

Ministry of Higher Education and Scientific Research Al-Mustaqbal University College Building and Construction Technical Engineering Department



Lecture 3 Traffic Signs and Signals



By

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Traffic Signs and Signals

1. Traffic Signs

Traffic signs control traffic flow, making streets and highways safe for drivers, bicyclists and pedestrians. These signs, which are posted by the Indiana Department of Transportation and local governments, use colors, shapes, written messages and symbols to help drivers quickly understand the information. Understanding these signs is necessary to obtain an Indiana driver's license.

1.1 Traffic Sign Colors

The background color of a traffic sign helps to identify the type of information displayed on the sign. There are seven common colors used for signs.

- Red traffic signs convey traffic regulations that require drivers to take
 immediate actions to avoid threats to traffic safety. A "Wrong Way" sign is an
 example of a traffic sign with a red background.
- Yellow or fluorescent yellow-green traffic signs prepare drivers for specific road conditions, hazards ahead and alerts drivers to nearby school zones. A "Slippery When Wet" sign is one example of a traffic sign with a yellow background.
- Fluorescent yellow-green signs warn drivers of nearby schools, pedestrians, bicycles, playgrounds and school bus routes. A "Pedestrian Crossing" sign for a school crossing is an example of a traffic sign that may have a fluorescent yellow-green background.
- White traffic signs display traffic regulations that drivers must obey such as speed limits, as well as helpful information such as state highway markers. A "No Turn On Red" Sign is an example of a traffic sign with a white background.
- Orange traffic signs warn drivers of temporary traffic conditions. These
 signs are often used to warn drivers of conditions ahead due to highway
 construction and maintenance projects. A "Flagger Ahead" sign is an example
 of a traffic sign with an orange background.

- Green traffic signs indicate permitted movements and directions or guidance, such as highway entrances and exits or distance to upcoming destinations. A sign showing distance is an example of a traffic sign with a green background.
- Blue traffic signs display road services and evacuation route information to
 drivers. A sign showing information about amenities at an upcoming exit is an
 example of a traffic sign with a blue background.
- Brown traffic signs indicate nearby recreational and cultural interest information.
 A sign showing a nearby state park is an example of a traffic sign with a brown background.

1.2 Traffic Sign Shapes

The shape of a traffic sign also indicates the type of information displayed on the sign. There are seven common shapes used for traffic signs.

• Circular traffic signs alert drivers of upcoming railroad crossings.



• Equilateral Traffic Signs: traffic signs with three sides of equal length warn drivers to slow down when approaching an intersection and to be prepared to come to a complete stop in order to yield to other drivers or pedestrians.



• Pennant-shaped traffic signs are posted on the left-hand side of two-way roads to warn drivers not to pass other vehicles on the left.



• Rectangular traffic signs display one of three types of information. They may convey traffic regulations that drivers must obey such as speed limits and turn movement prohibitions such as "No Left Turn." They may provide helpful information such as route marker signs that identify a state highway or destination signs that give the direction to the next town. They may also warn drivers of hazardous conditions such as an advisory speed for a sharp curve in the roadway. This advisory speed sign is often posted with a diamond-shaped warning sign.







 Diamond-shaped traffic signs warn drivers of upcoming road conditions and hazards. A "Divided Highway Ends" sign is an example of a diamond-shaped traffic sign.



• Five-sided traffic signs warn drivers that they are entering an area near a school in which children may be crossing the road.



• Eight-sided traffic signs warn drivers that they must stop and yield the appropriate right of way at an intersection.



1.3 Warning Signs

Warning signs prepare drivers for upcoming road conditions and hazards. The following signs are examples of Indiana's warning traffic sign: Figure 1 shows the warning signs.



Figure 1 The warning signs

1.4 Highway Construction and Maintenance Signs

Construction zones pose dangers both for drivers and for construction workers. Orange highway construction traffic signs warn drivers to be careful when approaching construction zones. Figure 2 shows the highway construction and maintenance signs.

1.5 School Zone Signs

Yellow or fluorescent yellow-green signs warn drivers that they are entering an area near a school in which children may be crossing the road. Figure 3 shows school zone signs.



Figure 2 shows the highway construction and maintenance signs



Figure 3 shows school zone signs

1.6 Slow Moving Vehicle Emblem

A slow moving vehicle emblem has an orange fluorescent center and red reflective borders, and indicates a slow-moving vehicle which cannot exceed 25 miles per hour. Figure 4 shows slow moving vehicle emblem.



Figure 4 Slow moving vehicle emblem

1.7 Railroad Signs

Railroad traffic signs alert drivers of upcoming railroad crossings. Figure 5 shows railroad traffic signs

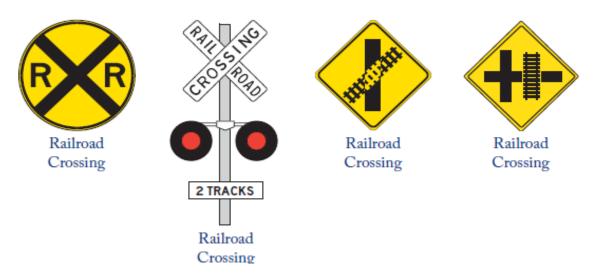


Figure 5 Railroad traffic signs

1.8 Speed Advisory Signs

Speed advisory signs may accompany some warning signs. Figure 6 shows speed advisory signs.



Figure 6 Speed advisory signs

1.9 Traffic Regulation Signs

Traffic regulation signs regulate traffic speed as well as movement and display rules which drivers must obey. The following signs are examples of Indiana's traffic regulation signs: Figure 7 shows traffic regulation signs.



Figure 7 Traffic regulation signs



Figure 7 continued

1.10 Traffic Guidance Signs

Traffic guidance signs provide drivers with information about the type of road they are traveling on, upcoming highway entrances and exits and distances to various destinations. The following signs are examples of Indiana's traffic guidance signs: Figure 8 shows traffic guidance signs.



Figure 8 Traffic guidance signs

1.11 Driver Services and Recreation Signs

Driver services and recreation signs provide drivers with information about nearby amenities, parks and recreational areas. Figure 9 shows traffic driver services and recreation signs.



Figure 9 Traffic driver services and recreation signs

2. Traffic Signals

Traffic control devices such as stop lights and signs are used to control traffic flow and indicate right of way at intersections and pedestrian crossings.

A green light means go. If you are facing a green light, you have the right of way and may drive through an intersection as long as the intersection is clear of other vehicles and pedestrians.

A steady yellow light means the green light has ended and the signal is about to turn red. If you are facing a steady yellow light, your right of way is ending. If you are approaching the intersection and are too close to stop safely, you may complete your movement.

A red light means stop. Traffic entering an intersection from other directions has the right of way. If you are facing a red light, you may not enter the intersection until the light facing you turns green and the intersection is clear.

Figure 10 shows the traffic signals at intersection.

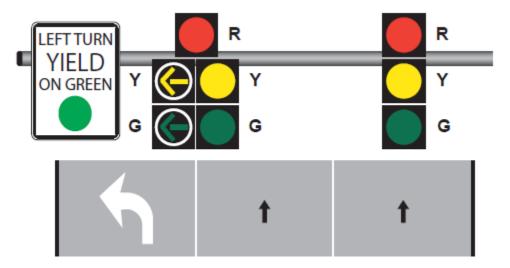


Figure 10 The traffic signals at intersection

2.1 Turning Through an Intersection

If you are facing a green arrow displayed with a red or green light, you have the right of way and may turn through an intersection, as long as the intersection is clear. If you are facing a green light displayed without an arrow, you may turn through an intersection

as long as the intersection is clear. You must yield the right of way to all oncoming traffic. Only one vehicle at a time may move into an intersection to turn left.

2.2 Yellow Flashing Arrows for Turning Movements

A yellow flashing arrow for a turning movement means that you may proceed with the turn only after you have yielded the right of way to pedestrians and oncoming traffic. If you are facing a steady yellow light or arrow, your right of way is ending.

2.3 Turning through a Solid Red Light

If you are in the middle of an intersection, you may turn once oncoming traffic has stopped. If you are facing a red light or arrow, you may not enter the intersection until the light facing you turns green and the intersection is clear.

To turn right through an intersection with a red light or arrow, when permissible, you must come to a full stop, check to make sure that there are no vehicles and pedestrians in the path of your turn or about to enter the path of your turn, check that there is not a "No Turn on Red" sign and use the correct lane.

You may turn left through an intersection with a red light or arrow if you are turning from a one-way street onto a one-way street. You must also come to a full stop, check to make sure that there are no vehicles and pedestrians in the path of your turn or about to enter the path of your turn, check that there is not a "No Turn on Red" sign, and use the correct lanes. Figure 11 shows the turning movement signals.

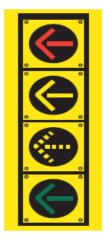


Figure 11 The turning movement signals

2.4 Pedestrian Signals

Pedestrian signals alert pedestrians when they may safely cross a street or intersection. Pedestrian signals display the word "WALK" or a symbol of a person walking when pedestrians may safely cross a street or intersection. At some intersections, there is a button near the base of the pedestrian signal or stop sign that may be pushed to activate the walk signal.

Pedestrian signals display the words "DON'T WALK" or a symbol of a raised hand when it is not safe for pedestrians to cross a street or intersection. The words or symbols flash to alert pedestrians that the time in which to safely cross the street or intersection is ending. Figure 12 shows the pedestrian signals



Figure 12 The pedestrian signals