

STATEMENTS OF POLICY

Title 67—TRANSPORTATION

DEPARTMENT OF TRANSPORTATION

[67 PA. CODE CH. 204]

Additional Traffic-Control Devices in Highway Work Zones—Statement of Policy

The Department of Transportation (Department) adopts this statement of policy in response to the requirements of the act of December 23, 2002 (P. L. 1982, No. 229). These guidelines are designed to improve safety in highway work zones by requiring drivers to light their vehicles' headlights and by delineating those "active work zones" where motorists are exposed to increased penalties for moving violations due to the presence of workers. The signs and lights specified are in addition to the traffic-control devices required by Chapter 203 (relating to work zone traffic control) and apply to all construction, maintenance and utility operations on public highways within this Commonwealth.

Effective Date

This statement of policy shall be effective upon publication in the *Pennsylvania Bulletin*.

Contact Person

The contact person is Arthur Breneman, Department of Transportation, Bureau of Highway Safety and Traffic Engineering, P. O. Box 2407, Harrisburg, PA 17105-2047, (717) 787-3620, fax: (717) 783-8012.

Authority

This statement of policy is adopted under the authority contained in section 21 of the act of December 23, 2002.

Order

The Department, acting under the authorizing statute, orders that:

(a) The regulations of the Department, 67 Pa. Code, are amended by adding a statement of policy at §§ 204.1—204.6 to read as set forth in Annex A.

(b) The Secretary of the Department shall certify this order and Annex A and deposit them with the Legislative Reference Bureau as required by law.

(c) This order shall take effect upon publication in the *Pennsylvania Bulletin*.

ALLEN D. BIEHLER, P. E.,
Acting Secretary

Fiscal Note: 18-SOP-382. (1) Motor License Fund;

	<i>Highway Safety Improvements</i>	<i>Highway Maintenance</i>
(2) Implementing Year 2002-03 is	\$6,300,000	\$6,600,000
(3) 1st Succeeding Year 2003-04 is	\$6,300,000	\$6,200,000
2nd Succeeding Year 2004-05 is	\$6,300,000	\$6,200,000
3rd Succeeding Year 2005-06 is	\$6,300,000	\$6,200,000
4th Succeeding Year 2006-07 is	\$6,300,000	\$6,200,000
5th Succeeding Year 2007-08 is	\$6,300,000	\$6,200,000

<i>Highway & Safety Improvements</i>	<i>Highway Maintenance</i>	<i>Secondary Road—Maintenance & Resurfacing</i>
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(4) 2001-02 Program—	\$196,750,000	\$662,650,000	\$61,870,000
2000-01 Program—	\$174,022,000	\$634,819,000	\$62,279,000
1999-00 Program—	\$175,000,000	\$621,406,000	\$59,974,000

(8) recommends adoption. A portion of the expected costs to the Highway Maintenance appropriation may be charged to the Secondary Road—Maintenance and Resurface appropriation. Also, the Department of Transportation expects to receive Federal funds which would offset these costs. It is estimated that annual costs to the Turnpike Commission for this program will be \$1,300,000.

Annex A

TITLE 67. TRANSPORTATION

PART I. DEPARTMENT OF TRANSPORTATION

Subpart A. VEHICLE CODE PROVISIONS

ARTICLE VIII. ADMINISTRATION AND ENFORCEMENT

CHAPTER 204. GUIDELINES TO IMPLEMENT ACT 229 OF 2002 ADDITIONAL TRAFFIC-CONTROL DEVICES IN HIGHWAY WORK ZONES—STATEMENT OF POLICY

§ 204.1. Purpose and application.

(a) This chapter is in response to the requirements of Act 229. Specifically, this chapter is designed to improve safety in highway work zones by requiring drivers to light their vehicles' headlights; and by delineating those "active work zones" where motorists are exposed to increased penalties for moving violations due to the presence of workers.

(b) The signs and lights specified in this chapter are in addition to the traffic-control devices required by Chapter 203 (relating to work zone traffic control), and apply to all construction, maintenance and utility operations on all public highways within this Commonwealth. Special attention is called to § 204.4 (relating to exemptions) because it makes the use of the signs and lights in § 204.3 (relating to general) discretionary for some construction, maintenance and utility operations.

§ 204.2. Definitions.

The following words and terms, when used in this chapter, have the following meanings, unless the context clearly indicates otherwise:

Active work zone—The portion of a work zone where construction, maintenance or utility workers are on the roadway or on the shoulder of the highway, and is adjacent to an open travel lane.

Act 229—The act of December 23, 2002 (P. L. 1982, No. 229).

Work zone—The area of a highway where construction, maintenance or utility work activities are being conducted, and which should have traffic-control devices installed in accordance with this title.

§ 204.3. General.

The following shall be done:

(1) Erect the WORK ZONE—TURN ON HEADLIGHTS Sign (R22-1) prior to each work zone. When used, erect as the first sign on each primary approach to the work zone, typically at a distance of 250 to 1,000 feet prior to the first warning sign as required by Chapter 203 (relating to work zone traffic control). Use smaller advance distances on low-speed highways and the larger advance distances on high-speed roadways including all expressways and freeways. Do not install flashing warning lights or orange flags on the R22-1 sign. This paragraph is effective on February 21, 2003.

(2) Delineate “active work zones” by signs and lights as defined in this chapter to establish those areas where double fines and other increased penalties apply. Do not consider a construction, maintenance or utility operation as an “active work zone” when either of the following exist:

(i) None of the work is on the roadway or shoulder.

(ii) All workers are protected by a concrete barrier and no ingress or egress to the work area is through an opening in the concrete barrier.

(3) Erect the ACTIVE WORK ZONE WHEN FLASHING Sign (W21-19) as close as practical to the beginning of the “active work zone.” Do not compromise motorists’ safety by erecting the sign within a transition or at a location where the sign could be especially distracting to motorists or could jeopardize the safety of motorists, or at a location where workers are put at risk when they may need to turn the light on and off. When a construction, maintenance or utility project has more than one active work zone and the active work zones are separated by a distance of more than 1 mile, erect signs for each active work zone.

(4) Attach a white flashing light to the upper portion of each ACTIVE WORK ZONE WHEN FLASHING Sign (W21-19). Activate the light only when workers are present, and turn off the flashing light when workers are not present for 60 minutes or more. The following additional guidance is provided, depending on the type of sign support:

(i) *Signs on temporary sign posts or Type III barricades.* These sign supports are generally used on long-term construction projects. When signs are installed on temporary sign posts or Type III barricades, any Department-approved Type B light with a clear bulb or white LEDs, and a clear lens may be used providing the light is mounted similar to other Type B lights (that is, in accordance with § 203.82(b)(iv) (relating to warning lights)).

(ii) *Signs on portable sign supports.* Do not use orange flags in these sign supports. The Department is developing specifications for these white flashing lights and will identify acceptable models in Section 901 (entitled “*Traffic Accommodation and Control*”) of the Department’s “*Bulletin 15: Approved Construction Materials*,” (which can be viewed at ftp://ftp.dot.state.pa.us/public/pdf/bulletin_15.pdf). Until approved white flashing lights are identified and published in Bulletin 15, any flashing white light may be used provided the light is visible for a minimum of 500 feet to an ordinarily observant person; and the light or the portion of the light attached to the sign stand weighs no more than 16 ounces and is physically attached to the sign stand so as not to come loose if impacted by an errant vehicle. Two interim options are:

(A) Use the white “High Visibility Warning Light” which fits into a flag tree, as distributed by the Pennsylvania Industry for the Blind and Handicapped, commodity code no. 9905-7000-200.

(B) Position any approved Type B light with a clear bulb or white LEDs, and a clear lens on the ground at the base of the sign stand.

(5) Install the END ACTIVE WORK ZONE Sign (W21-20) immediately at the end of each “active work zone,” except this sign is not necessary if either the END ROAD WORK Sign (G20-2a) or the END WORK AREA Sign (G20-3) is installed at the end of the active work zone.

(6) A portable changeable message sign (PCMS) may be used in lieu of the static signs to inform drivers that:

(i) Motorists must turn on headlights.

(ii) It is an active work zone and increased penalties apply.

(iii) It is the end of the active work zone. If a PCMS cannot accommodate nine-character words such as “INCREASED” and “PENALTIES,” use similar words such as “HIGHER PENALTY,” “HEAVY FINES,” and the like. PCMSs may be used in lieu of the “official traffic signs” described in this chapter, including the regulatory R22-1 sign. These PCMSs need not be exclusively dedicated to these messages, but may alternately be used to inform motorists of other messages such as “SLOW DOWN,” “LEFT LANE CLOSED AHEAD,” and the like.

(7) Install appropriate signs and lights identified in this section on side road approaches to the work zone if the side road is a numbered traffic route or a ramp from a freeway. If any of these side roads directly enters the active work zone, include all signs and lights as specified for the primary approaches to the work zone.

(8) On Interstate highway work zones with a project cost exceeding \$300,000, use a “speed display sign” on each approach to the work zone to advise motorists of their vehicles’ speed. The following guidance is provided:

(i) The Department does not currently have a list of approved speed display signs, but to facilitate future purchases, the Department will identify acceptable models and publish a list in Section 901 (“*Traffic Accommodation and Control*”) of the Department’s “*Bulletin 15: Approved Construction Materials*.” Until a list is published, use either a post-mounted or trailer-mounted model that:

(A) Has the capability of determining the speed of an approaching vehicle by radar and compensating for the “cosine affect.”

(B) Displays the motorist’s speed in numerals at least 18 inches in height using LED or some other type of illuminated numerals.

(C) When vehicles are not present or when the measured speed is more than 30 mph over the speed limit, the speed panel should go blank.

(ii) As an alternative, Department-approved portable changeable message signs (PCMSs) may be equipped with radar and programmed to display vehicles’ speeds. PCMSs may also flash appropriate messages such as “YOU ARE SPEEDING” or “SLOW DOWN.” Place the signs 1/2 to 1 mile in advance of the physical work area.

(9) Agencies administering highway construction, utility work and maintenance operations shall mandate the application of the following good management principles:

(i) Keep the work zones as short as practical to avoid long stretches with no work activity.

(ii) Minimize lane restrictions.

(iii) Remove all traffic-control devices as soon as practical after the construction, maintenance or utility operation is complete.

§ 204.4. Exemptions.

Although Act 229 is very specific in defining the need to install traffic-control devices, there are times when installing these devices would be extremely difficult and other times when it could be counterproductive from a safety perspective. Therefore, the Department has determined that in the interest of safety and in keeping with the legislative intent of the law, the installation of the R22-1, W21-19 and W21-20 signs and the flashing white lights are not required for any of the following situations:

(1) Moving operations, that is, work zones that move at an average speed of more than 1 mph (88 feet per minute).

(2) Work zones where the duration of the construction, maintenance, or utility operation is less than 2 hours.

(3) Work zones on roadways with a posted speed limit of 25 mph or less.

(4) Work zones on roadways with a posted speed limit

of 35 mph or less or a traffic volume less than 1,000 vehicles a day, when all traffic-control devices are removed at the end of the day.

(5) Work zones where the length of highway where the actual construction, maintenance or utility work operation is occurring is less than 250 feet, and all traffic-control devices are removed at the end of the day.

§ 204.5. Sign standards.

Standards for the following signs are included in Appendix A:

(1) WORK ZONE—TURN ON HEADLIGHTS Sign (R22-1)

(2) ACTIVE WORK ZONE WHEN FLASHING Sign (W21-19)

(3) END ACTIVE WORK ZONE Sign (W21-20)

§ 204.6. Questions.

Inquiries about this chapter may be referred to:
 Pennsylvania Department of Transportation
 Bureau of Highway Safety and Traffic Engineering
 P. O. Box 2047
 Harrisburg, PA 17105-2047
 (717) 787-3620
 Fax: (717) 783-8012

STATEMENTS OF POLICY

APPENDIX A

R22-1

WORK ZONE-TURN ON HEADLIGHTS SIGN

(a) Justification. The Work Zone-Turn on Headlights Sign (R22-1) shall be used in advance of work zones in accordance with Department guidelines. When used, the R22-1 sign should generally be installed as the first sign approaching the work zone.

(b) Size. The larger (1800 mm x 1200 mm) size should be used for long-term operations on expressways and freeways.



SIGN SIZE AxB	DIMENSIONS (IN MILLIMETERS)													MAR-GIN	BOR-DER	BLANK STD.
	C	D	E	F	G	H	J	K	L	M	N	P				
1200x900	53	150C	75C	65	150C	22	74	96	515	232	385	505	15	20	B5-1200900	
1800x1200	67.5	2000	1000	100	2000	32.5	82	118	804	370	598	777*	15	20	—	

* REDUCE SPACING 20%.

COLOR:

LEGEND AND BORDER:
BLACK (NON-REFLECTORIZED)

BACKGROUND:
TOP: ORANGE (REFLECTORIZED)

BOTTOM: WHITE (REFLECTORIZED)

APPROVED FOR THE

Date 2/10/03

Secretary of Transportation

By : Art Breneman
Chief, Traffic Engineering and Operations Division
Bureau of Highway Safety and Traffic Engineering

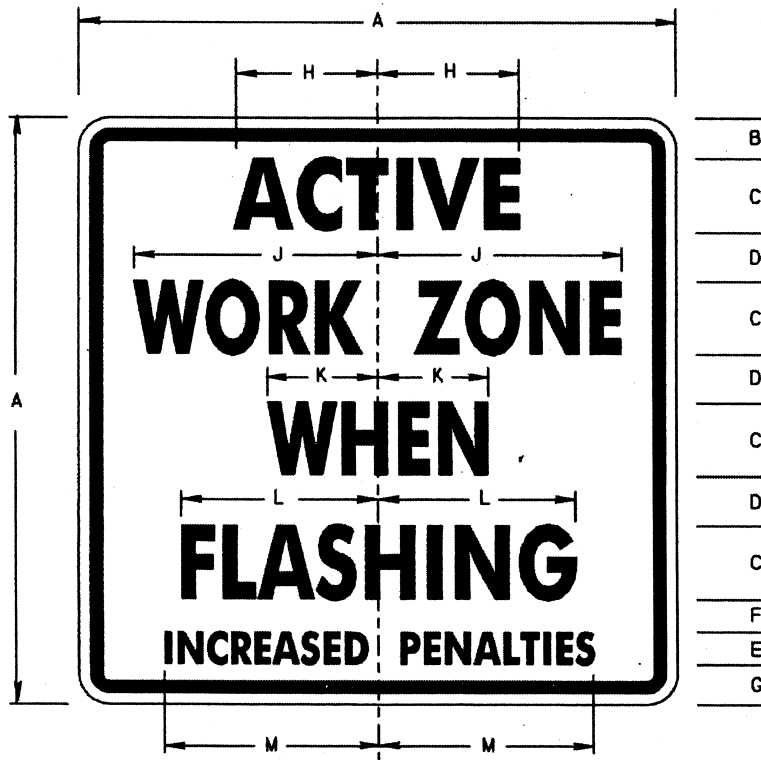
R22-1.DGN

W21-19

ACTIVE WORK ZONE WHEN FLASHING SIGN

(a) Justification. The Active Work Zone When Flashing Sign (W21-19) shall be used in advance of an "active work zone" in accordance with Department guidelines to advise motorists that construction, maintenance or utility workers are on the roadway, berm or shoulder, and that increased penalties apply. The W21-19 sign shall be equipped with a flashing white light that is activated when workers are present and when flashing shall be readily visible both day and night by an ordinarily observant person. When workers are not present for more than 60 minutes, the flashing light shall be turned off.

(b) Placement. When used, the W21-19 sign shall be erected as close as practical to the beginning of the active work zone, except motorists' safety should not be compromised by erecting the signs within transitions or at other locations where the sign could be especially distracting. When a work zone has more than one active work zone and the active work zones are more than 1 mile apart, each active work zone shall be signed individually with this sign.



SIGN SIZE AxA	DIMENSIONS (IN MILLIMETERS)											MAR- GIN	BOR- DER	BLANK STD.
	B	C	D	E	F	G	H	J	K	L	M			
900x900	62	113C	75	50C	50	61	212	367	165	296	322	15	20	B3-900
1200x1200	86	150C	88	75C	75	100	282	490	220	395	483	20	25	B3-1200

COLOR:

LEGEND AND BORDER:

BLACK (NON-REFLECTORIZED)

BACKGROUND:

ORANGE (REFLECTORIZED)

APPROVED FOR THE

Date 2/26/03

Secretary of Transportation

By : *A.H. Brown*
 Chief, Traffic Engineering and Operations Division
 Bureau of Highway Safety and Traffic Engineering

W21_19.DGN

W21-20

END ACTIVE WORK ZONE SIGN

The End Active Work Zone Sign (W21-20) should be installed immediately at the end of each "active work zone" when signs are erected at the beginning of the active work zone to advise of increased penalties. However, the W21-20 sign is not necessary if the End Road Work Sign (G20-2a) or the End Work Area Sign (G20-3) is located at this location.



SIGN SIZE AxA	DIMENSIONS (IN MILLIMETERS)								MAR- GIN	BOR- DER	BLANK STD.
	B	C	D	E	F	G	H	J			
900x900	246	88	125E	87	75	177	337	267	15	20	B3-900
1200x1200	295	113	150E	112	125	213	404	320	15	20	B3-1200

COLOR:
LEGEND AND BORDER:
BLACK (NON-REFLECTORIZED)
BACKGROUND:
ORANGE (REFLECTORIZED)

APPROVED FOR THE Date 2/20/03
Secretary of Transportation
By : Art Brener
Chief, Traffic Engineering and Operations Division
Bureau of Highway Safety and Traffic Engineering

W21_20.DGN

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