before.</p>	<p><input type="checkbox"/> 5 ○ Locating the building: The building name, signage and street number are clearly visible from the sidewalk or a passing car. ○ Wayfinding to entry: The entrance is visible but not obvious from the street. Basic signage is provided, that complies with minimum requirements. ○ Visitor drop-off: There is a visitor drop-off at curbside not far from the main entry. ○ Wayfinding to lobby: Access routes to the lobby from the entrance and parking are not direct, but necessary signage is provided.</p>
<p><input type="checkbox"/> 3 ○ EASE OF WAYFINDING TO BUILDING AND LOBBY: Wayfinding to the building, to the building entrance, and to the building lobby is eased because most people who enter the facility know their way around. ○ TYPE OF VISITORS: Operations involve only a few visitors to the facility, most of whom are known to staff working in the facility, and most of whom have visited before. Staff turnover is low, and new staff are shown around by an old hand. The operation can be characterized as a back office.</p>	<p><input type="checkbox"/> 3 ○ Locating the building: Signage is inadequate, inappropriate or missing. The street number is hard to see from the sidewalk or a passing car. ○ Wayfinding to entry: Direction signs are needed because the entry is not obvious from the street. It is hard to distinguish the main building entrance from secondary building entrances. However, signage is inadequate, inappropriate or missing. ○ Visitor drop-off: There is no visitor drop-off area, or, if provided, is dangerous to use. ○ Wayfinding to lobby: Access to the lobby from parking is circuitous and hard to find. Signage is inadequate, inappropriate or missing.</p>

Scale A.14.4. continued on next page

FIG. 4 Scale A.14.4 for Wayfinding to Building and Lobby

A.14. Location, Access and Wayfinding

Scale A.14.4. Wayfinding to building and lobby (continued)

Occupant Requirement Scale	
1	<input type="radio"/> EASE OF WAYFINDING TO BUILDING AND LOBBY: There is no need to facilitate wayfinding to the facility, or the facility should inhibit wayfinding by unaccompanied visitors. <input type="radio"/> TYPE OF VISITORS: Operations involve no visitors, or visitors are positively discouraged, e.g. the office accommodates a high risk or high security operation.

Facility Rating Scale	
1	<input type="radio"/> Locating the building: The building is very difficult to find without seeking directions. <input type="radio"/> Wayfinding to entry: The entry is very difficult to find without seeking directions. <input type="radio"/> Visitor drop-off: There is no provision for visitor drop-off. <input type="radio"/> Wayfinding to lobby: The lobby is very difficult to find without seeking directions. Signage is needed but is not provided.

<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.14.4 for Wayfinding to Building and Lobby (continued)

A.14. Location, Access and Wayfinding

Scale A.14.5. Capacity of internal movement systems

Occupant Requirement Scale	Facility Rating Scale
<p>9 <input type="checkbox"/> ○ ACCOMMODATING VISITOR TRAFFIC: All occupant groups with high visitor traffic require a location with direct visitor access, e.g. on the ground floor, or on the floor directly above with access separate from the main building elevators.</p> <p>○ OCCUPANT TRAFFIC IN BUILDING: Destinations for staff who work in the building must be on adjacent floors with convenient stairs, to reduce elevator traffic.</p> <p>○ CONVENIENCE OF ELEVATOR SERVICE: Passenger elevators must have short waiting times and be separate from freight elevators.</p>	<p>9 <input type="checkbox"/> ○ Visitor traffic in elevators: All high-traffic destinations are or can be on the ground floor or floor(s) immediately above, with direct stairs, or escalator plus convenient elevator for the handicapped.</p> <p>○ Capability to provide for staff traffic in elevators: Destinations for staff are mainly on nearby office floors, and stairs are convenient and pleasant to use, or, waiting times for elevators are short, e.g. always less than one-half minute, or both. There are separate elevator(s) for freight service.</p> <p>○ Elevators, escalators and stairs: Elevator service is very good, with an average waiting time of 20 seconds, and not longer than 30 seconds during busiest peaks, or, escalators are provided.</p> <p>○ One and two-story buildings: Corridors and stairs are direct, convenient, wide and very pleasant. All visitor destinations are or can be grouped around the entrance. Freight is not moved in a passenger elevator.</p>
<p>8 <input type="checkbox"/></p>	<p>8 <input type="checkbox"/></p>
<p>7 <input type="checkbox"/> ○ ACCOMMODATING VISITOR TRAFFIC: Most occupants with high visitor traffic require a location on the ground floor, or second floor with separate stair or escalator access, e.g. and not rely on the main building elevators.</p> <p>○ OCCUPANT TRAFFIC IN BUILDING: Destinations for staff who work in the building must be mainly on adjacent floors, with convenient stairways.</p> <p>○ CONVENIENCE OF ELEVATOR SERVICE: Short waiting times for elevators.</p>	<p>7 <input type="checkbox"/> ○ Visitor traffic in elevators: Destinations for most visitors are on lower floors, with minimal delays for elevators at any time. The building is configured so most or all visitor destinations are, or can be, on the ground and first floor, accessed by stairs or escalator.</p> <p>○ Capability to provide for staff traffic in elevators: Destinations for staff are mainly on nearby office floors, and stairs are nearby and pleasant to use, or, waiting times for elevators are short, e.g. less than one-half minute most of the time, or both.</p> <p>○ Elevators, escalators and stairs: Elevator service is good, with an average waiting time of 30 seconds, except occasionally during peak at start or end of work, or, escalators are provided to floors with high-traffic destinations.</p> <p>○ One and two-story buildings: Corridors and stairs provide convenient access, and stairs are pleasant. Most visitor destinations are or can be grouped near entrance. If two story, an elevator is provided near entrance.</p>
<p>6 <input type="checkbox"/></p>	<p>6 <input type="checkbox"/></p>
<p>5 <input type="checkbox"/> ○ ACCOMMODATING VISITOR TRAFFIC: If any occupant has high visitor traffic, they could tolerate a location on upper floors if elevator service is adequate enough to handle the traffic with only occasional minor delay, or, they could be located on lower floors if elevator service is always at least average.</p> <p>○ CONVENIENCE OF ELEVATOR SERVICE: Elevator service at least average.</p>	<p>5 <input type="checkbox"/> ○ Visitor traffic in elevators: Destinations for most visitors are on upper floors, and elevators are adequate to prevent delays during most of the day, or, the building is configured so most or all visitor destinations are on lower floors, with average waiting times for elevators.</p> <p>○ Capability to provide for staff traffic in elevators: Destinations for staff are mainly on nearby office floors, and a combination of elevators and nearby stairs enable staff to move between floors with minimal lost time.</p> <p>○ Elevators, escalators and stairs: Elevator service is acceptable, with an average waiting time of 35 seconds, except during peak periods, e.g. during one-quarter hour at the start and end of work, and at lunch.</p> <p>○ One and two-story buildings: Corridors and stairs are located to minimize floor area devoted to circulation, and meet minimum code requirements. Some routes are inconvenient or lengthy. Passenger elevator is also used for parcel delivery and freight.</p>
<p>4 <input type="checkbox"/></p>	<p>4 <input type="checkbox"/></p>

Scale A.14.5. continued on next page
 FIG. 5 Scale A.14.5 for Capacity of Internal Movement Systems

A.14. Location, Access and Wayfinding

Scale A.14.5. Capacity of internal movement systems (continued)

Occupant Requirement Scale	Facility Rating Scale
<p>3 <input type="radio"/> ACCOMMODATING VISITOR TRAFFIC: Occupants could tolerate delays in elevator service resulting from visitor traffic to upper floors.</p> <p><input type="radio"/> OCCUPANT TRAFFIC IN BUILDING: Occupants have minimum staff traffic between floors.</p> <p><input type="radio"/> CONVENIENCE OF ELEVATOR SERVICE: Could tolerate slow elevator service if the stairs are not convenient.</p> <p>1 <input type="radio"/> ACCOMMODATING VISITOR TRAFFIC: Occupants have no requirement for accommodating high visitor traffic.</p> <p><input type="radio"/> OCCUPANT TRAFFIC IN BUILDING: There is minimum staff traffic between floors.</p>	<p>3 <input type="radio"/> Visitor traffic in elevators: Destinations for most visitors are on upper floors, and typically there are significant delays at elevators, e.g. more than one minute, during peak visiting periods.</p> <p><input type="radio"/> Capability to provide for staff traffic in elevators: Although destinations for staff are mainly on nearby office floors, elevators are unable to provide service without much loss of time, much of the day. The stairs are inconvenient and/or unpleasant, or re-entry to office areas is not permitted, so stairs are not used by staff when going to adjacent floors.</p> <p><input type="radio"/> Elevators, escalators and stairs: Elevator service is very slow, with waiting time between 35 and 45 seconds.</p> <p><input type="radio"/> One and two-story buildings: Corridors and stairs are inconvenient and, though complying with code, they are narrow, unpleasant, and have places where capacity is clearly inadequate, e.g. people must often wait to pass. Elevator is used for freight.</p> <p>1 <input type="radio"/> Visitor traffic in elevators : Destinations for visitors are on the highest floors. Elevators are clogged and waiting times are very long throughout the day.</p> <p><input type="radio"/> Capability to provide for staff traffic in elevators: Although destinations for staff are mainly on nearby office floors, elevators are unable to provide service without much loss of time, at anytime of the day. Re-entry from stairs to office areas is not permitted, so stairs are not used by staff when going to adjacent floors.</p> <p><input type="radio"/> Elevators, escalators and stairs: Elevator service is unacceptably slow, with more than 45 seconds waiting time.</p> <p><input type="radio"/> One and two-story buildings: Corridors and stairs are too narrow or indirect, and do not meet code. There is no elevator.</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. 5 Scale A.14.5 for Capacity of Internal Movement Systems (continued)

A.14. Location, Access and Wayfinding

Scale A.14.6. Public circulation and wayfinding in building

Occupant Requirement Scale	Facility Rating Scale
<p>9 ○ SEPARATION OF INCOMPATIBLE VISITORS: <input type="checkbox"/> Inside the building, separate circulation systems are required so that incompatible groups of visitors do not mingle, but it must not be obvious to visitors that they are being separated. ○ VISITORS FINDING THEIR DESTINATION: It must be very easy for visitors to find their destinations, because there are many different functional groups and destinations within the facility, and many visitors to the facility daily, most of them for the first time, and many with cultural expectations that differ from the norm for that locality, or different languages, etc. ○ CONVENIENCE OF ELEVATOR SERVICE: Excellent elevator service is required, e.g. 20 seconds waiting time, or escalators plus convenient elevators for handicapped persons. ○ SEPARATING PASSENGER AND FREIGHT ELEVATOR SERVICE: There must be full service separation for freight and passengers.</p> <p>7 ○ SEPARATION OF INCOMPATIBLE VISITORS: <input type="checkbox"/> Inside the building, separate circulation systems are required so that incompatible groups do not mingle. ○ VISITORS FINDING THEIR DESTINATION: It must be easy for visitors to find destinations on upper floors, even if they have come to the building for the first time, or have cultural expectations that differ from the norm for that locality, or different languages, etc. ○ CONVENIENCE OF ELEVATOR SERVICE: Good elevator service is required, e.g. 25 seconds waiting time. ○ SEPARATING PASSENGER AND FREIGHT ELEVATOR SERVICE: Parcels and deliveries must be moved in separate elevators from passengers.</p>	<p>9 ○ Separation of incompatible groups: Incompatible groups of visitors use or could use separate circulation systems, e.g. separate elevators. At the same time, visitors do not feel detoured or kept away. Staff need not ride elevators with visitors or clients. <input type="checkbox"/> ○ Wayfinding to elevators or stairs: Elevators and stairs are visible and obvious from the lobby or main entrance points. Wayfinding is reinforced with excellent signage. ○ Wayfinding within building: Visitors easily find their way to legitimate destinations in the building. Reception areas on upper floors are visible from the elevator lobby and have clear signs, or, visitors are not required to go beyond the ground floor or an internal mall. ○ Separation of freight and passengers: There are separate elevators for freight.</p> <p>8 ○ Separation of incompatible groups: Incompatible groups of visitors use or could use separate circulation systems, e.g. separate elevators with an effective signage or control system. Staff need not ride elevators with visitors or clients. <input type="checkbox"/> ○ Wayfinding to elevators or stairs: Elevators and stairs or route are easily found. Wayfinding is reinforced with very good, clear signage. ○ Wayfinding within building: Visitors easily find their way to legitimate destinations in the building. Reception areas on upper floors have clear signs from the elevator lobby. ○ Separation of freight and passengers: There is a separate elevator for movement of deliveries, parcels and freight service.</p> <p>7 ○ Separation of incompatible groups: Incompatible groups of visitors use or could use separate circulation systems, e.g. separate elevators with an effective signage or control system. Staff need not ride elevators with visitors or clients. <input type="checkbox"/> ○ Wayfinding to elevators or stairs: Elevators and stairs or route are easily found. Wayfinding is reinforced with very good, clear signage. ○ Wayfinding within building: Visitors easily find their way to legitimate destinations in the building. Reception areas on upper floors have clear signs from the elevator lobby. ○ Separation of freight and passengers: There is a separate elevator for movement of deliveries, parcels and freight service.</p> <p>6 ○ Separation of incompatible groups: Incompatible groups of visitors use or could use separate circulation systems, e.g. separate elevators with an effective signage or control system. Staff need not ride elevators with visitors or clients. <input type="checkbox"/> ○ Wayfinding to elevators or stairs: Elevators and stairs or route are easily found. Wayfinding is reinforced with very good, clear signage. ○ Wayfinding within building: Visitors easily find their way to legitimate destinations in the building. Reception areas on upper floors have clear signs from the elevator lobby. ○ Separation of freight and passengers: There is a separate elevator for movement of deliveries, parcels and freight service.</p>

Scale A.14.6. continued on next page

FIG. 6 Scale A.14.6 for Public Circulation and Wayfinding in Building

A.14. Location, Access and Wayfinding

**Scale A.14.6. Public circulation and wayfinding in building
(continued)**

Occupant Requirement Scale	Facility Rating Scale
<p>5 <input type="checkbox"/> ○ SEPARATION OF INCOMPATIBLE VISITORS: Inside the building, any groups of visitors not compatible with operations on office floors, or with each other, must not need to move above the ground floors.</p> <p>○ VISITORS FINDING THEIR DESTINATION: Visitors must be able to find their destinations on upper floors unassisted, directed by signs where destinations are not obvious.</p> <p>○ CONVENIENCE OF ELEVATOR SERVICE: Average elevator service is required, e.g. 35 seconds waiting time.</p> <p>○ SEPARATING PASSENGER AND FREIGHT ELEVATOR SERVICE: It is acceptable to have some parcels and deliveries in passenger elevators.</p> <p>3 <input type="checkbox"/> ○ SEPARATION OF INCOMPATIBLE VISITORS: Most visitors are compatible with each other, so no requirement for separation of visitors inside the building.</p> <p>○ VISITORS FINDING THEIR DESTINATION: Little need for visitors to find their own way unaided, since visitors are very infrequent, or are always accompanied within the facility.</p> <p>○ CONVENIENCE OF ELEVATOR SERVICE: There is no text for this level.</p> <p>○ SEPARATING PASSENGER AND FREIGHT ELEVATOR SERVICE: Moving parcels in the same elevator with passengers would not cause a problem.</p> <p>1 <input type="checkbox"/> ○ SEPARATION OF INCOMPATIBLE VISITORS: Incompatible visitor groups are not anticipated in the building.</p> <p>○ VISITORS FINDING THEIR DESTINATION: There is no requirement for visitors to find their own way to destinations on upper floors.</p> <p>○ CONVENIENCE OF ELEVATOR SERVICE: No need for good elevator service for passengers.</p> <p>○ SEPARATING PASSENGER AND FREIGHT ELEVATOR SERVICE: Negligible freight movement to or within the facility, except when moving offices.</p>	<p>5 <input type="checkbox"/> ○ Separation of incompatible groups: Incompatible groups of visitors are or can be restricted to lower floors. Staff and compatible visitors use the same elevators.</p> <p>○ Wayfinding to elevators or stairs: Elevators are visible from the building lobby. Stairs are not directly visible, but any required signage is provided.</p> <p>○ Wayfinding within building: Most visitors find their way without difficulty, but a few require assistance. Signage is minimum to meet the need.</p> <p>○ Separation of freight and passengers: Freight is moved in a combination passenger/freight elevator. Passengers rarely travel with parcels or deliveries, and never with freight.</p> <p>3 <input type="checkbox"/> ○ Separation of incompatible groups: All visitors and/or occupants use the same elevators or corridors, but separation of some groups could be arranged at considerable cost or difficulty.</p> <p>○ Wayfinding to elevators or stairs: Elevators and stairs are not visible from the building lobby or entrance, so any required signage is provided.</p> <p>○ Wayfinding within building: Visitors find their way with difficulty and some confusion. Signage is very poor and orientation is difficult.</p> <p>○ Separation of freight and passengers: Passengers must often ride in the same elevator with parcels or deliveries.</p> <p>1 <input type="checkbox"/> ○ Separation of incompatible groups: All visitors and/or occupants must use the same elevators and corridors. Separation is not possible.</p> <p>○ Wayfinding to elevators or stairs: Elevators and stairs are very difficult to find without seeking directions.</p> <p>○ Wayfinding within building: Visitors frequently get lost in the building and most have to ask directions.</p> <p>○ Separation of freight and passengers: Elevators are too small for moving some freight and goods to office areas. All freight is moved in a passenger elevator.</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. 6 Scale A.14.6 for Public Circulation and Wayfinding in Building (continued)

3.1.4 For standard definitions of additional terms applicable to this classification, see Terminology E631.

3.2 *Definitions of Terms Specific to This Standard:*

3.2.1 *transit*—bus or other scheduled public transportation.

3.2.2 *walking distance*—the distance that most staff would consider reasonable to walk to or from a public transit stop or shops, which is 500 m. This assumes a climate that provides reasonable conditions for walking, summer and winter, and terrain that is reasonably flat. Lacking this, the distance may be reduced to as little as 250 m in extreme conditions.

4. Significance and Use

4.1 Each Facility Rating Scale (see Figs. 1-6) 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. 1-6 contain the basis for classification.

5.2 Instructions for the use of this classification are contained in Practices E2334 and E1679.

6. Keywords

6.1 building; building location; facility; facility occupants; function; office; performance; rating; rating scale; requirements; serviceability; wayfinding; in building

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