

TEMPORARY TRAFFIC CONTROL GUIDELINES, UPDATE OF PENNDOT PUBLICATION 213

by Patrick Wright, Pennoni

Whenever municipalities are doing work on a road, they must ensure that personnel working near traffic as well as anyone traveling through the work zone are kept safe. Because road maintenance and other activities on or near the road create an unexpected condition, road users approaching the work area must be notified in advance so they know what to expect and what to do to travel safely through and around the work zone.

Proper setup and operation of temporary traffic control is therefore critical. According to the PA Vehicle Code (Title 75, Section 6123): “Any person performing any work on or near the roadway which may create hazards SHALL erect traffic-control devices in accordance with the rules and regulations of the department for the maintenance and protection of traffic.”

Part 6 of the Manual on Uniform Traffic Control Devices (MUTCD) defines the traffic control devices, applications, and other details for establishing uniform, consistent, and appropriate work zone setups. Pennsylvania has adopted the MUTCD and has created PennDOT *Publication 213, Temporary Traffic Control Guidelines*, to supplement the information in the MUTCD. Publication 213 provides diagrams (Pennsylvania Typical Applications, or PATA, figures) of typical work scenarios and the minimum desired applications.

Publication 213 and the MUTCD apply to contractors, utilities, local governments, state government, and anyone else performing any type of work on or near a road open to the public, whether that work is for utilities, construction, maintenance, emergency situations, permit work, special events, or incident management.

March 2021 Update to Publication 213

Publication 213 was revised in March 2021 to include a variety of updates and enhancements to information about temporary traffic control. The new version incorporates recommendations from a working group of practitioners, and many of the updates clarify previous information in Publication 213 and are not changes per se to PennDOT policy. For example, the requirement for using a shadow vehicle while mowing did not change. Rather, information about this traffic control measure, including a new drawing and notes (PATA 307), were added to the publication.

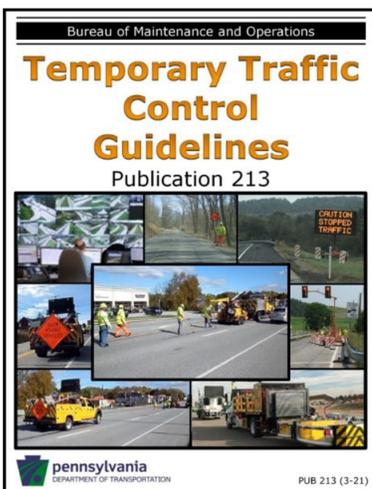
Other updates to Publication 213, however, did affect municipalities, including signing and pavement markings for seal coat and surface treatment operations. The following summarizes these changes:

- Under definitions, the **duration of a short-term operation was extended from less than 24 hours to less than 72**. Since most local maintenance activities are short-term operations, this provides municipalities with more time to conduct such activities while still following the short-term PATA drawings.
- **Sign legibility minimum distance requirements based on the speed of the road** were added to Note A-2.
- Also under Note A-2, **flagger positioning was changed** from 40 feet minimum distance from the first channelizing device to a range of 25 to 100 feet.
- With the addition of PATA 116B, **short-term closures of low-volume roads** with less than 1,500 vehicles per day may now use a red-arrow detour.
- New guidance is provided for **intersection traffic control options**, such as painting crosswalks, stop bars, turn arrows, and other markings, at T- (PATA 109 series) and four-way intersections (PATA 110 series).
- In PATA 109 and 110, newly added drawings depict temporary traffic control that must be in place at **two-way stop, all-way stop, traffic signals, and other permanent traffic control locations**, for example, when maintenance is performed on pavement markings, such as crosswalks, stop bars, and turn arrows, near intersections.
- Newly added figures (GA 06 series) show the **placement of signs that are required on side roads** that intersect with roads where temporary traffic control is in place.
- New figures (GA 13 and GA14 A/B) address **hills, curves, and other obstructions** that could impact sight lines to flaggers and traffic control devices.
- New figures (GA 15 series) address **temporary pavement markings for seal coat operations**.

Applying Publication 213 to Municipal Work

Publication 213 is intended to be used as a guide for developing temporary traffic control measures in Pennsylvania. It includes applications for road maintenance work, utility work, special events, emergency situations, and incidents. The figures provide information for type, quantity, and spacing of advance signs; taper rates and spacing of channelizing devices; minimum distances from tapers to workspace; location of flaggers; and general notes. Because the publication is intended as a guide of minimum requirements, municipalities should keep in mind that additional provisions may be required, depending on the complexity of the situation.

The first step in establishing temporary traffic control is to determine which PATA figure is appropriate for your scenario. Series 100 in the PATA Series Index is designed for short-term stationary operations on conventional highways, which typically will cover most municipal work activities.



Next, identify the appropriate work description and select the corresponding PATA figure for setup details. For example, when closing one lane of a two-lane, two-way road for short-term maintenance, you would select PATA 107.

Each PATA consists of a notes section, sign types, a series of tables with device spacing data, and a drawing showing the general layout of the signs, channelizing devices, flaggers, and other elements. The sign types are based on the principle that you are warning road users of an unexpected condition (e.g., “Road Work Ahead”), telling them what to expect (e.g., “One Lane Road Ahead”), and informing them of what to do (e.g., symbolic “Flagger Ahead” prompting road users to obey the flagger). The spacing of the signs is based on the speed of the road, as well as the type of area, such as rural or urban.

In addition to signs, the PATA provides specific details about the type of channelizing devices that are suitable to use and the spacing and placement of these devices. For most short-term local road applications, cones are acceptable where work is in active progress. The spacing of channelization devices is based on speed.

Other details, such as flagger position, the use of shadow vehicles, supplemental devices, and more are covered in the PATAs and the general notes sections of Publication 213. Creating a safe temporary work zone involves a wide range of factors, including requiring high-visibility safety apparel, setting up and tearing down work zone devices at appropriate times, maintaining work zone devices and safety apparel, and using good judgment to adjust setups when necessary. Employees who are working near traffic should also be trained in safe practices and the need for alertness, common sense, and a sense of responsibility.

Whenever conducting road work, a municipality and its road crew are responsible for the employees’ safety as well as that of other workers and all road users traveling through the work zone. By following Publication 213 and the MUTCD consistently and appropriately, a municipality will reduce its risk and protect the traveling public.

Publication 213 is available online at www.dot.state.pa.us/public/PubsForms/Publications/PUB%20213.pdf.

PATA 100 Series Index Short-Term Stationary Operations on Conventional Highways	
PATA Description	PATA Number
Work on or Beyond the Shoulder	
Single-Lane Approach - No Roadway Encroachment	101-A
Multi-Lane Approach - Right Shoulder Work - No Roadway Encroachment	101-B
Multi-Lane Approach - Left Shoulder Work - No Roadway Encroachment	101-C
Single-Lane Approach - Shoulder Work With Minor Roadway Encroachment	102
Single-Lane Approach - Shoulder Work With Major Roadway Encroachment	103
Work on Single-Lane Approach	
Work Space on Roadway Center Line	104
Work Space in the Center of an Intersection	105
Work in Single-Lane and Center Lane - Two Flaggers	106
Work in One-Lane - Two Flaggers	107
Work in Single-Lane - One Flagger	108
Self-Regulating Stop Control	111
Work in One-Lane with Road Vehicle - Two Flaggers	117
Self-Regulating Lane Shift into Opposing Lane	118
Work in Adjacent Lanes with Opposing Traffic - Two Flaggers	120
Self-Regulating Lane Shift into Center Left-Turn Lane	121
Work in Center Left-Turn Lane	122
Work within One Quadrant of a Roundabout	123
Work on One Leg Entering a Roundabout	132
Work on One Leg Exiting a Roundabout	133
Work on Multi-Lane Approach	
Work in Two Lanes, Same Direction - Two Flaggers	119
Work in Left Lane - Undivided Highway	123-A
Work in Right Lane - Undivided Highway	123-B
Work in Two Lanes, Same Direction (Lane Shift into Opposing Lane)	124
Work in Right Lane - Divided Highway	125-A
Work in Left Lane - Divided Highway	125-B
Work in Right Lane and on Lane Line	126-A
Work in Left Lane and on Lane Line	126-B
Work in Right Two Lanes (Lane Shift into Adjacent Lane)	127-A
Work in Left Two Lanes (Lane Shift into Adjacent Lane)	127-B
Road Closure with Detour	
Standard Orange Detour Signs	116-A
Red Arrow Detour Signs (ADT < 1500)	116-B
Work Space Located on Sidewalks	
Sidewalk Closed with Pedestrian Detour	128
Sidewalk Closed with Pedestrian Evasion	129
Sidewalk and Crosswalk Closure with Pedestrian Detour	130

