

**NOTES**

**1. ADVANCE WARNING SIGNAGE**

**SIZE:** MINIMUM SIGN SIZE IS 36". INCREASE SIZE TO 48" ON ROADWAYS WITH POSTED SPEED EQUAL TO OR GREATER THAN 45 MPH OR ON ARTERIAL ROADWAYS WITH 4 LANES OR MORE. ONE-WAY STREETS REQUIRE SIGNS POSTED ON BOTH SIDES OF ROADWAY.

**SPACING:** SPACING BETWEEN SIGNS IS 100' FOR SPEEDS LESS THAN OR EQUAL TO 40 MPH AND 350' FOR SPEEDS GREATER THAN OR EQUAL TO 45 MPH PER TABLE 2: ADVANCE WARNING SIGNS. FIRST SIGN IN SERIES IS PLACED 100' OR 350' PRIOR TO THE FIRST DRUM OR DEVICE. MAINTAIN 200' CLEARANCE FROM EXISTING SIGNAGE WHENEVER POSSIBLE. INSTALL TYPE A LOW INTENSITY FLASHING LIGHTS ON SIGNS AS DIRECTED BY THE OMUTCD PART 6 SECTION 6F-83, CURRENT EDITION, WHEN TEMPORARY TRAFFIC CONTROL DEVICES ARE USED FOR NIGHTTIME ROADWAY AND PEDESTRIAN MAINTENANCE OF TRAFFIC CONTROL SETUPS.

**CONFLICTING SIGNS:** REMOVE OR COVER EXISTING SIGNS LOCATED WITHIN 250' OF FIRST WARNING SIGN AND ALL CONFLICTING SIGNS WITHIN WORK ZONE. END ROAD WORK SIGNS, G-20-2, SHALL ONLY BE USED WHEN CONSTRUCTION EXCEEDS 180 DAYS, AS WHEN SHOWN IN A ROADWAY MAINTENANCE OF TRAFFIC PLAN, OR AS DIRECTED BY THE ENGINEER.

**2. CHANNELIZING DEVICES**

**DRUMS:** DRUMS SHALL HAVE TYPE C OR TYPE D 360 DEGREE STEADY BURN WARNING LIGHTS FOR USE AT NIGHT. DURING DAYTIME OPERATIONS 42" CHANNELIZING DEVICES MAY BE SUBSTITUTED FOR DRUMS WITH THE PERMISSION OF THE ENGINEER.

**DEVICE SPACING:** 40' ON TANGENTS, 20' TAPERS, 6' TO 8' ON RADII 10' MINIMUM LANE WIDTHS SHALL BE MAINTAINED. A MINIMUM OF 5 DRUMS SHALL BE USED TO CLOSE THE UPSTREAM SHOULDER.

**DRUM MOUNTED SIGNS:** CONTRACTOR MAY USE A POLYPROPYLENE FLUTED SHEET FOR SIGNING WHEN PLACING ON TOP OF DRUMS. SIGNS SHALL BE ATTACHED TO THE DRUMS USING APPROPRIATE HARDWARE. ONLY "KEEP RIGHT", "ONE-WAY", AND TURN RESTRICTION SIGNS SHALL BE POSTED ON TOP OF DRUMS.

ALL SIGNS SHALL MAINTAIN RETROREFLECTIVITY. SIGN SUBSTRATE SHALL CONFORM TO FHWA SIGN SUBSTRATES FOR PLASTIC DRUMS AND WORK ZONE ACCEPTANCE LETTER WZ-45 "CRASHWORTHY WORK ZONE DEVICES" AS OF OCTOBER 1, 2000.

**3. TAPER LENGTHS**

TAPER LENGTH CRITERIA FOR TEMPORARY TRAFFIC CONTROL ZONES SHALL BE PER TABLE 1: TAPER LENGTHS FOR TEMPORARY TRAFFIC CONTROL ZONE FOR CALCULATED TAPER LENGTHS.

EXIT TAPERS SHALL BE 100' PER LANE, MAXIMUM.

**4. TEMPORARY MARKINGS**

WHEN LANE CLOSURES EXCEED 14 CALENDAR DAYS, TEMPORARY MARKINGS (740.06) TAPE, MINIMUM 4'-0" LONG SEGMENTS SHALL BE INSTALLED FOR ALL CENTERLINES, CHANNELS, AND LANE LINES. CONFLICTING MARKINGS SHALL BE COVERED WITH NON-REFLECTIVE TAPE OR REMOVED. ITEM 642 PAINT SHALL BE USED IF AN AREA IS TO BE MILLED AND/OR RESURFACED OR PLACED ON THE INTERMEDIATE ASPHALT COURSE.

**5. GENERAL NOTES AND MODIFICATIONS OF STANDARD CONSTRUCTION DRAWINGS**

THE USE OF ANY MAINTENANCE OF TRAFFIC STANDARD DRAWING SHALL REQUIRE A MAINTENANCE OF TRAFFIC TABLE PROVIDED BY THE DIVISION OF DESIGN AND CONSTRUCTION. MODIFICATIONS TO THE TEMPORARY TRAFFIC CONTROL STANDARD CONSTRUCTION DRAWINGS MAY OCCUR WHEN FIELD CONDITIONS DICTATE THAT THE APPLICATION OF THE STANDARD DRAWING DOES NOT MEET ITS INTENDED PURPOSE. ONLY THE ENGINEER MAY DEVIATE FROM THESE DRAWINGS.

**6. SCD 1500 REFERENCE**

ALL NOTES, TABLES, FIGURES, AND LEGENDS INCLUDED AS PART OF SCD 1500 ARE TO BE APPLIED TO ALL OTHER MAINTENANCE OF TRAFFIC SCD (1501-1599).

TABLE 1: TAPER LENGTHS FOR TEMPORARY TRAFFIC CONTROL ZONES †

D: TAPER RATE (SHOULDER) CLOSURE OMUTCD $0.33L = WS^2 / 60$					0.33L = WS			
WIDTH OF SHOULDER	25 MPH	30 MPH	35 MPH	40 MPH	45 MPH	50 MPH	55 MPH	60 MPH
6'	*	*	*	53'	89'	99'	109'	119'
7'	*	*	47'	62'	104'	116'	127'	139'
8'	*	*	54'	70'	119'	132'	145'	158'
9'	*	45'	61'	79'	134'	149'	163'	178'
10'	*	50'	67'	88'	149'	165'	182'	198'
11'	*	54'	74'	97'	163'	182'	200'	218'
12'	*	59'	81'	106'	178'	198'	218'	238'
E: TAPER RATE (MERGE) CLOSURE OMUTCD $L = WS^2 / 60$					L = WS			
WIDTH OF LANE CLOSED	25 MPH	30 MPH	35 MPH	40 MPH	45 MPH	50 MPH	55 MPH	60 MPH
10'	104'	150'	204'	267'	450'	500'	550'	600'
11'	115'	165'	225'	293'	495'	550'	605'	660'
12'	125'	180'	245'	320'	540'	600'	660'	720'
13'	135'	195'	265'	347'	585'	650'	715'	780'
F: TAPER RATE (SHIFT) CLOSURE OMUTCD $0.5L = WS^2 / 60$					L = WS			
WIDTH OF LANE SHIFT	25 MPH	30 MPH	35 MPH	40 MPH	45 MPH	50 MPH	55 MPH	60 MPH
10'	52'	75'	102'	133'	450'	500'	550'	600'
11'	57'	83'	112'	147'	495'	550'	605'	660'
12'	62'	90'	123'	160'	540'	600'	660'	720'
13'	68'	98'	133'	173'	585'	650'	715'	780'

NOTES:  
 1. WHEN PAVED SHOULDERS ARE CLOSED IN CONJUNCTION WITH A RIGHT LANE CLOSURE OR SHIFT ADD SHOULDER WIDTH TO LANE WIDTH TO CALCULATE TAPER LENGTH.  
 2. FOR PAVED SHOULDERS UNDER 6' USE 40 TAPER LENGTH.  
 3. L = TAPER LENGTH, W = WIDTH OF OFFSET, S = POSTED SPEED LIMIT OR 85TH PERCENTILE SPEED  
 \* = 40'

† TABLE DERIVED FROM OMUTCD, CURRENT EDITION, PART 6, TABLES 6C-3 AND 6C-4

TABLE 2: ADVANCE WARNING SIGNS †

ROAD TYPE	DISTANCE BETWEEN SIGNS **		
	A	B	C
URBAN (LOW SPEED*) ≤ 40 MPH	100 FT	100 FT	100 FT
URBAN (HIGH SPEED*) ≥ 45 MPH	350 FT	350 FT	350 FT
RURAL	500 FT	500 FT	500 FT
EXPRESSWAY/FREEWAY	1,000 FT	1,500 FT	2,640 FT

† FROM OMUTCD, CURRENT EDITION, PART 6 TABLE 6C-1


\* SPEED CATEGORY DETERMINED BY THE CITY OF COLUMBUS TO BE LOW SPEED (POSTED SPEED LIMIT LESS THAN OR EQUAL TO 40MPH) OR HIGH SPEED (POSTED SPEED LIMIT GREATER THAN OR EQUAL TO 45MPH)

\*\*THE COLUMN HEADINGS 'A', 'B', 'C', 'D', 'E', AND 'F' ARE THE DIMENSIONS SHOWN IN STANDARD DRAWINGS AND ARE DEFINED AS:

- 'A' = THE DISTANCE FROM THE TRANSITION OR POINT OF RESTRICTION TO THE FIRST SIGN (CLOSEST TO THE TTC ZONE).
- 'B' = THE 'B' DIMENSION IS THE DISTANCE BETWEEN THE FIRST AND SECOND SIGN.
- 'C' = DIMENSION IS THE DISTANCE BETWEEN THE SECOND AND THIRD SIGN (FURTHEST UPSTREAM FROM THE TTC ZONE).
- 'D' = SHOULDER TAPER LENGTH.
- 'E' = MERGE TAPER LENGTH.
- 'F' = SHIFT TAPER LENGTH.

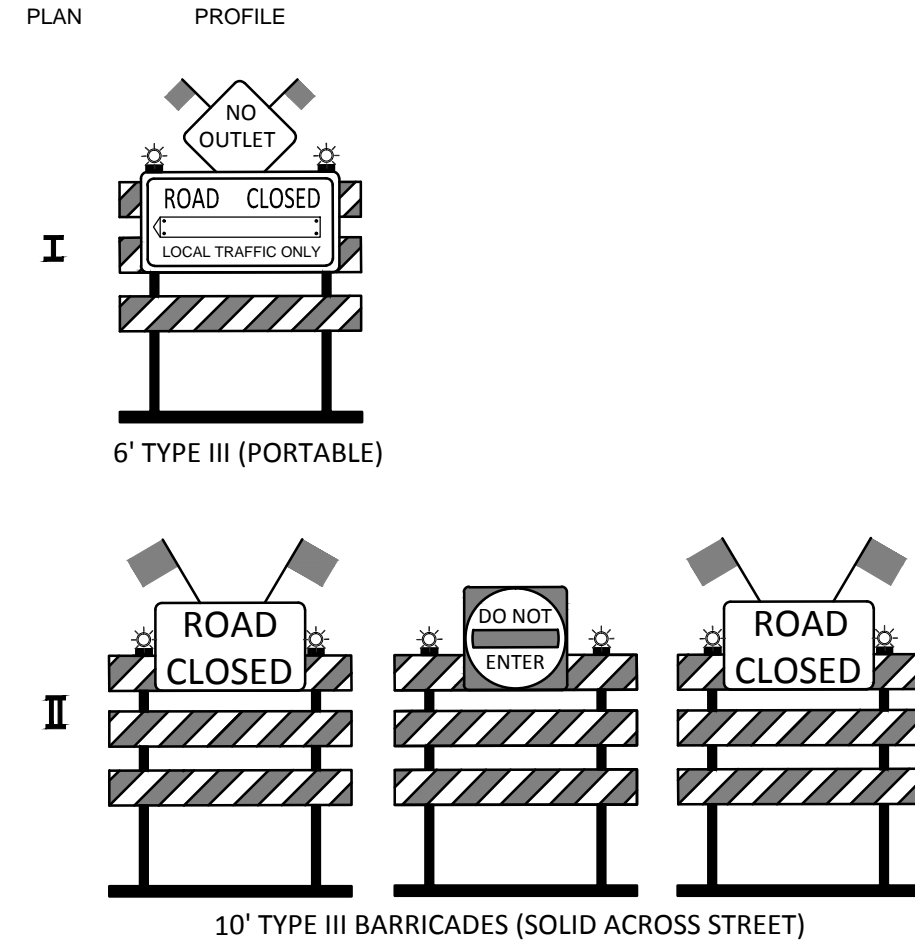
**NOTES AND TABLES**

**MAINTENANCE OF TRAFFIC  
GENERAL NOTES**

CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC SERVICE DIVISION OF DESIGN AND CONSTRUCTION	STD DWG <b>1500</b>
 CITY ENGINEER	9/15/2015 SHT 1 OF 3

## SYMBOL LEGEND

<p>● DRUM</p> <p>⊙ 42" REFLECTIVE CHANNELIZING DEVICE</p> <p>● DRUM WITH TEMPORARY "EMERGENCY NO PARKING" SIGN ATTACHED</p> <p>● DRUM WITH POLYPROPYLENE SIGN MOUNTED ON TOP (SEE SCD 1500 SHEET 1 NOTE 2)</p> <p> WORK AREA</p> <p> PARKING METER</p> <p> FLAGGER OR LAW ENFORCEMENT OFFICER</p> <p> HAND SIGNALING DEVICE (STOP/SLOW PADDLE)</p> <p> TEMPORARY PAVEMENT MARKING</p> <p> EXISTING PAVEMENT MARKINGS</p> <p> EXISTING PAVEMENT MARKINGS REMOVED OR COVERED</p>	<p>PLAN PROFILE</p> <p>⊥  U-CHANNEL DRIVE POST</p> <p>⋈  TEMPORARY POST OR STAND</p> <p> FLASHING ARROW PANEL F.A.P.</p> <p>⊥  EXISTING SIGNAGE</p> <p>⊥  EXISTING/TEMPORARY SIGNAGE TO BE REMOVED OR COVERED</p> <p> EXISTING POLE MOUNTED STOP AND STREET NAME SIGNAGE</p>	
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### ABBREVIATIONS

B/O, BLK/ORANGE	BLACK TEXT ON ORANGE BACKGROUND
FAP	FLASHING ARROW PANEL
LEO	LAW ENFORCEMENT OFFICER
SCD	STANDARD CONSTRUCTION DRAWING
TTC	TEMPORARY TRAFFIC CONTROL

### SYMBOL LEGEND

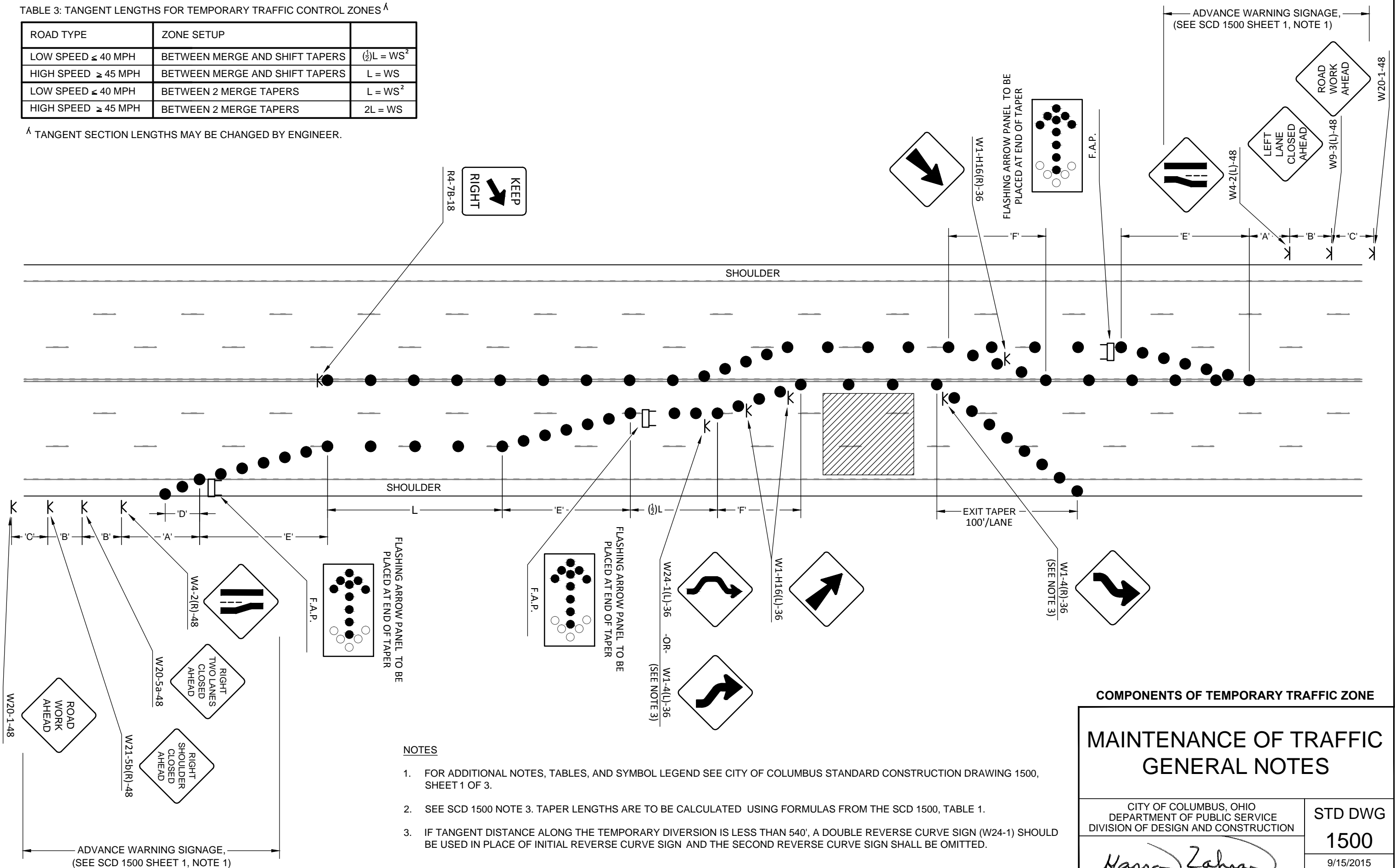
## MAINTENANCE OF TRAFFIC GENERAL NOTES

CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC SERVICE DIVISION OF DESIGN AND CONSTRUCTION	STD DWG <b>1500</b>
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TABLE 3: TANGENT LENGTHS FOR TEMPORARY TRAFFIC CONTROL ZONES <sup>^</sup>

ROAD TYPE	ZONE SETUP	
LOW SPEED ≤ 40 MPH	BETWEEN MERGE AND SHIFT TAPERS	$(\frac{1}{2})L = WS^2$
HIGH SPEED ≥ 45 MPH	BETWEEN MERGE AND SHIFT TAPERS	$L = WS$
LOW SPEED ≤ 40 MPH	BETWEEN 2 MERGE TAPERS	$L = WS^2$
HIGH SPEED ≥ 45 MPH	BETWEEN 2 MERGE TAPERS	$2L = WS$

<sup>^</sup> TANGENT SECTION LENGTHS MAY BE CHANGED BY ENGINEER.



**NOTES**

1. FOR ADDITIONAL NOTES, TABLES, AND SYMBOL LEGEND SEE CITY OF COLUMBUS STANDARD CONSTRUCTION DRAWING 1500, SHEET 1 OF 3.
2. SEE SCD 1500 NOTE 3. TAPER LENGTHS ARE TO BE CALCULATED USING FORMULAS FROM THE SCD 1500, TABLE 1.
3. IF TANGENT DISTANCE ALONG THE TEMPORARY DIVERSION IS LESS THAN 540', A DOUBLE REVERSE CURVE SIGN (W24-1) SHOULD BE USED IN PLACE OF INITIAL REVERSE CURVE SIGN AND THE SECOND REVERSE CURVE SIGN SHALL BE OMITTED.

**COMPONENTS OF TEMPORARY TRAFFIC ZONE**

<b>MAINTENANCE OF TRAFFIC GENERAL NOTES</b>	
CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC SERVICE DIVISION OF DESIGN AND CONSTRUCTION	<b>STD DWG 1500</b>
<i>Hassan Zahran</i> CITY ENGINEER	9/15/2015 SHT 3 OF 3