

## GENERAL NOTES

(1) THE FOLLOWING OPTIONS MAY BE USED AS ADVANCE WARNING SIGNS:

- A. TRUCK MOUNTED ADVANCE WARNING SIGNS
- B. MOVING CHANGEABLE MESSAGE SIGN (CMS)
- C. GROUND MOUNTED ADVANCE WARNING SIGNS  
(MUST USE 'NEXT 10 MILES' AND MAKE CIRCLE TO PICK UP SIGNS)
- D. STATIONARY CHANGEABLE MESSAGE SIGN (CMS)  
(MUST USE 'NEXT 10 MILES' AND MAKE CIRCLE TO PICK UP CMS)

(2) ADDITIONAL VEHICLES SHOULD BE USED IN WORK CARAVAN TO FACILITATE DRYING OF PAVEMENT MARKING MATERIAL - TMIA'S ARE OPTIONAL ON THESE ADDITIONAL VEHICLES. HOWEVER, THE FIRST VEHICLE MOTORISTS SEE SHOULD HAVE A TMIA.

(3) ROUND UP MILEAGE TO NEXT WHOLE MILE. WORK ZONE SHOULD NOT EXCEED TEN (10) MILES IN LENGTH.

(4) DISTANCE BETWEEN APPLICATION VEHICLE AND PROTECTION VEHICLE WILL VARY AS DRYING TIMES VARY, HOWEVER, THE CRITICAL FACTOR IS PASSING MOTORISTS. IF THE GAP BETWEEN VEHICLES IS TOO GREAT, MOTORISTS WILL ATTEMPT TO PASS AND ULTIMATELY APPEAR IN THE MIDDLE OF THE OPERATION.

(5) MOUNTING HEIGHT DIMENSIONS FROM ROADWAY TO SIGN SHOULD BE A MINIMUM OF FIVE (5) FEET FOR INTERSTATES, OTHER HIGH VOLUME ROADWAYS, OR ROADWAYS THAT MAY REQUIRE A MOUNTING HEIGHT OF FIVE (5) FEET FOR INCREASED VISIBILITY AND A MINIMUM OF ONE (1) FOOT FOR ALL OTHER ROADWAYS.

(6) SIGN SPACING SHOULD BE ADJUSTED FOR HORIZONTAL AND VERTICAL CURVES, ETC. TO IMPROVE SIGHT DISTANCES.

(7) SIGN W26-188P OR R4-7A SHOULD BE PLACED ON FRONT OF APPLICATION VEHICLE AND SIGN W26-188P OR INFORMATIONAL SIGN ON BACK OF PROTECTION VEHICLE IN TWO-LANE, TWO-WAY TRAFFIC SO VEHICLES APPROACHING FROM FRONT AND REAR ARE NOTIFIED OF OPERATION.

(8) RADIO COMMUNICATION BETWEEN VEHICLES IS RECOMMENDED.

(9) USE OF A LIGHT BAR ON THE ADVANCE WARNING VEHICLE IS PREFERRED, BUT A ROTATING BEACON MAY BE USED INSTEAD.

(10) USE OF A CMS WITH ADVANCED WARNING VEHICLES IS OPTIONAL.

(11) IF WORK IS PERFORMED AT NIGHT, THE FOLLOWING PROVISIONS MUST BE MADE:






- A. GROUND MOUNTED SIGNS MUST HAVE TYPE B FLASHING LIGHTS ATTACHED (TRUCK MOUNTED SIGNS DO NOT REQUIRE TYPE B FLASHING LIGHTS)
- B. OPERATION MUST INCLUDE A CHANGEABLE MESSAGE SIGN (CMS)
- C. WORK AREA MUST BE ILLUMINATED WITH MACHINE AND/OR TOWER LIGHTS AS APPROVED BY THE ENGINEER.

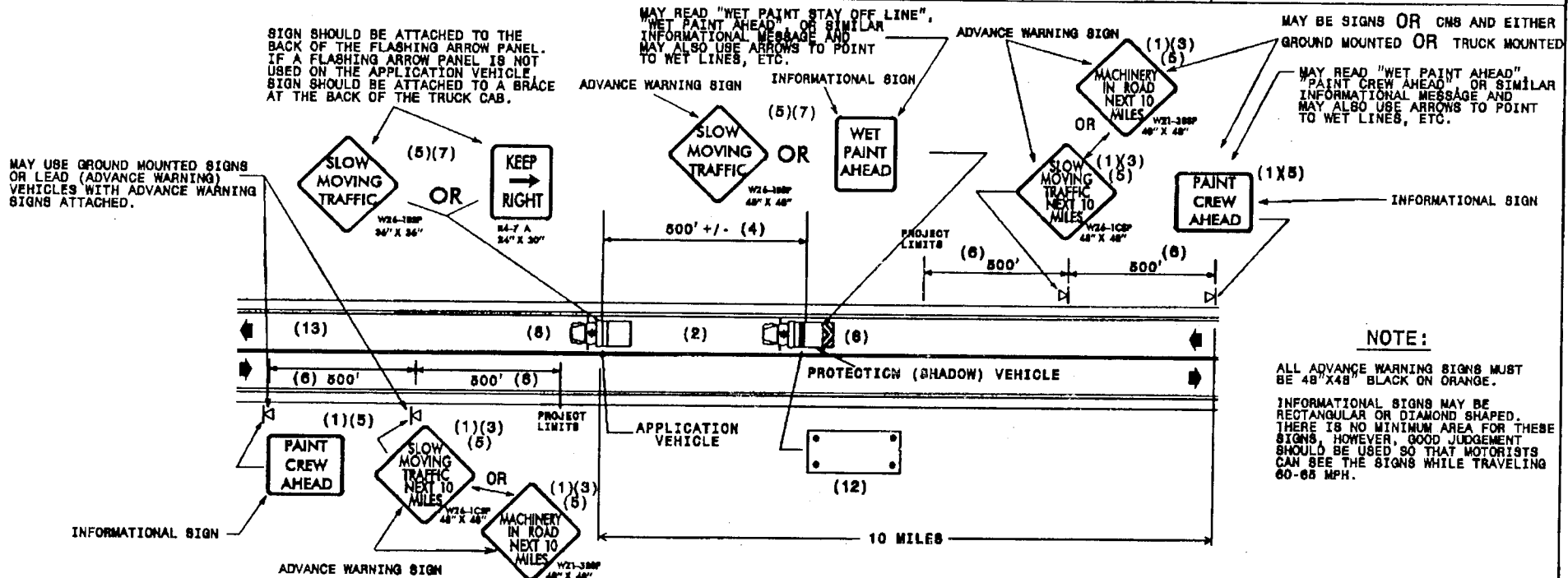
(12) USE A TYPE "B" FLASHING ARROW PANEL.

PANEL TYPE	MIN. SIZE
B	60"X30"

(13) IF A LEAD VEHICLE IS ADDED TO OPERATION, IT SHOULD HAVE THE SAME ADVANCE WARNING SIGNS AS THE APPLICATION VEHICLE SHOWN BELOW.

## LEGEND

-  PORTABLE SIGN
-  DIRECTION OF TRAFFIC FLOW
-  APPLICATION VEHICLE WITH ROTATING BEACON
-  PROTECTION VEHICLE WITH TRUCK MOUNTED IMPACT ATTENUATOR (TMIA) AND ROTATING BEACON (SEE ROADWAY STANDARD NO. 1168.01)
-  FLASHING ARROW PANEL, TYPE "B" "CAUTION MODE"



# MOVING OPERATION CARAVAN

(OPERATIONS TRAVELING 3 MPH OR FASTER)

PLACING MARKING OR MARKERS ON TWO-LANE TWO-WAY ROADWAYS







**DRAWING NUMBER 6**  
IMPLEMENTATION DATE: 07/01/97  
REVISED: 04/25/97

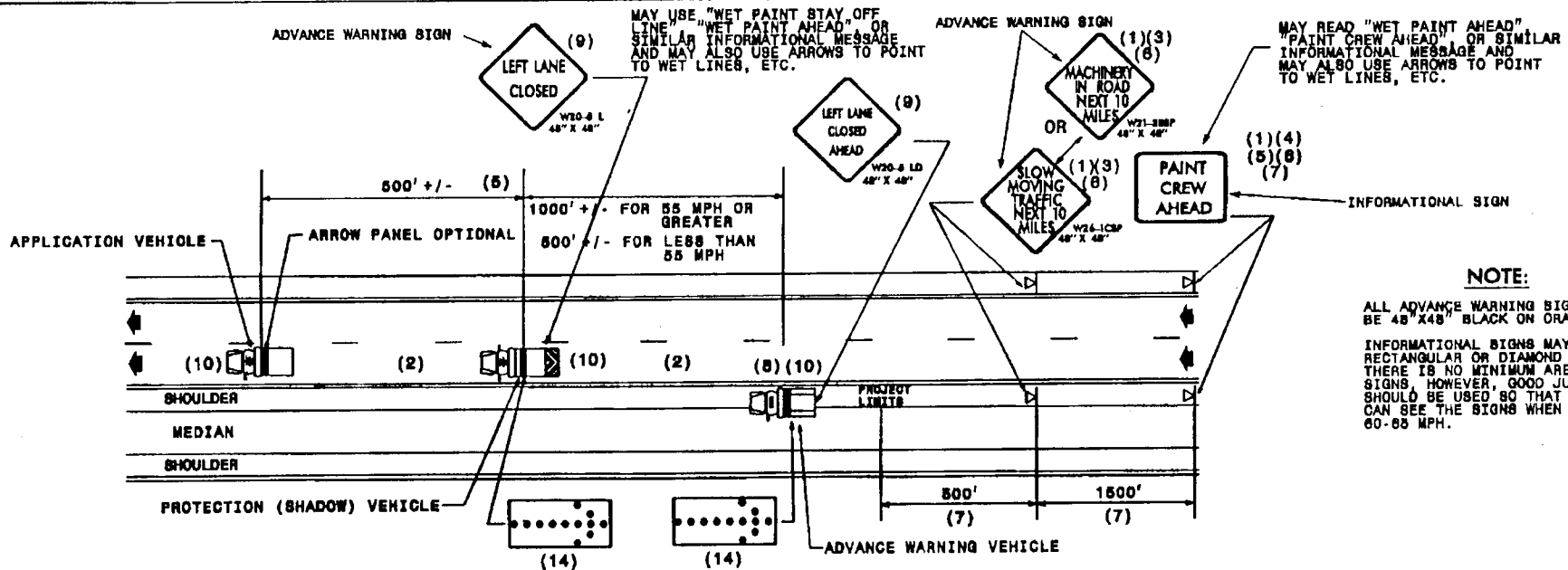
## GENERAL NOTES

- (1) THE FOLLOWING OPTIONS MAY BE USED FOR ADVANCE WARNING SIGNS:
  - A. TRUCK MOUNTED ADVANCE WARNING SIGNS
  - B. TRUCK MOUNTED CHANGEABLE MESSAGE SIGN (CMS)
  - C. GROUND MOUNTED ADVANCE WARNING SIGNS  
(MUST USE "NEXT 10 MILES" AND CIRCLE TO PICK UP SIGNS)
  - D. GROUND MOUNTED CHANGEABLE MESSAGE SIGN (CMS)  
(MUST USE "NEXT 10 MILES" AND CIRCLE TO PICK UP CMS)
- (2) ADDITIONAL VEHICLES SHOULD BE USED IN WORK CARAVAN TO FACILITATE DRYING OF PAVEMENT MARKING MATERIAL - TMIA'S ARE OPTIONAL ON THESE ADDITIONAL VEHICLES. HOWEVER, THE FIRST VEHICLE MOTORISTS SEE SHOULD HAVE A TMIA.
- (3) ROUND UP MILEAGE TO NEXT WHOLE MILE. WORK ZONE SHOULD NOT EXCEED TEN (10) MILES IN LENGTH.
- (4) SIGNS SHOULD BE ACTIVITY SPECIFIC I.E., PAINT CREW AHEAD (W21-001 C 48" X 48")
- (5) DISTANCE BETWEEN APPLICATION VEHICLE AND PROTECTION VEHICLE WILL VARY AS DRYING TIMES VARY, HOWEVER, THE CRITICAL FACTOR IS PASSING MOTORISTS. IF THE GAP BETWEEN VEHICLES IS TOO GREAT, MOTORISTS WILL ATTEMPT TO PASS AND ULTIMATELY APPEAR IN THE MIDDLE OF THE OPERATION.
- (6) MOUNTING HEIGHT DIMENSIONS FROM ROADWAY TO SIGN SHOULD BE A MINIMUM OF FIVE (5) FEET FOR INTERSTATES, OTHER HIGH VOLUME ROADWAYS, OR ROADWAYS THAT MAY REQUIRE A MOUNTING HEIGHT OF FIVE (5) FEET FOR INCREASED VISIBILITY AND A MINIMUM OF ONE (1) FOOT FOR ALL OTHER ROADWAYS.
- (7) SIGN SPACING SHOULD BE ADJUSTED FOR HORIZONTAL AND VERTICAL CURVES, ETC. TO IMPROVE SIGHT DISTANCES.
- (8) USE AN ADVANCE WARNING VEHICLE(S) WITH FLASHING ARROW PANELS ON SHOULDERS TO SUPPLEMENT TRAFFIC SHIFTS. USE OF CMS ON THIS VEHICLE(S) IS OPTIONAL.
- (9) SIGN W20-5L SHOULD BE PLACED ON BACK OF PROTECTION VEHICLE AND SIGN W20-5LD ON BACK OF ADVANCE WARNING VEHICLE IN MULTILANE DIVIDED TRAFFIC DIVIDED VEHICLES APPROACHING FROM REAR ARE NOTIFIED OF OPERATION.
- (10) RADIO COMMUNICATION BETWEEN VEHICLES IS RECOMMENDED.
- (11) USE OF A LIGHT BAR ON THE ADVANCE WARNING VEHICLE IS PREFERRED, BUT A ROTATING BEACON MAY BE USED INSTEAD.
- (12) USE OF A CMS ON ADVANCED WARNING VEHICLES IS OPTIONAL.
- (13) IF WORK IS PERFORMED AT NIGHT, THE FOLLOWING PROVISIONS MUST BE MADE:
  - A. GROUND MOUNTED SIGNS MUST HAVE TYPE B FLASHING LIGHTS ATTACHED (TRUCK MOUNTED SIGNS DO NOT REQUIRE TYPE B FLASHING LIGHTS)
  - B. OPERATION MUST INCLUDE A CHANGEABLE MESSAGE SIGN (CMS)
  - C. WORK AREA MUST BE ILLUMINATED WITH MACHINE AND/OR TOWER LIGHTS AS APPROVED BY THE ENGINEER.
- (14) USE A TYPE "B" FLASHING ARROW PANEL.

PANEL TYPE	MIN. SIZE
B	60" X 30"

## LEGEND

-  PORTABLE SIGN
-  DIRECTION OF TRAFFIC FLOW
-  APPLICATION VEHICLE WITH ROTATING BEACON
-  PROTECTION VEHICLE WITH TRUCK MOUNTED IMPACT ATTENUATOR (TMIA) AND ROTATING BEACON (SEE ROADWAY STANDARD NO. 1196.01)
-  ADVANCE WARNING VEHICLE I.E., PICKUP TRUCK WITH MOUNTED SIGN
-  FLASHING ARROW PANEL, TYPE "B" APPROPRIATE DIRECTION INDICATED



# MOVING OPERATION CARAVAN

(OPERATIONS TRAVELING 3 MPH OR FASTER)  
PLACING PAVEMENT MARKING OR MARKERS ON  
INTERSTATE & MULTILANE DIVIDED ROADWAYS

**DRAWING NUMBER 7**  
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