

Channelizing Devices Checklist

The function of channelizing devices is to warn and alert drivers to changed conditions due to road work and to provide for smooth and gradual traffic movement from one lane to another, onto a bypass or detour, or to reduce the width of a traveled way.

Channelizing devices may also be used to separate traffic from the workspace, pavement drop-offs, pedestrian paths, or opposing directions of traffic.

Cones, tubular markers, drums, vertical panels and type 1 and 2 barricades may be considered as alternative channelizing devices. Not all States use all of the devices available in the MUTCD. Check with your State for approved devices.

Below is a checklist of information you should know related to traffic channelizing devices.

Sections

- **Cones**
- **Tubular Markers**
- **Drums**
- **Vertical Panels**
- **Barricades**

Cones

- Cones shall be used in accordance with the MUTCD and your State's requirements**
- Traffic cones may be used to channelize road users, divide opposing vehicular traffic lanes, divide lanes when two or more lanes are kept open in the same direction, and delineate short duration maintenance and utility work**

- Cones shall be predominantly orange and shall be made of a material that can be struck without causing damage to the impacting vehicle
- For daytime and low-speed roadways, cones shall be not less than 18 inches in height
- When cones are used on freeways and other high-speed highways or at night on all highways, or when more conspicuous guidance is needed, cones shall be a minimum of 28 inches in height.
- For nighttime use, cones shall be retroreflectorized or equipped with lighting devices for maximum visibility
- Retroreflectorization of cones that are 28 to 36 inches in height shall be provided by a 6-inch wide white band located 3 to 4 inches from the top of the cone and an additional 4-inch wide white band located approximately 2 inches below the 6-inch band
- Retroreflectorization of cones that are more than 36 inches in height shall be provided by horizontal, circumferential, alternating orange and white retroreflective stripes that are 4 to 6 inches wide
- Each cone shall have a minimum of two orange and two white stripes with the top stripe being orange
- Any nonretroreflective spaces between the orange and white stripes shall not exceed 3 inches in width

Tubular Markers

- Tubular markers shall be predominantly orange and shall be not less than 18 inches high and 2 inches wide facing road users
- They shall be made of a material that can be struck without causing damage to the impacting vehicle
- Tubular markers shall be a minimum of 28 inches in height when they are used on freeways and other high-speed highways, on all highways during nighttime, or whenever more conspicuous guidance is needed
- For nighttime use, tubular markers shall be retroreflectorized

- Retroreflectorization of 28 inches or larger tubular markers shall be provided by two 3-inch wide white bands placed a maximum of 2 inches from the top with a maximum of 6 inches between the bands

Drums

- Highly visible devices
- Have good target value
- Give appearance of being formidable obstacles
- Command respect of the motorist
- Portable enough to be shifted from place to place within a TTC zone in order to accommodate changing conditions
- Generally used in situations where they will remain in place for a prolonged period of time
- Potential requirements your state may have about drums:
 - Shall be constructed of lightweight, deformable materials
 - Shall be a minimum of 36 inches in height and have at least 18 inches minimum width regardless of orientation
 - Metal drums shall not be used
 - The markings on drums shall be horizontal, circumferential, alternating orange and white retroreflective stripes 4 to 6 inches wide
 - Each drum shall have a minimum of two orange and two white stripes with the top stripe being orange
 - Any nonretroreflectorized spaces between the horizontal orange and white stripes shall not exceed 3 inches wide
 - Shall have closed tops that will not allow collection of construction debris or other debris

Vertical Panels

- Where space is limited, vertical panels may be used to channelize vehicular traffic, divide opposing lanes, or replace barricades

- Vertical panels shall be 8 to 12 inches in width and at least 24 inches in height
- Shall have orange and white diagonal stripes and be retroreflectorized
- Shall be mounted with the top a minimum of 36 inches above the roadway
- Where the height of the vertical panel itself is 36 inches or greater, a panel stripe width of 6 inches shall be used
- Where the height of the vertical panel itself is less than 36 inches, a panel stripe width of 4 inches may be used
- Markings shall be alternating orange and white retroreflective stripes, sloping downward at an angle of 45 degrees in the direction vehicular traffic is to pass
- Vertical panels used on freeways, expressways, and other high-speed roadways shall have a minimum of 270 inches squared retroreflective area facing vehicular traffic

Barricades

- A barricade is a portable or fixed device having from one to three rails with appropriate markings and is used to control road users by closing, restricting, or delineating all or a portion of the right-of-way
- Barricades are classified as either Type 1, Type 2, or Type 3
- Stripes on barricade rails shall be alternating orange and white retroreflective stripes sloping downward at an angle of 45 degrees in the direction road users are to pass
- In most instances, the stripes shall be 6 inches wide
 - However, when rail lengths are less than 36 inches, 4 inch wide stripes may be used
- Minimum lengths:**
 - Type 1 and Type 2 – 24 inches
 - Type 3 – 48 inches

Maintenance of Traffic for Technicians

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- Each barricade rail shall be 8 to 12 inches wide
- Barricades used on freeways, expressways, and other high-speed roadways shall have a minimum of 270 inches squared of retroreflective area facing road users