

SPACE FOR PEOPLE IN WHEELCHAIRS IS A FUNDAMENTAL DESIGN CONSIDERATION.

The needs of a person seated in a wheelchair are commonly used as the standard of accessibility for barrier-free washrooms in terms of entrance, exit, and the proximity of equipment. By using the wheelchair perspective you can also accommodate a person using a walker, cane, or crutches. Consideration must also be given to the mounting heights of common accessories, such as mirrors, paper towel dispensers, waste receptacles, soap dispensers, napkin/ tampon vendors, and toilet partition-mounted equipment, including grab bars, toilet tissue and seat-cover dispensers, and sanitary napkin disposals.

CLEAR FLOOR SPACE to accommodate a single wheelchair must be at least 30" x 48" (760 x 1219mm). The space can be positioned for a *forward* or *parallel approach* to equipment (see ADAAG 4.2.4). A portion of the clear floor space may be located under fixtures, lavatories, or accessories as long as the required knee and toe clearance is provided (Fig. 4a). If properly centered in front of controls and operating mechanisms, the clear floor space will allow both left- and right-hand access. Floor spaces may have to be wider if elements are placed in alcoves.

MOUNTING HEIGHT REQUIREMENTS for washroom accessories may vary within a facility depending on the location of individual accessories and the direction of reach required for their use. To allow *side reach* by people in wheelchairs, it is recommended that accessories be mounted with their dispensing mechanisms, start buttons, coin slots, or dispenser openings located 38" to 54" (965-1372mm) above the finish floor; and to ensure *forward reach* also, they must be located no more than 48" (1219mm) above the finish floor (Fig. 1). Note that the ICC/ANSI 98 Standard requires 48" (1219mm) maximum for both side and forward reaches. Where elements are mounted over obstructions, such as counters, it is recommended that they be located no more than 44" (1118mm) above the finished floor. However, depending on the depth of the obstruction, these can be mounted as high as 48" (1219mm) for forward approach and 54" (1372mm) for side approach. Mounting heights for children vary depending on age. The age groups are 3-5, 5-8 and 9-12 years.

TURNING SPACE at least 60" (1524mm) in diameter is required by a single wheelchair to make a 180-degree turn (Fig. 2a). A 60" x 60" (1524 x 1524mm) T-shaped turning space with 36" (914mm) wide aisles to allow a three-point-turn

(Fig. 2b) is also acceptable and may be used to conserve space in some installations. A portion of the 60" (1524mm) diameter or T-shaped turning spaces may be located under fixtures, lavatories, or accessories as long as the required knee and toe clearance is provided (Fig. 4a).

Children's Reach Ranges

Note: Refer to these charts to find the best locations within the given overall ADAAG ranges that are most appropriate for the specific children's age group for which you are designing.

Forward or Side Reach	Ages 3 and 4	Ages 5 through 8	Ages 9 through 12
High (maximum)	36" (915mm)	40" (1015mm)	44" (1120mm)
Low (minimum)	20" (510mm)	18" (455mm)	16" (405mm)

Specifications for Water Closets Serving Children Ages 3 through 12

	Ages 3 and 4	Ages 5 through 8	Ages 9 through 12
Water Closet Centerline	12" (305mm)	12" to 15" (305 to 380mm)	15" to 18" (330 to 455mm)
Toilet Seat Height	11" to 12" (280 to 305mm)	12" to 15" (305 to 380mm)	15" to 17" (380 to 430mm)
Grab Bar Height	18" to 20" (455 to 510mm)	20" to 25" (510 to 635mm)	25" to 27" (635 to 685mm)
Toilet Tissue Dispenser Height	14" (355mm)	14" to 17" (355 to 430mm)	17" to 19" (430 to 485mm)

Fig. 1 Bobrick's Recommended Mounting Heights for Washroom Accessories.

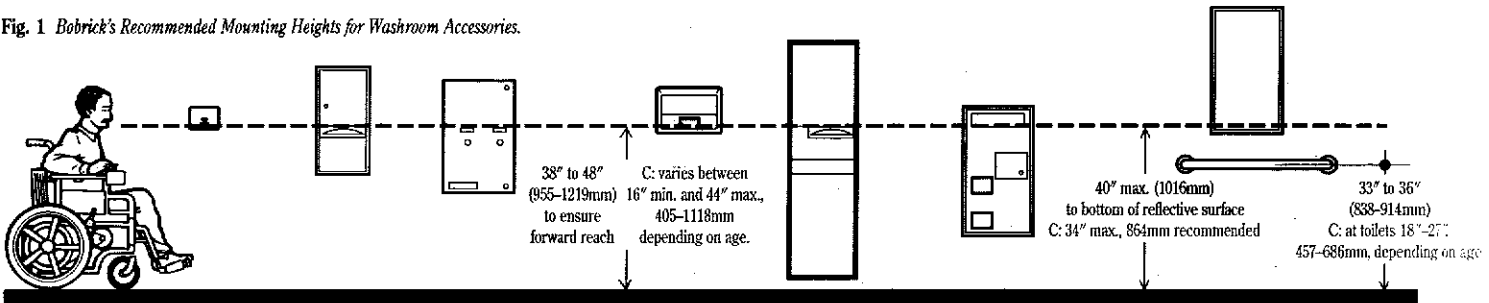
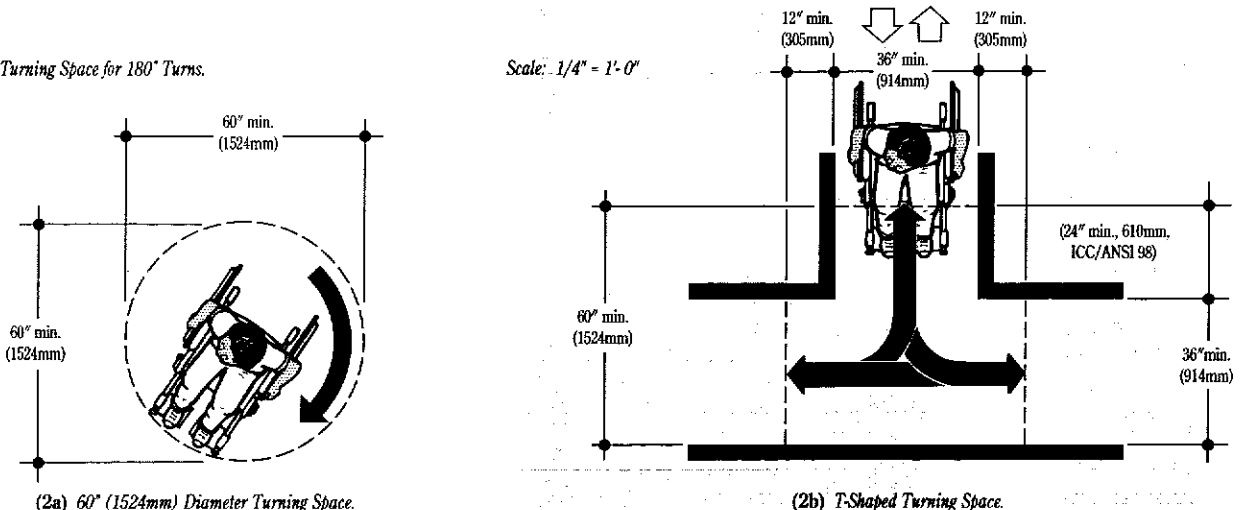


Fig. 2 Wheelchair Turning Space for 180° Turns.



(2a) 60" (1524mm) Diameter Turning Space.

(2b) T-Shaped Turning Space.