



# Work on Two-Lane Roadways

Design Manual

Chapter 9

Traffic Control

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When work activity encroaches onto the traveled way of a two-lane roadway, special measures must be taken to accommodate traffic and separate it from the work zone. This section presents different methods used to control traffic on two-lane, two-way roadways during construction.

## One-Lane Closed

When work is performed on one lane of a two-lane, two-way facility, the remaining lane must be used by traffic traveling in both directions. Alternating one-way traffic may be accomplished in several ways.

### Single Flagger

For short work areas of 100 feet (30 meters) or less on low volume roads (2000 vpd or less), traffic can be maintained with one flagger. Refer to Standard Road Plan [TC-212](#). The flagger must have an unobstructed view of approaching traffic for at least 1/4 mile (400 meters) and the work area may not be in an existing No Passing Zone. The flagger allows traffic in the open lane to flow freely and permits stopped traffic to proceed only when there are sufficient gaps in the opposing traffic flow. If excessive delays are encountered or sight distance is limited, a second flagger must be added.

### Two Flaggers

The most common method for controlling one-way traffic during daylight hours is to use two flaggers, one at each end of the work area. Standard Road Plan [TC-213](#) may be used for work areas up to 1/4 mile (400 meters).

### Two Flaggers with Pilot Car

Work activity such as resurfacing, patching, or milling requires lane closures in excess of 1/4 mile (400 meters). Other work may involve particularly dangerous routes. In either case, the use of a pilot car is more effective than using flaggers alone. The pilot car guides a train of vehicles through the work area. Refer to Standard Road Plan [TC-214](#).

### Temporary Traffic Signals

When one-lane traffic is to be maintained during non-working hours, temporary traffic signals provide the necessary traffic control. Several layouts are available, including Standard Road Plans [TC-217](#), [TC-216](#), [TC-253](#), and Detail Sheet [520-54](#). These layouts all have similar advance signing, which should also be used if special layouts are developed.

**Controlling traffic with temporary signals depends upon the length of the one-lane section and the traffic volume. Each layout indicates the maximum traffic volumes that can be accommodated, based on the distance between signals. These layouts cover most conditions encountered in the field. For special cases, a modified signal-timing table can be calculated to accommodate longer stop-line-to-stop-line distances.**

### One-Lane Traffic Control with Stop Signs

Stop signs may be used to control traffic through short work areas on low volume roadways. The work area is limited to a length of 150 feet (45 meters) to ensure that motorists on opposite ends of the one lane section will have eye contact. For this reason, the alternating stop method may not be appropriate when the work area is within a No Passing Zone. Traffic volumes should not exceed 2000 vehicles per day in order to avoid possible traffic delays. Refer to Standard Road Plan [TC-211](#) for more information.

## Detours

Many times it is more economical to close the roadway and detour traffic. Detours fall into two categories: on-site and off-site.

### On-Site Detour

On-site detours are short diversions (less than a mile or 1600 meters) used to bypass a work area. They should be designed for speeds as near the posted speed limit as right-of-way restrictions will allow. On-site detours may be designed for two-way traffic or signalized one-way traffic. Standard Road Plans [TC-253](#) and Detail Sheets [520-54](#) and [520-55](#) give traffic control details for on-site detours.

### Off-Site Detour

Off-site detours utilize existing roadways to divert thru traffic off the project route. Although the actual detour signing is handled by the Maintenance Division, the contractor must provide traffic control for local traffic that must use portions of the closed route within the Traffic Control Zone.

Standard Road Plan [TC-252](#) show several different situations for a closed project route and the required traffic control. These layouts are intended primarily for work areas that extend beyond one or more intersections. Typical projects would include grading, paving, and shouldering.

When the actual work area is confined between intersections, use Standard Road Plan [TC-252](#). Typical projects would include bridge or culvert work and spot locations where the activity area does not cross the intersection.

## No Passing Zones

It is often necessary to place a temporary No Passing Zone through a traffic control area. The following guidelines are intended to aid in the proper use of No Passing Zones.

- An existing No Passing Zone should never be shortened for temporary traffic control.
- If an existing No Passing Zone is to be lengthened, an orange NO PASSING ZONE sign should be erected at the beginning of the No Passing Zone and the existing NO PASSING ZONE sign removed or covered.
- If the temporary No Passing Zone falls within an existing No Passing Zone, no additional signs should be added. The existing NO PASSING ZONE sign should remain in place.
- A No Passing Zone line that ends within 300 feet (90 meters) of the beginning of another such line should be connected to make one continuous zone. There should be only one NO PASSING ZONE sign at the beginning of the continuous No Passing Zone.

## Centerline Drop-Offs

When work such as milling and resurfacing results in a centerline drop-off, special signing must be provided to alert drivers. Standard Road Plan [TC-282](#) shows traffic control for various depths of drop-offs. The appropriate layout must be included in the project plans.

# **Chronology of Changes to Design Manual Section:**

## **009C-003 Work on Two-Lane Roadways**

4/15/2010 Revised

Work area distance should be 100 feet instead of 100 feet