

Instruction for Home Modifications to Prevent Falls: ADA Guidelines

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Americans with Disabilities Act of 1990 (ADA) established guidelines for wheelchair users and individuals with disabilities in the community. ADA guidelines are designed to meet the needs of the majority of users, no matter what their ability or disability level is. Although it does not specially apply to residential homes, it is important to keep the ADA guidelines in mind when modifying homes for an individual's need.

ADA guidelines have already been proven to be effective for most people. Many homes in Erie County were built prior to 1976 and before the current, more standardized building codes. Those homes were not built for wheelchair use, walker access, and older adults. For these homes, home modification may be necessary using ADA guidelines.

Most commonly needed modifications are:

- bathroom grab bars near the toilet and in the shower or the tub;
- railings on both sides of a stairway, if possible;
- widening of door frames for greater access to common areas such as bathrooms kitchens, and bedrooms; and
- repair and removal of structural barriers such as inadequate flooring, uneven transitions between flooring surface, and other non-structural barriers such as furniture.

Structural issues and barriers to meeting ADA guidelines are:

- limited floor space,
- limited wall space for installing grab bars,
- wall studs that are generally 16 inches on center,
- unknown barriers within walls, and
- financial limitations.

Common devices and features for consideration are:

- smooth versus textured grab bars,
- one stair railing versus two stair railings,
- height of grab bars in comparison to the user, and
- minimum width of door frames for walker and wheelchair access.

The following pages are figures for: toilet grab bars, shower access, grab bar spacing, wheelchair ramps, and wheelchair turning space from Department of Justice, Code of Federal Regulations, ADA Standards for Accessible Design and they are available from <http://www.ada.gov/adastd94.pdf>

Toilet Grab Bars

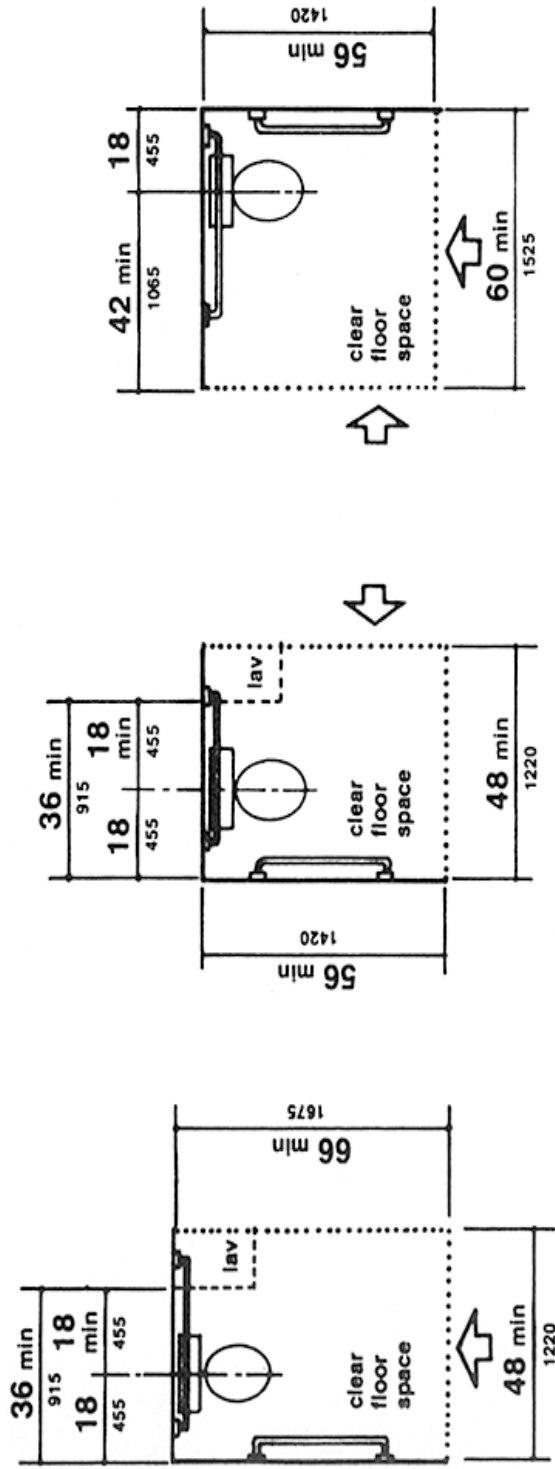
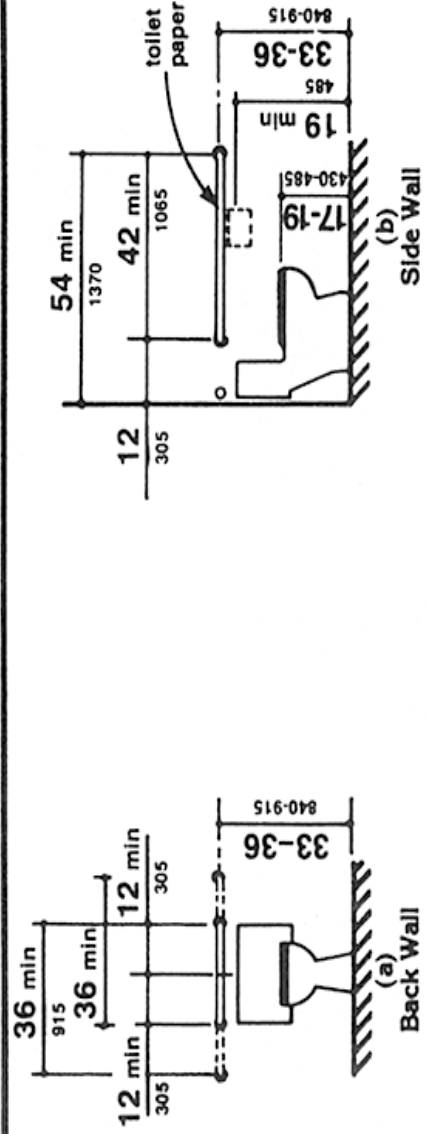


Fig. 28
Clear Floor Space at Water Closets



Shower Access

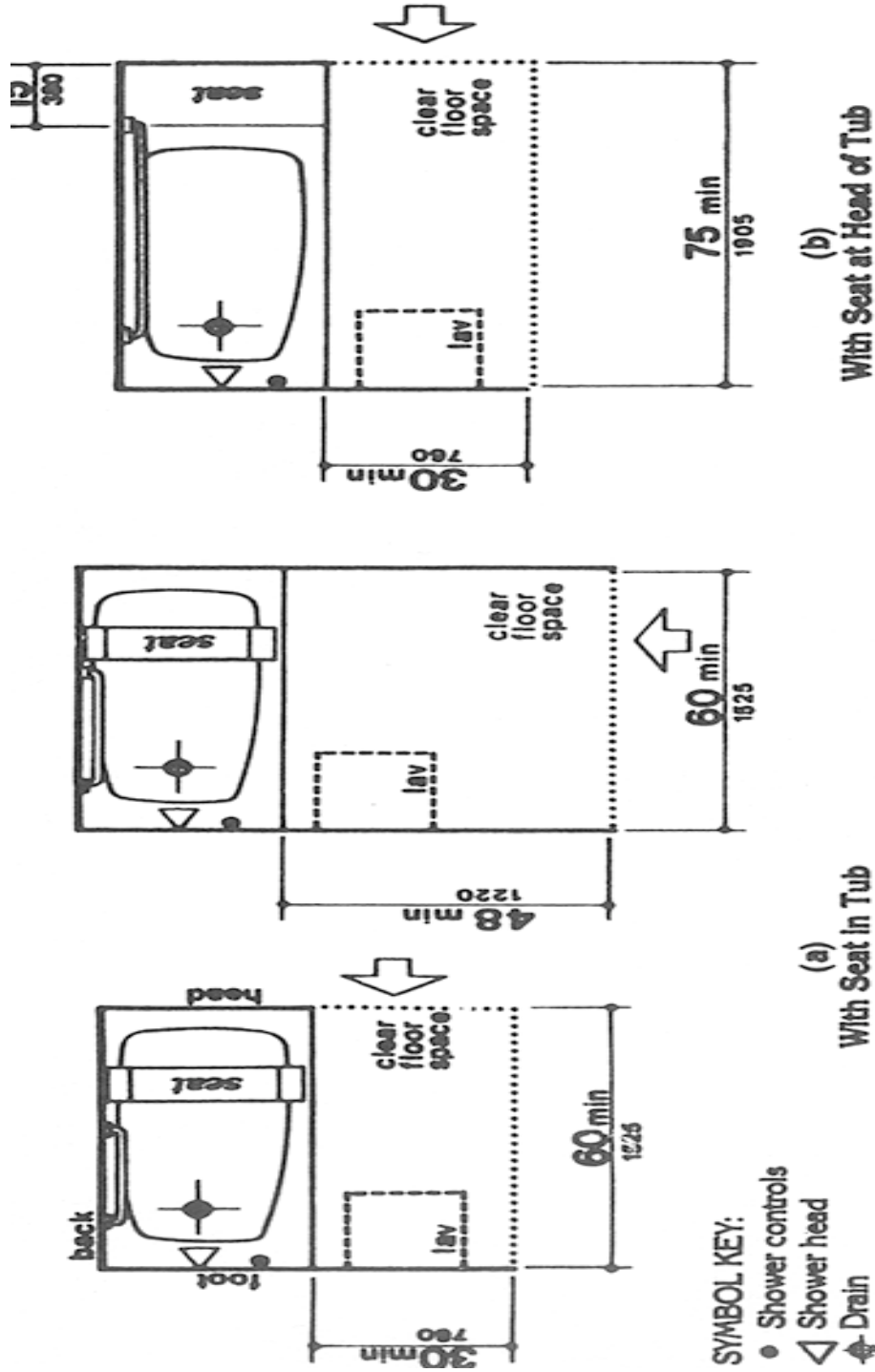
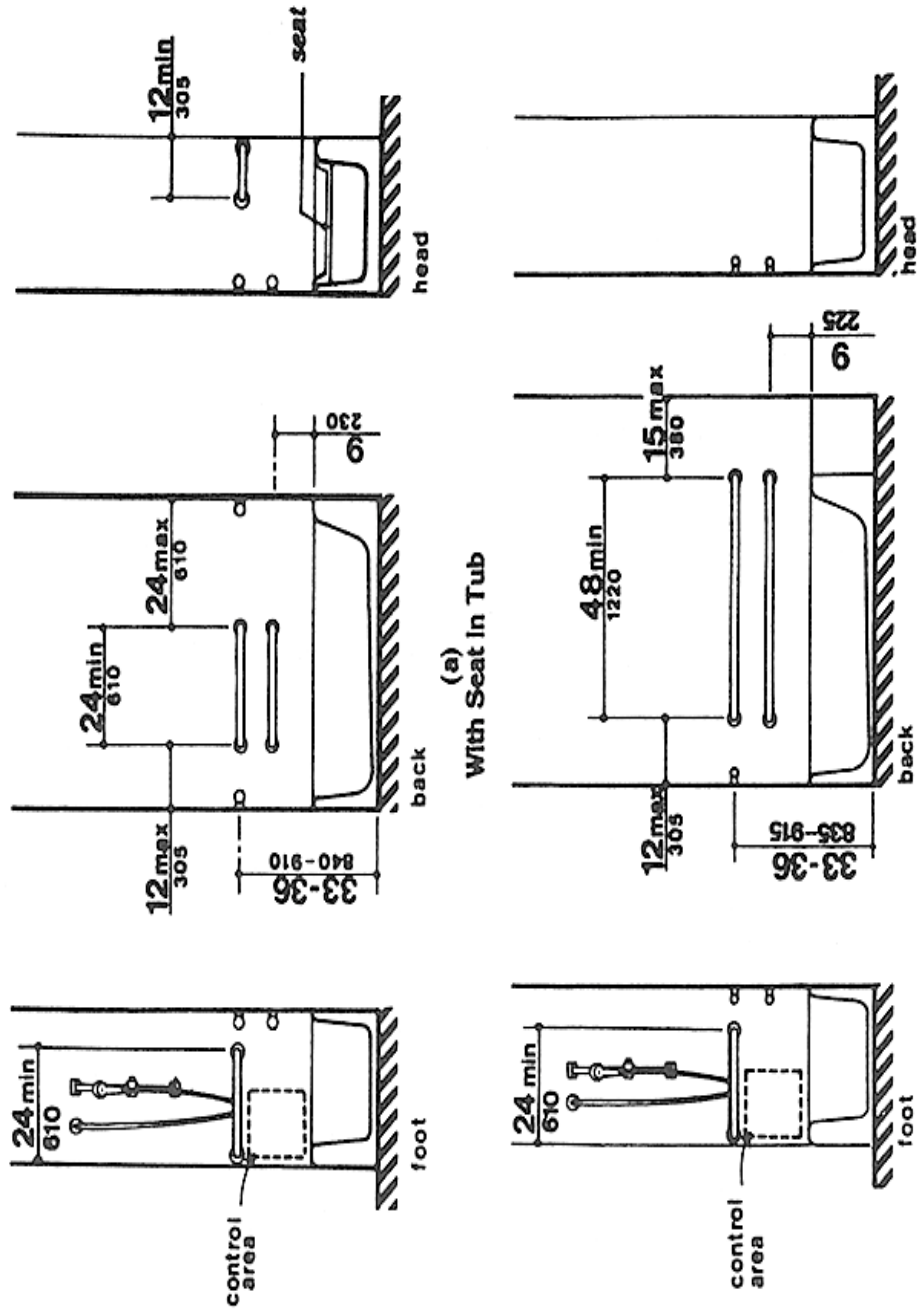


Fig. 33
Clear Floor Space at Bathtubs

Shower Access Continued



(a) With Seat In Tub
 (b) With Seat at Head of Tub
Fig. 34
Grab Bars at Bathtubs

Grab Bar Spacing

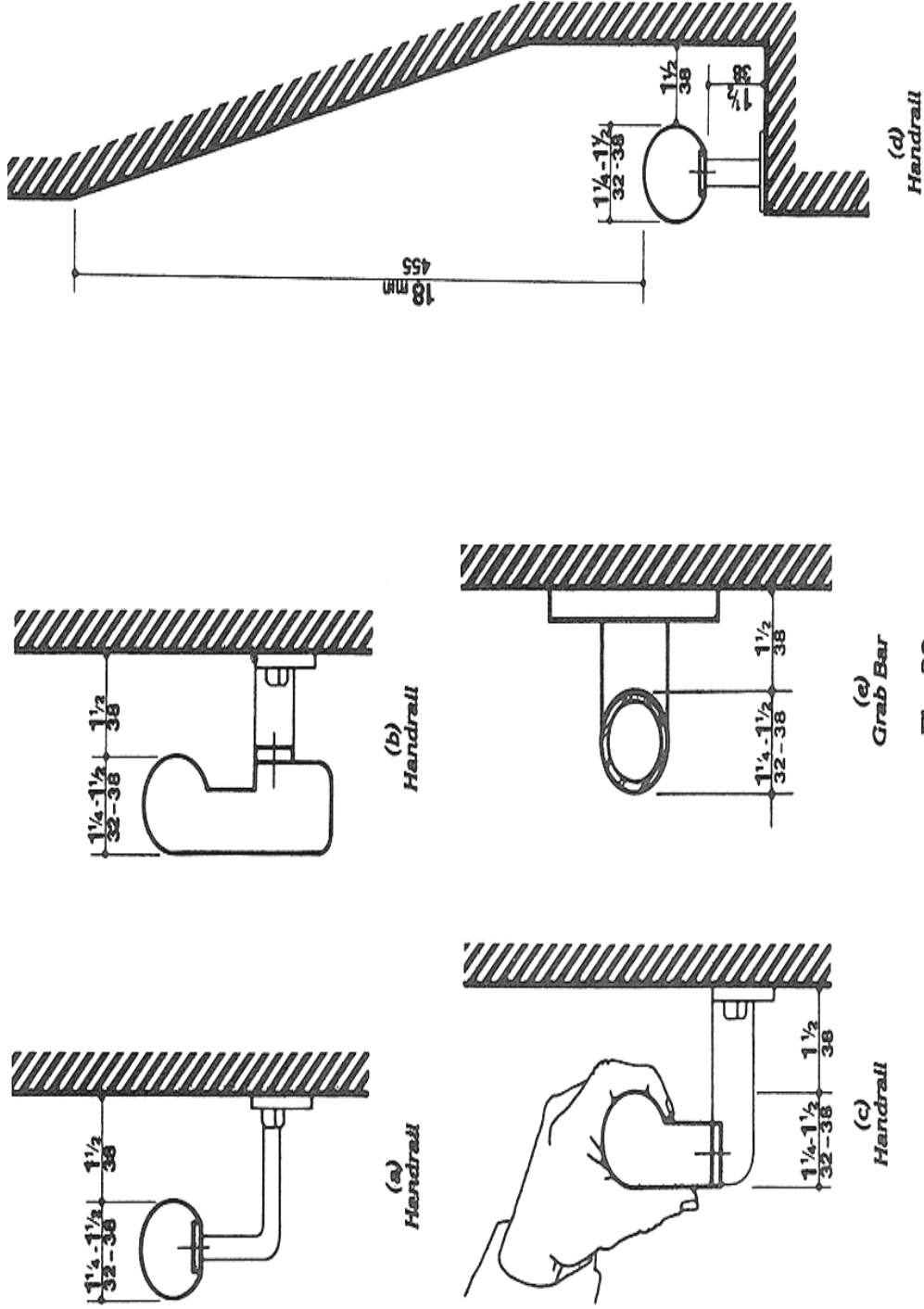
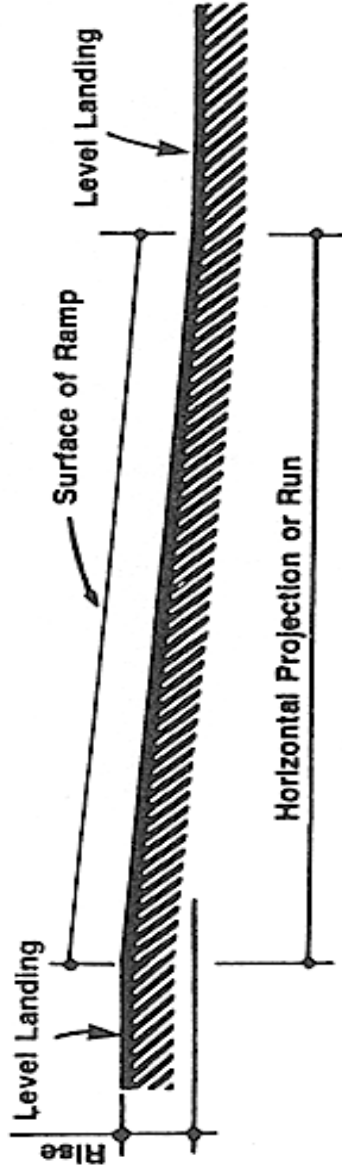


Fig. 39
Size and Spacing of Handrails and Grab Bars

Department of Justice, Code of Federal Regulations, ADA Standards for Accessible Design, 1994, p. 542

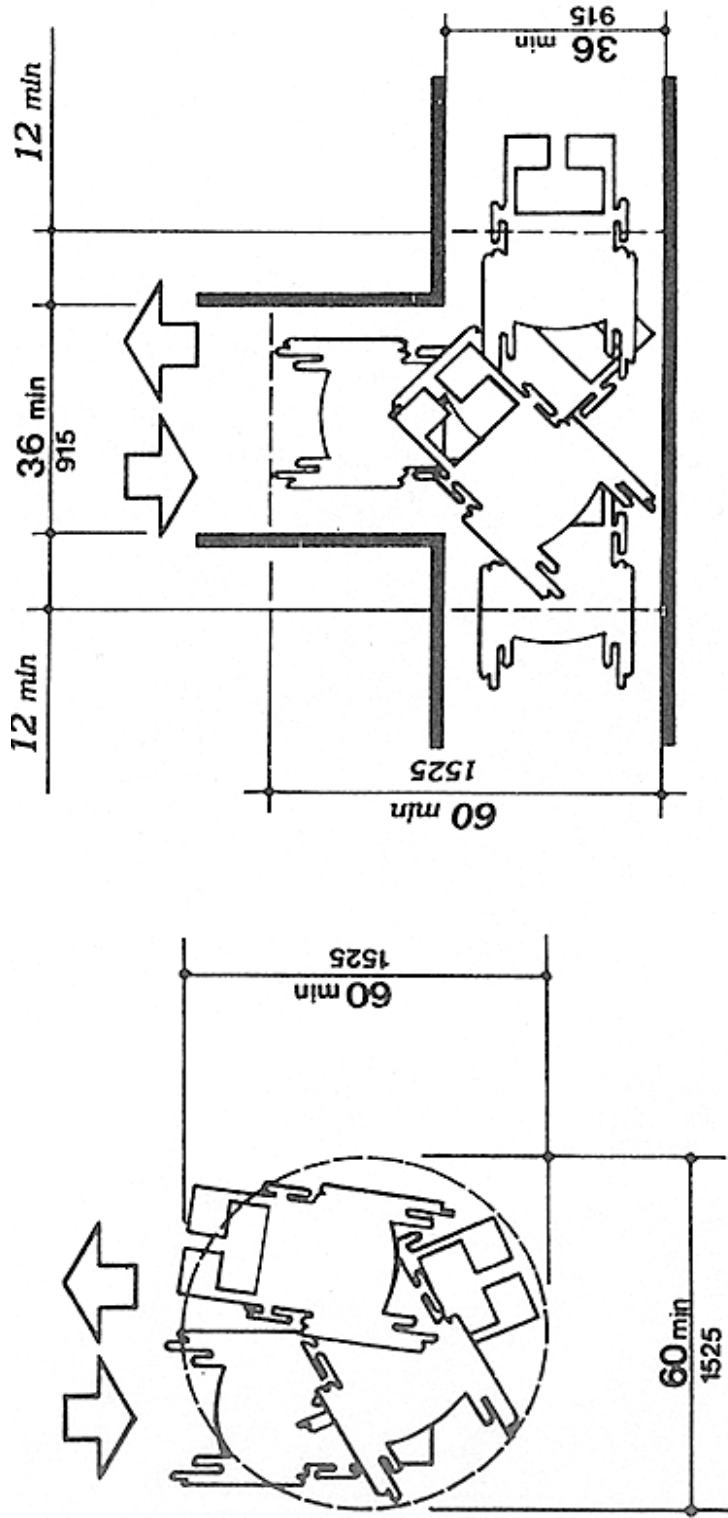
Wheelchair Ramps



Maximum Rise		Maximum Horizontal Projection	
Slope	in	mm	ft
1:12 to < 1:16	30	760	30
1:16 to < 1:20	30	760	40

Fig. 16
Components of a Single Ramp Run and Sample Ramp Dimensions

Wheelchair Turning Space



(a) 60-in (1525-mm)-Diameter Space

(b) T-Shaped Space for 180° Turns

Fig. 3
Wheelchair Turning Space

Department of Justice, Code of Federal Regulations, ADA Standards for Accessible Design, 1994, p. 507