Chapter 4
Traffic Control Devices and Laws

Chapter #4  Overview
Unit 4 will introduce the student to traffic control devices, including signs, signals and pavement markings, as well as traffic laws specific to your state, including right-of-way laws, obeying a police officer and speed restrictions.

Objectives
The student will:

1. Define and identify the purpose of traffic control devices.
2. Recognize and identify the color, shape and meaning of traffic signs.
3. Recognize and identify the meaning of traffic control signal lights.
4. Recognize and identify the meaning of pavement markings.
5. Describe state specific laws pertaining to the required response by the driver to traffic signs, signals and pavements markings and the directions of a police officer.
6. Define key words associated with the unit objectives.

Key Terms
Chevron – Warning sign, similar to a sideways “V” or the greater than or less than math symbol > and means sharp curve.

Construction zone signs – Alert drivers to construction zones ahead, rectangular and diamond in shape, orange and black in color.

Crossbuck – X shape used for railroad crossing sign

Guide signs – Guide drivers to their destinations by identifying routes well in advance. Consist of information, cultural points and services and come in a variety of shapes and colors, including green, brown, and blue.

HOV – High occupancy vehicle, lane reserved for vehicles with two or people.

Incident signs – Temporary Traffic Control (TTC) signs that let you know when you should be prepared to stop or when roadways are closed or detoured due to a road user incident, natural disaster, hazardous material spill, or other unplanned incident. These signs are fluorescent pink with black lettering.

Regulatory signs – Tell the driver about specific laws to obey and regulate the speed and movement of traffic. They are rectangle in shape and can be red/white, white/black or red/white/black in color.

Reserved lanes – Lanes reserved for special vehicles (i.e., buses, bicycles, high occupancy vehicles) and are marked by special signs, often with a white diamond on the sign or painted on the road surface.

Reversible lanes – Carries traffic in different directions at different times and are marked with double-dashed yellow lines with signals above the lanes to designate traffic flow.

Shared left-turn lane – Used for making left turns from either direction in the middle of the roadway where it is difficult to make a left turn safely.

Traffic control devices – Help ensure highway safety by providing for the orderly and predictable movement of all traffic, motorized and non-motorized, throughout the highway transportation system. These devices tell drivers where they are, where they are going and how to get there. They provide information about laws, dangers and the roadway.

Warning signs – Tells a driver of a possible danger a short distance ahead and allows the driver time to safely minimize risk. Mostly diamond shape and yellow/black color, some signs, such as school zones, school crossing and pedestrian crossings are fluorescent optic yellow.
Useful Knowledge
- Teens have the lowest rate of seat belt use.
- In 2005, 10% of high school students reported they rarely or never wear seat belts when riding with someone else.
- White lines parallel to the road separate traffic moving in the same direction.
- In 2005, half of teen deaths from motor vehicle crashes occurred between 3 p.m. and midnight and 54% occurred on Friday, Saturday, and Sunday.
- A yield sign indicates that a driver may need to stop and wait until the roadway is clear of traffic before proceeding.
- In 2004, the motor vehicle death rate for male drivers and passengers age 16 to 19 was more than one and a half times that of their female counterparts (19.4 per 100,000 compared to 11.1 per 100,00).
- Two solid yellow lines on a roadway indicate that no passing is permitted in either direction.
- The presence of teen passengers increases the crash risk of unsupervised teen drivers; the risk increases with the number of teen passengers.
- When approaching a flashing red traffic signal, you should respond as if it were to stop sign.
- Motor vehicle crashes are the leading cause of teen deaths.
- 16 year-olds have higher crash rates than any other age.
- A steady yellow X posted above a highway lane indicates that vehicles should move to a different lane.

Did you know:
- The U.S. has about 6 million miles of streets, roads, and highways.
- U.S. drivers are estimated to travel about 3 trillion miles per year.
- The average passenger vehicle in the U.S. travels about 13,000 a year.

Energy Tip:
- Save fuel by letting up on the accelerator well in advance of a red light, stop sign, or yield sign

Road signs provide important information about where you are, where you are going, and what rules or laws to follow.
Traffic signs have uniform shapes and colors.
There are two types of traffic signs:
- Regulatory signs, Warning signs
Each possesses the characteristics just mentioned and helps to make your driving experience safer.

Road Signs Clarification:
There are 3 ways to read road signs: by their shape, by their color and by the messages printed on them. Understanding these 3 ways of classifying signs will help you figure out the meaning of signs that are unfamiliar to you.
Traffic Control Devices

Definition and Purpose of Traffic Control Devices

Traffic control devices include:
- Traffic signs
- Traffic signals
- Pavement markings

The purpose of traffic control devices is to help ensure highway safety by providing for the orderly and predictable movement of all traffic, motorized and non-motorized, throughout the highway transportation system. These devices tell drivers where they are, where they are going and how to get there. They provide information about laws, dangers and the roadway.

In a work zone, the most common traffic control devices used to guide drivers safely through work zones include barricades, vertical signs, concrete barriers, barrels and cones.

Communication Modes

Traffic control devices communicate their message in several ways, by color, shape, words, symbols and placement to provide information. Through their messages, they direct drivers’ actions and provide a framework of uniform guidance.

Traffic Signs

Standard Sign Colors
Red - used for STOP and YIELD signs, multiway supplemental plates, DO NOT ENTER and WRONG WAY signs, for legend or symbols on some regulatory signs, and as part of Interstate and some state route markers

Fluorescent Pink - used as background color for incident management signs

Coral - reserved for future use

Orange - used as background color for temporary traffic control signs

Yellow - used as background color for warning signs (except temporary signs) and school signs

Fluorescent Yellow-Green - used as background color for pedestrian, bicycle, and school warning signs

Green - used as background color for guide and information signs, and for legend on permissive regulation and parking signs

Light Blue - reserved for future use

Blue - used as background color for traveler services information signs, emergency evacuation route signs, and as part of Interstate and some state route markers

Purple - reserved for future use
Standard sign shapes and their assigned meanings:

- **Circle** - Exclusively for railroad advance warning signs
- **Octagon** - Exclusively for STOP signs
- **Crossbuck** - Exclusively for railroad grade crossing signs
- **Pentagon** - Used for school advance warning signs and county route marker signs
- **Diamond** - Used for warning signs

**FYI**

In residential areas, at intersections with stop signs, drivers fail to come to a complete stop 90 percent of the time. It is important to keep in mind that 2.7 million crashes (43 percent) of the 6.3 million crashes occur at intersections.
- Rectangle, Longer Dimension Vertical - Used for *regulatory signs*
- Rectangle, Longer Dimension Horizontal - Used for *guide signs*, some *warning signs*, and *temporary traffic control signs*
- Trapezoid - Used for *recreational area guide signs* and *National Forest route markers*
- Equilateral Triangle, Point Down - Exclusively for *YIELD signs*
- Pennant - Exclusively for *No Passing Zone signs*
- Other shapes - Typically used for *route marker signs*
Traffic Signs

Signs are specific sizes, shapes and colors so they can be easily identified at long distances.

**Regulatory signs** tell the driver about specific laws that a driver must obey. They regulate the speed and movement of traffic. These signs are usually rectangle in shape and have a color pattern of red/white, white/black or red/white/black.

**Warning signs** tell a driver of possible danger (road, environmental and traffic conditions) that is a short distance ahead to allow the driver time to safely minimize risk. These signs are mostly diamond shape and have a yellow/black color pattern. Some warning signs such as school zones, school crossing and pedestrian crossings may be fluorescent optic yellow.
A chevron sign is a type of warning sign, which means sharp curve.

**Railroad crossing** warning signs caution the driver to slow down, look and listen for a train or railroad vehicle and be prepared to stop if a train is approaching. A white, X-shaped sign with “Railroad Crossing” printed on it is located at the railroad crossing. A driver must wait for a train that is approaching the intersection and remain behind the stop line.

**Construction zone signs** alert drivers to construction zones ahead. They are rectangle or diamond shape and orange in color.

**Guide signs** guide drivers to their destination by identifying routes well in advance and can come in a variety of shapes and colors. Green signs give information on miles, route markers and destinations. Brown signs mark cultural points of interest and recreational areas. Blue signs provide information on services, such as hospital, police, fuel, food, and lodging.
• **Route numbering** – the interstate system features unique shield-shaped signs, which are blue on bottom with a red band across the top. The primary route number is either a single or double digit number. East-west routes have even numbers and north-south routes have odd numbers. Many non-interstate routes use a similar system.

Interstate Route | US Route | State Route
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- **Interstate spurs and loops** – a loop bypasses cities and meets the primary route at both ends and features a three-digit route number that begins with an even number.

A spur is a short route that connects with a primary route at only one end and features a three-digit route number that begins with an odd number.

**Incident signs or temporary traffic control signs** are temporary and let drivers know when they should be prepared to stop or when roadways are closed or detoured due to a road user incident, natural disaster, hazardous material spill, or other unplanned incident. These signs are fluorescent pink with black lettering.

**Signs Meanings**
- Red – stop, don’t.
- Yellow – caution, general warning
- Green – information, guide.
- Black – regulatory, rules, laws
- White – regulatory, rules,
- Blue – motorist
- Brown – recreation, cultural interest
- Fluorescent yellow – extra
- Orange – construction or
- Fluorescent pink – incident management
- Octagon – stop
- Triangle – yield
- Round – RRX ahead
- Crossbuck – you’re at the RR tracks
- Vertical rectangle - regulatory, rules, laws
- Horizontal rectangle – info., guide, direction
- Diamond – advanced warning
- Pennant – no passing zone
- Pentagon - school
- Square – use the meaning of its
Traffic signals are lights that tell drivers when or where they should stop and go and who should be given the right-of-way. Traffic lights are usually at intersections and are always in the same order, red, yellow, and green from top to bottom to assist drivers who may be color blind or whose view may be partially blocked. It is important that drivers understand the meaning of each color and symbol, and respond correctly. Traffic control can also be provided by law enforcement, highway personnel or school crossing guards in special situations.

Drivers must obey directions from these persons.

**Steady RED** indicates moving traffic shall stop prior to the stop line, pedestrian crosswalk, or roadway edge line and remain stopped as long as the signal is red. When turning right at an intersection, if there is no sign prohibiting a right turn on a red light, drivers may turn after stopping and checking for traffic and pedestrians. Some states allow a left turn on red in certain situations. Check your state law on this maneuver.

**Steady YELLOW** indicates the traffic light is about to change to red. Drivers should slow down and come to a complete stop, if safe to do so and if traffic flow to the rear allows. If drivers are in the intersection or too close to stop safely when the yellow light comes on, they may continue safely through the intersection.

**Steady GREEN** indicates traffic shall go through the intersection if it is clear to do so. Drivers must yield to emergency vehicles and other roadway users as required by law.

Drivers may turn left at a green light, but only when the intersection is clear. Drivers must yield to oncoming traffic and pedestrians before turning.

**Flashing RED** indicates traffic shall stop before entering the intersection and use the same procedure as a driver would at a stop sign by yielding to other vehicles and pedestrians before proceeding.

**Flashing YELLOW** indicates a need to slow down and proceed with caution.

**Red arrow** indicates traffic direction. Drivers may not go in the direction of the arrow.

**Yellow arrow** indicates the green arrow is ending and drivers should be prepared to stop for any traffic. Sometimes a left turn light will display a yellow flashing arrow.

Drivers may proceed into the left turn without stopping but must yield to oncoming traffic if present.

**Green arrow** indicates drivers can safely turn in the direction of the arrow if the intersection is clear. When the arrow is green, oncoming or crossing traffic should have a red light and yield to the driver’s turning action.
Drivers must yield to pedestrians at all times. Even if they are not in a crosswalk. At intersections drivers may find pedestrian signals, which indicate when it is safe for pedestrians to cross. Drivers may also find signs at mid-block crosswalks, which require drivers to yield as they would at an intersection.

**Countdown timers** indicate how much time is left for pedestrians to cross the street and many emit audible beeps to correspond with the countdown.

“Walk” signal means pedestrians may proceed across the street.

**Flashing “don’t walk”** signal means pedestrians already in the street may continue walking across street, others should not start.

**Steady “don’t walk”** signal means pedestrians should not enter the street, unless traffic is clear.

In some states pedestrians may walk on the “don’t walk” signal provided the traffic is clear. All drivers should be alert to pedestrians at all times.
Pavement Markings - Yellow Lines

Pavement markings are usually lines, arrows, symbols or words painted yellow or white on the roadway to give a driver directions or warnings. Lines can be solid, broken, single or double.

Pavement markings - yellow lines

- Yellow lines separate traffic moving in opposite directions.
- Solid yellow center lines indicate two-way traffic moving in opposite direction with no passing allowed. Always keep to the right of the yellow line.
- Broken yellow center line means passing is permitted in either direction. Passing should only be done when the way ahead is clear, sightlines are not obstructed and the law allows.
- Broken yellow lines alongside a solid yellow line means passing is permitted on the side with the broken line. Passing is not permitted on the side with the solid line.
- Double solid yellow lines means passing is not permitted in either direction but crossing the lines is permitted when making a left turn. Solid yellow lines also mark the left edge on divided highways and one-way roads.
Pavement Markings - White Lines

Pavement markings - white lines and arrows

- White lines separate lanes of traffic going in the same direction.
- Broken white lines may be crossed with caution (lane change).
- Solid white lines designate turn lanes and prevent lane changes near intersections.
- Solid white lines mark the right edge of the roadway.
- Stop lines, crosswalks and parking spaces are marked by white lines.
- White arrows on the roadway indicate the direction traffic is flowing and can also indicate the turn allowed from a traffic lane or turn lane.
Pavement Markings – Shared Left-turn Lanes

Shared Left-turn Lanes

- Used to make a left turn in either direction. Located in the middle of the roadway on many urban and suburban streets where it is difficult to make a left turn safely. In some states these lanes can also be used by drivers who want to make left turns from a driveway/parking lot, or side street onto a roadway to wait and merge into a gap in traffic. Check your state law.

- Has a solid yellow line and a broken yellow line on each side with white left-turn arrows on the pavement between the yellow lines. The solid yellow centerlines means drivers cannot use the center lane for passing. The broken yellow centerlines show that vehicles traveling in either direction may use the center lane only to make left turns.

- The lane may be used by vehicles traveling in either direction when turning left from the roadway.

- When using a shared left-turn lane do not move into the lane too soon. The longer drivers stay in the lane, the more likely they are to meet someone coming in the opposite direction.

- Watch for vehicles pulling out of entrances and side streets and do not use a shared left-turn lane for anything but turning left.

- Sometimes shared left-turn lanes at intersections become a left turn lane for one-way traffic only so oncoming traffic cannot enter the shared left-turn lane too close to the intersection, as shown in the second graphic below.
Pavement Markings – Reversible Lanes

Reversible lanes

- Used in some areas where the shared center turn lane becomes a “reversible lane” during rush hours.
- Carries traffic in opposite directions at different times.
- Marked with double broken yellow lines with signals above the lanes to designate traffic flow.
- Improves the flow of traffic by changing the direction of travel within lanes.
- Before entering the lane, check to see that it can be used at that time.
- A **GREEN arrow** means drivers are permitted to drive in that lane.
- A **RED X** means the lane is closed to drivers. Never drive in a lane under a red X signal.
- A steady **YELLOW X** indicates the driver should safely vacate this lane because it will soon be controlled by a red X.
- A flashing **YELLOW X** means the lane is for turning left only.
Pavement Markings – Reserved or Restricted Lanes

Reserved or restricted lanes

- On some roadways, one or more lanes may be reserved for special vehicles (i.e., buses, bicycles, high occupancy vehicles).
- Marked by special signs stating the lane is reserved for special use and often have a white diamond on the sign or painted on the road surface.
- Transit or bus means the lane is for bus use only.
- Bicycle means the lane is reserved for bicyclists only.
- HOV signs or markings mean “High Occupancy Vehicles” and indicate lanes reserved for vehicles with two or more people in them.
- Signs may indicate how many people must be in the vehicle, as well as the days and hours, which apply to the lane use.

Other Pavement Markings

Railroad crossings – Railroad crossings are marked by an “X” and two “Rs” on each side of the roadway to warn driver’s that a railroad crossing is ahead.

- **School zones** – A school zone is marked by the word “SCHOOL” painted on the roadway. Drivers should watch for children in the area when they see this marking.

- **Handicapped parking** – Parking spaces reserved for vehicles with handicapped drivers or passengers are marked with the handicapped parking symbol and vertical lines between handicapped parking spaces. Lines may be white, yellow or blue. There may also be signs that say “Handicapped Parking Only.” It is illegal to park in this space without the proper permit or plate.

- **Curb markings** – Curbs along a road may be painted to warn that parking is not permitted. No-parking zones are usually near intersections, pedestrian crosswalks and fire hydrants. The markings may be yellow, white, red or blue and are usually accompanied by signs indicating the meaning.
  - White – stop only long enough to pick up or drop off passengers.
  - Yellow – stop only long enough to load or unload. Stay with the car.
  - Red – fire hydrant, do not stop, stand, or park.
  - Blue – parking is reserved for persons with disabilities

Multiple turn lanes – Two or more lanes turning in the same direction. Lanes for turning left or right are marked with a white arrow pointing either to the left or right, indicating which lane a driver should turn from and follow through the intersection.
Chapter Review Questions
In this unit, you learned the following:

- The purpose of traffic control devices.
- How to recognize and identify the color, shape and meaning of traffic signs.
- How to recognize and identify the meaning of traffic control signal lights.
- How to recognize and identify the meaning of pavement markings.
- How to describe state specific laws pertaining to the required response by the driver to traffic signs, signals and pavement markings and the directions of a police officer.
- Key words associated with the unit objectives.
Diagram #1  Chapter #4

WHAT WOULD YOU DO?
The symbol on the sign is called a chevron. What does the sign mean? What would you do in this situation?

Diagram #2  Chapter #4

WHAT WOULD YOU DO?
What does this sign mean? What should you be alert to when you see this sign?
WHAT WOULD YOU DO?
You are stopped at a red light and want to turn right. Should you make the turn now?