



STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION  
DESIGN DIVISION  
NASHVILLE, TENNESSEE 37243-0348

INSTRUCTIONAL BULLETIN NO. 09-05

Regarding Revised Traffic Control for Lane Closure Standard Drawings  
T-WZ-11, 12, 13, 14, 15, 16, 18, and 19

**Effective for the August 7, 2009 letting**, the revised Traffic Control for Lane Closure Standard Drawings T-WZ-11, 12, 13, 14, 15, 16, 18, and 19 are to be printed with the plans. These drawings shall be identified on the lower left side of the index sheet **“To be printed with plans”** until the drawings are formally distributed.

Copies of the revised standard drawings are attached.

<u>DRAWING NUMBER</u>	<u>CURRENT REVISION DATE</u>	<u>DESCRIPTION</u>
T-WZ-11	03/13/2009	One Lane Closure on Divided Highways
T-WZ-12	03/13/2009	One Lane Closure Detail for Bridges on Divided Highways
T-WZ-13	03/13/2009	Two-Outside Lane Closure on Freeway or Expressway
T-WZ-14	03/13/2009	Two-Outside Lane Closure on Interstates or Expressways
T-WZ-15	03/13/2009	Interior Lane Closure on Freeways or Expressways
T-WZ-16	03/13/2009	Lane Shift on Divided Highways and Freeways
T-WZ-18	03/13/2009	Shoulder Closure Detail for Freeways and Divided Highways
T-WZ-19	03/13/2009	Median Cross-Over Detail on Divided Highways

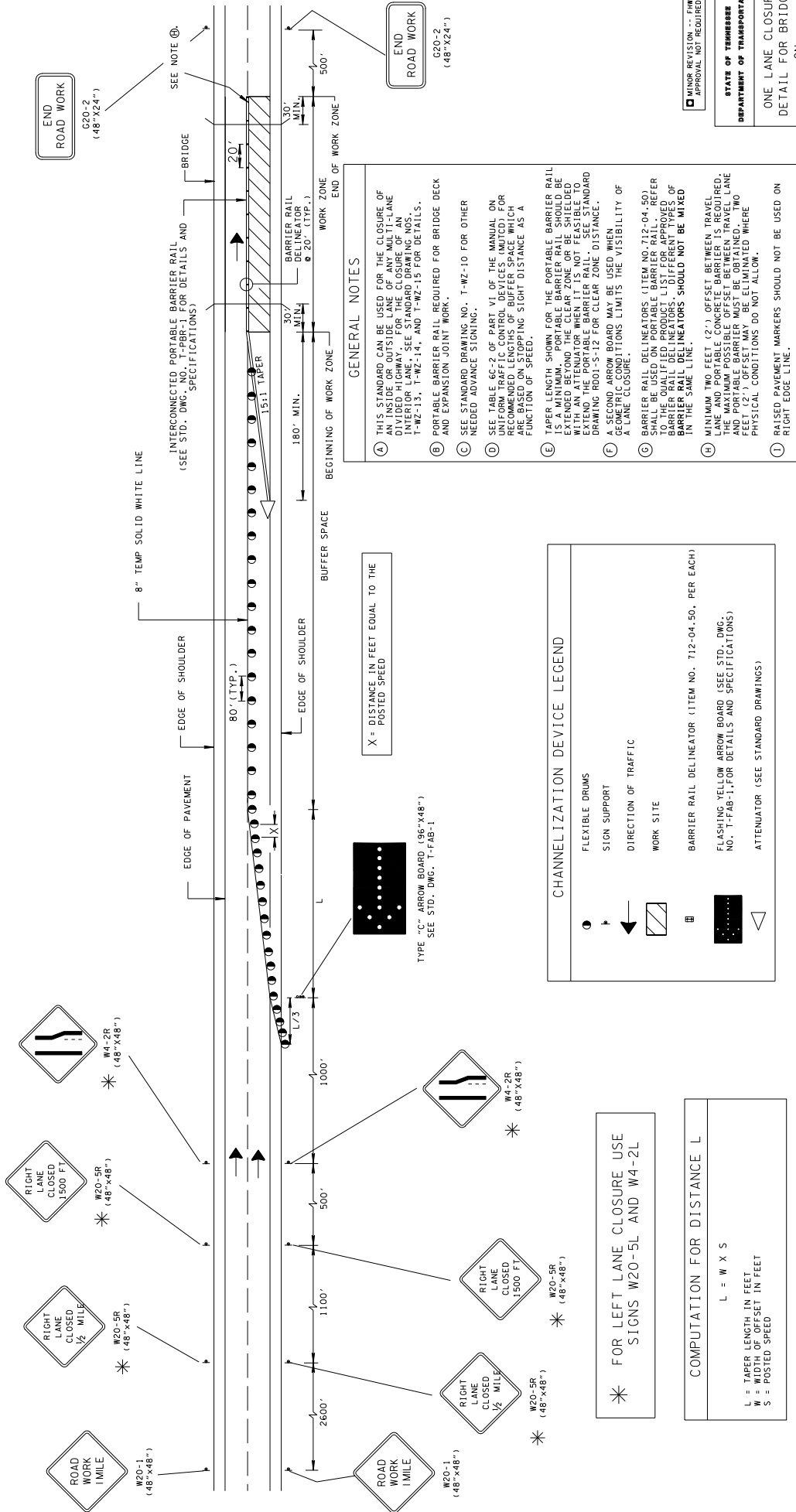
Original signed by Jeff C. Jones  
Jeff C. Jones, Civil Engineering Director  
Design Division

April 3, 2009  
JCJ:MJA:arh  
Attachment



- REV. 10-06-06: CHANGED ITEM NO. FOR BARRIER RAIL DELINEATOR. CHANGED GENERAL NOTE (C) TO CHANGED GENERAL NOTE (E).
- REV. 12-18-99: MODIFIED GENERAL NOTE (E).
- REV. 03-13-09: CHANGED GENERAL NOTE (E) AND ATTENUATOR LEGEND DESCRIPTION.
- REV. 4-15-99: ADDED GENERAL NOTE (C).
- REV. 4-15-04: CHANGED W4-2 SIGN. CHANGED GENERAL NOTE (E) TO COMPLY WITH 2003 MUTCD.
- REV. 9-1-05: REMOVED TYPE "C" DRUMS IN TAPER.
- REV. 5-12-06: REPLACED VERTICAL PANEL WITH BARRIER RAIL DELINEATORS. ADDED GENERAL NOTES (C) & (E).

TRAFFIC CONTROL FOR ONE LANE (RIGHT OR LEFT) CLOSURE FOR BRIDGES ON DIVIDED HIGHWAYS



- GENERAL NOTES**
- A THIS STANDARD CAN BE USED FOR THE CLOSURE OF AN INSIDE OR OUTSIDE LANE OF ANY MULTI-LANE DIVIDED HIGHWAY. FOR THE CLOSURE OF AN INTERIOR LANE, SEE STANDARD DRAWING NOS. T-WZ-13, T-WZ-14, AND T-WZ-15 FOR DETAILS.
  - B PORTABLE BARRIER RAIL REQUIRED FOR BRIDGE DECK AND EXPANSION JOINT WORK.
  - C SEE STANDARD DRAWING NO. T-WZ-10 FOR OTHER NEEDED ADVANCE SIGNING.
  - D SEE TABLE 60-2 OF PART VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FOR RECOMMENDED LENGTHS OF BUFFER SPACE WHICH ARE BASED ON STOPPING SIGHT DISTANCE AS A FUNCTION OF SPEED.
  - E TAPER LENGTH SHOWN FOR THE PORTABLE BARRIER RAIL IS A MINIMUM. PORTABLE BARRIER RAIL SHOULD BE EXTENDED BEYOND THE CLEAR ZONE OR BE SHIELDED BY PORTABLE BARRIER RAIL. SEE STANDARD DRAWING R01-5-12 FOR CLEAR ZONE DISTANCE.
  - F A SECOND ARROW BOARD MAY BE USED WHEN GEOMETRIC CONDITIONS LIMITS THE VISIBILITY OF A LANE CLOSURE.
  - G BARRIER RAIL DELINEATORS (ITEM NO. 712-04-50) SHALL BE USED ON PORTABLE BARRIER RAIL. REFER TO STANDARD DRAWING R01-5-12 FOR DETAILS OF BARRIER RAIL DELINEATORS. DIFFERENT TYPES OF BARRIER RAIL DELINEATORS SHOULD NOT BE MIXED IN THE SAME LANE.
  - H MINIMUM TWO FEET (2') OFFSET BETWEEN TRAVEL LANE AND PORTABLE CONCRETE BARRIER IS REQUIRED. PORTABLE BARRIER MUST BE OBTAINED WITH TWO FEET (2') OFFSET MAY BE ELIMINATED WHERE PHYSICAL CONDITIONS DO NOT ALLOW.
  - I RAISED PAVEMENT MARKERS SHOULD NOT BE USED ON RIGHT EDGE LINE.

**CHANNELIZATION DEVICE LEGEND**

	FLEXIBLE DRUMS
	SIGN SUPPORT
	DIRECTION OF TRAFFIC
	WORK SITE
	BARRIER RAIL DELINEATOR (ITEM NO. 712-04-50, PER EACH)
	FLASHING YELLOW ARROW BOARD (SEE STD. DWG. NO. T-FAB-1, FOR DETAILS AND SPECIFICATIONS)
	ATTENUATOR (SEE STANDARD DRAWINGS)

\* FOR LEFT LANE CLOSURE USE SIGNS W20-5L AND W4-2L

**COMPUTATION FOR DISTANCE L**

$L = W \times S$

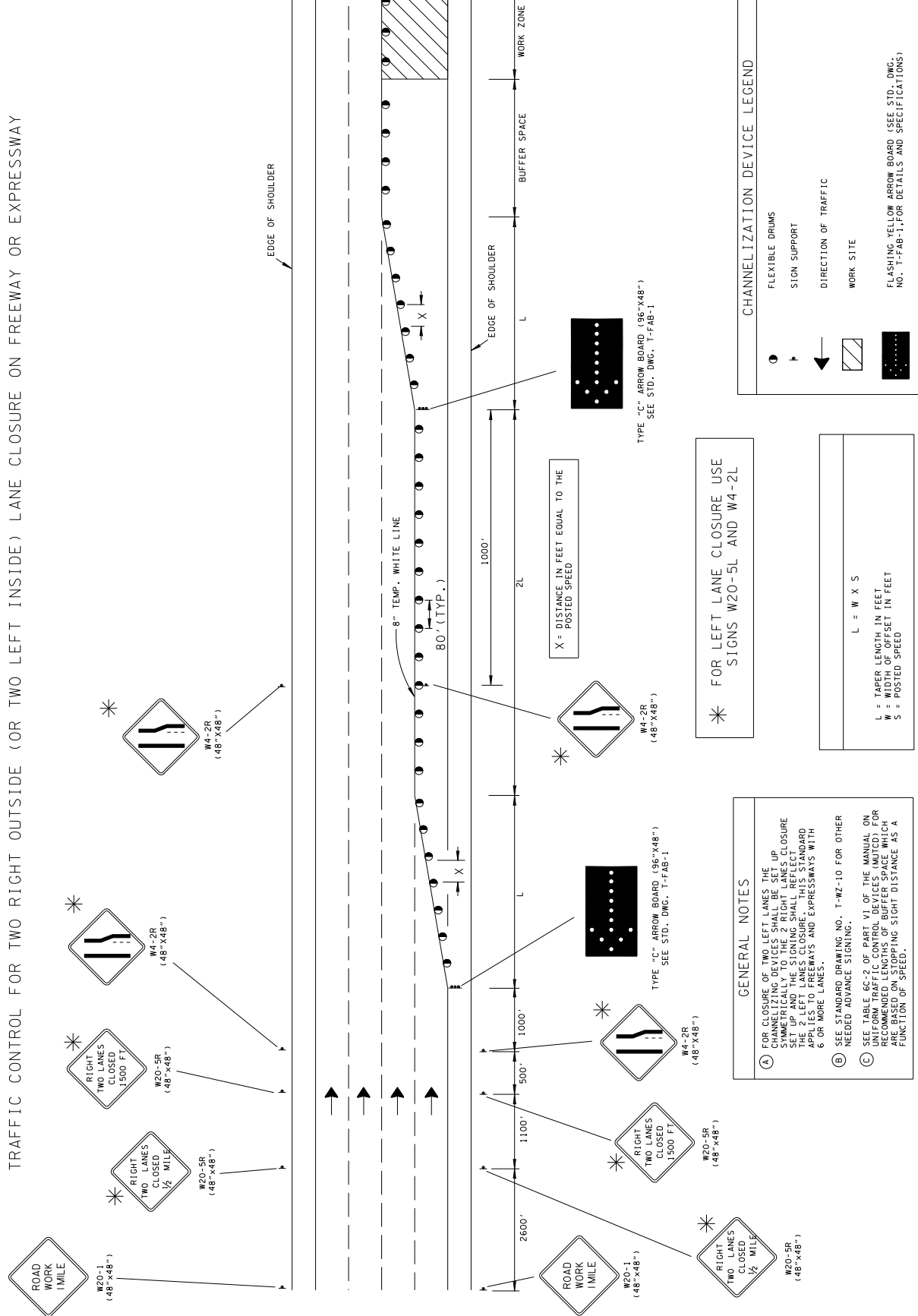
L = TAPER LENGTH IN FEET  
W = WIDTH OF OFFSET IN FEET  
S = POSTED SPEED

X = DISTANCE IN FEET EQUAL TO THE POSTED SPEED

TYPE "C" ARROW BOARD (96"x48") SEE STD. DWG. T-FAB-1

TRAFFIC CONTROL FOR TWO RIGHT OUTSIDE (OR TWO LEFT INSIDE) LANE CLOSURE ON FREEWAY OR EXPRESSWAY

- REV. 12-18-99: MODIFIED HEADING AND ADDED BLOCKED IN NOTE FOR TWO LEFT INSIDE LANE CLOSURE.
- REV. 4-15-04: CHANGED W4-2 SIGN WITH 2003 MUTCD. NOTE TO COMPLY WITH 2003 MUTCD.
- REV. 9-1-05: REMOVED TYPE "C" WARNING LIGHTS FROM FLEXIBLE DRUMS IN TAPER.
- REV. 03-13-09: MODIFIED FLEXIBLE DRUM SPACING.



END ROAD WORK  
G20-2A  
(48"x24")

END ROAD WORK  
G20-2A  
(48"x24")

X = DISTANCE IN FEET EQUAL TO THE POSTED SPEED

TYPE "C" ARROW BOARD (96"x48")  
SEE STD. DWG. T-FAB-1

FOR LEFT LANE CLOSURE USE SIGNS W20-5L AND W4-2L

**GENERAL NOTES**

A FOR CLOSURE OF TWO LEFT LANES THE CHANNELIZING DEVICES SHALL BE SET UP SYMMETRICALLY TO THE 2 RIGHT LANES CLOSURE SET UP AND THE SIGNING SHALL REFLECT APPLICABLE TO FREEWAYS AND EXPRESSWAYS WITH 6 OR MORE LANES.

B SEE STANDARD DRAWING NO. T-WZ-10 FOR OTHER REEDED ADVANCE SIGNING.

C SEE TABLE 6C-2 OF PART VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES MUTCD FOR DIMENSIONS AND SPACING. DIMENSIONS AND SPACING ARE BASED ON STOPPING SIGHT DISTANCE AS A FUNCTION OF SPEED.

**CHANNELIZATION DEVICE LEGEND**

- FLEXIBLE DRUMS
- SIGN SUPPORT
- DIRECTION OF TRAFFIC
- WORK SITE

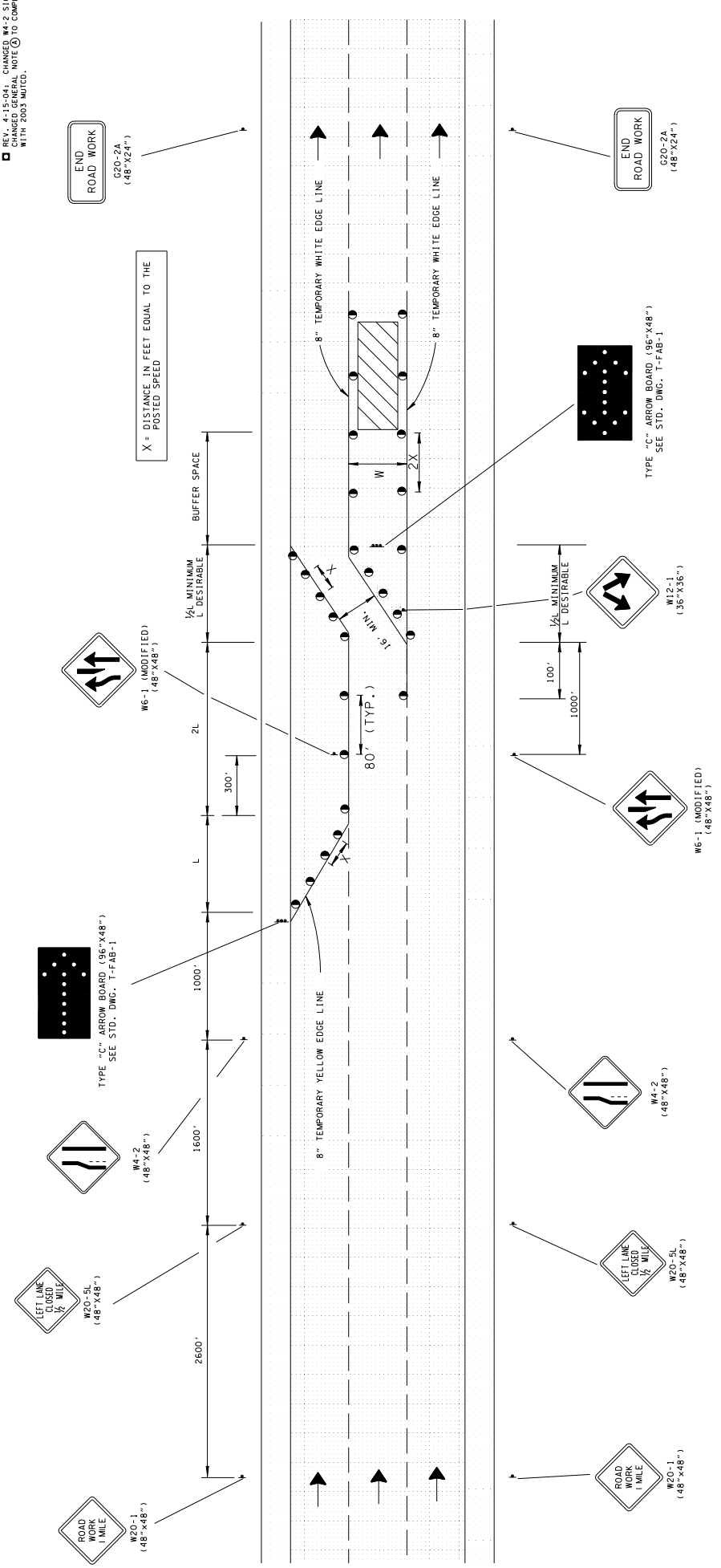
FLASHING YELLOW ARROW BOARD (SEE STD. DWG. NO. T-FAB-1, FOR DETAILS AND SPECIFICATIONS)

L = W X S  
L = TAPER LENGTH IN FEET  
W = WIDTH OF OFFSET IN FEET  
S = POSTED SPEED



- REV. 9-1-05: REMOVED TYPE "C" WARNING LIGHTS FROM FLEXIBLE DRUMS. MODIFIED HEADING AND SHEET NAME.
- REV. 5-27-98: CHANGED DRAWING NO. T-WZ-10 TO T-WZ-15. ADDED GENERAL NOTES.
- REV. 1-15-98: CHANGED W4-2 SIGN. CHANGED GENERAL NOTE TO COMPLY WITH 2003 MUTCD.
- REV. 2-28-98: ADDED CHANNELIZATION DEVICE LEGEND.

# TRAFFIC CONTROL FOR INTERIOR LANE CLOSURE ON FREEWAYS OR EXPRESSWAYS



**END ROAD WORK**  
G20-2A  
(48"X24")

**END ROAD WORK**  
G20-2A  
(48"X24")

**TYPE "C" ARROW BOARD** (96"X48")  
SEE STD. DWG. T-FAB-1

**TYPE "C" ARROW BOARD** (96"X48")  
SEE STD. DWG. T-FAB-1

**W12-1** (MODIFIED)  
(36"X36")

**W6-1** (MODIFIED)  
(48"X48")

**W4-2**  
(48"X48")

**W20-5L**  
(48"X48")

**W20-1**  
(48"X48")

**STATE OF TENNESSEE**  
**DEPARTMENT OF TRANSPORTATION**

**INTERIOR LANE CLOSURE ON FREEWAYS OR EXPRESSWAYS**

12-18-94 T-WZ-15

**CHANNELIZATION DEVICE LEGEND**

- FLEXIBLE DRUMS
- SIGN SUPPORT
- DIRECTION OF TRAFFIC
- WORK SITE
- FLASHING YELLOW ARROW BOARD (SEE STD. DWG. NO. T-FAB-1 FOR DETAILS AND SPECIFICATIONS)

**GENERAL NOTES**

(A) SEE TABLE 6C-2 OF PART VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FOR RECOMMENDED LEVELS OF BUFFER SPACE WHICH FUNCTION AS A FUNCTION OF SPEED.

(B) SEE STANDARD DRAWING NO. T-WZ-10 FOR OTHER NEEDED ADVANCE SIGNING.

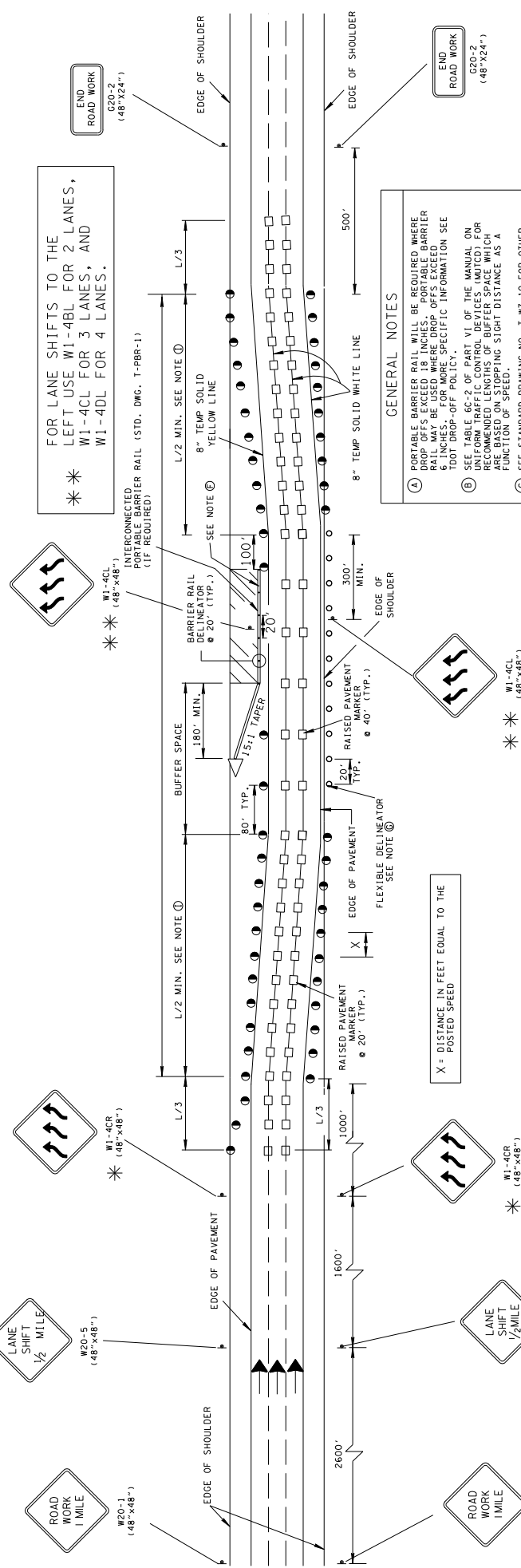
**COMPUTATION FOR DISTANCE L**

L = W X S

L = TAPER LENGTH IN FEET  
W = WIDTH OF OFFSET IN FEET.  
S = POSTED SPEED

# TEMPORARY TRAFFIC CONTROL TYPICAL APPLICATION

- REV. 10-06-06: REPLACED VERTICAL PANELS WITH GROUND WORK DRUMS FOR VERTICAL CHANNELIZATION DEVICE LEGEND.
- REV. 12-18-99: CHANGED OUT FLEXIBLE DRUMS FOR VERTICAL PANELS ALONG OUTSIDE EDGE OF SHOULDER.
- REV. 1-29-03: CHANGED GENERAL NOTE (C) TO COMPLY WITH 2003 MUTCD. WARNING LIGHTS FROM FLEXIBLE DRUMS IN TAPER.
- REV. 4-15-99: MODIFIED CHANNELIZATION DEVICE LEGEND.
- REV. 12-18-99: CHANGED OUT FLEXIBLE DRUMS FOR VERTICAL PANELS ALONG OUTSIDE EDGE OF SHOULDER.
- REV. 1-29-03: CHANGED GENERAL NOTE (C) TO COMPLY WITH 2003 MUTCD. WARNING LIGHTS FROM FLEXIBLE DRUMS IN TAPER.
- REV. 4-15-04: CHANGED GENERAL NOTE (C) TO COMPLY WITH 2003 MUTCD.
- REV. 9-1-05: REMOVED TYPE "C" WARNING LIGHTS FROM FLEXIBLE DRUMS IN TAPER.
- REV. 5-12-06: REPLACED VERTICAL PANELS WITH GROUND WORK DRUMS FOR VERTICAL CHANNELIZATION DEVICE LEGEND.



\* \* \*  
 FOR LANE SHIFTS TO THE LEFT USE W1-4BL FOR 2 LANES, W1-4CL FOR 3 LANES, AND W1-4DL FOR 4 LANES.  
 \* \* \*

- ### GENERAL NOTES
- (A) PORTABLE BARRIER RAIL WILL BE REQUIRED WHERE DROP OFFS EXCEED 18 INCHES. PORTABLE BARRIER RAIL MAY BE USED WHERE DROP OFFS EXCEED 6 INCHES. FOR MORE SPECIFIC INFORMATION SEE FOOT DROPOFF POLICY.
  - (B) SEE THE MANUAL ON THE USE OF THE MANUAL OR PORTABLE TRAFFIC CONTROL DEVICES (MUTCD) FOR RECOMMENDED LENGTHS OF BUFFER SPACE WHICH ARE BASED ON STOPPING SIGHT DISTANCE AS A FUNCTION OF SPEED.
  - (C) SEE STANDARD DRAWING NO. T-WZ-10 FOR OTHER NEEDED ADVANCE SIGNING.
  - (D) TAPER LENGTH SHOWN FOR THE PORTABLE BARRIER RAIL IS A MINIMUM. PORTABLE BARRIER RAIL SHOULD BE USED WITH AN ATTENUATOR WHEN IT IS NOT FEASIBLE TO EXTEND THE PORTABLE BARRIER RAIL. SEE STANDARD DRAWING R001-S-12 FOR CLEAR ZONE DISTANCE.
  - (E) BARRIER RAIL DELINEATORS (ITEM NO. 712-04.50) SHALL BE USED ON PORTABLE BARRIER RAIL. REFER TO THE MANUAL ON THE USE OF PORTABLE BARRIER RAIL DELINEATORS FOR DIFFERENT TYPES OF BARRIER RAIL DELINEATORS. BARRIER RAIL DELINEATORS SHOULD NOT BE MIXED IN THE SAME LINE.
  - (F) MINIMUM TWO FEET (2') OFFSET BETWEEN TRAVEL LANE AND PORTABLE CONCRETE BARRIER IS REQUIRED. PORTABLE BARRIER MUST BE OBTAINED WITH TWO FEET (2') OFFSET MAY BE ELIMINATED WHERE PHYSICAL CONDITIONS DO NOT ALLOW.
  - (G) SEE STANDARD DRAWING T-PBR-2 FOR GROUND MOUNTED FLEXIBLE DELINEATORS (ITEM NO. 713-02.14). REFER TO THE OPL FOR APPROVED FLEXIBLE DELINEATORS.
  - (H) RAISED PAVEMENT MARKERS SHOULD NOT BE USED ON RIGHT EDGE LINE.
  - (I) L/2 IS A MINIMUM TAPER LENGTH. IF CONDITION ALLOW, IT MAY BE INCREASED TO L.

### CHANNELIZATION DEVICE LEGEND

	FLEXIBLE DRUMS
	GROUND OR SURFACE MOUNTED FLEXIBLE DELINEATOR (ITEM NO. 713-02.14 PER EACH)
	SIGN SUPPORT
	DIRECTION OF TRAFFIC
	WORK SITE
	BARRIER RAIL DELINEATOR (ITEM NO. 712-04.50, PER EACH)
	ATTENUATOR (SEE STANDARD DRAWINGS)
	RAISED PAVEMENT MARKER (SEE APPROVED QUALIFIED PRODUCT LIST)

\* \* \*  
 FOR LANE SHIFTS TO THE RIGHT USE W1-4BR FOR 2 LANES, W1-4CR FOR 3 LANES, AND W1-4DR FOR 4 LANES.  
 \* \* \*

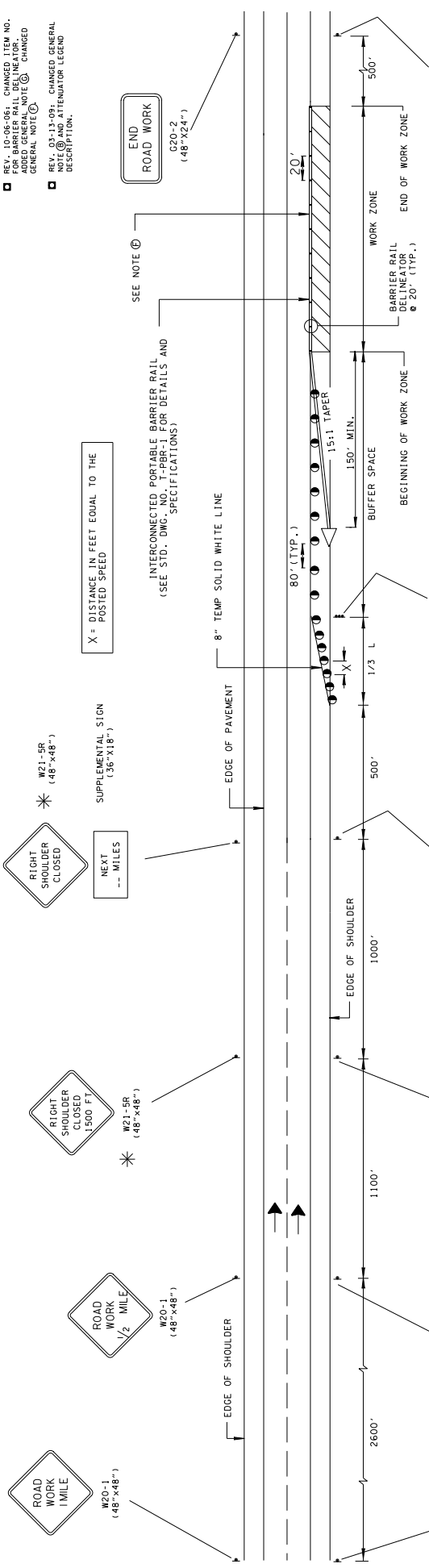
COMPUTATION FOR DISTANCE L

L = W X S

L = TAPER LENGTH IN FEET  
 W = WIDTH OF OFFSET IN FEET  
 S = POSTED SPEED

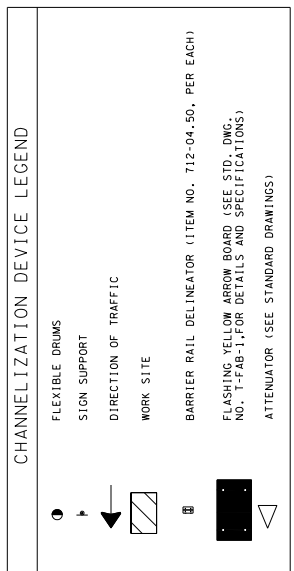
- REV. 4-15-99: MODIFIED CHANNELIZATION DEVICE LEGEND.
- REV. 12-18-99: MODIFIED GENERAL NOTE (A).
- REV. 7-29-03: CHANGED GENERAL NOTE (A) TO COMPLY WITH 2003 MUTCD.
- REV. 4-15-04: CHANGED GENERAL NOTE (A) TO COMPLY WITH 2003 MUTCD.
- REV. 5-12-06: REPLACED VERTICAL PANEL WITH BARRIER RAIL DELINEATORS. ADDED GENERAL NOTES (A) & (C).
- REV. 10-06-06: CHANGED ITEM NO. TO 712-04-50. ADDED GENERAL NOTE (C). CHANGED GENERAL NOTE (A).
- REV. 03-13-09: CHANGED GENERAL NOTE (A) AND ATTENUATOR LEGEND DESCRIPTION.

TRAFFIC CONTROL FOR SHOULDER CLOSURE FOR FREEWAYS AND DIVIDED HIGHWAYS



END ROAD WORK  
G20-2  
(48"x24")

- GENERAL NOTES**
- (A) PORTABLE BARRIER RAIL WILL BE REQUIRED WHERE DROP OFFS EXCEED 18 INCHES. PORTABLE BARRIER RAIL MAY BE USED WHERE DROP OFFS EXCEED 6 INCHES. FOR MORE SPECIFIC INFORMATION SEE DOT DROP-OFF POLICY.
  - (B) TAPER LENGTH SHOWN FOR THE PORTABLE BARRIER RAIL IS MINIMUM. TAPER LENGTH SHOULD BE EXTENDED BEYOND THE CLEAR ZONE OR BE SHIELDED WITH AN ATTENUATOR WHEN IT IS NOT FEASIBLE TO EXTEND THE PORTABLE BARRIER RAIL. SEE STANDARD DRAWING R001-S-12 FOR CLEAR ZONE DISTANCE.
  - (C) SEE STANDARD DRAWING NO. T-WZ-10 FOR OTHER NEEDED ADVANCE SIGNING.
  - (D) SEE TABLE 6C-2 OF PART VI OF THE MANUAL ON SIGNING FOR RECOMMENDED LENGTHS OF BUFFER SPACE WHICH ARE BASED ON STOPPING SIGHT DISTANCE AS A FUNCTION OF SPEED.
  - (E) BARRIER RAIL DELINEATORS (ITEM NO. 712-04-50) SHALL BE USED ON PORTABLE BARRIER RAIL. REFER TO THE QUALIFIED PRODUCT LIST FOR APPROVED BARRIER RAIL DELINEATORS. BARRIER RAIL DELINEATORS SHOULD NOT BE MIXED IN THE SAME LINE.
  - (F) MINIMUM TWO FEET (2') OFFSET BETWEEN TRAVEL LANE AND PORTABLE CONCRETE BARRIER IS REQUIRED. THE MAXIMUM POSSIBLE OFFSET BETWEEN TRAVEL LANE AND PORTABLE CONCRETE BARRIER IS 18 INCHES. NO FEET (2') OFFSET MAY BE MAINTAINED WHERE PHYSICAL CONDITIONS DO NOT ALLOW.
  - (G) RAISED PAVEMENT MARKERS SHOULD NOT BE USED ON RIGHT EDGE LINE.



\* FOR LEFT SHOULDER CLOSURES USE SIGNS W21-5L (LEFT SHOULDER CLOSED 1500 FT AND LEFT SHOULDER CLOSED)

**COMPUTATION FOR DISTANCE L**

$$L = W \times S$$

L = TAPER LENGTH IN FEET  
W = WIDTH OF OFFSET IN FEET  
S = POSTED SPEED



