# Wheelchair Accessibility Guidelines

Authors: Meghan Roda, SPT; Cathy A. Larson, PT, PhD

# **Fact Sheet**

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# A Special Interest Group of



#### Contact us:

ANPT
5841 Cedar Lake Rd S.
Ste 204
Minneapolis, MN 55416
Phone: 952.646.2038
Fax: 952.545.6073
info@neuropt.org
www.neuropt.org

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# Manual Wheelchair Turning and Required Dimensions

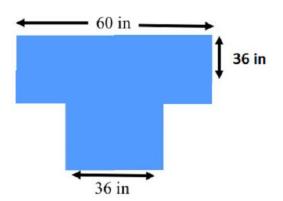
- **Turning radius:** the amount of space that is required to perform a 180° turn.
- The Americans with Disabilities Act (ADA) requires a building to provide turning space in the shape of a circle or T-shaped<sup>1</sup>
- 180° turn is the basis for defining a minimum space bounded by two sides with an open space along the axis of the turn.

## **T-shaped Turn**

**Procedure:** Wheelchair user travels up the base of the  $T \rightarrow turn$  wheelchair into one of the arms  $\rightarrow$  reverse into the other arm  $\rightarrow$  turn to move back down the base of the T.

#### **Dimensions required<sup>2</sup>:**

- 60-inch square minimum
- Arms and base 36 inch minimum

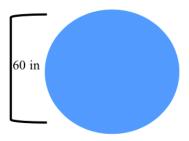


# **Circular Turns**

**Procedure:** Simultaneously pull one wheel forward while pushing the opposite wheel backwards

#### **Dimensions required:**

- 60-inch diameter minimum<sup>2</sup>
- ADA requires space to include toe and knee clearance; knee clearance is 30 inches <sup>3</sup>



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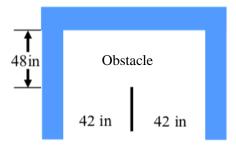
## **U-Shaped Turn**

• This type of turn is utilized when an individual must maneuver around an object

#### Dimensions required when obstacle is less than 48 inches wide<sup>4</sup>:

- 42 inches minimum clearance width approaching the turn
- 48 inches minimum clearance width at turn
- 42 inches minimum clearance width leaving the turn

**Exception**: If clearance width at the turning point is 60 inches, the clearance width approaching the turn and leaving the turn the minimum requirement is 36 inches



#### **Basic Accessibility (e.g., Hallways)**

- The minimum space required to accommodate a single wheelchair is 30 inches wide by 48 inches long<sup>4</sup>
- The minimum clearance floor space for wheelchairs may be positioned for a forward or parallel approach to an object

#### **Bathroom**

• Clearance space surrounding the toilet with a minimum dimension of 30 inches x 48 inches is required

## Ramps

- 36-inch clearance width between handrails<sup>5</sup>
- 36-inch landings are required at the top and 48-inch landings are required at the bottom of every ramp.
- In areas that the ramp changes direction landings must be 60-inch x 60 inch to allow room to turn.

# **Door Openings**

- Clearance width of a door must be a minimum of 32 inches and a maximum of 48 inches<sup>4</sup>
- Doors can swing into the turning space

#### References

- Rory A. Cooper PhD, Rosemarie Cooper MPT and ATP & Michael L. Boninger MD (2008) Trends and Issues in Wheelchair Technologies, Assistive Technology, 20:2, 61-72, DOI: 10.1080/10400435.2008.10131933
- 304 Turning Space. ADA Compliance Disabilities Act. https://www.ada-compliance.com/ada-compliance/304-turning-space. Published January 2018
- 306 Knee and Toe Clearance . ADA Compliance Disabilities Act. https://www.ada-compliance.com/ada-compliance/306-knee-and-toe-clearance. Published January 2018.
- Accessible routes. United State Access Boad. https://www.access-board.gov/guidelines-and-standards/buildings-and-sites/about-the-ada-standards/ada-standards/chapter-4-accessible-routes. Published January 2010.
- Ramps. ADA Compliance Disabilities Act. https://www.ada-compliance.com/ada-compliance/ada-ramp. Published January 2018.