



Iowa Department
of Transportation

800 Lincoln Way | Ames, IA 50010
www.dot.iowa.gov

Flagger's Handbook

October 2013



Remember, you play a vital part in keeping the public and your co-workers safe. If you are unsure of any flagging procedure, ask your supervisor for further explanation.

Lives, including your own depend on it!

Name _____

Iowa Code Section 321.256 states

“No driver shall disobey the instructions of any official traffic control device placed in accordance with the provisions of this chapter ...”

The STOP/SLOW paddle is an official traffic control device. In addition, Iowa DOT Standard Specifications Articles 1107.09 and 2528.03, K authorize contractors to conduct flagging operations as required to control traffic through work areas.

The information in this booklet is consistent with the 2009 Edition of the Manual on Uniform Traffic Control Devices (MUTCD), Part 6, and the Standard Specifications of the Iowa Department of Transportation.



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Flagger's Handbook

October 2013

Compiled by the

Iowa Department of Transportation

in cooperation with

**Iowa Division of the
Federal Highway Administration**

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Introduction

You've been chosen to be a flagger because your supervisor feels you are physically able and mentally alert to properly control traffic through construction, maintenance and utility work areas.

As a flagger, your chief duties are to:

- Guide traffic safely through work areas.
- Protect your fellow workers.
- Prevent unreasonable delays for road users.
- Answer motorists' questions politely and knowledgeably.

This handbook will help you carry out these important duties. Study it carefully to learn proper flagging procedures in Iowa, and keep it handy for quick reference.

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Before you begin

Rules of conduct

Flagging is an important responsibility and should be carried out with authority and dignity. Courtesy and a professional attitude are vital in gaining the respect of the traveling public. The image you project as a flagger will affect the public's attitude toward the whole project and your organization. The following guidelines will make you a safer and more effective flagger.

Before beginning your flagging duties, do the following.

- Park your vehicle outside the work area, well off the roadway.
- Make sure your apparel and equipment are clean and neat.
- Make sure proper signs are in place.
- Become familiar with the work activities so you can answer motorists' questions.
- Discuss a reasonable relief schedule with your supervisor or crew leader.

When two or more flaggers will be working together, make sure **one flagger is designated as the flagger in charge** (the other flagger[s] will coordinate their activities accordingly). Also, make sure you:

- Are positioned so you can see each other or have two-way radios for communicating.
- Use a pilot car, if you cannot see other flaggers or do not have two-way radios.

During flagging operations, do the following.

- Do not leave your position for any reason until relieved.
- Always remain standing and never turn your back on traffic.
- Stand alone. Do not mingle with the work crew, the traveling public, or other people.
- Stay alert. Don't be distracted by the work operation.
- Be friendly and polite with the public, but do not engage in small talk.
- Never argue with the occupants of a vehicle.
- If a driver refuses to obey instructions, inform your supervisor or crew leader as soon as possible without leaving your post. Carry a pocket notebook for recording:
 - Information to identify the driver.
 - Description of the vehicle and license plate number.
 - Circumstances involved in the incident.
- Be alert to the needs of emergency vehicles. They should be given priority, but only when safety will not be compromised.

If a crash occurs in or near the work zone:

- Do not leave your post.
- Warn other flaggers and workers.
- Advise your supervisor and/or authorities.
- Record any pertinent information.

Flagger apparel and equipment

Clothing

In addition to being dressed neatly, flaggers need to be dressed for safety. In particular, flaggers are required to be easily visible to traffic. Flaggers shall wear the following required items, even when serving as a replacement for a short period (see Figure 1).

- ANSI 107 Class 2 apparel (vest, shirt, jacket, or rain gear)
- Headwear meeting ANSI 107 requirements (a hard hat in the same colors is an acceptable alternative to the headwear (soft cap, stocking hat, or hat) and may be required by OSHA or your employer in certain circumstances)

Additional nighttime requirements (see Figure 2)

- ANSI 107 Class E pants
- Highly visible retroreflectorized wristband or gloves

Equipment

Flaggers shall be equipped with the STOP/SLOW paddle (see Figure 1). Retroreflective sheeting shall comply with applicable specifications.

Nighttime (see Figure 2)

- Flashlight with red glow cone, lantern, or other lighted signal that will display a red warning light
- Lighted flagger station

Optional, but useful, equipment and supplies include:

- Hand-held radio for communications
- Adverse weather gear
- Pad and pencil
- Air horn or whistle

Note: A red flag is permitted *only*:

- In emergencies where standard signs are not available (see pages 16-17 for information about emergency flagging).

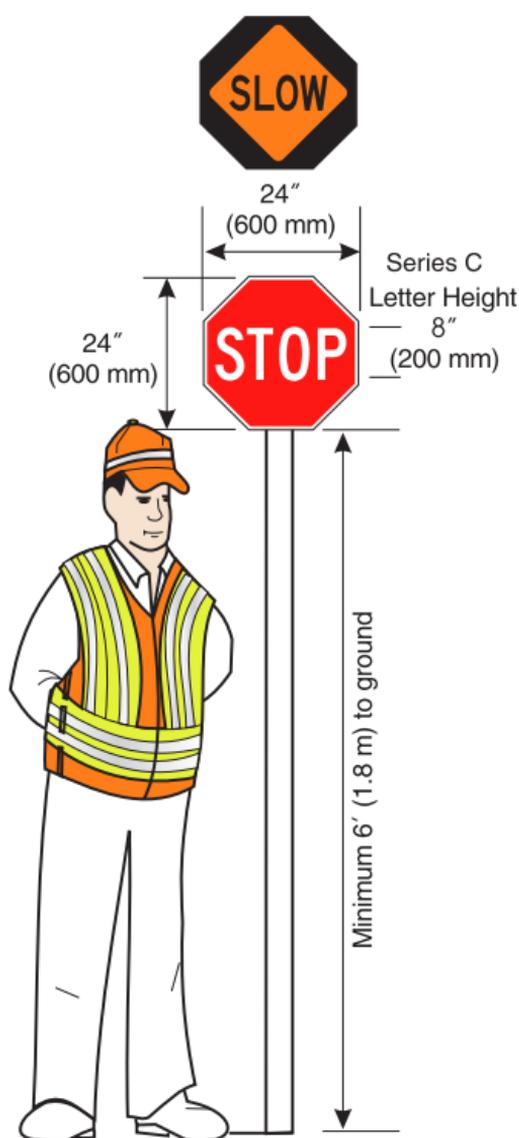


Figure 1

Apparel and equipment for daytime flagging operations

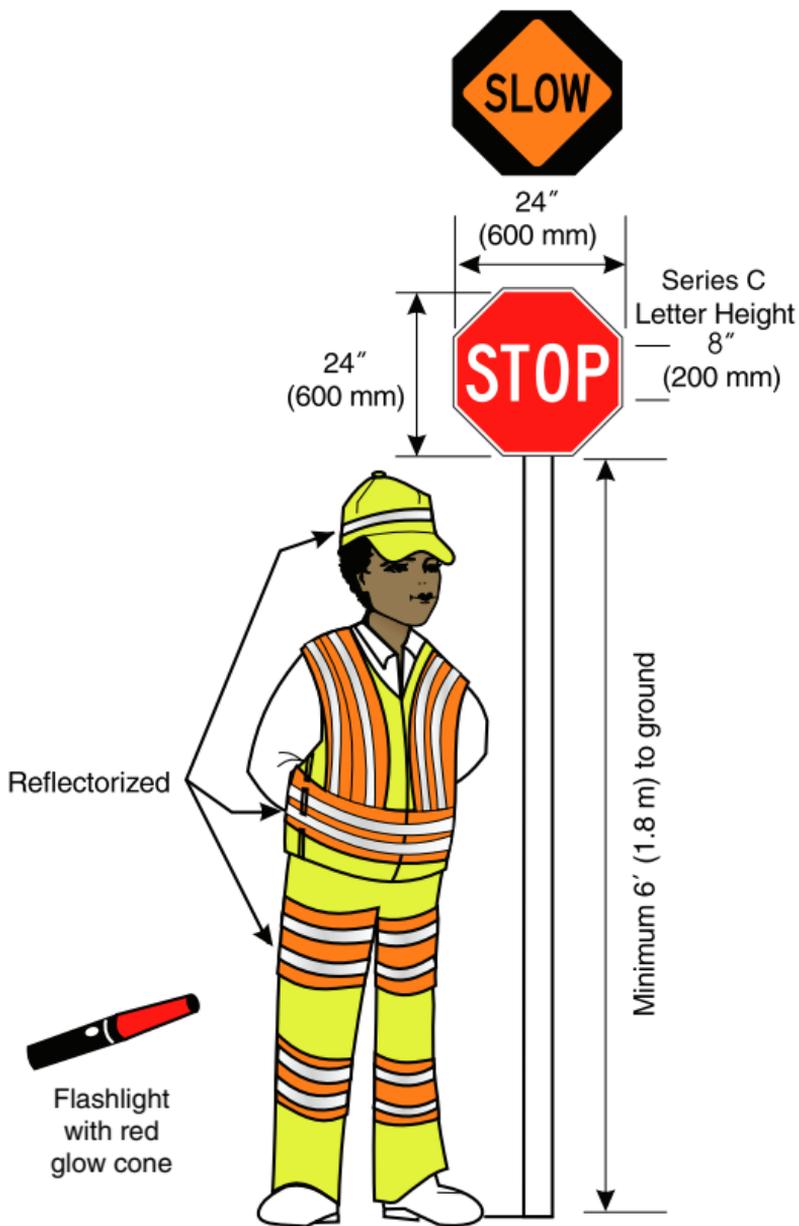


Figure 2
Apparel and equipment for nighttime flagging operations

Flagger's position

In rural areas, flagger stations should generally be located (see Figure 3):

- A minimum of 350 feet (105 m) in advance of the work area.
- Where the flagger is visible to approaching traffic for at least 500 feet (150 m) away

Factors such as visibility, traffic speeds and volume, road conditions, and the work being done should be considered in determining your proper location.

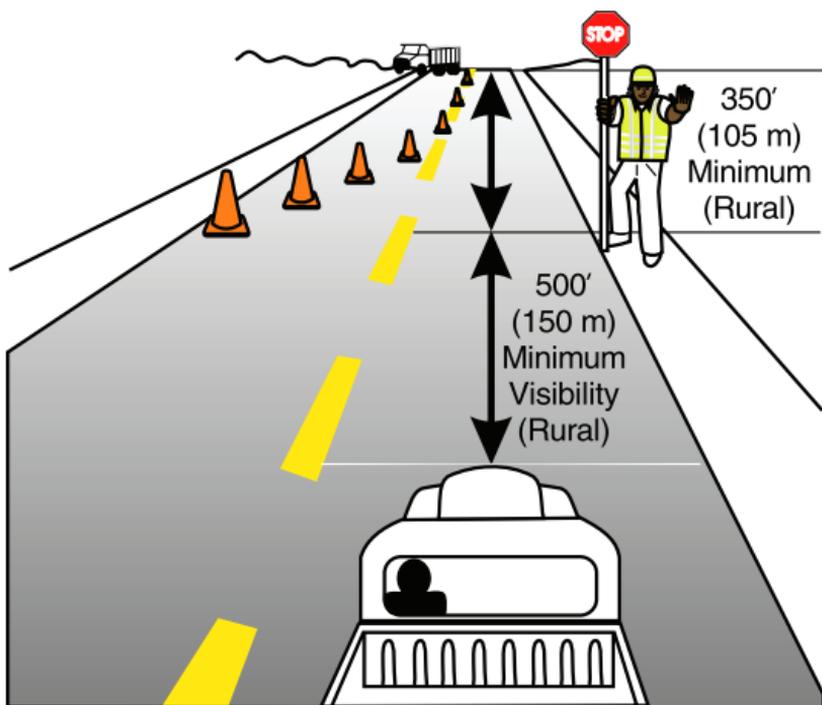


Figure 3
Flagger's position

Positioning yourself carefully, according to the following suggestions, will help keep you safe during flagging and will assist you in skillfully controlling traffic through the work area.

- Always stand and face oncoming traffic.
- Do not stand in the path of an approaching vehicle.
- Stand where you will be highly visible at all times and:
 - Do not stand in shadows.
 - Do not stand near parked vehicles or equipment that might hide you from approaching drivers.
- Always have an escape route in mind.

Two-flagger operations

Stopping traffic

To stop traffic, follow these steps (see Figure 4).

1. Stand on the shoulder of the road holding the STOP/SLOW paddle in your right hand, erect and away from your body with the STOP side facing approaching traffic. **Never wave the sign.**
2. Look directly at the approaching driver. Try to establish eye contact.
3. Raise your free arm with the palm of your hand toward oncoming drivers.
4. Bring the first vehicle to a full stop.
5. Stop other vehicles from this position using the STOP sign, hand signal, and eye contact as described in steps 1-4. (Optional: During daytime operations, flagger may move to centerline to improve their visibility carrying the STOP/SLOW paddle.
6. Remain in this position until you can safely permit travel through the work area.
7. Request the first driver to activate the vehicle's hazard warning lights.

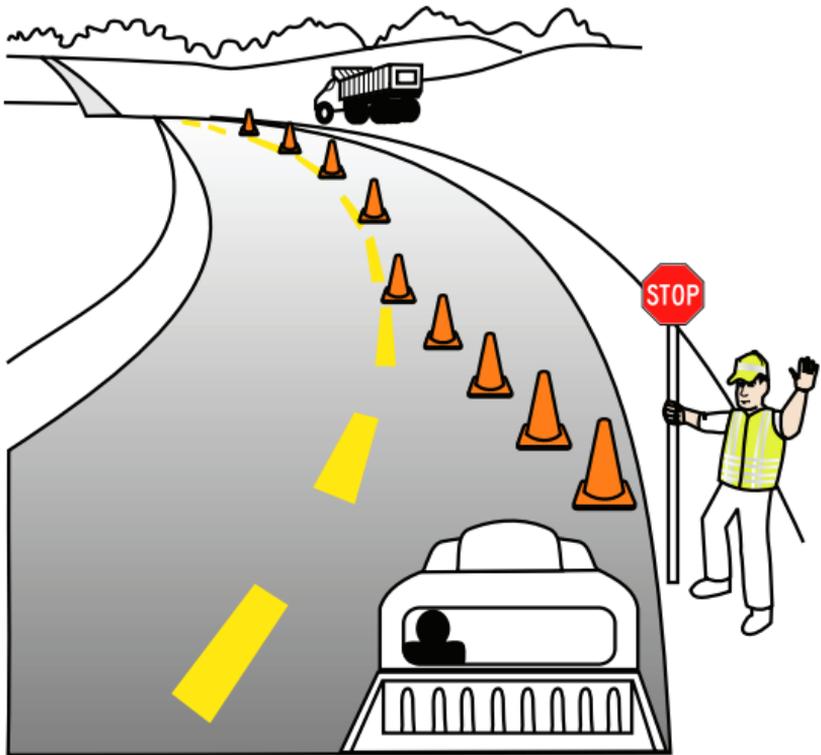


Figure 4
Stopping first vehicle from shoulder

Releasing traffic

To release traffic, follow these steps (see Figures 5 and 6).

1. If on centerline, return to shoulder.
2. Hold paddle in your right hand, turn SLOW side toward stopped vehicles.
3. With your free arm signal drivers to proceed.
Never wave the paddle.

Nighttime

- Using a flashlight with red glow cone, show drivers where to proceed. **Do not wave the flashlight.**

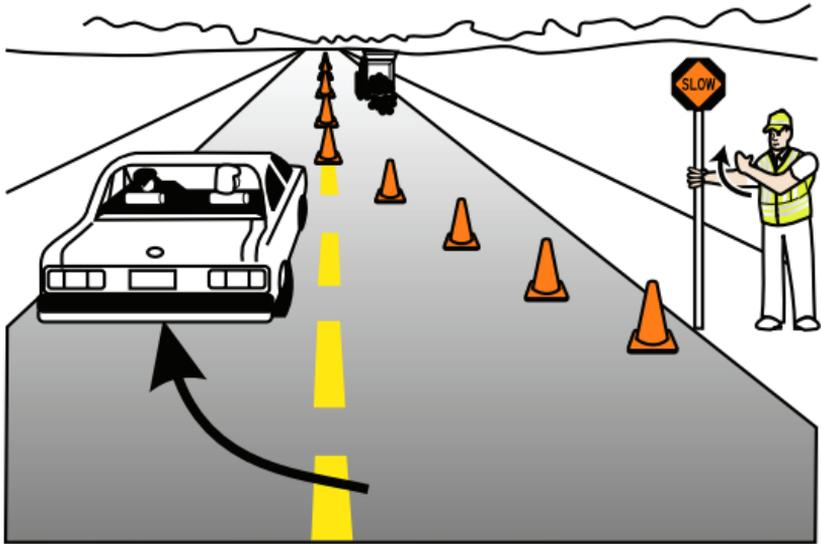


Figure 5
Releasing traffic into the open lane; opposite drive lane

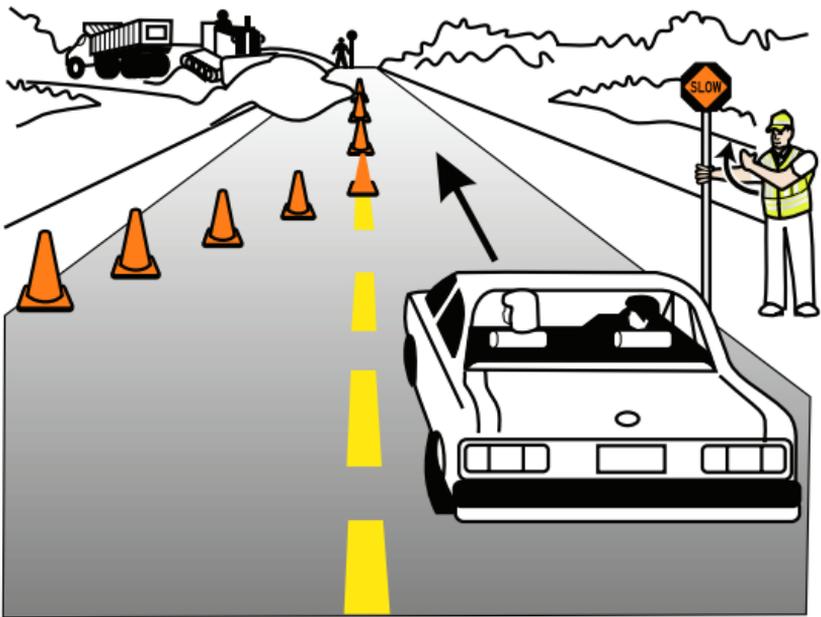


Figure 6
Releasing traffic into the open lane; standard drive lane

Slowing traffic

To slow approaching traffic, follow these steps.

1. Stand on the shoulder of the road holding the paddle in your right hand with the SLOW side toward traffic.
2. Extend your left arm and with the palm facing downward, motion up and down slowly to gain driver attention (see Figure 7). If needed for emphasis, this motion can be more forceful.



Figure 7
Slowing Traffic

Single-flagger operations

A single flagger can be used when sight distance is adequate, traffic volume low (less than 2,000 vpd), and work zone length 100 feet (30 m) or less. A second flagger shall be added when these conditions change or when traffic conflicts and delays become excessive.

Single-flagger operations usually involve temporary traffic stoppage temporarily stopping traffic in only one lane (for example, for loading or unloading operations). The other lane is allowed to flow freely at all times.

Releasing traffic for single-flagger operations

In single-flagger operations, follow the flagging procedures for slowing and stopping traffic, as described on pages 8-11. **To release traffic as a single flagger, follow these steps (see Figure 8).**

1. Return to the shoulder of the road with the STOP side toward stopped vehicles.
2. Turn the paddle so neither STOP nor SLOW can be read by drivers approaching from either direction. Take care not to confuse continuous traffic traveling in the other lane in the opposite direction.
3. Motion for traffic to proceed.



Figure 8
Releasing traffic in a single-flagger operation

Pilot car operations

Pilot car operations using a Stop/Slow paddle

1. When work is performed over a long section of roadway, a pilot car is often used to escort vehicles through the work area.
2. Try to limit delays to 15 minutes maximum.
3. Stop vehicles in the approved manner (see Stopping Traffic, pages 8-9).
4. Detain all vehicles until the pilot car arrives from the opposite direction.
5. After the pilot car arrives and has pulled into position at the head of your column of vehicles, step back onto the shoulder with STOP displayed. Follow the procedure for releasing traffic on page 10.
6. Refrain from unnecessary conversations with the pilot car driver.
7. Turn the SLOW side to face traffic, and motion the pilot car driver and others to proceed.

Pilot car operations using temporary signals

1. Signals will rest on RED.
2. Flagger should remain on the shoulder at all times.
3. Be alert and face oncoming traffic.
4. Signal shall remain on RED while waiting for pilot car.
5. Refrain from unnecessary conversations with the pilot car driver.
6. After last vehicle of opposing traffic has passed and pilot car has pulled into position at the head of the column of queued vehicles, activate the GREEN signal phase and motion to the pilot car to proceed.
7. Continue to extend the GREEN phase until the queue has passed.
8. Allow the signal to cycle to the YELLOW phase. The signal will remain on RED to stop the next queue of oncoming vehicles.

Note: Flagger station is required to be lighted at night, even when using temporary signals.

Flagging in emergencies

In emergencies, the following equipment and procedures may be used on a short-term temporary basis. However, provide standard traffic control as soon as possible (see Figures 9 and 10).

- If the STOP/SLOW paddle is not available, use a good quality red flag to regulate traffic in emergency situations. The flag shall have minimum dimensions of 24 inches by 24 inches (600 mm by 600 mm) and a minimum 3-foot (0.9 m) handle. The free edge of the flag should be weighted so the flag will hang vertically even in windy conditions.

Nighttime emergency situations

- A flashlight with red glow cone may be used in addition to the red flag. Retroreflectorized clothing shall be worn.

Follow the procedures for stopping and releasing traffic on pages 8-10.

Stopping traffic in emergencies

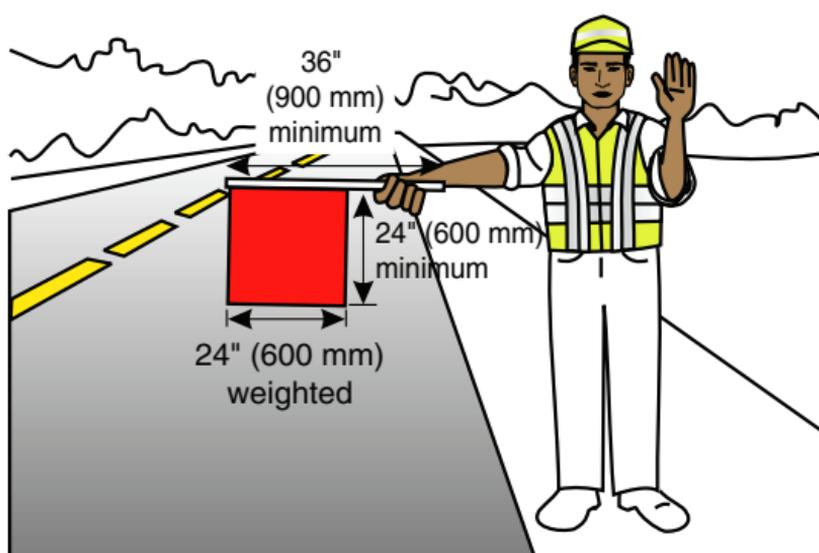


Figure 9
Using a flag to stop traffic in emergencies

Releasing traffic in emergencies



Figure 10
Using a flag to release traffic in emergencies

Other situations

Equipment crossings

Generally, traffic control procedures are the same for haul road intersections as for other work areas (see Stopping Traffic and Releasing Traffic, pages 8-10).

When trucks are making a right turn onto the highway, only one flagger may be required (see Figure 11). When trucks are crossing the highway or making a left turn, two flaggers may be required, one for each direction (see Figure 12).



Figure 11
Stopping traffic for right-turning vehicles



Figure 12

Stopping traffic for left-turning vehicles (two flaggers)

Intersection work

When work activities occur in an intersection, additional flaggers may be needed. Communication among flaggers is essential. Do not direct drivers through red lights at intersections with traffic signals. Signals should be deactivated to avoid confusion.

Mobile operations

Mobile work zones present particular challenges for flaggers. Because you may be moving down the road with the other workers, your visibility and conflicts from intersecting roads and driveways are continually changing. As a flagger, always be alert for the need to maintain adequate advance warning for approaching drivers while providing protection and warning for workers. It will be necessary to stop operations periodically to relocate advance warning signs and other devices.

Railroad crossings

When flagging near railroad crossings, be sure your flagging station is not located where traffic may be backed up over the crossing. If the flagger position cannot be moved, an additional flagger will be needed to keep the crossing clear of stopped traffic (see Figure 13). Refer to Part 6 of the MUTCD for more details.

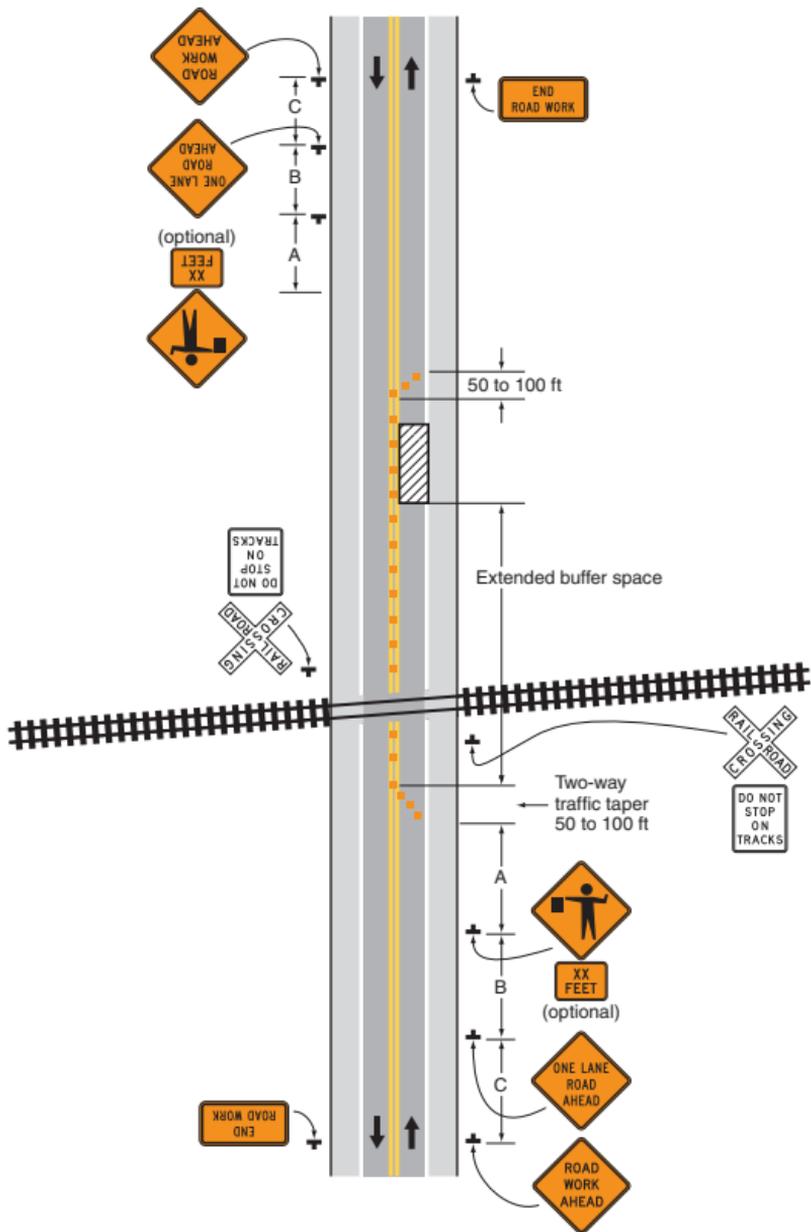


Figure 13
Work in the vicinity of a grade crossing

Guidelines for the supervisor

- The supervisor's involvement is critical to proper flagging and traffic control.
- Be sure flaggers are properly trained and instructed. Impress on flaggers the value and importance of performing their duties properly.
- Provide proper equipment and apparel for flaggers.
- Provide adequate breaks for flaggers.
- Provide relief for flaggers by alternating flaggers and/or pilot car drivers periodically throughout the day.
- Develop a procedure for handling noncompliant drivers.
- Discuss appropriate actions for possible incidents in or near the work zone.
- Drive through the work area periodically to observe traffic control operations. Correct activities not in compliance with this *Flagger's Handbook*, the *MUTCD* and other contract documents.
- Ensure proper signs are in place prior to beginning operations and that they remain in place only as long as they are needed.

