

Because of these monitoring features, supervised automatic sprinkler systems have a high level of satisfactory performance and response to fire conditions.

**A4.1.3(10)** If an odd number of drinking fountains is provided on a floor, the requirement in 4.1.3(10)(b) may be met by rounding down the odd number to an even number and calculating 50% of the even number. When more than one drinking fountain on a floor is required to comply with 4.15, those fountains should be dispersed to allow wheelchair users convenient access. For example, in a large facility such as a convention center that has water fountains at several locations on a floor, the accessible water fountains should be located so that wheelchair users do not have to travel a greater distance than other people to use a drinking fountain.

**A4.1.3(17)(b)** In addition to the requirements of section 4.1.3(17)(b), the installation of additional volume controls is encouraged. Volume controls may be installed on any telephone.

**A4.1.3(19)(a)** Readily removable or folding seating units may be installed in lieu of providing an open space for wheelchair users. Folding seating units are usually two fixed seats that can be easily folded into a fixed center bar to allow for one or two open spaces for wheelchair users when necessary. These units are more easily adapted than removable seats which generally require the seat to be removed in advance by the facility management.

Either a sign or a marker placed on seating with removable or folding arm rests is required by this section. Consideration should be given for ensuring identification of such seats in a darkened theater. For example, a marker which contrasts (light on dark or dark on light) and which also reflects light could be placed on the side of such seating so as to be visible in a lighted auditorium and also to reflect light from a flashlight.

#### **A4.1.6 Accessible Buildings: Alterations.**

**A4.1.6(1)(h)** When an entrance is being altered, it is preferable that those entrances being altered be made accessible to the extent feasible.

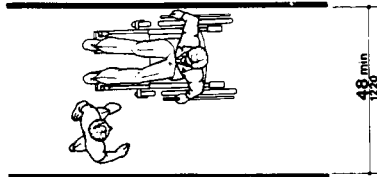
## **A4.2 Space Allowances and Reach Ranges.**

### **A4.2.1 Wheelchair Passage Width.**

(1) Space Requirements for Wheelchairs. Many persons who use wheelchairs need a 30 in (760 mm) clear opening width for doorways, gates, and the like, when the latter are entered head-on. If the person is unfamiliar with a building, if competing traffic is heavy, if sudden or frequent movements are needed, or if the wheelchair must be turned at an opening, then greater clear widths are needed. For most situations, the addition of an inch of leeway on either side is sufficient. Thus, a minimum clear width of 32 in (815 mm) will provide adequate clearance. However, when an opening or a restriction in a passageway is more than 24 in (610 mm) long, it is essentially a passageway and must be at least 36 in (915 mm) wide.

(2) Space Requirements for Use of Walking Aids. Although people who use walking aids can maneuver through clear width openings of 32 in (815 mm), they need 36 in (915 mm) wide passageways and walks for comfortable gaits. Crutch tips, often extending down at a wide angle, are a hazard in narrow passageways where they might not be seen by other pedestrians. Thus, the 36 in (915 mm) width provides a safety allowance both for the person with a disability and for others.

(3) Space Requirements for Passing. Able-bodied persons in winter clothing, walking



**Fig. A1**  
Minimum Passage Width for One Wheelchair  
and One Ambulatory Person