

## Chapter 5. General Site and Building Elements

### 501 General

**501.1 Scope.** General site and building elements required to be accessible by the scoping provisions adopted by the administrative authority shall comply with the applicable provisions of Chapter 5.

### 502 Parking Spaces

**502.1 General.** Accessible car and van parking spaces shall comply with Section 502.

**502.2 Vehicle Space Size.** Car parking spaces shall be 96 inches (2440 mm) minimum in width. Van parking spaces shall be 132 inches (3350 mm) minimum in width.

**EXCEPTION:** Van parking spaces shall be permitted to be 96 inches (2440 mm) minimum in width where the adjacent access aisle is 96 inches (2440 mm) minimum in width.

**502.3 Vehicle Space Marking.** Car and van parking spaces shall be marked to define the width. Where parking spaces are marked with lines, the width measurements of parking spaces and adjacent access aisles shall be made from the centerline of the markings.

**EXCEPTION:** Where parking spaces or access aisles are not adjacent to another parking space or access aisle, measurements shall be permitted to include the full width of the line defining the parking space or access aisle.

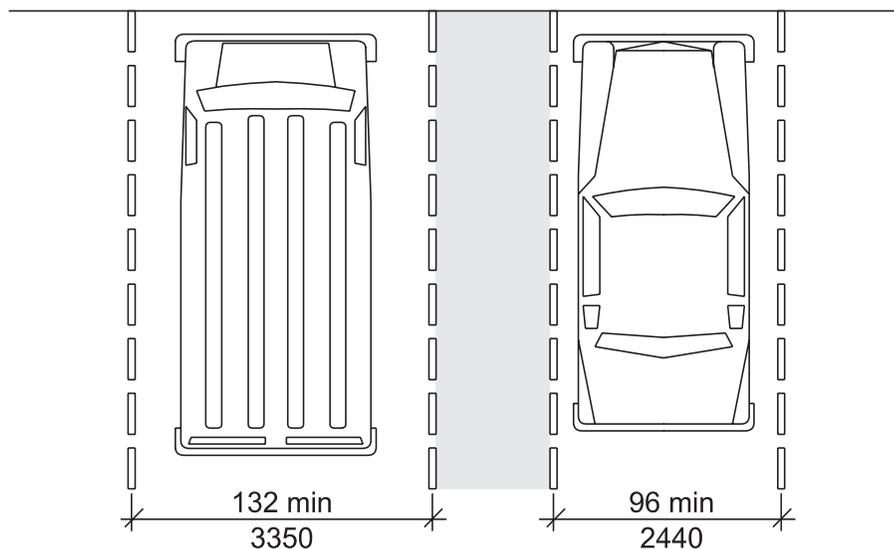
**502.4 Access Aisle.** Car and van parking spaces shall have an adjacent access aisle complying with Section 502.4.

**502.4.1 Location.** Access aisles shall adjoin an accessible route. Two parking spaces shall be permitted to share a common access aisle. Access aisles shall not overlap with the vehicular way. Parking spaces shall be permitted to have access aisles placed on either side of the car or van parking space. Van parking spaces that are angled shall have access aisles located on the passenger side of the parking space.

**502.4.2 Width.** Access aisles serving car and van parking spaces shall be 60 inches (1525 mm) minimum in width.

**502.4.3 Length.** Access aisles shall extend the full length of the parking spaces they serve.

**502.4.4 Marking.** Access aisles shall be marked so as to discourage parking in them. Where access aisles are marked with lines, the width measurements of access aisles and adjacent parking spaces shall be made from the centerline of the markings.



**Fig. 502.2**  
Vehicle Parking Space Size

**EXCEPTION:** Where access aisles or parking spaces are not adjacent to another access aisle or parking space, measurements shall be permitted to include the full width of the line defining the access aisle or parking space.

**502.5 Floor Surfaces.** Parking spaces and access aisles shall comply with Section 302 and have surface slopes not steeper than 1:48. Access aisles shall be at the same level as the parking spaces they serve.

**502.6 Vertical Clearance.** Parking spaces for vans, access aisles serving them, and vehicular routes from an entrance to the van parking spaces, and from the van parking spaces to a vehicular exit serving them shall provide a vertical clearance of 98 inches (2490 mm) minimum.

**502.7 Identification.** Where accessible parking spaces are required to be identified by signs, the signs shall include the International Symbol of Accessibility complying with Section 703.6.3.1. Signs identifying van parking spaces shall contain the designation “van accessible.” Such signs shall be 60 inches (1525 mm) minimum above the floor of the parking space, measured to the bottom of the sign.

**502.8 Relationship to Accessible Routes.** Parking spaces and access aisles shall be designed so that cars and vans, when parked, cannot obstruct the required clear width of adjacent accessible routes.

**503 Passenger Loading Zones**

**503.1 General.** Accessible passenger loading zones shall comply with Section 503.

**503.2 Vehicle Pull-up Space Size.** Passenger loading zones shall provide a vehicular pull-up space 96 inches (2440 mm) minimum in width and 20 feet (6100 mm) minimum in length.

**503.3 Access Aisle.** Passenger loading zones shall have an adjacent access aisle complying with Section 503.3.

**503.3.1 Location.** Access aisles shall adjoin an accessible route. Access aisles shall not overlap the vehicular way.

**503.3.2 Width.** Access aisles serving vehicle pull-up spaces shall be 60 inches (1525 mm) minimum in width.

**503.3.3 Length.** Access aisles shall be 20 feet (6100 mm) minimum in length.

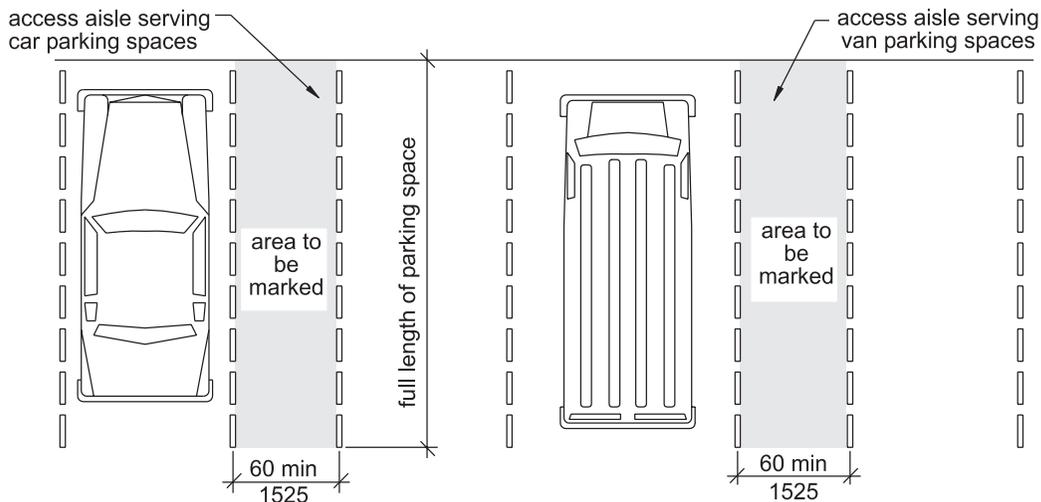
**503.3.4 Marking.** Access aisles shall be marked so as to discourage parking in them.

**503.4 Floor Surfaces.** Vehicle pull-up spaces and access aisles serving them shall comply with Section 302 and shall have slopes not steeper than 1:48. Access aisles shall be at the same level as the vehicle pull-up space they serve.

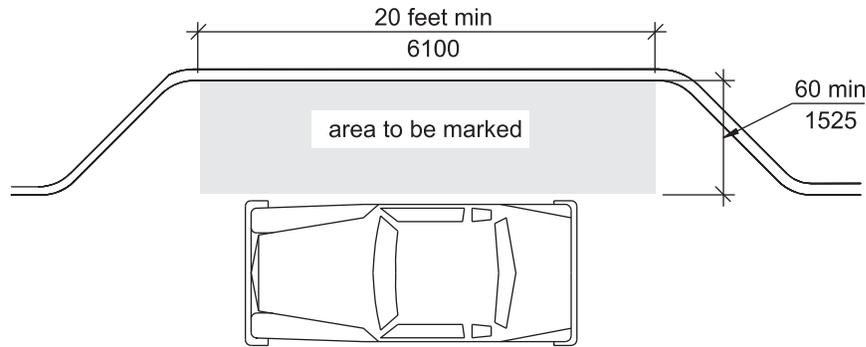
**503.5 Vertical Clearance.** Vehicle pull-up spaces, access aisles serving them, and a vehicular route from an entrance to the passenger loading zone, and from the passenger loading zone to a vehicular exit serving them, shall provide a vertical clearance of 114 inches (2895 mm) minimum.

**504 Stairways**

**504.1 General.** Accessible stairs shall comply with Section 504.

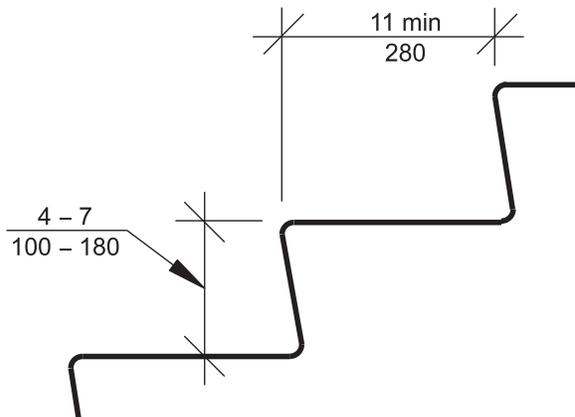


**Fig. 502.4  
Parking Space Access Aisle**



**Fig. 503.3**  
**Passenger Loading Zone Access Aisle**

**504.2 Treads and Risers.** All steps on a flight of stairs shall have uniform riser height and uniform tread depth. Risers shall be 4 inches (100 mm) minimum and 7 inches (180 mm) maximum in height. Treads shall be 11 inches (280 mm) minimum in depth.



**Fig. 504.2**  
**Treads and Risers for Accessible Stairways**

**504.3 Open Risers.** Open risers shall not be permitted.

**504.4 Tread Surface.** Stair treads shall comply with Section 302 and shall have a slope not steeper than 1:48.

**504.5 Nosings.** The radius of curvature at the leading edge of the tread shall be  $\frac{1}{2}$  inch (13 mm) maximum. Nosings that project beyond risers shall have the underside of the leading edge curved or beveled. Risers shall be permitted to slope under the tread at an angle of 30 degrees maximum from vertical. The permitted projection of the nosing shall be  $1\frac{1}{2}$  inches (38 mm) maximum over the tread or floor below. The leading 2 inches (51 mm) of the tread shall have visual contrast of dark-on-light or light-on-dark from the remainder of the tread.

**504.6 Handrails.** Stairs shall have handrails complying with Section 505.

**504.7 Wet Conditions.** Stair treads and landings subject to wet conditions shall be designed to prevent the accumulation of water.

**504.8 Lighting.** Lighting for interior stairways shall comply with Section 504.8.

**504.8.1 Illumination Level.** Lighting facilities shall be capable of providing 10 foot-candles (108 lux) of illuminance measured at the center of tread surfaces and on landing surfaces within 24 inches (610 mm) of step nosings.

**504.8.2 Lighting Controls.** If provided, occupancy-sensing automatic controls shall activate the stairway lighting so the illuminance level required by Section 504.8.1 is provided on the entrance landing, each stair flight adjacent to the entrance landing, and on the landings above and below the entrance landing prior to any step being used.

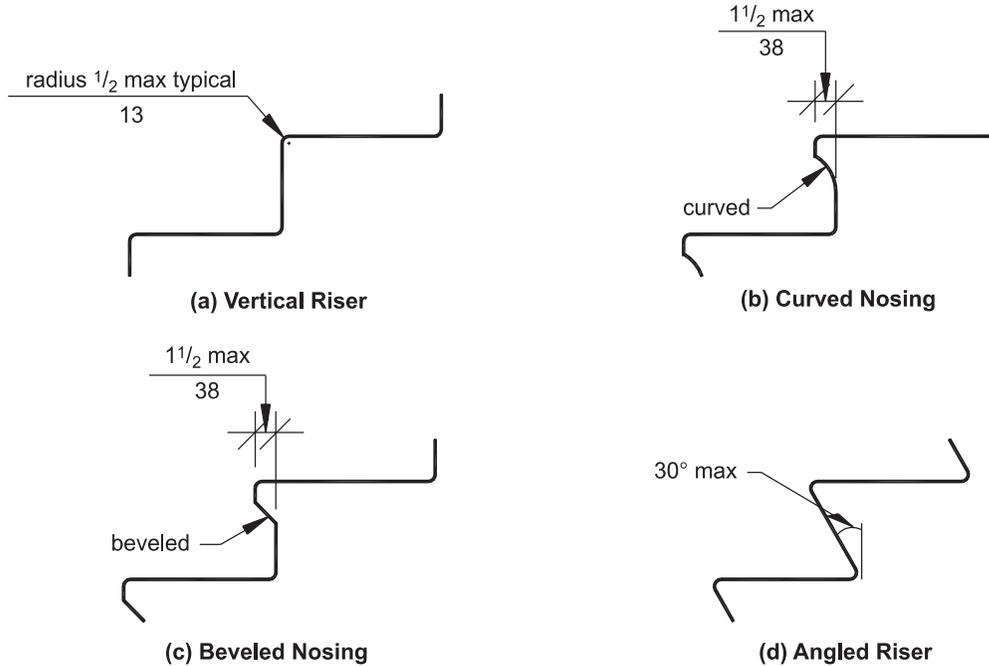
**504.9 Stair Level Identification.** Stair level identification signs in tactile characters complying with Section 703.3 shall be located at each floor level landing in all enclosed stairways adjacent to the door leading from the stairwell into the corridor to identify the floor level. The exit door discharging to the outside or to the level of exit discharge shall have a tactile sign stating "EXIT."

## 505 Handrails

**505.1 General.** Handrails required by Section 405.8 for ramps, or Section 504.6 for stairs, shall comply with Section 505.

**505.2 Location.** Handrails shall be provided on both sides of stairs and ramps.

**EXCEPTION:** Aisle stairs and aisle ramps provided with a handrail either at the side or within the aisle width.



**Fig. 504.5**  
**Stair Nosings**

**505.3 Continuity.** Handrails shall be continuous within the full length of each stair flight or ramp run. Inside handrails on switchback or dogleg stairs or ramps shall be continuous between flights or runs. Other handrails shall comply with Sections 505.10 and 307.

**EXCEPTION:** Handrails in aisles serving seating.

**505.4 Height.** Top of gripping surfaces of handrails shall be 34 inches (865 mm) minimum and 38 inches (965 mm) maximum vertically above stair nosings, ramp surfaces and walking surfaces. Handrails shall be at a consistent height above stair nosings, ramp surfaces and walking surfaces.

**505.5 Clearance.** Clearance between handrail gripping surface and adjacent surfaces shall be 1 1/2 inches (38 mm) minimum.

**505.6 Gripping Surface.** Gripping surfaces shall be continuous, without interruption by newel posts, other construction elements, or obstructions.

**EXCEPTIONS:**

1. Handrail brackets or balusters attached to the bottom surface of the handrail shall not be considered obstructions, provided they comply with the following criteria:
  - a) not more than 20 percent of the handrail length is obstructed,
  - b) horizontal projections beyond the sides of the handrail occur 1 1/2 inches

(38 mm) minimum below the bottom of the handrail, and provided that for each 1/2 inch (13 mm) of additional handrail perimeter dimension above 4 inches (100 mm), the vertical clearance dimension of 1 1/2 inch (38 mm) can be reduced by 1/8 inch (3.2 mm), and

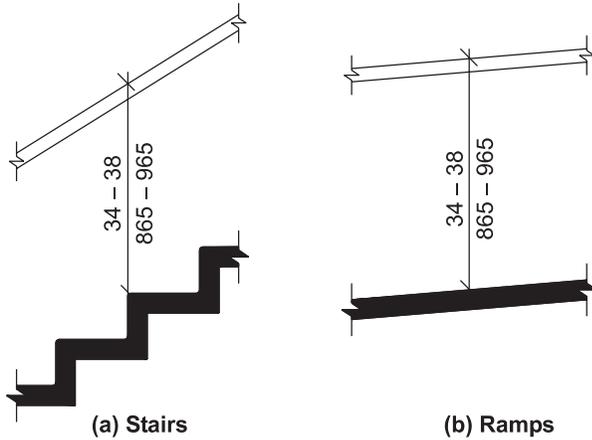
c) edges shall be rounded.

2. Where handrails are provided along walking surfaces with slopes not steeper than 1:20, the bottoms of handrail gripping surfaces shall be permitted to be obstructed along their entire length where they are integral to crash rails or bumper guards.

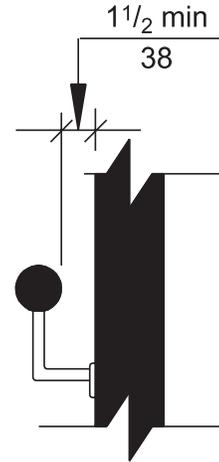
**505.7 Cross Section.** Handrails shall have a cross section complying with Section 505.7.1 or 505.7.2.

**505.7.1 Circular Cross Section.** Handrails with a circular cross section shall have an outside diameter of 1 1/4 inches (32 mm) minimum and 2 inches (51 mm) maximum.

**505.7.2 Noncircular Cross Sections.** Handrails with a noncircular cross section shall have a perimeter dimension of 4 inches (100 mm) minimum and 6 1/4 inches (160 mm) maximum, and a cross-section dimension of 2 1/4 inches (57 mm) maximum.



**Fig. 505.4**  
**Handrail Height**



**Fig. 505.5**  
**Handrail Clearance**

**505.8 Surfaces.** Handrails, and any wall or other surfaces adjacent to them, shall be free of any sharp or abrasive elements. Edges shall be rounded.

**505.9 Fittings.** Handrails shall not rotate within their fittings.

**505.10 Handrail Extensions.** Handrails shall extend beyond and in the same direction of stair flights and ramp runs in accordance with Section 505.10.

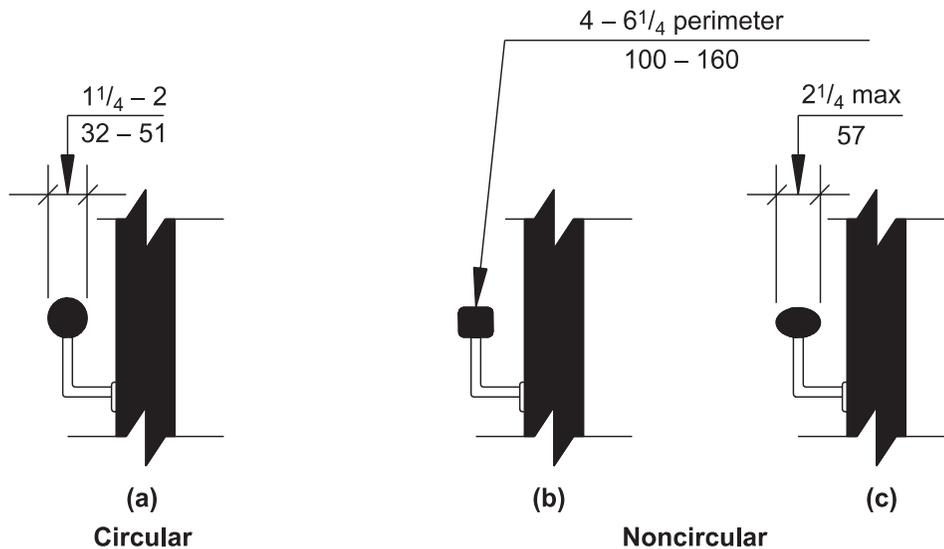
**EXCEPTIONS:**

1. Continuous handrails at the inside turn of stairs and ramps.
2. Extensions are not required for handrails in aisles serving seating where the handrails

are discontinuous to provide access to seating and to permit crossovers within the aisle.

3. In alterations, full extensions of handrails shall not be required where such extensions would be hazardous due to plan configuration.

**505.10.1 Top and Bottom Extension at Ramps.** Ramp handrails shall extend horizontally above the landing 12 inches (305 mm) minimum beyond the top and bottom of ramp runs. Extensions shall return to a wall, guard, or floor, or shall be continuous to the handrail of an adjacent ramp run.



**Fig. 505.7**  
**Handrail Cross Section**

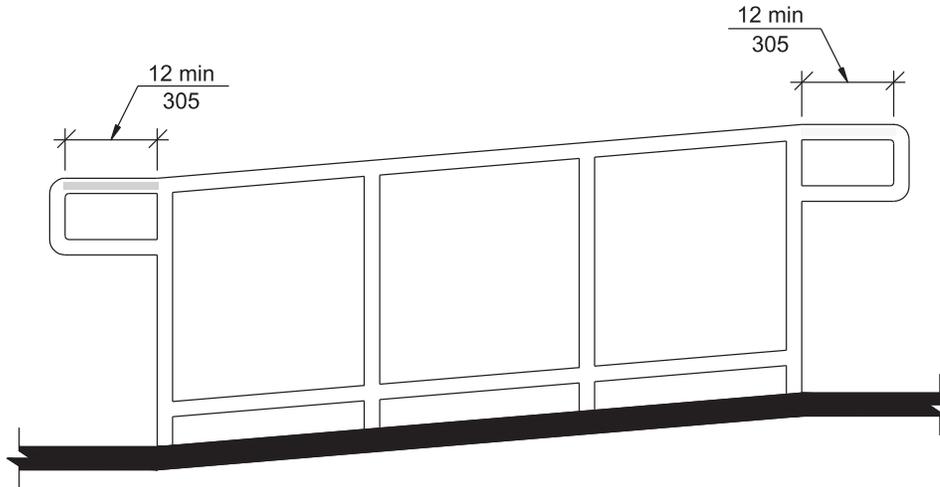
**505.10.2 Top Extension at Stairs.** At the top of a stair flight, handrails shall extend horizontally above the landing for 12 inches (305 mm) minimum beginning directly above the landing nosing. Extensions shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent stair flight.

**505.10.3 Bottom Extension at Stairs.** At the bottom of a stair flight, handrails shall extend at the slope of the stair flight for a horizontal dis-

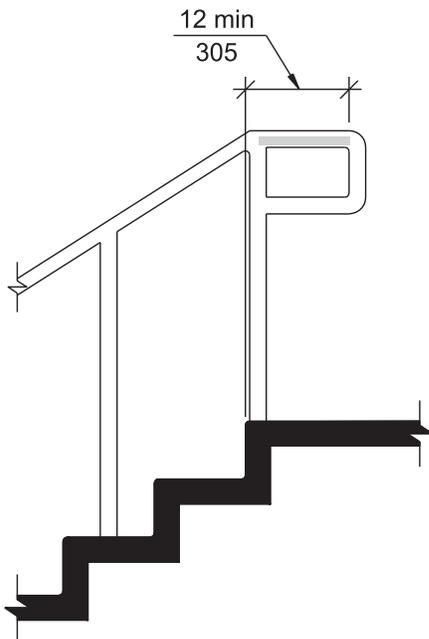
tance equal to one tread depth beyond the bottom tread nosing. Extensions shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent stair flight.

**506 Windows**

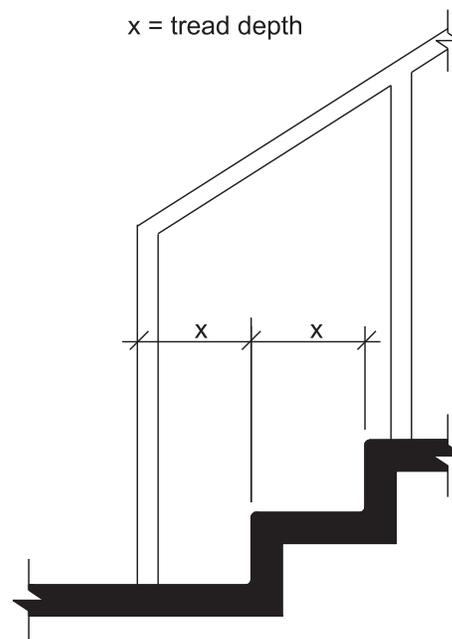
**506.1 General.** Accessible windows shall have operable parts complying with Section 309.



**Fig. 505.10.1**  
Top and Bottom Handrail Extensions at Ramps



**Fig. 505.10.2**  
Top Handrail Extensions at Stairs



**Fig. 505.10.3**  
Bottom Handrail Extensions at Stairs