

Test Your Knowledge - Question1

This section guides you through a series of situations and you are asked to "click on" the correct answer. It's designed to heighten your awareness of various pedestrian issues. Please send us your [comments](#) and feel free to share this with others.



What is wrong in the picture ?

- a. Children should not be allowed to play on sidewalks.
- b. Children are not always aware of dangers around them.
- c. Vans should always go out of driveways facing forward.

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Test Your Knowledge - Question 1



What is wrong in the picture?

a. Children should not be allowed to play on sidewalks

Sorry, you picked the wrong answer. [Try again!](#)

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Test Your Knowledge - Question 1



What is wrong in the picture?

b. Children are not always aware of dangers around them.

Correct! Drivers should always walk around their vehicle before driving off.

More information below -

Information and Data Supporting Recommended Practice

Children aged 5 to 14 constitute only 14 percent of the population, yet accounted for 27 percent of the pedestrian collisions during 1998. Young pedestrians, under 15 years of age, experience a pedestrian collision involvement rate twice that of all pedestrians.

The youngest students of 5 to 8 years in age are particularly over-involved in midblock dartout crashes. They cannot be treated as short adults; they are not able to judge the speed of approaching vehicles, nor the adequacy of gaps in traffic, and their peripheral vision is not as well developed. Young children are also often inattentive and careless streets.

Most young pedestrians (66 percent) will use marked crosswalks at uncontrolled intersections, while 83 percent will use them at signalized intersections. Nearly all children will use marked crosswalks at locations if there are adult crossing guards present.

At crossings with traffic signals, nearly all school children will cross with the "walk" pedestrian signal when activated by an adult guard. Only about 65 percent will cross without a crossing guard and more than half of school children will cross during gaps in traffic without activating pedestrian push buttons at signals without crossing guards.

(Reference Design and Safety of Pedestrian Facilities, ITE, March 1998)

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Test Your Knowledge - Question 1



What is wrong in the picture?

c. Vans should always go out of driveways facing forward

Sorry, you picked the wrong answer.

[Try again!](#)

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Test Your Knowledge - Question 2



What is wrong in the picture?

- a. Elderly people should not cross the street unaided.
- b. The station wagon is too far out in the intersection.
- c. The crossing is too long and has no medians.

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Test Your Knowledge - Question 2



What is wrong in the picture?

a. Elderly people should not cross the street unaided.

Sorry, you picked the wrong answer. [Try again!](#)

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Test Your Knowledge - Question 2



What is wrong in the picture?

b. The station wagon is too far out in the intersection.

Sorry, you picked the wrong answer. [Try again!](#)

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Test Your Knowledge - Question 2



What is wrong in the picture?

c. The crossing is too long and has no medians.

Correct! This long crosswalk does not cater to the elderly.

More information below -

To accommodate the shorter stride and slower gait of the older pedestrian, and their exaggerated "startup" time before leaving the curb, the pedestrian crossing time should reflect a slower than normal (4.0 ft/s or 1.22 m/s - MUTCD, 1988) walking speed.

The Institute of Transportation and Traffic Engineering Handbook recommends that for relatively slow walkers, speeds from 3.0 to 3.25 ft/s (0.91 to 0.99 m/s) would be more appropriate.

The Older Driver Highway Design Handbook (FHWA-RD-97-135) recommends an assumed walking speed of 2.8 ft/s (0.85 m/s).

In addition, a refuge median can be installed with an additional pedestrian "push button" in case any pedestrian become trapped in the center of the road while crossing.

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Test Your Knowledge - Question 3



What is wrong in the picture?

- a. The crosswalk push button is inside the fence.
- b. The sidewalk is too wide for the street.
- c. The crosswalk signal is too dim to read properly.

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Test Your Knowledge - Question 3



What is wrong in the picture?

a. The crosswalk pushbutton is inside the fence.

Correct! By being inside the fence, the pushbutton is not accessible to all users (e.g. wheelchair users and younger children).

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Test Your Knowledge - Question 3



What is wrong in the picture?

b. The sidewalk is too wide for the street.

Sorry, you picked the wrong answer. [Try again!](#)

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Test Your Knowledge - Question 3



What is wrong in the picture?

c. The crosswalk signal is too dim to read properly.

Sorry, you picked the wrong answer. [Try again!](#)

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Test Your Knowledge - Question 4



What is wrong in the picture?

- a. The crosswalk lines are overlapped too much by the new asphalt.
- b. People in wheelchairs should not use crosswalks.
- c. The crosswalk ramp is too steep.

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Test Your Knowledge - Question 4



What is wrong in the picture?

a. The crosswalk lines are overlapped too much by the new asphalt.

**Sorry, you picked the wrong answer.
[Try again!](#)**

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Test Your Knowledge - Question 4



What is wrong in the picture?

b. People in wheelchairs should not use crosswalks.

Sorry, you picked the wrong answer.

[Try again!](#)

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Test Your Knowledge - Question 4



What is wrong in the picture?

c. The crosswalk ramp is too steep.

Correct! The slope of the crosswalk ramp is too steep for this disabled person to roll up or down it in safety.

Key Features of Accessible Sidewalks and Street Crossings

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Key Features of Accessible Sidewalks and Street Crossings

Technical assistance from the U.S. Architectural and Transportation Barriers Compliance Board (the Access Board)

The Americans with Disabilities Act (ADA) requires that new and altered public sidewalks and street crossings be accessible so that people with disabilities can use the pedestrian routes that connect buildings, facilities, and transportation modes. Title II of the ADA covers new sidewalks and streets constructed by or on behalf of a state or local government. In general, it applies the same provisions that govern the accessible route required on a building site or within a building, as specified in the ADA Accessibility Guidelines (*ADAAG, sections 1-10*) adopted under title III of the ADA for private sector facilities. Curb ramps are specifically required in Department of Justice title II regulation at **35.151 New construction and alterations**. Additional requirements for existing pedestrian networks not otherwise being altered are also included (**see 35.150 Existing facilities**). The Department recommends that sidewalks and curb ramps covered by **title II** comply with *ADAAG, UFAS* (the 1984 standard for Federal construction), or other accessibility code in effect in a jurisdiction.

A curb ramp or other sloped area is required wherever a new or altered pedestrian walkway crosses a curb or other barrier to a street, road, or highway. Similarly, a curb ramp is required wherever a new or altered street intersects a pedestrian walkway. A curb ramp may be perpendicular to the curbing it cuts, or a length of the sidewalk itself ramped down to meet the street. Other designs may also comply with *ADAAG* criteria.

The running slope of a new curb ramp may not exceed 1 in 12. Curb ramps in alteration where it is technically infeasible to meet the new construction requirements may have a maximum slope of 1 in 10.

A landing is required at the top of a perpendicular curb ramp. A curb ramp must connect to a travel route that is at least 36 inches wide and has cross slope of no more than 2%. The side flares of a curb ramp do not meet these criteria (the slope of a side flare is limited so that it will not present a tripping hazard to pedestrians).

The transition from curb ramp to gutter must be flush. Lips are not permitted. Adjacent counterslopes in the line of travel should not exceed 1 in 20 and should connect smoothly with other elements of the pedestrian network.

The foot of a curb ramp must be contained within the crosswalk, where one is marked. Pedestrians who use wheelchairs on curb ramps should not be directed into an active travel lane in order to cross stopped traffic. A minimum four-foot-long bottom landing must be provided outside the through-travel lanes if diagonal ramps are used.

A new sidewalk must provide more than the minimum accessible travel width of 36 inches. Additional maneuvering space is necessary for a pedestrian using a wheelchair to turn, to pass by other pedestrians, to operate and pass through an entrance door, to use a sidewalk telephone or to activate a pedestrian crossing button. A 60-inch minimum width is recommended for sidewalks adjacent to the curb; if a setback from the curb can be provided, a 48-inch-wide walkway may be adequate.

The cross slope of a sidewalk must not exceed 2%. Excessive cross slope

tends to direct sidewalk users into the street. This is a particular problem at a driveway aprons if the sidewalk is narrow and at curbside. Where the running slope of one walkway becomes the cross slope of an intersecting one, the surface must be 'level' -- or no greater than 2% -- in each direction of travel.

More comprehensive information on sidewalk design is published in the Access Board's ***Bulletin #7: Accessible Rights-of-Way*** and its companion video, ***Design Issues for Pedestrians with Disabilities***. To obtain a copy of these or other publications, including the ADA Accessibility Guidelines, contact the Board's technical assistance line at 800/872-2253 (voice) or 800/993-2822 (TTY). Information on proposed design guidelines under development for recreation facilities, including the *Report of the Recreation Access Advisory Committee*, can also be obtained through the technical assistance service or by accessing its website at www.access-board.gov . The board may also be consulted via the DOJ website at www.usdoj.gov/crt/ada/adahom1.htm.

Test Your Knowledge - Question 5



What is wrong in the picture?

- a. There is no center lane in which pedestrians can wait.
- b. The car should be in the next lane over to avoid the pedestrians.
- c. This is poor pedestrian behavior.

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Test Your Knowledge - Question 5



What is wrong in the picture?

a. There is no center lane in which pedestrians can wait.

Sorry, you picked the wrong answer. [Try again!](#)

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Test Your Knowledge - Question 5



What is wrong in the picture?

b. The car should be in the next lane over to avoid the pedestrians.

Sorry, you picked the wrong answer. [Try again!](#)

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Test Your Knowledge - Question 5



What is wrong in the picture?

c. This is poor pedestrian behavior.

Correct! Before crossing, stop at the curb, edge of the road, or corner before proceeding. Look left-right-left, and if its clear, begin crossing, looking over your shoulder for turning vehicles. Continue to check for traffic while crossing.

Use crosswalks where provided. While they won't protect pedestrians from oncoming traffic, they do serve to guide pedestrians across the street.

At intersections where Right Turn on Red is permitted, the pedestrian must always be looking for turning vehicles before stepping off the curb.

At nighttime, always wear bright colors. It's easy to carry a flashlight, or to slip a reflective wristband on the arm facing traffic to let drivers know that you're there.

When walking near large vehicles stay out of the 'NO-ZONE'. NO-ZONES are the areas on all sides, even the front and back, of large vehicles, where the driver cannot see other vehicles or fixed objects...or pedestrians.

Work zones are especially dangerous places - 17% of all workzone fatalities were pedestrians. Stay alert, stay on the safe path through the work zone, follow all workzone signs, personnel, and pavement markings.

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Test Your Knowledge - Question 6

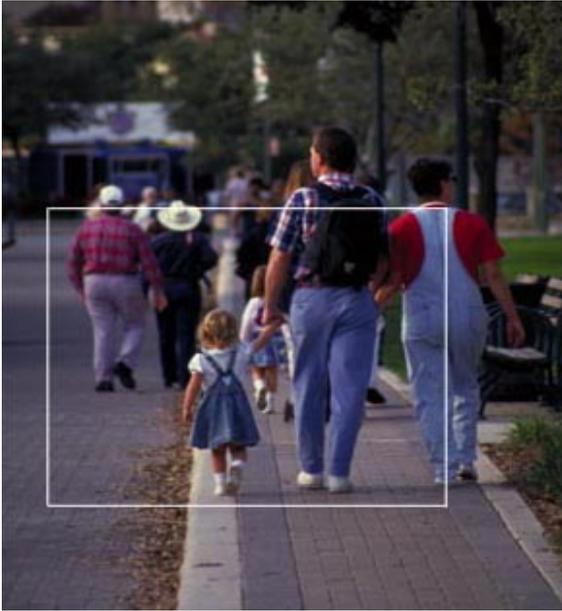


What is wrong in the picture?

- a. Sidewalks can be overcrowded.
- b. Sidewalks should never be made of brick.
- c. Parents should always carry their young children.

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Test Your Knowledge - Question 6



What is wrong in the picture?

a. The sidewalk is overcrowded.

Correct! Even though the sidewalk may be crowded, you should always stay on the sidewalk. Never walk in the street and keep your children on the inside of the sidewalk away from traffic.

Capacity Issues

The Highway Capacity Manual also offers an extensive treatment of pedestrian capacity. Its purpose is to describe the basic principles of pedestrian traffic flow and to provide a general framework and procedures for the analysis of pedestrian facilities. The scope of the manual is limited to sidewalks, crosswalks and street corners, but the analysis techniques may be applied to other situations as well. While concentrations of pedestrians are most often found in urban areas, there are situations in rural and suburban areas where pedestrian concentrations are large. In these situations, inadequate pedestrian facilities affect pedestrian convenience, as well as delay vehicles and reduce capacity.

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Test Your Knowledge - Question 6



What is wrong in the picture?

b. Sidewalks should never be made of brick.

Sorry, you picked the wrong answer. [Try again!](#)

[Next Question](#)

Test Your Knowledge - Question 6



What is wrong in the picture?

c. Parents should always carry their young children.

Sorry, you picked the wrong answer. [Try again!](#)

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Test Your Knowledge - Question 7



What is wrong in the picture?

- a. Manholes should never be placed in sidewalks.
- b. Waving flags are a distraction to pedestrians.
- c. The utility pole is blocking the sidewalk.

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Test Your Knowledge - Question 7



What is wrong in the picture?

a. Manholes should never be placed in sidewalks.

Sorry, you picked the wrong answer. [Try again!](#)

[Next Question](#)

Test Your Knowledge - Question 7



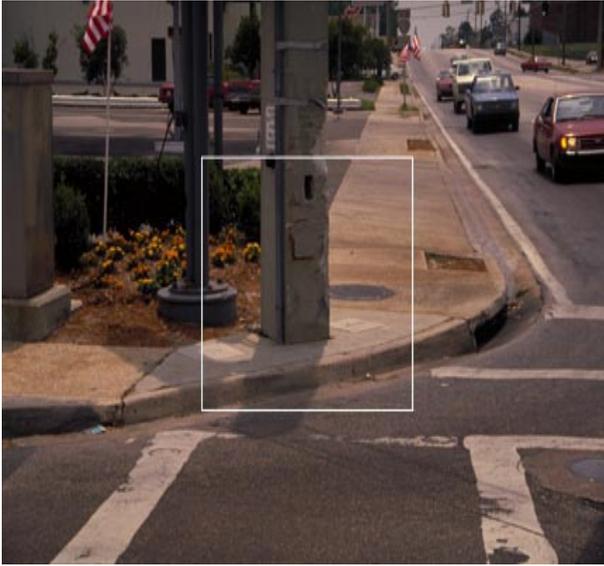
What is wrong in the picture?

b. Waving flags are a distraction to pedestrians.

Sorry, you picked the wrong answer. [Try again!](#)

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Test Your Knowledge - Question 7



What is wrong in the picture?

c. The utility pole is blocking the sidewalk.

Correct! The utility pole does not leave enough room for easy access by pedestrians to the crosswalk or sidewalk.

In this situation wheelchair users will not be able to negotiate the sidewalk.

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Test Your Knowledge - Question 8



What is wrong in the picture to the left?

- a. The "Do Not Block Intersection" sign is too tall.
- b. The newspaper vending machines block direct access to the crosswalk.
- c. The crosswalk signal is too high to read.

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Test Your Knowledge - Question 8



What is wrong in the picture?

a. The "Do Not Block Intersection" sign is too tall.

Sorry, you picked the wrong answer. [Try again!](#)

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Test Your Knowledge - Question 8



What is wrong in the picture?

b. The newspaper vending machines block direct access to the crosswalk.

Correct! The crowd of newspaper vending machines very close to the street corner make it difficult to access the crosswalk. Also visibility between the pedestrian and driver are compromised.

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Test Your Knowledge - Question 8



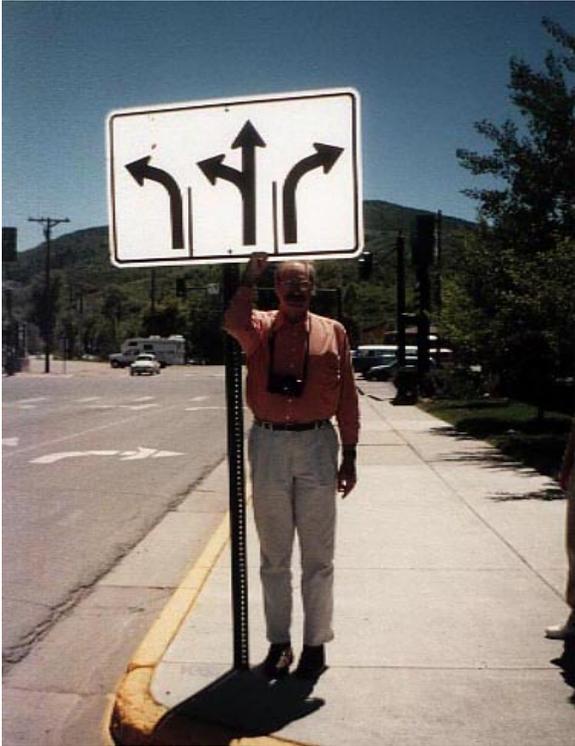
What is wrong in the picture?

c. The crosswalk signal is too high to read.

Sorry, you picked the wrong answer. [Try again!](#)

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Test Your Knowledge - Question 9

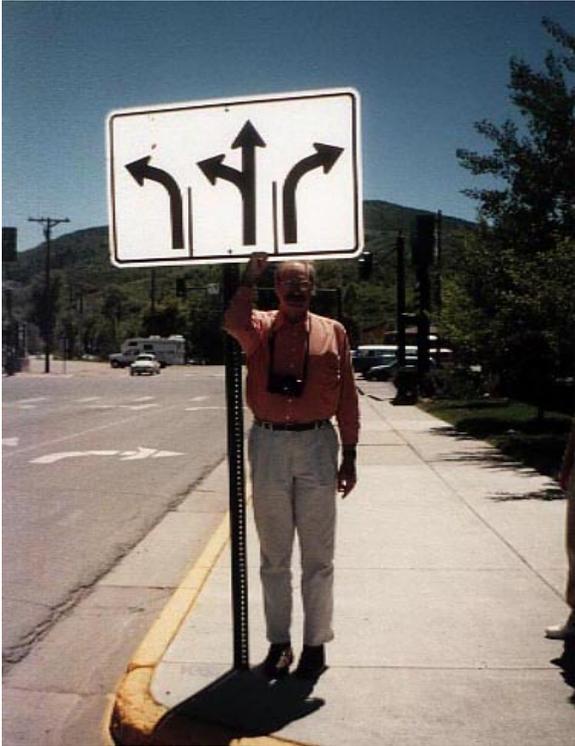


What is wrong in the picture?

- a. The arrow sign has no text on it.
- b. The arrow sign is not the recommended height.
- c. The sidewalk is too wide.

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Test Your Knowledge - Question 9



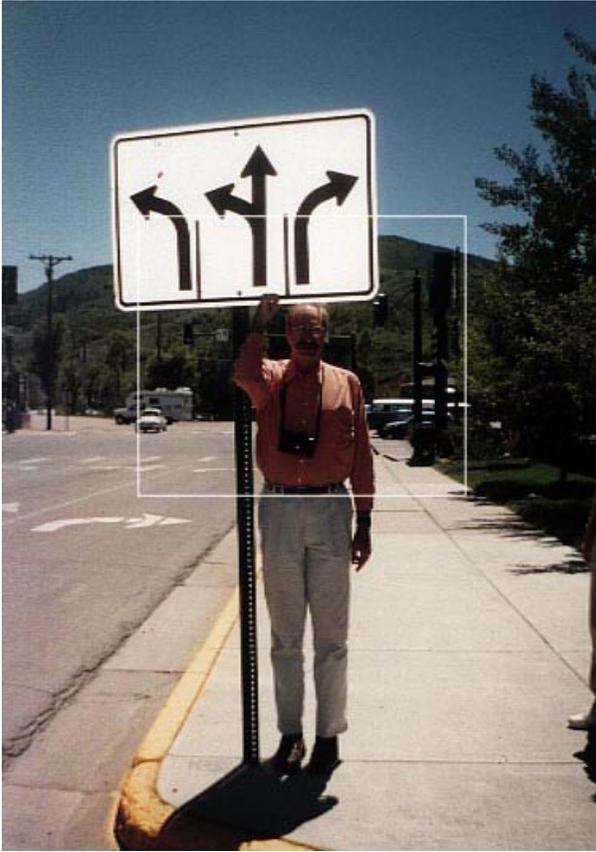
What is wrong in the picture?

a. The arrow sign has no text on it.

Sorry, you picked the wrong answer. [Try again!](#)

[Next Question](#)

Test Your Knowledge - Question 9



What is wrong in the picture?

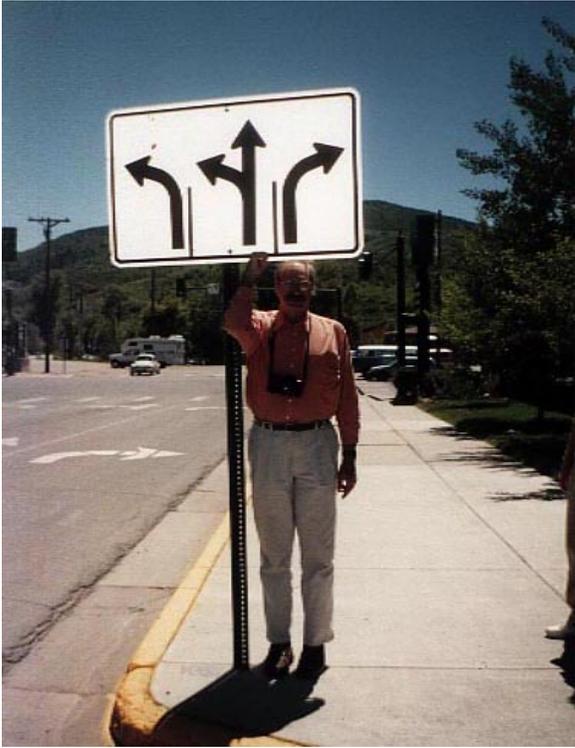
b. The arrow sign is not far enough off the ground.

Correct! The Manual on Uniform Traffic Control Devices (MUTCD) section 2A.23 requires a minimum clearance of 7 feet. -

In business, commercial and residential districts where parking and/or pedestrian movement is likely to occur or where there are other obstructions to view, the clearance to the bottom of the sign shall be at least 7 feet. The height to the bottom of a secondary sign mounted below another sign may be 1 foot less than the appropriate height specified above.

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Test Your Knowledge - Question 9



What is wrong in the picture?

c. The sidewalk is too wide.

Sorry, you picked the wrong answer. [Try again!](#)

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Test Your Knowledge - Question 10



What is wrong in the picture?

- a. The gutter next to the sidewalk slopes too much.
- b. The landscaping bushes are too close to the sidewalk.
- c. The hydrant blocks easy access to this sidewalk.

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Test Your Knowledge - Question 10



What is wrong in the picture?

a. The gutter next to the sidewalk slopes too much.

Sorry, you picked the wrong answer. [Try again!](#)

[Next Question](#)

Test Your Knowledge - Question 10



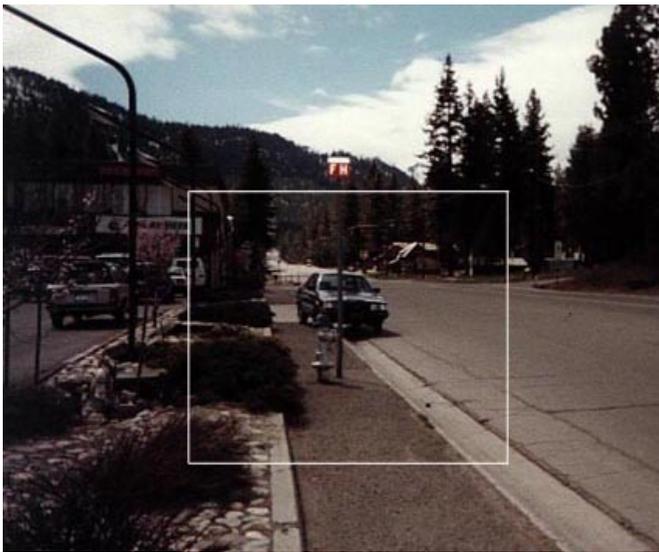
What is wrong in the picture?

a. The landscaping bushes are too close to the sidewalk.

Sorry, you picked the wrong answer. [Try again!](#)

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Test Your Knowledge - Question 10



What is wrong in the picture?

c. The hydrant blocks easy access to this sidewalk.

Correct! For people using wheelchairs, there is no easy way to get around the fire hydrant. It's easy to adjust the landscaping to accommodate an additional clearance of at least 3 feet in this area.

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Test Your Knowledge - Question 11



What is wrong in the picture?

- a. There are no lines on the pavement to mark the crosswalk.
- b. There is no sidewalk on the opposite side of the street.
- c. The "Don't Walk" signal is the wrong color.

Next Question

Test Your Knowledge - Question 11



What is wrong in the picture?

a. There are no lines on the pavement to mark the crosswalk.

Sorry, you picked the wrong answer. [Try again!](#)

[Next Question](#)

Test Your Knowledge - Question 11



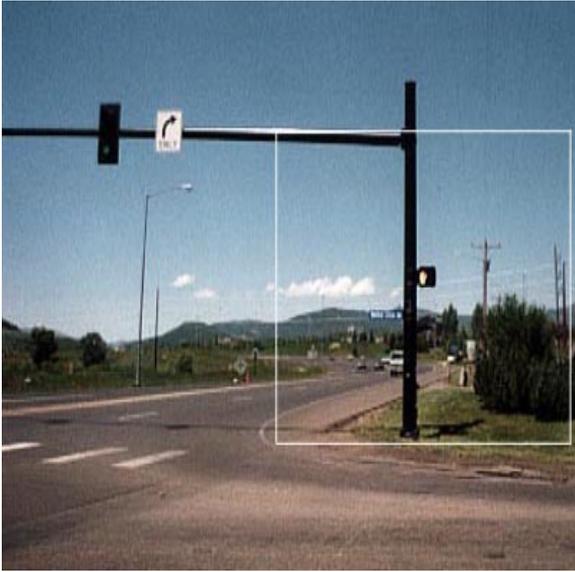
What is wrong in the picture?

b. There is no sidewalk on the opposite side of the street.

Sorry, you picked the wrong answer. [Try again!](#)

[Next Question](#)

Test Your Knowledge - Question 11



What is wrong in the picture?

c. The "Don't Walk" signal is the wrong color.

Correct! The hand symbol indicates that you shouldn't cross the road, but it is the wrong color. It should be Portland orange.

In addition, this intersection can be more accommodating to the pedestrian by the use of stop bars, and additional crosswalk markings.

See below for more information-

MUTCD (1988 Ed.) 4D-4 Design Requirements

Design requirements for pedestrian signals include the following:

1. Pedestrian indications should attract the attention of, and be readable to, the pedestrian (both day and night) at all distances from 10 feet to the full width of the area to be crossed.
2. All pedestrian indications shall be rectangular in shape and shall consist of the lettered symbolized messages WALK and DON'T WALK. Only internal illumination shall be used (fig. 4-3). Symbol designs are set forth in the Standard Highway Signs booklet.
3. When illuminated, the WALK indication shall be white conforming to the document entitled, Pedestrian Traffic Control Signal Indications, with all except the letters or symbols obscured by an opaque material.
4. When illuminated, the DON'T WALK indication shall be Portland orange conforming to the Pedestrian Traffic Control Signal Indications, with all except the letters or symbols obscured by an opaque material.
5. When not illuminated, the WALK and DON'T WALK messages shall not be readily distinguishable by pedestrians at the far end of the crosswalk they control.
6. For crossings where the distance from the near curb to the pedestrian signal indication is 60 feet or less, the letters, if used, shall be at least 3 inches high or the symbols, if used, shall be at least 6 inches high. For distances over 60 feet, the letters, if used, should be at least 4 1/2 inches high and the symbols, if used, should be at least 9 inches high.

Test Your Knowledge - Question 12



What is wrong in the picture?

- a. The roadway abuts the sidewalk and can result in problems for the pedestrian.
- b. There adjoining sidewalk from the left is too steep.
- c. The mailbox should be right next to the sidewalk.

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Test Your Knowledge - Question 12



What is wrong in the picture?

a. The roadway abuts the sidewalk and can result in problems for the pedestrian.

Correct! Whenever the roadway abuts the sidewalk (as in the top picture), wide vehicles using the road can create a dangerous situation for pedestrians. Pedestrians can be hit by the mirrors of large vehicles protruding out over the walkway.



In the lower picture (farther down the road from the top picture) there is good design with a "buffer strip" between the roadway and the walkway.

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Test Your Knowledge - Question 12



What is wrong in the picture?

b. The adjoining sidewalk on the left is too steep.

Sorry, you picked the wrong answer. [Try again!](#)

[Next Question](#)

Test Your Knowledge - Question 12



What is wrong in the picture?

c. The mailbox should be right next to the sidewalk.

Sorry, you picked the wrong answer. [Try again!](#)

[Next Question](#)

Test Your Knowledge - Question 13



What is wrong in the picture?

- a. There are no crosswalk markings on the roadway.
- b. There is no wheelchair-accessible ramp on the far side of the crosswalk.
- c. The trashcan is too close to the crosswalk.

Test Your Knowledge - Question 13



What is wrong in the picture?

a. There are no crosswalk markings on the roadway.

Sorry! You picked the wrong answer. [Try again!](#)

Test Your Knowledge - Question 13



What is wrong in the picture?

b. There is no wheelchair-accessible ramp on the far side of the crosswalk.

Correct! The ramp on this side of the crosswalk is accessible to disabled persons, but there is no ramp on the far side of the street.

In addition, the intersection can be made more accommodating to the pedestrian by the use of stop lines and cross-walk markings.

Test Your Knowledge - Question 13



What is wrong in the picture?

c. The trashcan is too close to the crosswalk.

Sorry! You picked the wrong answer. [Try again!](#)