Beginning School Bus Driver Curriculum

# UNIT IX

## FIELD TRIPS

## and

## TRAFFIC CONTROL DEVICES


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MICHIGAN Department of Education

# Unit IX – FIELD TRIPS AND TRAFFIC CONTROL DEVICES

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# Unit IX Field Trips
# Instructional Content

The driver will be provided instruction with the following concepts:

- The driving differences for unfamiliar driving areas.
- New trip planning technology.
- The role he/she plays in field trip planning.
- Certain laws pertaining to vehicle documents needed and exit clearance in the case of an emergency.
- The roles played by the driver, chaperone, and transportation supervisor pertaining to field trips.
- The various traffic control devices and their meaning.

## Introduction

A field trip is an exciting and special time and should also be a safe time. Because most field trips involve bus transportation, it is important that transportation providers are aware of possible challenges. Challenges, such as selecting the wrong route, running out of fuel, or arriving late to your destination, can occur. In addition, pupil problems can develop because of inadequate food or rest stops. These issues can cause the driver to experience an unsuccessful trip. The best way to ensure a safe and happy trip is through pre-planning.

Most field trips will take the driver out of the local district. If problems occur, the driver will probably have a more difficult time getting assistance. Problems, therefore, take on a more critical nature. Without proper planning, minor problems can become major problems.

## Unfamiliar Environments

Michigan school bus drivers typically drive day in and day out on the same streets and roads. The potential challenge arises when the rural driver is asked to drive the school bus in a different environment, such as in an urban area like Detroit or Grand Rapids. The same challenge holds true for the driver who may be very familiar with urban driving and is asked to drive on rural dirt or gravel roads. These roads also have additional challenges, such as bridges with low weight limitations.

## Route Planning

While driving in unfamiliar areas, it is crucial that school bus drivers be prepared.

With new technology, some transportation professionals may use electronic mapping, such as Google Maps or Global Positioning Systems (GPS), to assist in planning for field trips.

When planning for a field trip, special considerations have to be explored, such as:

- **Time and Location:** Departure times and locations are important. Drivers have to know the exact time they are to arrive at the school, the exact location for the pupil pickup, and the exact departure time of the event. These same conditions are true for arriving at the event. The exact arrival time and location must be known.

- **Special Situations:** Drivers should know any special situations that may occur along the way. Bridges and tunnels are good examples. Questions a driver might ask are: Is there anything along the way that I cannot get over, under, or through? Does the route include any toll bridges or is the route scheduled to use a toll road, such as the Ohio or Indiana toll road? If it does, the driver will need sufficient money to pay these tolls.

- **Parking**: Where will the bus be parked while at the destination? Will the parking area support school buses? Will there be a charge for parking? Frequently at special events there may be a special parking area for school buses. The driver needs to know the answers to these questions prior to the field trip departure.

- **Return Trips:** For the return trip, drivers must know when they are to arrive at the pupil pickup point, the exact location of pickup, and departure time. It is also important that the driver knows the expected return arrival time and location so parents know when and where to pick up their children.

  Since departure and arrival times are important, it is necessary to plan routes in sufficient detail and estimate travel times. The planned route should include both a primary and secondary route in the event of a traffic detour on the primary route. This planning can more easily be done with electronic mapping.

- **Special Stops:** Special stops along the way should be planned in advance. These stops should include stops for food, fuel, and comfort. It is suggested that there should be no more than 90 minutes between stops.

- **Keeping to the Schedule:** Does the driver know what time he/she is expected to arrive at the destination and the proposed departure time? Questions to be asked are: Is the driver expected to stay at the destination? If so, where should he/she wait? If the weather is extreme, will the driver have shelter other than the bus?

- **Customs Regulations:** If Canada is the destination, the driver needs to plan for Customs regulations for both countries – entering Canada and returning to the United States.

- **Vehicle Breakdown:** Drivers should know whom to contact in case of a vehicle breakdown and be prepared by having after-hour phone numbers for assistance.

- **Illness:** The driver should know what the school or company policy is should the driver or a passenger become ill during the trip.

## Planning For An Emergency

Michigan school bus drivers must keep in mind that they need to plan for an emergency not only on the everyday runs, but also on assigned field trips.

### Emergency Phone Numbers

When outside the school district or outside the area of radio range, drivers must have access to emergency phone numbers. These numbers should include:

- The driver's supervisor or designee
- The school office, if during school hours
- The after-hour numbers for supervisors, mechanics, or principals as dictated by policy

## Vehicle Information

Under Michigan law, any driver must be able to produce the following information if asked by a police officer:

- The vehicle's proof of insurance (*MCL 257.328*); this proof of insurance will include the name, address and phone number of the carrier
- The vehicle registration (*MCL 257.328*)

## Special Considerations

The school bus driver must be familiar with district or company policy related to:

- The use of cell phones in case of an emergency
- Special medical needs of any field trip passengers
- Procedures if a passenger or the driver becomes ill

## Emergency Exits

Under Michigan law, "All baggage, articles, equipment or medical supplies not held by individual passengers **shall** be secured in a manner which assures **unrestricted access to all exits** by all occupants." (*MCL 257.1811*)

## The Driver's Responsibility

- Obeying all safety regulations, including district policies and procedures
- Maintaining passenger control
- Controlling emergency situations
- Maintaining safe vehicle conditions with the assistance of the school district or company
- Selecting:
  - Rest stops
  - Food stops
  - Fuel stops

## The Chaperone's Responsibility

- Communicating
  - Trip plans
  - Special student needs
- Providing passenger information
- Assisting in maintaining passenger control
- Supervising
  - Rest stops
  - Food stops
- Field trip activity
- Assembly of students and head counts
- Passenger instruction

## The Transportation Supervisor's Responsibility

- Scheduling vehicles and drivers
- Providing necessary time for planning
- Communications with:
  - Transportation staff members
  - Trip organizers
- Providing the necessary means for communications during the trip

## Behavior Problems and Concerns

Problems may arise while on a field trip due to the nature and length of the trip. Unless adequate plans are made and precautions taken, passenger behavior problems will arise.

The following conditions should be identified:

**Fatigue** Trip organizers and drivers should plan a sufficient number of rest and comfort stops to avoid problems arising from fatigue. It is recommended that there be approximately 90 minutes between stops.

**Excitability** Trip organizers and drivers should recognize that passengers may get excited due to the nature of the trip. An opportunity should be provided for pupils to vent some of this excitement before an effort is made to restrain them. The group leaders or chaperones should handle problems arising from this situation.

**Discomfort** The driver should be alert for conditions that may lead to a pupil's discomfort. The temperature of the bus should be closely monitored and sufficient fresh air be provided to the passengers.

**Guidelines** Trip organizers and drivers should discuss guidelines that are to be followed during the trip. Some school districts provide written guidelines to trip organizers for review before trips are booked. The group leader or chaperone should discuss these guidelines with passengers before the trip begins.

## Traffic Control Devices

Standardized traffic controls are used to control and guide driver behavior. Most school bus drivers will be familiar with these devices because of their experience with driving automobiles.

This section will briefly review all types of traffic control devices, highlighting some of the less understood, newer devices.

Traffic signs can convey many different types of messages to the driver. They inform the driver of laws, warning of hazards ahead, or information and guidance.

As one travels a roadway, the shape or color of a sign can be recognized long before the pictorial image can be recognized or the message read. For this reason, traffic signs have been standardized by shape or color. Each shape and color has a specific meaning.

**Standard Colors:**

| | |
|---|---|
| Red | Stop or prohibition |
| Green | Movements permitted, direction, guidance |
| Blue | Motorist services guidance |
| Yellow | General warning |
| Black | Regulation |
| White | Regulation |
| Orange | Construction and maintenance warning |
| Brown | Public recreation and scenic guidance |

**Standard Shapes:**

| | |
|---|---|
| Octagon | Stop |
| Horizontal Rectangle | Guidance information |
| Diamond | General warning |
| Pentagon | School warning |
| Pennant | No passing warning |
| Vertical Rectangle | Regulatory except for stop and yield |
| Equilateral Triangle | Yield |
| Round | Advance warning for RR crossing |

The United States has moved toward an international system of traffic signs emphasizing pictures and symbols rather than written messages. These signs provide instant communication with the driver since they can be understood at a glance without having to be read. Some of the present word signs will remain in use. These signs have proven effective in the past and contain easily understood messages. The three classifications of traffic signs are described below. For consistency, they use standard colors and shapes.

## Regulatory Signs

Regulatory signs inform highway users of traffic laws or regulations. These signs are generally rectangular with a black legend on white background. Other colors and shapes are also used. The two most common regulatory signs indicate right-of-way. These are the stop sign and yield sign. Regulatory signs are used to control speeds, such as maximum and minimum speed limits. They are also used to control turning movement. As an example, you may recognize these signs with a red circle and a slash mark, which means “no” or “do not.”

Regulatory signs control parking. When parking is prohibited, the parking signs have red lettering, such as “No Parking at Anytime,” “No Stopping Standing or Parking,” or “No Parking, Bus Stop.” When parking is permitted, the lettering is green, such as “One Hour Parking.”

Regulatory signs can also be used to supplement information given by traffic signals, such as “Stop Here On Red” or “Crosswalk.” Finally, regulatory signs are used for a variety of other controls, such as to provide axle weight limits (GVWR) or “Road Closed to Through Traffic.”

## Warning Signs

Warning signs inform the driver of situations ahead that may require extra care. These signs are yellow with black lettering and generally are diamond-shaped.

Warning signs can be used to show changes in horizontal alignment, such as turns, curves, and winding roads. Various types of intersections ahead are indicated symbolically. These signs can indicate cross roads or "T" and "Y" intersections.

Advance warning of traffic control devices can be provided. Sometimes a written message is used, such as "Stop Ahead," or a picture of the device ahead is used, such as a yield sign or traffic signal. Warning signs are used to show converging traffic lanes, such as the symbolic merge sign or the message or symbolic sign for showing that the right lane ends. They are also used to indicate narrow roadways, such as "Road Narrows" or "One Lane Bridge." Changes in highway design are shown on warning signs as well. Examples include divided highway ahead, divided highway ends, or two-way traffic.

Michigan traffic engineers are increasing the use of roundabouts. Drivers must use particular attention to both warning signs and pavement indicators in these areas. If the driver becomes confused in these areas, the driver must not stop in the roundabout. He/She should proceed to a connecting road to re-route.

Highway grades and advance warning of railroad crossings are indicated on warning signs. Roadway surface conditions, such as bumps, soft shoulders, and slippery conditions, are also indicated. Various kinds of entrances and crossings are shown on warning signs, such as truck entrance, deer crossing, and bicycle crossing.

Warning signs are used to indicate advisory speeds, such as exit and ramp speeds. A special type of warning sign is the pennant-shaped "No Passing Zone" sign. When used, it is on the left side of the road and is used in conjunction with the regulatory "Do Not Pass" sign.

Finally, school signs are special kinds of warning signs utilizing the pentagon shape. These indicate school area and school crossing.

## Guide Signs

Guide signs are the third major classification of traffic signs. Guide signs guide drivers along streets and highways, inform them of intersecting routes, or direct them to their destination, be it a city, river, park, or some similar type of destination.

Guide signs are generally rectangular in shape and have a white message on a green background. On conventional roads and streets, black messages on white backgrounds are frequently used as an alternative. Also, different colors and shapes are used for special purposes.

Guide signs are used to indicate junctions of highways, the direction of a highway, alternate routes, the end of a particular numbered route, and temporary routes. A variety of advance route turn arrows and directional arrows are common guide signs.

Two of the most typical guide signs are the familiar destination and mileage signs. On some of the interchanges, symbolic destination signs are used. A special type of guide sign is used for recreation areas. These signs have a white message on a brown background.

Another special guide sign is the service sign. These are white messages on a blue background. These illustrate the location of a phone or hospital. They also indicate that there are no barriers to the handicapped.

Other service signs indicate gas, food, lodging, or camping either through symbolic or message signs. Mileposts are another form of guide sign. Mileage always runs from south to north or west to east and begins at the state line or at a junction where the route begins. Guide signs are also used to show the locations of airports, bus stations, and train stations.

Finally, special panels reading “Exit Only” advise drivers of an imminent lane end situation. These signs use the warning sign combination of black letters on a yellow background.

Highway construction and maintenance signs fall into the same three major classifications as other signs, namely regulatory, warning, and guide signs. Regulatory signs used in construction and maintenance zones use the normal standard colors, shapes, and messages. Warning guide signs also use the standardized shapes and messages, but are distinctive in the black letters used on an orange background.

Typical construction and maintenance warning signs warn of construction or a detour ahead. They can also warn of road work, shoulder work, or a survey crew ahead. Typical construction and maintenance guide signs provide information on the length of a construction or maintenance zone or the direction of a detour.

Electronic traffic signals are valuable devices to control traffic and assign right-of-way. The message in traffic signals is relayed primarily through the use of colors; therefore, the meaning of the colors have been standardized.

- A steady circular green signal permits traffic to proceed if it is safe to do so.
- A steady circular yellow signal always follows a circular green signal or green arrow and warns that the red signal is about to be shown. Drivers must stop if it is possible and safe to do so.
- A steady circular red signal means stop and remain stopped until a green signal is shown and it is safe to proceed.
- A steady green arrow may be used instead of a steady circular green signal. The driver is permitted to proceed in the direction(s) of the arrow(s) if it is safe to do so.
- A flashing circular red signal means stop and remain stopped until it is safe to proceed. Flashing red signals are used at particularly dangerous locations.
- A flashing circular yellow signal is a warning of a particular hazardous location. Drivers may proceed through, but should use extreme caution.

Like traffic signs and signals, roadway markings have a definite purpose and convey a special meaning. In some cases, they supplement the regulations and warnings conveyed on traffic signs and signals. In other instances, they are used alone as there is no other way to effectively communicate this information. Roadway markings are standardized as to color and type of line.

- White lines delineate separation of traffic flows in the same direction.
- Yellow lines delineate separation of traffic flows in the opposite direction.
- Broken lines are permissive in nature. When traffic permits, broken lines may be crossed.
- Solid lines are restrictive in nature. Generally, they are not to be crossed.
- Double solid lines indicate maximum restriction. They are not to be crossed.

Broken white lines separate traffic lanes moving in the same direction when the roadway has more than one lane of traffic moving in the same direction. Drivers are to drive between the lines and not straddle the lines. When traffic permits, broken white lines may be crossed to change lanes.

A solid white line is used to mark the edge of the pavement. Pavement edge lines should not be crossed at moderate to high speeds. They may be crossed, however, at slow speeds when it is necessary to pull off onto the shoulder. When solid white lines separate lanes of traffic moving in the same direction, it is recommended to not cross lanes.

Broken yellow lines separate traffic moving in the opposite direction. When the broken yellow line is on the driver's side of the road, it may be crossed if oncoming traffic permits. Solid yellow lines also separate traffic moving in the opposite direction. When the solid yellow line is on the driver's side of the road, it must not be crossed.

A solid and broken yellow line used together is to delineate a left turn lane. The left turn lane is marked on both sides by both a solid and broken yellow line. Drivers turning left must turn from this lane.

A double solid yellow line is used to indicate that traffic from both directions is prohibited from crossing.

White arrows are used to show direction of travel for a given lane.

Pavement markings are sometimes used to delineate pedestrian crosswalks. These are marked by solid white lines. When lines are used, they run all the way across the pavement. If a stop is required, drivers must stop before crossing the pedestrian crosswalk.

Pavement markings are also sometimes used to delineate where a driver is to stop. These stop lines are wide solid white lines painted across a traffic lane. If used in conjunction with a painted pedestrian crosswalk, the stop line will come before the crosswalk. Drivers must stop before the stop line, if a stop is required.

Delineators are a special kind of guide marking to aid drivers at night. These small reflective devices are sometimes used on long continuous stretches of highway or on short sections where there is a change in the curvature of the road.

Delineators are intended to help guide motorists as to the horizontal and vertical alignment of the highway. Delineator colors conform to the edge line colors painted on the highway. Three colors are used:

- White may be placed on the right side of the roadway.
- Yellow may be placed on the left side of the roadway.
- Red is placed backwards on a ramp or roadway so it may be viewed by motorists traveling in the wrong direction on the ramp or roadway.

During this unit, traffic control devices to regulate, warn, and guide traffic were reviewed. Specifically reviewed were:

- Traffic signs
- Traffic signals
- Roadway markings

Traffic control devices are used to assist motorists in performing their driving tasks. Drivers should pay particular attention to all signs, signals, and markings and adjust their driving behavior accordingly. This will result in a safer, more efficient flow of traffic.