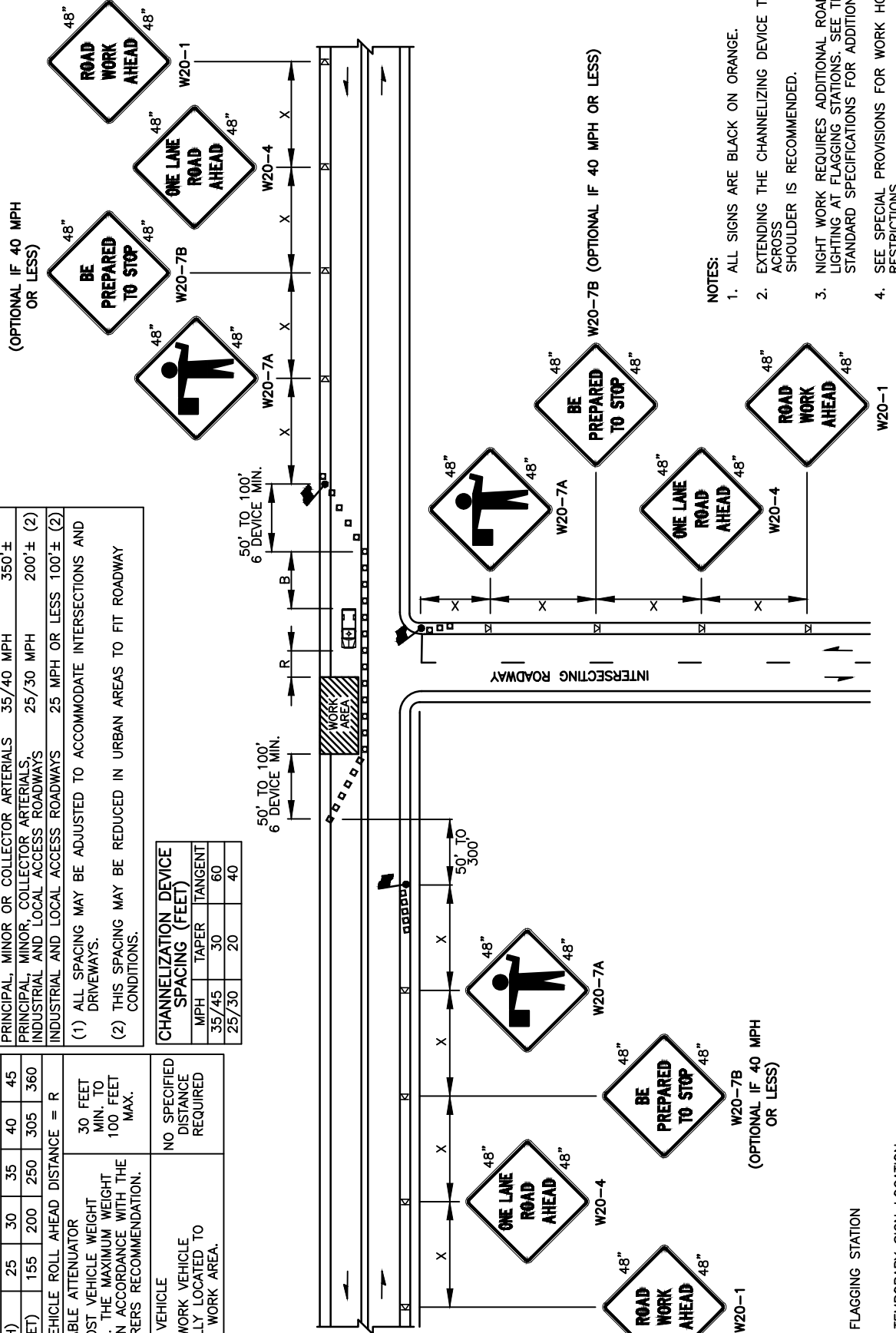


BUFFER DATA					
LONGITUDINAL BUFFER SPACE = B					
SPEED (MPH)	25	30	35	40	45
LENGTH (FEET)	155	200	250	305	360
BUFFER VEHICLE ROLL AHEAD DISTANCE = R					
TRANSPORTABLE ATTENUATOR	30 FEET				
MINIMUM HOST VEHICLE WEIGHT 15,000 LBS. THE MAXIMUM WEIGHT SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATION.	MIN. TO 100 FEET MAX.				
PROTECTIVE VEHICLE	NO SPECIFIED DISTANCE REQUIRED				
MAY BE A WORK VEHICLE STRATEGICALLY LOCATED TO SHIELD THE WORK AREA.					

SIGN SPACING = X (1)			
PRINCIPAL ARTERIALS	45 MPH	500' ±	
PRINCIPAL, MINOR OR COLLECTOR ARTERIALS	35/40 MPH	350' ±	
PRINCIPAL, MINOR, COLLECTOR ARTERIALS, INDUSTRIAL AND LOCAL ACCESS ROADWAYS	25/30 MPH	200' ± (2)	
INDUSTRIAL AND LOCAL ACCESS ROADWAYS	25 MPH OR LESS	100' ± (2)	

(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERSECTIONS AND DRIVEWAYS.
 (2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.

CHANNELIZATION DEVICE SPACING (FEET)			
MPH	TAPER	TANGENT	
35/45	30	60	
25/30	20	40	



- LEGEND
- FLAGGING STATION
 - TEMPORARY SIGN LOCATION
 - CHANNELIZING DEVICES
 - PROTECTIVE VEHICLE

- NOTES:
- ALL SIGNS ARE BLACK ON ORANGE.
 - EXTENDING THE CHANNELIZING DEVICE TAPER ACROSS SHOULDER IS RECOMMENDED.
 - NIGHT WORK REQUIRES ADDITIONAL ROADWAY LIGHTING AT FLAGGING STATIONS. SEE THE STANDARD SPECIFICATIONS FOR ADDITIONAL DETAILS.
 - SEE SPECIAL PROVISIONS FOR WORK HOUR RESTRICTIONS.

REV NO.	DATE	BY	APPR	PUBLIC WORKS - STREETS AND TRANSPORTATION			
1	3/16	RAW	CJC				
2	9/21	RAW	CJC				

APPROVED BY: *[Signature]* TRAFFIC ENGINEER MANAGER
 APPROVED DATE: 9/1/2021



TRAFFIC CONTROL STANDARD PLAN
 ONE-LANE TWO WAY TRAFFIC
 CONTROL WITH FLAGGERS

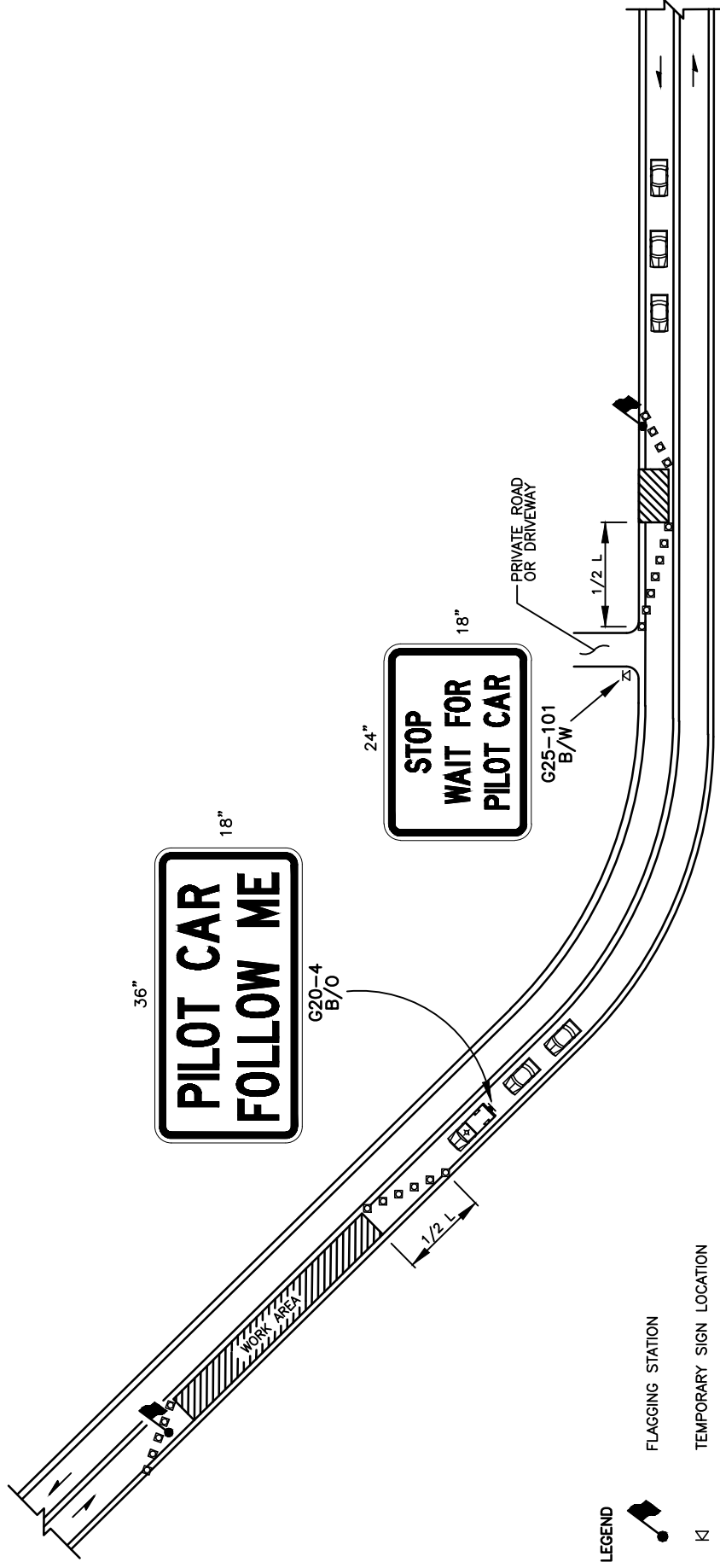
STANDARD PLAN NUMBER
 TC1

MINIMUM TAPER LENGTH = L (FEET)			
LANE WIDTH (FEET)	POSTED SPEED (MPH)	TAPER LENGTH (FEET)	
		25	30
10	105	150	205
11	115	165	225
12	125	180	245

CHANNELIZATION DEVICE SPACING (FEET)			
MPH	TAPER	TANGENT	
		35/45	60
25/30	20	20	40

NOTES:

1. REFER TO SHEET TC1 FOR ADDITIONAL SIGNING AND FLAGGING DETAILS NOT SHOWN.
2. CHANNELIZING DEVICES ARE RECOMMENDED ALONG CENTERLINE TO SEPARATE TRAFFIC FROM WORK OPERATION. DEVICES ARE REQUIRED AT TAPERS TO SHIFT TRAFFIC MOVEMENT BETWEEN LANES AND TO PROTECT FLAGGING STATIONS.
3. SIGN G25-101 IS RECOMMENDED FOR NON-STOP SIGN CONTROLLED APPROACHES SUCH AS PRIVATE ROADS AND DRIVEWAYS. THIS SIGN IS NOT REQUIRED TO BE ALUMINUM SUBSTRATE AND CAN BE MADE OF ALTERNATIVE MATERIALS.



REV	NO.	DATE	BY	APPROVED	PUBLIC WORKS - STREETS AND TRANSPORTATION	
1	3/16	RAW	CJC	CJC	APPROVED BY: 	APPROVED DATE: 9/1/2021
2	9/21	RAW	CJC	CJC		



TRAFFIC CONTROL
STANDARD PLAN
PILOT CAR OPERATION

STANDARD PLAN
NUMBER

TC2

BUFFER DATA				
LONGITUDINAL BUFFER SPACE = B				
SPEED (MPH)	25	30	35	40
LENGTH (FEET)	155	200	250	305
BUFFER VEHICLE ROLL AHEAD DISTANCE = R				
TRANSPORTABLE ATTENUATOR				
MINIMUM HOST VEHICLE WEIGHT 15,000 LBS. THE MAXIMUM WEIGHT SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATION.				
30 FEET MIN. TO 100 FEET MAX.				
PROTECTIVE VEHICLE				
MAY BE A WORK VEHICLE STRATEGICALLY LOCATED TO SHIELD THE WORK AREA.				
NO SPECIFIED DISTANCE REQUIRED				

SIGN SPACING = X (1)				
PRINCIPAL ARTERIALS				
PRINCIPAL, MINOR OR COLLECTOR ARTERIALS	45 MPH	500' ±		
PRINCIPAL, MINOR, COLLECTOR ARTERIALS, INDUSTRIAL AND LOCAL ACCESS ROADWAYS	35/40 MPH	350' ±		
INDUSTRIAL AND LOCAL ACCESS ROADWAYS	25/30 MPH	200' ± (2)		
(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERSECTIONS AND DRIVEWAYS.				
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.				

CHANNELIZATION DEVICE SPACING (FEET)		
MPH	TAPER	TANGENT
35/45	30	60
25/30	20	40

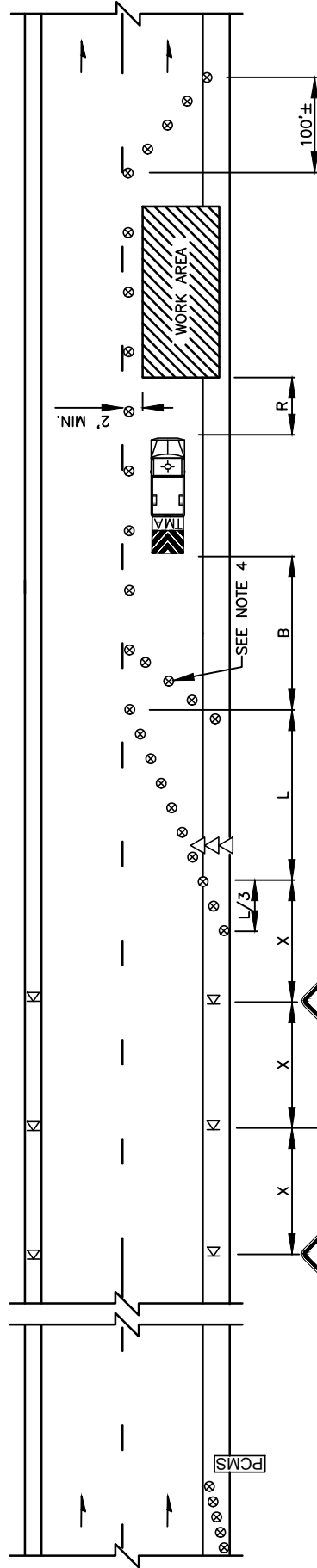
PCMS		
1		2
RIGHT LANE CLOSURE		
2.0 SEC		2.0 SEC
1 MILE AHEAD		

FIELD LOCATE 1 MILE ± IN ADVANCE OF LANE CLOSURE SIGNING.

MINIMUM LANE CLOSURE TAPER LENGTH = L (FEET)				
LANE WIDTH (FEET)		POSTED SPEED (MPH)		
10		25	30	35
		105	150	205
		115	165	225
11		125	180	245
12		125	180	245

MINIMUM SHOULDER TAPER LENGTH = L/3 (FEET)				
SHOULDER WIDTH (FEET)		POSTED SPEED (MPH)		
8		25	30	35
		40	40	60
		40	60	90
10		40	60	90

USE A MINIMUM 3 DEVICES TAPER FOR SHOULDER LESS THEN 8'.



NOTES:

1. SEE SPECIAL PROVISIONS FOR WORK HOUR RESTRICTIONS.
2. EXTEND DEVICE TAPER AT L/3 ACROSS SHOULDER.
3. DEVICES SHALL NOT ENCR OACH INTO THE ADJACENT LANE.
4. USE TRANSVERSE DEVICES IN CLOSED LANE EVERY 1000' (FT) (RECOMMENDED).
5. DEVICE SPACING FOR THE DOWNSTREAM TAPER SHALL BE 20' (FT).
6. ALL SIGNS ARE BLACK ON ORANGE.

LEGEND

- Δ TEMPORARY SIGN LOCATION
- ⊗ TRAFFIC SAFETY DRUM
- ▷▷ SEQUENTIAL ARROW SIGN
- TRANSPORTABLE ATTENUATOR
- PORTABLE CHANGEABLE MESSAGE SIGN



REV	NO.	DATE	BY	APPROVED	PUBLIC WORKS - STREETS AND TRANSPORTATION	
1	3/16	RAW	CJC	CJC		
2	9/21	RAW	CJC	CJC		

APPROVED BY: TRAFFIC ENGINEER MANAGER
APPROVED DATE: 9/1/2021

STANDARD PLAN NUMBER	TRAFFIC CONTROL STANDARD PLAN
TC3	SINGLE-LANE CLOSURE FOR MULTI-LANE ROADWAYS

BUFFER DATA				
LONGITUDINAL BUFFER SPACE = B				
SPEED (MPH)	25	30	35	40
LENGTH (FEET)	155	200	250	305
BUFFER VEHICLE ROLL AHEAD DISTANCE = R				
TRANSPORTABLE ATTENUATOR				
MINIMUM HOST VEHICLE WEIGHT 15,000 LBS. THE MAXIMUM WEIGHT SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATION.				
30 FEET MIN. TO 100 FEET MAX.				
PROTECTIVE VEHICLE				
MAY BE A WORK VEHICLE STRATEGICALLY LOCATED TO SHIELD THE WORK AREA.				
NO SPECIFIED DISTANCE REQUIRED				

SIGN SPACING = X (1)				
PRINCIPAL ARTERIALS				
PRINCIPAL, MINOR OR COLLECTOR ARTERIALS	45 MPH	500' ±		
PRINCIPAL, MINOR, COLLECTOR ARTERIALS, INDUSTRIAL AND LOCAL ACCESS ROADWAYS	35/40 MPH	350' ±		
INDUSTRIAL AND LOCAL ACCESS ROADWAYS	25/30 MPH	200' ± (2)		
INDUSTRIAL AND LOCAL ACCESS ROADWAYS	25 MPH OR LESS	100' ± (2)		
(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERSECTIONS AND DRIVEWAYS.				
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.				

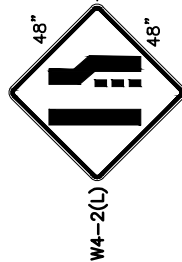
CHANNELIZATION DEVICE SPACING (FEET)		
MPH	TAPER	TANGENT
35/45	30	60
25/30	20	40

PCMS	
1	2
2 LANE CLOSED AHEAD	WATCH FOR SLOW TRAFFIC
2.0 SEC	2.0 SEC

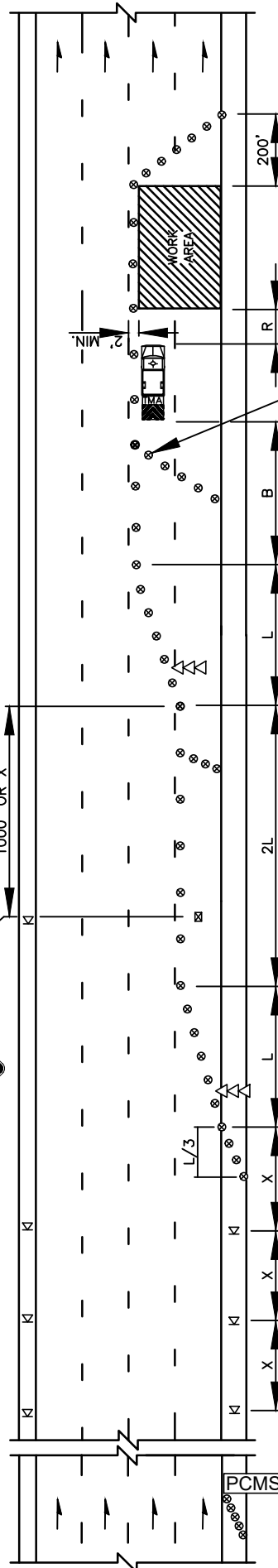
MINIMUM LANE CLOSURE TAPER LENGTH = L (FEET)				
LANE WIDTH (FEET)		POSTED SPEED (MPH)		
10	11	25	30	35
		105	150	205
12	11	115	165	225
		125	180	245
12	12	125	180	245
		125	180	245

PCMS	
1	2
2 LANE CLOSED AHEAD	WATCH FOR SLOW TRAFFIC
2.0 SEC	2.0 SEC

USE A MINIMUM 3 DEVICES TAPER FOR SHOULDER LESS THEN 8'.



FIELD LOCATE 1 MILE ± IN ADVANCE OF LANE CLOSURE SIGNING.



LEGEND

TEMPORARY SIGN LOCATION

TRAFFIC SAFETY DRUM

SEQUENTIAL ARROW SIGN

TRANSPORTABLE ATTENUATOR

PORTABLE CHANGEABLE MESSAGE SIGN

NOTES:

1. SEE SPECIAL PROVISIONS FOR WORK HOUR RESTRICTIONS.
2. EXTEND DEVICE TAPER AT L/3 ACROSS SHOULDER.
3. DEVICES SHALL NOT ENCRUCH INTO THE ADJACENT LANE.
4. USE TRANSVERSE DEVICES IN CLOSED LANE EVERY 1000' (FT) (RECOMMENDED).
5. DEVICE SPACING FOR THE DOWNSTREAM TAPER SHALL BE 20' (FT).
6. ALL SIGNS ARE BLACK ON ORANGE.

REV	NO.	DATE	BY	APPROVED	PUBLIC WORKS - STREETS AND TRANSPORTATION	
1	3/16	RAW	CJC			
2	9/21	RAW	CJC			
APPROVED BY:						APPROVED DATE: 9/1/2021

TRAFFIC CONTROL STANDARD PLAN	
DOUBLE-LANE CLOSURE FOR MULTI-LANE ROADWAYS	
STANDARD PLAN NUMBER	TC4



MINIMUM SHOULDER TAPER LENGTH = L/3 (FEET)			
SHOULDER WIDTH (FEET)	POSTED SPEED (MPH)		
	25	30	35
8	40	40	60
10	40	60	90

USE A MINIMUM 3 DEVICES TAPER FOR SHOULDER
LESS THEN 8'.

CHANNELIZATION DEVICE SPACING (FEET)		
MPH	TAPER	TANGENT
35/40	30	60
25/30	20	40

SIGN SPACING = X (1)			
PRINCIPAL, MINOR OR COLLECTOR ARTERIALS	35/40 MPH	350'±	
PRINCIPAL, MINOR, COLLECTOR ARTERIALS, INDUSTRIAL AND LOCAL ACCESS ROADWAYS	25/30 MPH	200'± (2)	
INDUSTRIAL AND LOCAL ACCESS ROADWAYS	25 MPH OR LESS	100'± (2)	

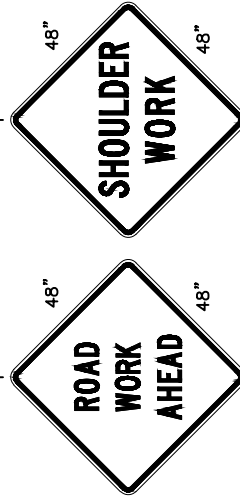
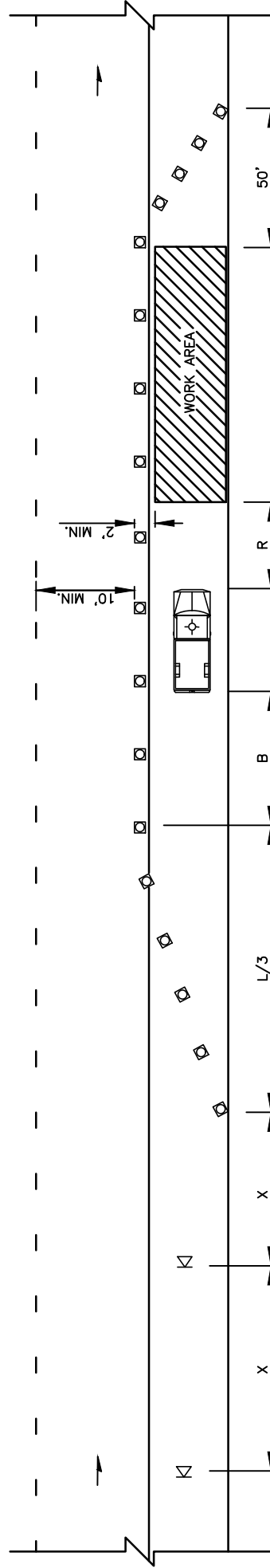
(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERSECTIONS AND DRIVEWAYS.
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.

BUFFER DATA				
LONGITUDINAL BUFFER SPACE = B				
SPEED (MPH)	25	30	35	40
LENGTH (FEET)	155	200	250	305

BUFFER VEHICLE ROLL AHEAD DISTANCE = R

TRANSPORTABLE ATTENUATOR	30 FEET MIN.
MINIMUM HOST VEHICLE WEIGHT 15,000 LBS. THE MAXIMUM WEIGHT SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATION.	TO 100 FEET MAX.

PROTECTIVE VEHICLE MAY BE A WORK VEHICLE STRATEGICALLY LOCATED TO SHIELD THE WORK AREA.	NO SPECIFIED DISTANCE REQUIRED
--	--------------------------------



W20-1 W21-5

LEGEND

KI TEMPORARY SIGN LOCATION

□ CHANNELIZING DEVICES

□ PROTECTIVE VEHICLE

NOTES:

1. DEVICE SPACING FOR THE DOWNSTREAM TAPER SHALL BE 20' (FT).
2. ALL SIGNS ARE BLACK ON ORANGE.

REV	NO.	DATE	BY	APP	PUBLIC WORKS – STREETS AND TRANSPORTATION			
1	3/16	RAW	CJC	CJC				
2	9/21	RAW	CJC	CJC				

APPROVED BY:  9/1/2021
APPROVED DATE:



TRAFFIC CONTROL STANDARD PLAN
SHOULDER CLOSURE LOW
SPEED (40 MPH OR LESS)

STANDARD PLAN
NUMBER

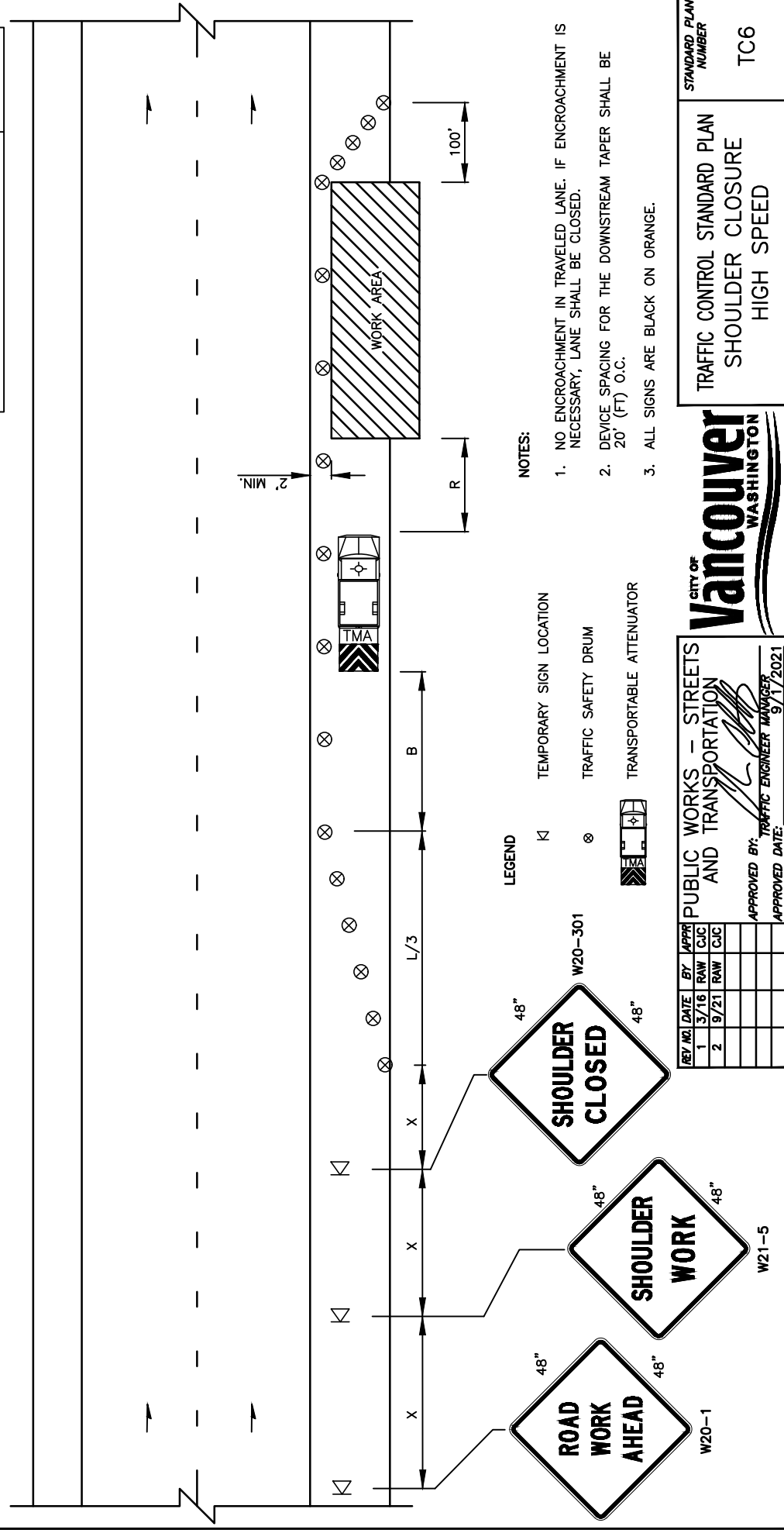
TC5

MINIMUM SHOULDER TAPER LENGTH = L/3 (FEET)	
SHOULDER WIDTH (FEET)	POSTED SPEED (MPH)
	25 30 35 40 45
8	- - - - -
10	- - - - -
USE A MINIMUM 3 DEVICES TAPER FOR SHOULDER LESS THEN 8'.	

SIGN SPACING = X (1)	
PRINCIPAL ARTERIALS	45 MPH 500'±
(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERSECTIONS AND DRIVEWAYS.	

CHANNELIZATION DEVICE SPACING (FEET)		
MPH	TAPER	TANGENT
45	30	60

BUFFER DATA					
LONGITUDINAL BUFFER SPACE = B					
SPEED (MPH)	25	30	35	40	45
LENGTH (FEET)	-	-	-	-	360
BUFFER VEHICLE ROLL AHEAD DISTANCE = R					
TRANSPORTABLE ATTENUATOR					
MINIMUM HOST VEHICLE WEIGHT 15,000 LBS. THE MAXIMUM WEIGHT SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATION.					
30 FEET MIN. TO 100 FEET MAX.					
PROTECTIVE VEHICLE					
MAY BE A WORK VEHICLE STRATEGICALLY LOCATED TO SHIELD THE WORK AREA.					
NO SPECIFIED DISTANCE REQUIRED					



REV	NO.	DATE	BY	APPR	PUBLIC WORKS - STREETS AND TRANSPORTATION				APPROVED BY:	APPROVED DATE:
1	3/16	RAW	CJC	CJC						
2	9/21	RAW	CJC	CJC						

CITY OF
Vancouver
WASHINGTON

STANDARD PLAN NUMBER	TRAFFIC CONTROL STANDARD PLAN
TC6	SHOULDER CLOSURE HIGH SPEED

BUFFER DATA					
LONGITUDINAL BUFFER SPACE = B					
SPEED (MPH)	25	30	35	40	45
LENGTH (FEET)	155	200	250	305	360
BUFFER VEHICLE ROLL AHEAD DISTANCE = R					
TRANSPORTABLE ATTENUATOR					
MINIMUM HOST VEHICLE WEIGHT 15,000 LBS. THE MAXIMUM WEIGHT SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATION.					
30 FEET MIN. TO 100 FEET MAX.					
PROTECTIVE VEHICLE					
MAY BE A WORK VEHICLE STRATEGICALLY LOCATED TO SHIELD THE WORK AREA.					
NO SPECIFIED DISTANCE REQUIRED					

SIGN SPACING = X (1)				
PRINCIPAL ARTERIALS				
45 MPH				
500'±				
PRINCIPAL, MINOR OR COLLECTOR ARTERIALS				
35/40 MPH				
350'±				
PRINCIPAL, MINOR, COLLECTOR ARTERIALS, INDUSTRIAL AND LOCAL ACCESS ROADWAYS				
25/30 MPH				
200'± (2)				
INDUSTRIAL AND LOCAL ACCESS ROADWAYS				
25 MPH OR LESS				
100'± (2)				
(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERSECTIONS AND DRIVEWAYS.				
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.				

CHANNELIZATION DEVICE SPACING (FEET)			
MPH	TAPER	TANGENT	
35/45	30	60	
25/30	20	40	

PCMS	
1	2
RIGHT LANE CLOSURE	
2.0 SEC	2.0 SEC
1 MILE AHEAD	

OPTIONAL 48"

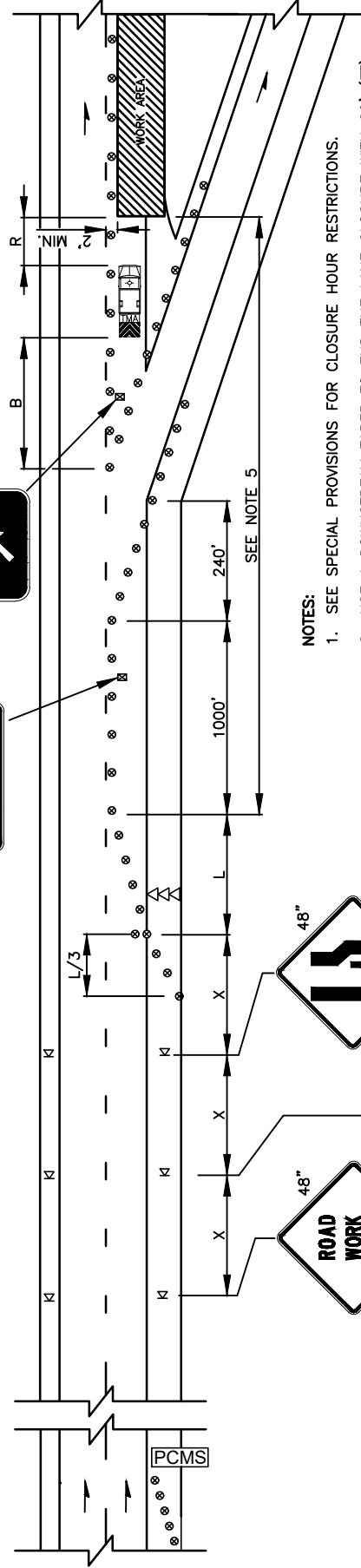
7" MOUNTING HEIGHT MIN. 48"



E5-2

E5-1 W/G

FIELD LOCATE 1 MILE ± IN ADVANCE OF LANE CLOSURE SIGNING.



NOTES:

1. SEE SPECIAL PROVISIONS FOR CLOSURE HOUR RESTRICTIONS.
2. USE A DOWNSTREAM TAPER TO END THE LANE CLOSURE WITH 20' (FT) DEVICE SPACING.
3. DEVICES SHALL NOT ENCR OACH INTO ADJACENT LANES.
4. USE TRANSVERSE DEVICES IN CLOSED LANES EVERY 1000' (FT)± (RECOMMENDED).
5. SEE SHEET TCXX FOR A SHORT TERM OFF-RAMP CLOSURE WHEN THE WORK AREA LOCATION RESTRICTS RAMP ACCESS.
6. ALL SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE DESIGNATED.

LEGEND

- KI TEMPORARY SIGN LOCATION
- ⊗ TRAFFIC SAFETY DRUM
- ⇨ SEQUENTIAL ARROW SIGN
- TRANSPORTABLE ATTENUATOR



PCMS

PORTABLE CHANGEABLE MESSAGE SIGN

TEMPORARY SIGN LOCATION (5' MOUNTING HEIGHT)

REV	NO.	DATE	BY	APPR	PUBLIC WORKS - STREETS AND TRANSPORTATION			
1	3/16	RAW	CJC	CJC				
2	9/21	RAW	CJC	CJC				
					APPROVED BY:			
					APPROVED DATE: 9/1/2021			



TRAFFIC CONTROL STANDARD PLAN
TEMPORARY OFF-RAMP FOR
MULTI-LANE ROADWAYS

STANDARD PLAN
NUMBER

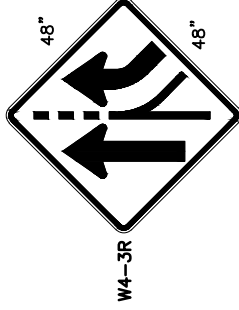
TC7

BUFFER DATA					
LONGITUDINAL BUFFER SPACE = B					
SPEED (MPH)	25	30	35	40	45
LENGTH (FEET)	155	200	250	305	360
BUFFER VEHICLE ROLL AHEAD DISTANCE = R					
TRANSPORTABLE ATTENUATOR					
MINIMUM HOST VEHICLE WEIGHT 15,000 LBS. THE MAXIMUM WEIGHT SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATION.					
30 FEET					
MIN. TO					
100 FEET					
MAX.					
PROTECTIVE VEHICLE					
MAY BE A WORK VEHICLE STRATEGICALLY LOCATED TO SHIELD THE WORK AREA.					
NO SPECIFIED DISTANCE REQUIRED					

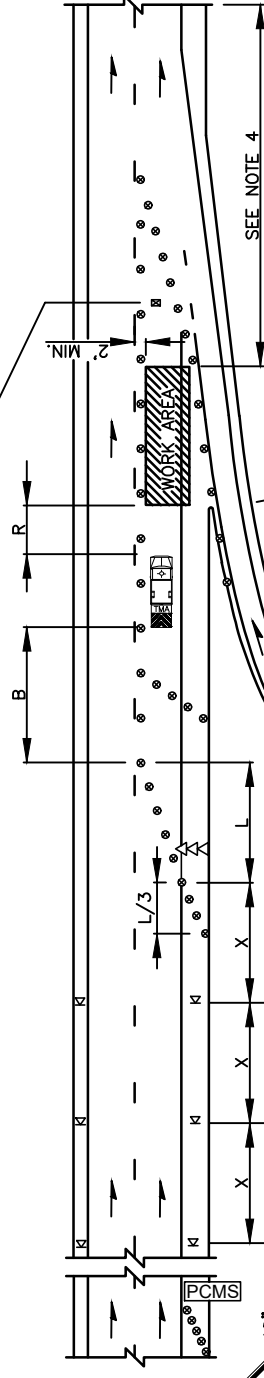
CHANNELIZATION DEVICE SPACING (FEET)		
MPH	TAPER	TANGENT
35/45	30	60
25/30	20	40

SIGN SPACING = X (1)			
PRINCIPAL ARTERIALS	45 MPH	500'±	
PRINCIPAL, MINOR OR COLLECTOR ARTERIALS	35/40 MPH	350'±	
PRINCIPAL, MINOR, COLLECTOR ARTERIALS, INDUSTRIAL AND LOCAL ACCESS ROADWAYS	25/30 MPH	200'± (2)	
INDUSTRIAL AND LOCAL ACCESS ROADWAYS	25 MPH OR LESS	100'± (2)	
(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERSECTIONS AND DRIVEWAYS.			
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.			

PCMS		
1	2	
RIGHT LANE CLOSURE		
1 MILE AHEAD		
2.0 SEC	2.0 SEC	



FIELD LOCATE 1 MILE ± IN ADVANCE OF LANE CLOSURE SIGNING.



- LEGEND**
- K TEMPORARY SIGN LOCATION
 - ⊗ TRAFFIC SAFETY DRUM
 - ⇨ SEQUENTIAL ARROW SIGN
 - TRANSPORTABLE ATTENUATOR
 - PORTABLE CHANGEABLE MESSAGE SIGN
 - TEMPORARY SIGN LOCATION (5' MOUNTING HEIGHT)

- NOTES:**
- SEE SPECIAL PROVISIONS FOR CLOSURE HOUR RESTRICTIONS.
 - DEVICES SHALL NOT ENCR OACH INTO ADJACENT LANES.
 - USE TRANSVERSE DEVICES IN CLOSED LANES EVERY 1000'± (RECOMMENDED).
 - SEE SHEET TCXX FOR A SHORT TERM ON-RAMP CLOSURE WHEN THE WORK AREA LOCATION RESTRICTS RAMP ACCESS.
 - ALL SIGNS ARE BLACK ON ORANGE.

MINIMUM LANE CLOSURE TAPER LENGTH = L (FEET)				
LANE WIDTH (FEET)	POSTED SPEED (MPH)			
	25	30	35	40
10	105	150	205	270
11	115	165	225	295
12	125	180	245	320

MINIMUM SHOULDER TAPER LENGTH = L/3 (FEET)				
SHOULDER WIDTH (FEET)	POSTED SPEED (MPH)			
	25	30	35	40
8	40	40	60	90
10	40	40	60	90
150	90	90	90	150

USE A MINIMUM 3 DEVICES TAPER FOR SHOULDER LESS THEN 8'.

REV	NO.	DATE	BY	APPR	PUBLIC WORKS - STREETS AND TRANSPORTATION			APPROVED BY: TRAFFIC ENGINEER MANAGER		APPROVED DATE: 9/1/2021	
1	3/16	RAW	CJC	CJC							
2	9/21	RAW	CJC	CJC							

CITY OF Vancouver WASHINGTON

TRAFFIC CONTROL STANDARD PLAN
TEMPORARY ON-RAMP FOR
MULTI-LANE ROADWAYS

STANDARD PLAN NUMBER
TC8

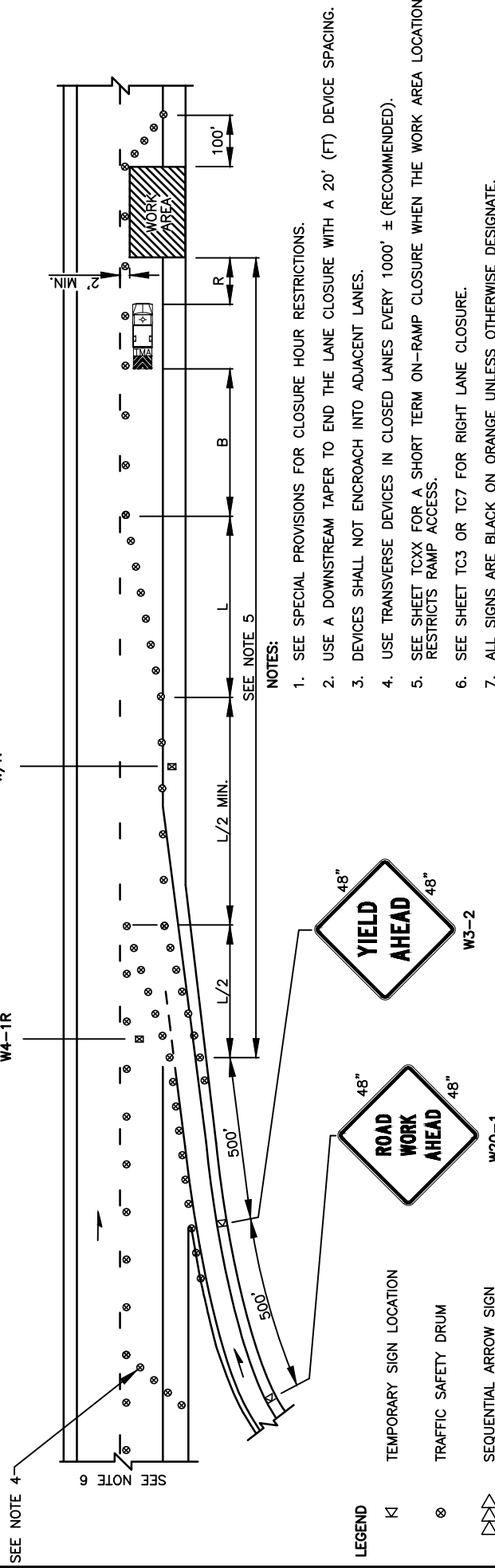
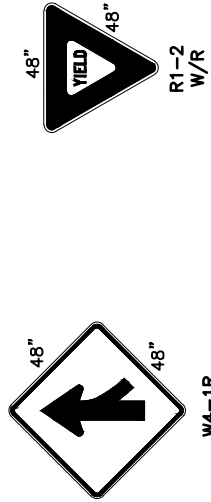
BUFFER DATA						
LONGITUDINAL BUFFER SPACE = B						
SPEED (MPH)	25	30	35	40	45	
LENGTH (FEET)	155	200	250	305	360	
BUFFER VEHICLE ROLL AHEAD DISTANCE = R						
TRANSPORTABLE ATTENUATOR						
MINIMUM HOST VEHICLE WEIGHT 15,000 LBS. THE MAXIMUM WEIGHT SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATION.						
30 FEET MIN. TO 100 FEET MAX.						
PROTECTIVE VEHICLE						
MAY BE A WORK VEHICLE STRATEGICALLY LOCATED TO SHIELD THE WORK AREA.						
NO SPECIFIED DISTANCE REQUIRED						

SIGN SPACING = X (1)				
PRINCIPAL ARTERIALS				
45 MPH	500'±			
PRINCIPAL, MINOR OR COLLECTOR ARTERIALS	35/40 MPH	350'±		
PRINCIPAL, MINOR, COLLECTOR ARTERIALS, INDUSTRIAL AND LOCAL ACCESS ROADWAYS	25/30 MPH	200'± (2)		
INDUSTRIAL AND LOCAL ACCESS ROADWAYS	25 MPH OR LESS	100'± (2)		
(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERSECTIONS AND DRIVEWAYS.				
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.				

CHANNELIZATION DEVICE SPACING (FEET)			
MPH	TAPER	TANGENT	
35/45	30	60	
25/30	20	40	

MINIMUM LANE CLOSURE TAPER LENGTH = L (FEET)				
LANE WIDTH (FEET)		POSTED SPEED (MPH)		
25	30	35	40	45
10	105	150	205	270
11	115	165	225	295
12	125	180	245	320
				540

MINIMUM SHOULDER TAPER LENGTH = L/3 (FEET)				
SHOULDER WIDTH (FEET)		POSTED SPEED (MPH)		
25	30	35	40	45
8	40	40	60	90
10	40	60	90	120
				150
USE A MINIMUM 3 DEVICES TAPER FOR SHOULDER LESS THEN 8'.				



REV	NO.	DATE	BY	APPR	PUBLIC WORKS - STREETS AND TRANSPORTATION			
1	3/16	RAW	CJC	CJC				
2	9/21	RAW	CJC	CJC				
APPROVED BY:					APPROVED DATE: 9/1/2021			



TRAFFIC CONTROL STANDARD PLAN	
TEMPORARY ON-RAMP FOR	
MULTI-LANE ROADWAYS	
STANDARD PLAN NUMBER	TC9

BUFFER DATA					
LONGITUDINAL BUFFER SPACE = B					
SPEED (MPH)	25	30	35	40	45
LENGTH (FEET)	155	200	250	305	360
BUFFER VEHICLE ROLL AHEAD DISTANCE = R					
TRANSPORTABLE ATTENUATOR					
MINIMUM HOST VEHICLE WEIGHT 15,000 LBS. THE MAXIMUM WEIGHT SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATION.					
30 FEET MIN. TO 100 FEET MAX.					
PROTECTIVE VEHICLE					
MAY BE A WORK VEHICLE STRATEGICALLY LOCATED TO SHIELD THE WORK AREA.					
NO SPECIFIED DISTANCE REQUIRED					

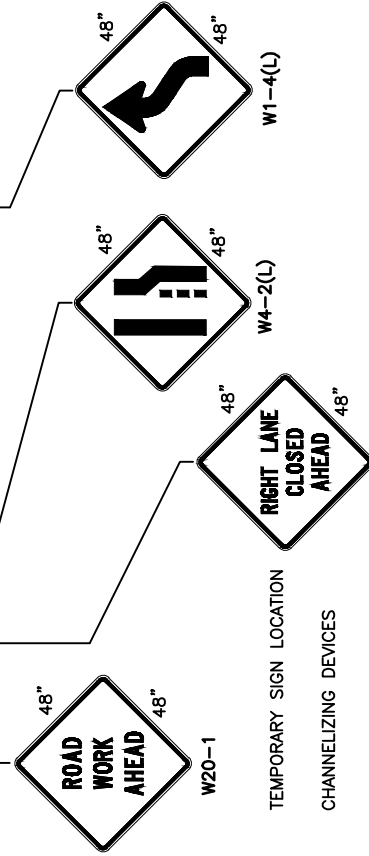
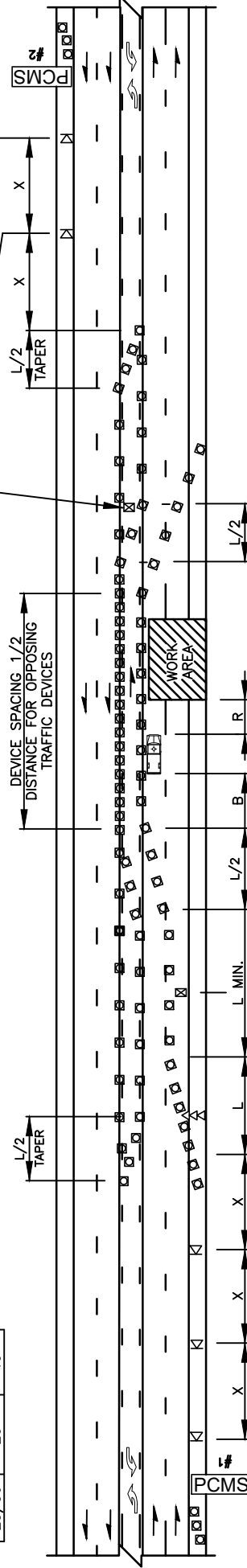
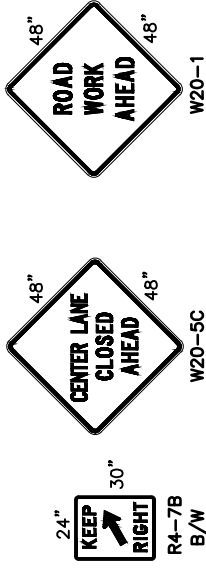
CHANNELIZATION DEVICE SPACING (FEET)		
MPH	TAPER	TANGENT
35/45	30	60
25/30	20	40

SIGN SPACING = X (1)			
PRINCIPAL ARTERIALS	45 MPH	500'±	
PRINCIPAL, MINOR OR COLLECTOR ARTERIALS	35/40 MPH	350'±	
PRINCIPAL, MINOR, COLLECTOR ARTERIALS, INDUSTRIAL AND LOCAL ACCESS ROADWAYS	25/30 MPH	200'± (2)	
INDUSTRIAL AND LOCAL ACCESS ROADWAYS	25 MPH OR LESS	100'± (2)	
(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERSECTIONS AND DRIVEWAYS.			
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.			

PCMS #1		PCMS #2	
1	2	1	2
RIGHT LANE CLOSURE	1 MILE AHEAD	CENTER LANE CLOSED	NO LEFT TURNING
2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC
FIELD LOCATE IN ADVANCE OF TEMPORARY SIGNS.		FIELD LOCATE IN ADVANCE OF TEMPORARY SIGNS.	

PCMS #1		PCMS #2	
1	2	1	2
RIGHT LANE CLOSURE	1 MILE AHEAD	CENTER LANE CLOSED	NO LEFT TURNING
2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC
FIELD LOCATE IN ADVANCE OF TEMPORARY SIGNS.		FIELD LOCATE IN ADVANCE OF TEMPORARY SIGNS.	

MINIMUM LANE CLOSURE TAPER LENGTH = L (FEET)				
LANE WIDTH (FEET)		POSTED SPEED (MPH)		
25	30	35	40	45
10	105	150	205	270
11	115	165	225	295
12	125	180	245	320
				540



NOTES:

1. SEE SPECIAL PROVISIONS FOR WORK HOUR RESTRICTIONS.
2. RECOMMEND EXTENDING DEVICE TAPER (L/3) ACROSS SHOULDER.
3. FOR POSTED SPEED LIMITS OF 30 MPH OR LESS, USE SIGN W1-3 IN LIEU OF SIGN W1-4.
4. ALL SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE DESIGNATED.

LEGEND

❏ TEMPORARY SIGN LOCATION

❏ CHANNELIZING DEVICES

➤➤➤ SEQUENTIAL ARROW SIGN

☐ PROTECTIVE VEHICLE

☐ PORTABLE CHANGEABLE MESSAGE SIGN

☐ TEMPORARY SIGN LOCATION (5' MOUNTING HEIGHT)

REV	NO.	DATE	BY	APPR	PUBLIC WORKS - STREETS AND TRANSPORTATION	
1	3/16	RAW	CJC	CJC		
2	3/17	RAW	CJC	CJC		
3	9/21	RAW	CJC	CJC		
						APPROVED BY: 
						APPROVED DATE: 9/1/2021



TRAFFIC CONTROL STANDARD PLAN
RIGHT LANE CLOSURE WITH
SHIFT 5 LANE ROADWAYS

STANDARD PLAN
NUMBER

TC10

BUFFER DATA					
LONGITUDINAL BUFFER SPACE = B					
SPEED (MPH)	25	30	35	40	45
LENGTH (FEET)	155	200	250	305	360
BUFFER VEHICLE ROLL AHEAD DISTANCE = R					
TRANSPORTABLE ATTENUATOR					
MINIMUM HOST VEHICLE WEIGHT 15,000 LBS. THE MAXIMUM WEIGHT SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATION.					
30 FEET MIN. TO 100 FEET MAX.					
PROTECTIVE VEHICLE					
MAY BE A WORK VEHICLE STRATEGICALLY LOCATED TO SHIELD THE WORK AREA.					
NO SPECIFIED DISTANCE REQUIRED					

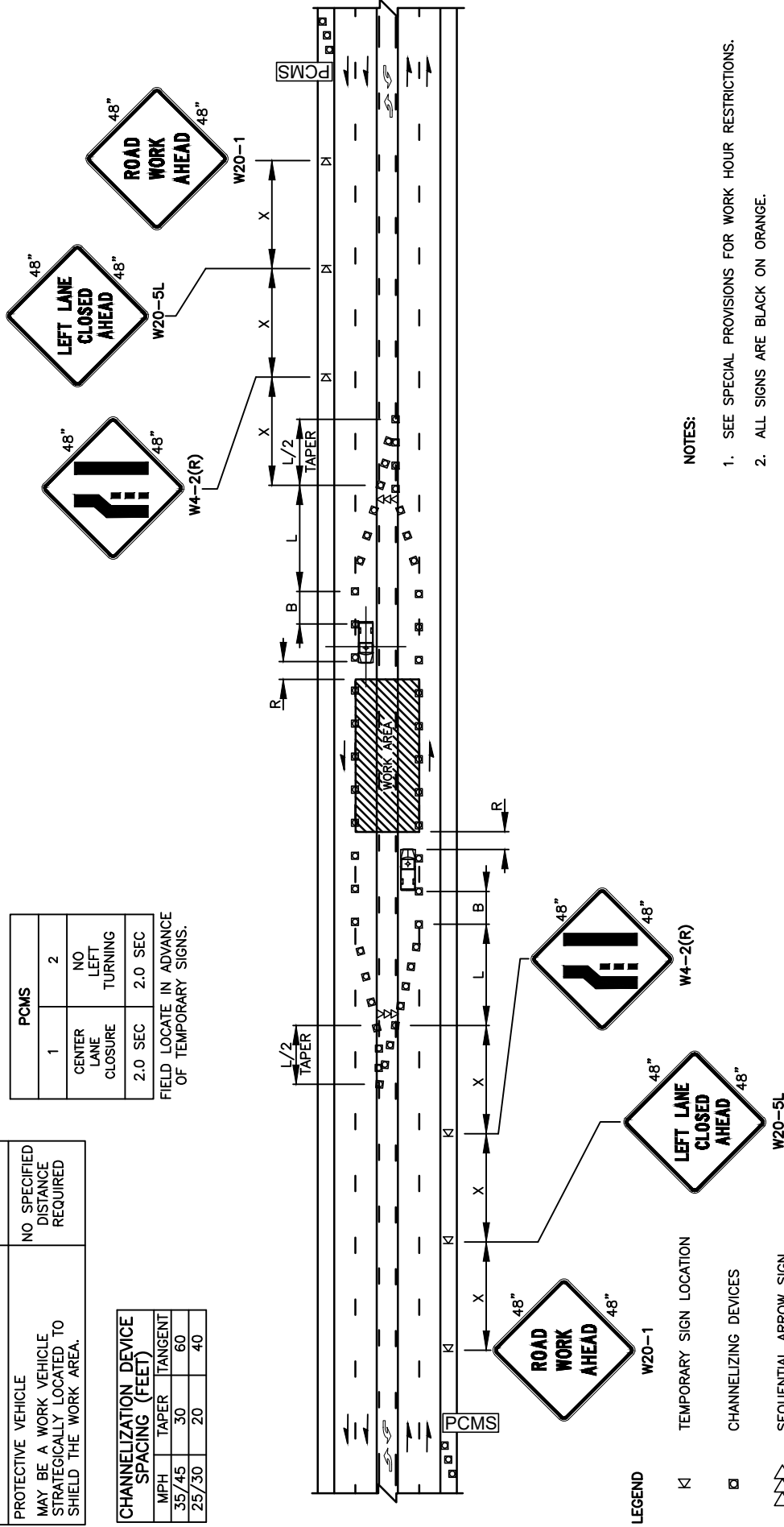
CHANNELIZATION DEVICE SPACING (FEET)			
MPH	TAPER	TANGENT	
35/45	30	60	
25/30	20	40	

SIGN SPACING = X (1)				
PRINCIPAL ARTERIALS	45 MPH	500'±		
PRINCIPAL, MINOR OR COLLECTOR ARTERIALS	35/40 MPH	350'±		
PRINCIPAL, MINOR, COLLECTOR ARTERIALS, INDUSTRIAL AND LOCAL ACCESS ROADWAYS	25/30 MPH	200'± (2)		
INDUSTRIAL AND LOCAL ACCESS ROADWAYS	25 MPH OR LESS	100'± (2)		
(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERSECTIONS AND DRIVEWAYS.				
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.				

PCMS			
1	2		
CENTER LANE CLOSURE	NO LEFT TURNING		
2.0 SEC	2.0 SEC		

FIELD LOCATE IN ADVANCE
OF TEMPORARY SIGNS.

MINIMUM LANE CLOSURE TAPER LENGTH = L (FEET)					
LANE WIDTH (FEET)		POSTED SPEED (MPH)			
25	30	35	40	45	
10	105	150	205	270	450
11	115	165	225	295	495
12	125	180	245	320	540



NOTES:

- SEE SPECIAL PROVISIONS FOR WORK HOUR RESTRICTIONS.
- ALL SIGNS ARE BLACK ON ORANGE.

REV	NO.	DATE	BY	APPR	PUBLIC WORKS - STREETS AND TRANSPORTATION			
1	3/16	RAW	CJC	CJC				
2	3/17	RAW	CJC	CJC				
3	9/21	RAW	CJC	CJC				

APPROVED BY: *[Signature]*
TRAFFIC ENGINEER MANAGER
9/1/2021



TRAFFIC CONTROL STANDARD PLAN
LEFT LANE AND CENTER TURN LANE
5 LANE ROADWAYS

STANDARD PLAN
NUMBER

TC11

BUFFER DATA					
LONGITUDINAL BUFFER SPACE = B					
SPEED (MPH)	25	30	35	40	45
LENGTH (FEET)	155	200	250	305	360
BUFFER VEHICLE ROLL AHEAD DISTANCE = R					
TRANSPORTABLE ATTENUATOR					
MINIMUM HOST VEHICLE WEIGHT 15,000 LBS. THE MAXIMUM WEIGHT SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATION.					
30 FEET MIN. TO 100 FEET MAX.					
PROTECTIVE VEHICLE					
MAY BE A WORK VEHICLE STRATEGICALLY LOCATED TO SHIELD THE WORK AREA.					
NO SPECIFIED DISTANCE REQUIRED					

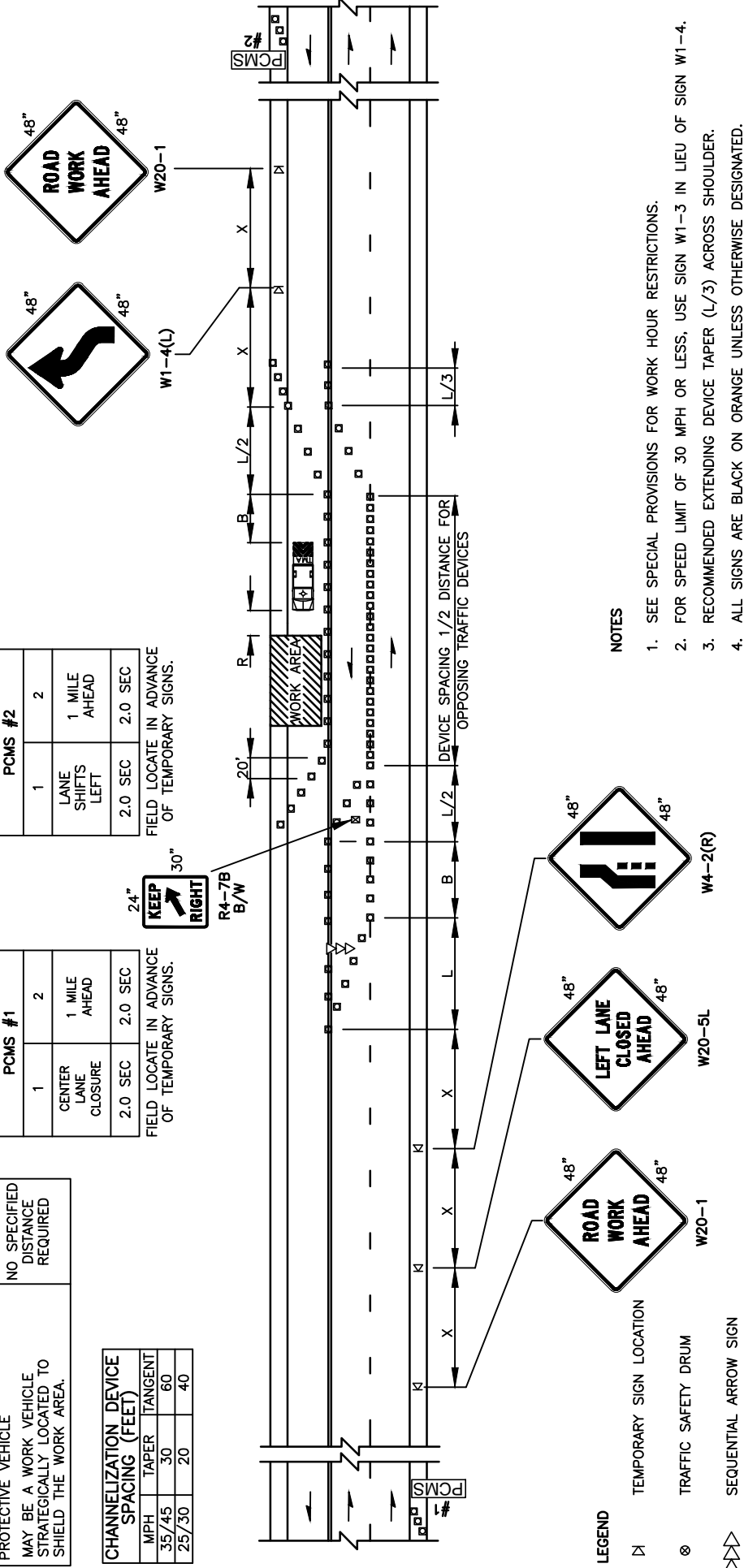
CHANNELIZATION DEVICE SPACING (FEET)			
MPH	TAPER	TANGENT	
35/45	30	60	
25/30	20	40	

SIGN SPACING = X (1)				
PRINCIPAL ARTERIALS				
PRINCIPAL, MINOR OR COLLECTOR ARTERIALS	45 MPH	500'±		
PRINCIPAL, MINOR, COLLECTOR ARTERIALS,	35/40 MPH	350'±		
INDUSTRIAL AND LOCAL ACCESS ROADWAYS	25/30 MPH	200'± (2)		
INDUSTRIAL AND LOCAL ACCESS ROADWAYS	25 MPH OR LESS	100'± (2)		
(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERSECTIONS AND DRIVEWAYS.				
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.				

PCMS #1			
1	2		
CENTER LANE CLOSURE	1 MILE AHEAD		
2.0 SEC	2.0 SEC		
FIELD LOCATE IN ADVANCE OF TEMPORARY SIGNS.			

PCMS #2			
1	2		
LANE SHIFTS LEFT	1 MILE AHEAD		
2.0 SEC	2.0 SEC		
FIELD LOCATE IN ADVANCE OF TEMPORARY SIGNS.			

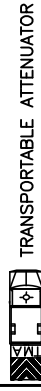
MINIMUM LANE CLOSURE TAPER LENGTH = L (FEET)					
LANE WIDTH (FEET)			POSTED SPEED (MPH)		
10	105	150	205	270	450
11	115	165	225	295	495
12	125	180	245	320	540



NOTES

1. SEE SPECIAL PROVISIONS FOR WORK HOUR RESTRICTIONS.
2. FOR SPEED LIMIT OF 30 MPH OR LESS, USE SIGN W1-3 IN LIEU OF SIGN W1-4.
3. RECOMMENDED EXTENDING DEVICE TAPER (L/3) ACROSS SHOULDER.
4. ALL SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE DESIGNATED.

- LEGEND
- TEMPORARY SIGN LOCATION
 - TRAFFIC SAFETY DRUM
 - SEQUENTIAL ARROW SIGN
 - TRANSPORTABLE ATTENUATOR
 - PORTABLE CHANGEABLE MESSAGE SIGN
 - TEMPORARY SIGN LOCATION (5' (FT.) MOUNTING HEIGHT)



PCMS

PORTABLE CHANGEABLE MESSAGE SIGN

TEMPORARY SIGN LOCATION (5' (FT.) MOUNTING HEIGHT)

REV	NO.	DATE	BY	APPR	PUBLIC WORKS - STREETS AND TRANSPORTATION			
1	3/16	RAW	CJC					
2	3/17	RAW	CJC					
3	9/21	RAW	CJC					
APPROVED BY:					TRAFFIC ENGINEER MANAGER			
APPROVED DATE: 9/1/2021								



TRAFFIC CONTROL STANDARD PLAN

LANE SHIFT

3 LANE ROADWAYS

STANDARD PLAN NUMBER

TC12

SIGN SPACING = X (1)			
PRINCIPAL ARTERIALS	45 MPH	350'±	500'±
PRINCIPAL, MINOR OR COLLECTOR ARTERIALS	35/40 MPH	350'±	
PRINCIPAL, MINOR, COLLECTOR ARTERIALS, INDUSTRIAL AND LOCAL ACCESS ROADWAYS	25/30 MPH	200'± (2)	
INDUSTRIAL AND LOCAL ACCESS ROADWAYS	25 MPH OR LESS	100'± (2)	
(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERSECTIONS AND DRIVEWAYS.			
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.			

CHANNELIZATION DEVICE SPACING (FEET)			
MPH	TAPER	TANGENT	
35/45	30	60	
25/30	20	40	

MINIMUM LANE CLOSURE TAPER LENGTH = L (FEET)				
LANE WIDTH (FEET)	POSTED SPEED (MPH)			
	25	30	35	40
10	105	150	205	270
11	115	165	225	295
12	125	180	245	320

PCMS	
1	2
EXIT XXX CLOSED	USE EXIT XXX
2.0 SEC	2.0 SEC

FIELD LOCATE IN ADVANCE OF TEMPORARY SIGNS.

LEGEND

--- TYPE 3 BARRICADE

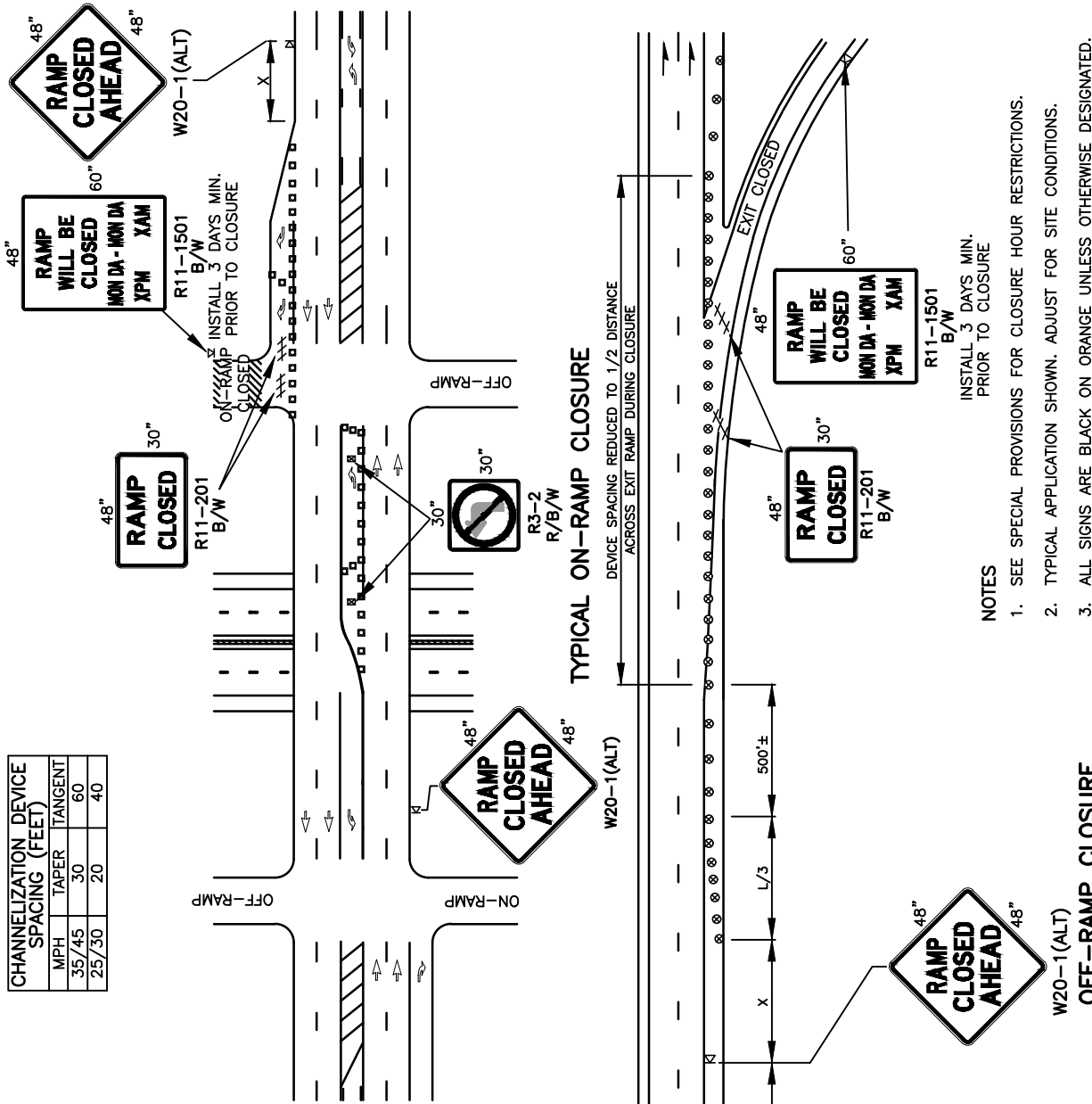
K TEMPORARY SIGN LOCATION

□ CHANNELIZING DEVICES

⊗ TRAFFIC SAFETY DRUM

PCMS PORTABLE CHANGEABLE MESSAGE SIGN

⊗ TEMPORARY SIGN LOCATION (5' MOUNTING HEIGHT)



REV	NO.	DATE	BY	APP	PUBLIC WORKS - STREETS AND TRANSPORTATION	
1	3/16	RAW	CJC	CJC		
2	9/21	RAW	CJC	CJC		
						APPROVED BY:
						APPROVED DATE: 9/1/2021

CITY OF Vancouver WASHINGTON

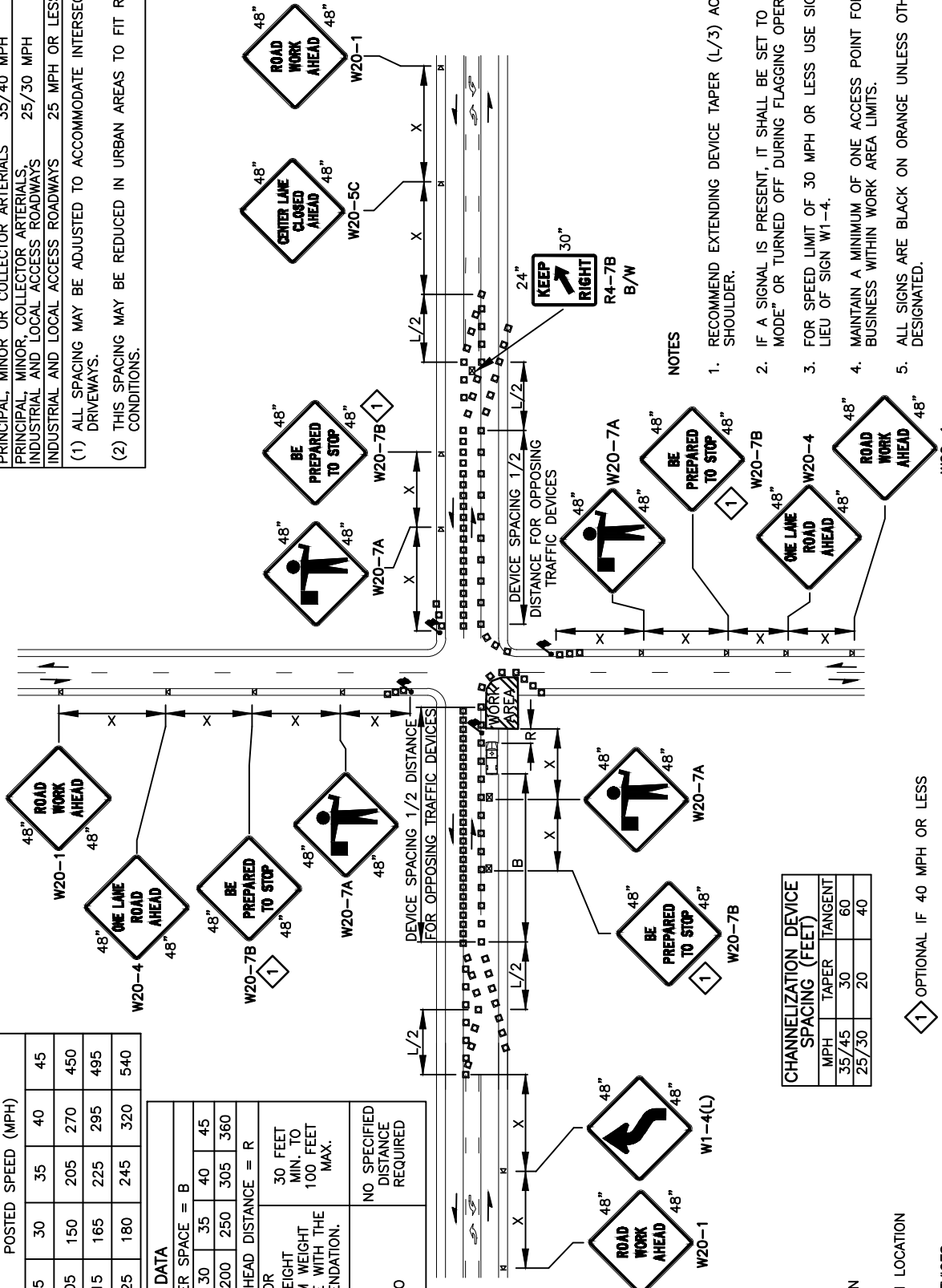
TRAFFIC CONTROL STANDARD PLAN
SHORT TERM
RAMP CLOSURES

STANDARD PLAN NUMBER
TC13

MINIMUM LANE CLOSURE TAPER LENGTH = L (FEET)					
LANE WIDTH (FEET)	POSTED SPEED (MPH)				
	25	30	35	40	45
10	105	150	205	270	450
11	115	165	225	295	495
12	125	180	245	320	540

BUFFER DATA					
LONGITUDINAL BUFFER SPACE = B					
SPEED (MPH)	25	30	35	40	45
LENGTH (FEET)	155	200	250	305	360
BUFFER VEHICLE ROLL AHEAD DISTANCE = R					
TRANSPORTABLE ATTENUATOR	30 FEET				
MINIMUM HOST VEHICLE WEIGHT 15,000 LBS. THE MAXIMUM WEIGHT SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATION.	MIN. TO 100 FEET MAX.				
PROTECTIVE VEHICLE	NO SPECIFIED DISTANCE REQUIRED				
MAY BE A WORK VEHICLE STRATEGICALLY LOCATED TO SHIELD THE WORK AREA.					

SIGN SPACING = X (1)			
PRINCIPAL ARTERIALS	45 MPH	500'±	
PRINCIPAL, MINOR OR COLLECTOR ARTERIALS	35/40 MPH	350'±	
PRINCIPAL, MINOR, COLLECTOR ARTERIALS, INDUSTRIAL AND LOCAL ACCESS ROADWAYS	25/30 MPH	200'± (2)	
INDUSTRIAL AND LOCAL ACCESS ROADWAYS	25 MPH OR LESS	100'± (2)	
(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERSECTIONS AND DRIVEWAYS.			
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.			



CHANNELIZATION DEVICE SPACING (FEET)			
MPH	TAPER	TANGENT	
35/45	30	60	
25/30	20	40	

LEGEND

- FLAGGING STATION
- TEMPORARY SIGN LOCATION
- CHANNELIZING DEVICES
- PROTECTIVE VEHICLE -- RECOMMENDED
- TEMPORARY SIGN LOCATION (5' MOUNTING HEIGHT)

NOTES

- RECOMMEND EXTENDING DEVICE TAPER (L/3) ACROSS SHOULDER.
- IF A SIGNAL IS PRESENT, IT SHALL BE SET TO "RED FLASH MODE" OR TURNED OFF DURING FLAGGING OPERATIONS.
- FOR SPEED LIMIT OF 30 MPH OR LESS USE SIGN W1-3 IN LIEU OF SIGN W1-4.
- MAINTAIN A MINIMUM OF ONE ACCESS POINT FOR EACH BUSINESS WITHIN WORK AREA LIMITS.
- ALL SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE DESIGNATED.



REV	NO.	DATE	BY	APPROVED	PUBLIC WORKS - STREETS AND TRANSPORTATION			
1	3/16	RAW	CJC					
2	3/17	RAW	CJC					
3	9/21	RAW	CJC					

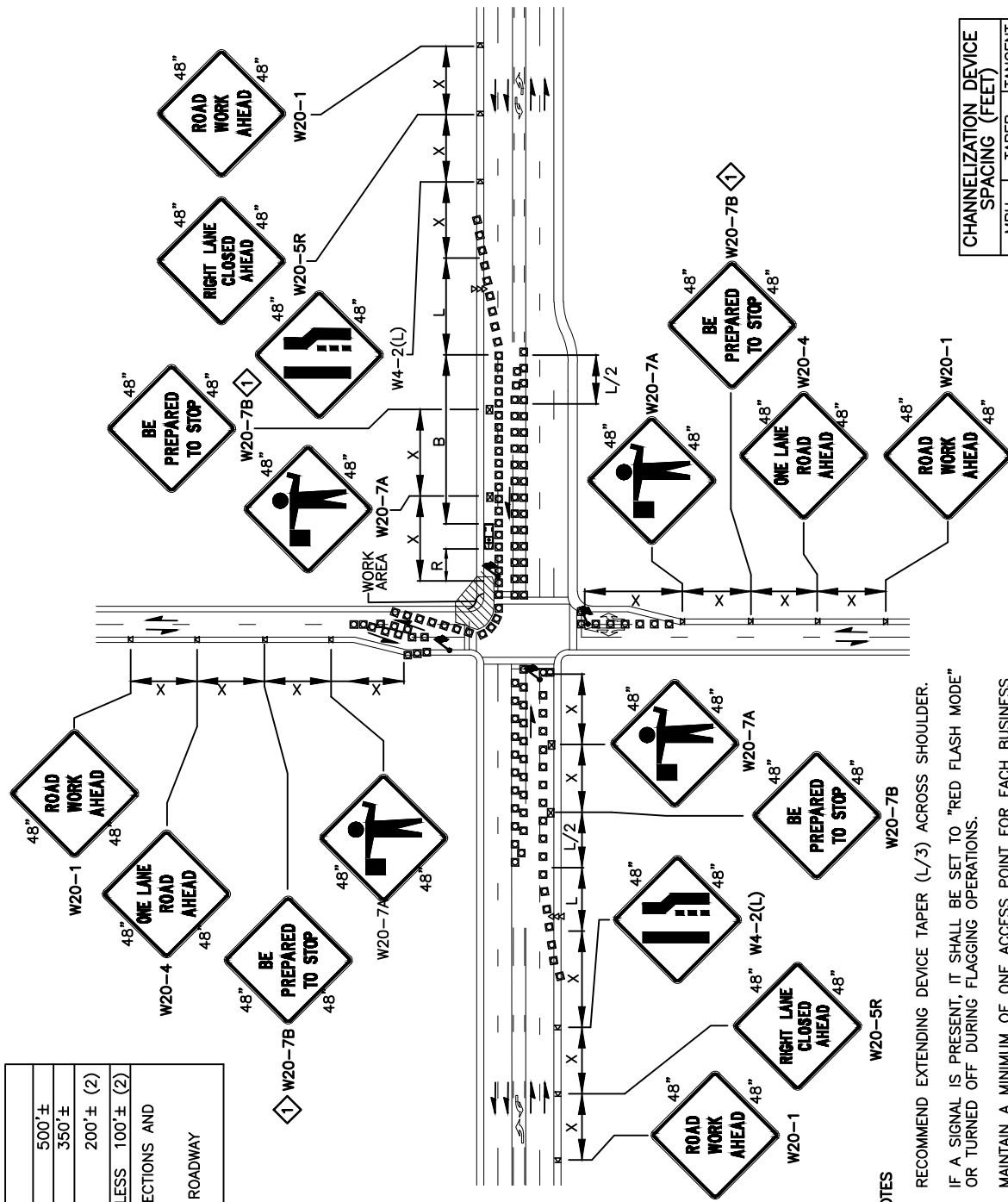
APPROVED BY: 9/1/2021

STANDARD PLAN NUMBER		TC14
TRAFFIC CONTROL STANDARD PLAN		INTERSECTION LANE CLOSURE
3 LANE ROADWAYS		

SIGN SPACING = X (1)		
PRINCIPAL ARTERIALS	45 MPH	500'±
PRINCIPAL, MINOR OR COLLECTOR ARTERIALS	35/40 MPH	350'±
PRINCIPAL, MINOR, COLLECTOR ARTERIALS, INDUSTRIAL AND LOCAL ACCESS ROADWAYS	25/30 MPH	200'± (2)
INDUSTRIAL AND LOCAL ACCESS ROADWAYS	25 MPH OR LESS	100'± (2)
(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERSECTIONS AND DRIVEWAYS.		
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.		

BUFFER DATA					
LONGITUDINAL BUFFER SPACE = B					
SPEED (MPH)	25	30	35	40	45
LENGTH (FEET)	155	200	250	305	360
BUFFER VEHICLE ROLL AHEAD DISTANCE = R					
TRANSPORTABLE ATTENUATOR	30 FEET MIN. TO 100 FEET MAX.				
MINIMUM HOST VEHICLE WEIGHT 15,000 LBS. THE MAXIMUM WEIGHT SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATION.					
PROTECTIVE VEHICLE	NO SPECIFIED DISTANCE REQUIRED				
MAY BE A WORK VEHICLE STRATEGICALLY LOCATED TO SHIELD THE WORK AREA.					

MINIMUM LANE CLOSURE TAPER LENGTH = L (FEET)					
LANE WIDTH (FEET)	POSTED SPEED (MPH)				
	25	30	35	40	45
10	105	150	205	270	450
11	115	165	225	295	495
12	125	180	245	320	540



NOTES

1. RECOMMEND EXTENDING DEVICE TAPER (L/3) ACROSS SHOULDER.
2. IF A SIGNAL IS PRESENT, IT SHALL BE SET TO "RED FLASH MODE" OR TURNED OFF DURING FLAGGING OPERATIONS.
3. MAINTAIN A MINIMUM OF ONE ACCESS POINT FOR EACH BUSINESS WITHIN WORK AREA LIMITS.
4. ALL SIGNS ARE BLACK ON ORANGE.

LEGEND

- FLAGGING STATION
- TEMPORARY SIGN LOCATION
- CHANNELIZING DEVICES
- SEQUENTIAL ARROW SIGN
- PROTECTIVE VEHICLE - RECOMMENDED
- TEMPORARY SIGN LOCATION (5' MOUNTING HEIGHT)

CHANNELIZATION DEVICE SPACING (FEET)			
MPH	TAPER	TANGENT	
35/45	30	60	
25/30	20	40	

OPTIONAL IF 40 MPH OR LESS

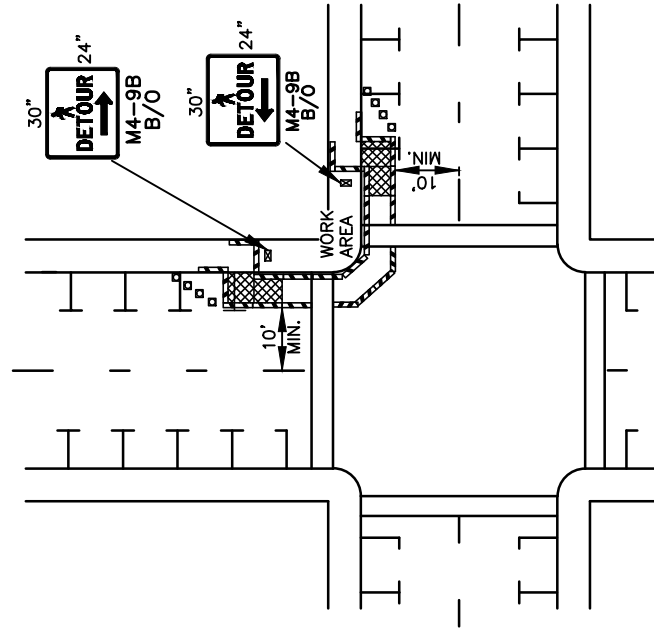
REV	NO.	DATE	BY	APP'D	PUBLIC WORKS - STREETS AND TRANSPORTATION			
1	3/16	RAW	CJC	CJC				
2	3/17	RAW	CJC	CJC				
3	9/21	RAW	CJC	CJC				

APPROVED BY: *[Signature]* TRAFFIC ENGINEER MANAGER
APPROVED DATE: 9/1/2021

CITY OF Vancouver WASHINGTON

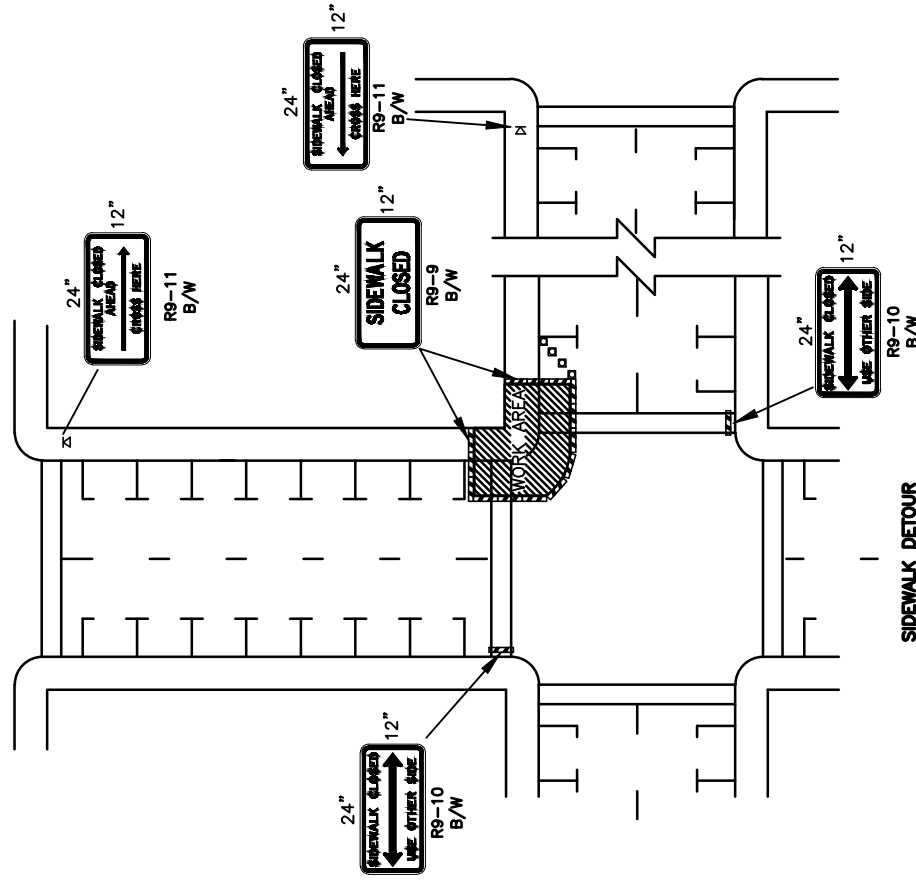
TRAFFIC CONTROL STANDARD PLAN
INTERSECTION LANE CLOSURE
5 LANE ROADWAYS

STANDARD PLAN NUMBER
TC15



LEGEND

- | | | |
|---|---------------------------------|----------|
|  | TEMPORARY SIGN | LOCATION |
|  | CHANNELIZING DEVICES | |
|  | PEDESTRIAN CHANNELIZING DEVICES | |
|  | TEMPORARY PEDESTRIAN SIDEWALKS | RANGE |



NOTES

1. CONTROLS SHOWN ARE FOR PEDESTRIAN TRAFFIC ONLY.
2. A 60" PATH WIDTH SHOULD BE MAINTAINED (48" IS THE MINIMUM).
3. CONTACT AND COORDINATE IMPACTED TRANSIT AGENCIES PRIOR TO IMPLEMENTING ANY CLOSURES.
4. SEE SHEET TC-52 OR TC-53 FOR TEMPORARY PEDESTRIAN RAMP DETAILS.
5. ADA PEDESTRIAN FACILITIES MUST BE MAINTAINED. SEE STANDARD SPECIFICATION 1-10.2(1)B.
6. TEMPORARY PEDESTRIAN PUSH BUTTONS SHALL BE PLACED ON THE DIVERT PATH WHEN EXISTING BUTTONS ARE NOT ACCESSIBLE TO PEDESTRIANS.

**PUBLIC WORKS – STREETS
AND TRANSPORTATION**

REV NO.	DATE	BY	APPRO
1	3/16	RAW	CJC
2	9/21	RAW	CJC

APPROVED BY: 
 APPROVED DATE: 9/1/2021

The logo for the City of Vancouver, Washington, is located in the bottom right corner. It features the words "CITY OF" in a small, sans-serif font above the word "Vancouver" in a large, bold, sans-serif font. To the right of "Vancouver" is the word "WASHINGTON" in a smaller, bold, sans-serif font. Below the text are three wavy, horizontal lines.

TRAFFIC CONTROL STANDARD PLAN INTERSECTION PEDESTRIAN TRAFFIC CONTROL	STANDARD PLAN NUMBER	TC16
---	-------------------------	------

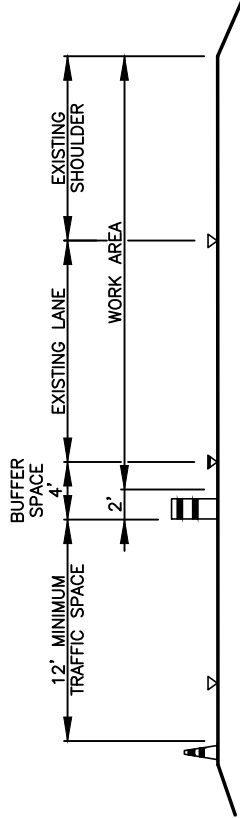
BUFFER DATA					
LONGITUDINAL BUFFER SPACE = B					
SPEED (MPH)	25	30	35	40	45
LENGTH (FEET)	155	200	250	305	360
BUFFER VEHICLE ROLL AHEAD DISTANCE = R					
TRANSPORTABLE ATTENUATOR					
MINIMUM HOST VEHICLE WEIGHT 15,000 LBS. THE MAXIMUM WEIGHT SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATION.					
30 FEET MIN. TO 100 FEET MAX.					

SIGN SPACING = X (1)		
PRINCIPAL ARTERIALS	45 MPH	500'±
PRINCIPAL, MINOR OR COLLECTOR ARTERIALS	35/40 MPH	350'±
PRINCIPAL, MINOR, COLLECTOR ARTERIALS	25/30 MPH	200'± (2)
INDUSTRIAL AND LOCAL ACCESS ROADWAYS	25 MPH OR LESS	100'± (2)
(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERSECTIONS AND DRIVEWAYS.		
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.		

CHANNELIZATION DEVICE SPACING (FEET)		
MPH	TAPER	TANGENT
35/45	30	60
25/30	20	40

LEGEND

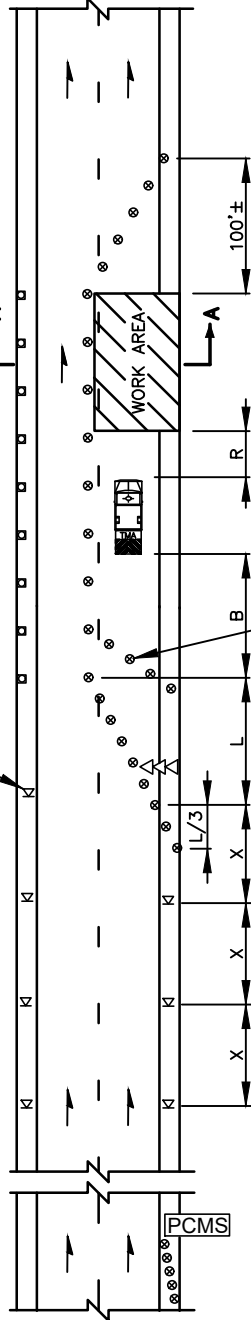
- TEMPORARY SIGN LOCATION
- CHANNELIZING DEVICES
- TRAFFIC SAFETY DRUM
- SEQUENTIAL ARROW SIGN
- TRANSPORTABLE ATTENUATOR
- PORTABLE CHANGEABLE MESSAGE SIGN



TYPICAL SECTION A-A



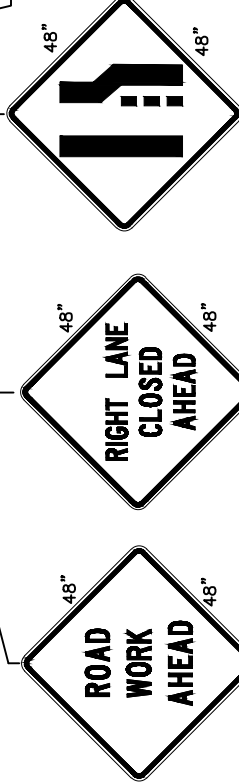
W5-1



SEE NOTE 3

NOTES

- SEE SPECIAL PROVISIONS FOR WORK HOUR RESTRICTIONS.
- RECOMMEND EXTENDING DEVICE TAPER (L/3) ACROSS SHOULDER.
- USE TRANSVERSE DEVICES IN CLOSED LANE EVERY 1000' (RECOMMENDED).
- ALL SIGNS ARE BLACK ON ORANGE.
- RECOMMEND ADVANCE NOTICE FOR ANY OVER WIDTH LOADS PRIOR TO LANE CLOSURE FOR ALTERNATE ROUTES IF APPLICABLE.



W4-2(L)

W20-5R

W20-1

PUBLIC WORKS - STREETS AND TRANSPORTATION

REV	NO.	DATE	BY	APPR
1	3/16	RAW	CJC	
2	9/21	RAW	CJC	

APPROVED BY: 9/1/2021
APPROVED DATE:



TRAFFIC CONTROL STANDARD PLAN
SINGLE-LANE CLOSURE
WITH SHIFT

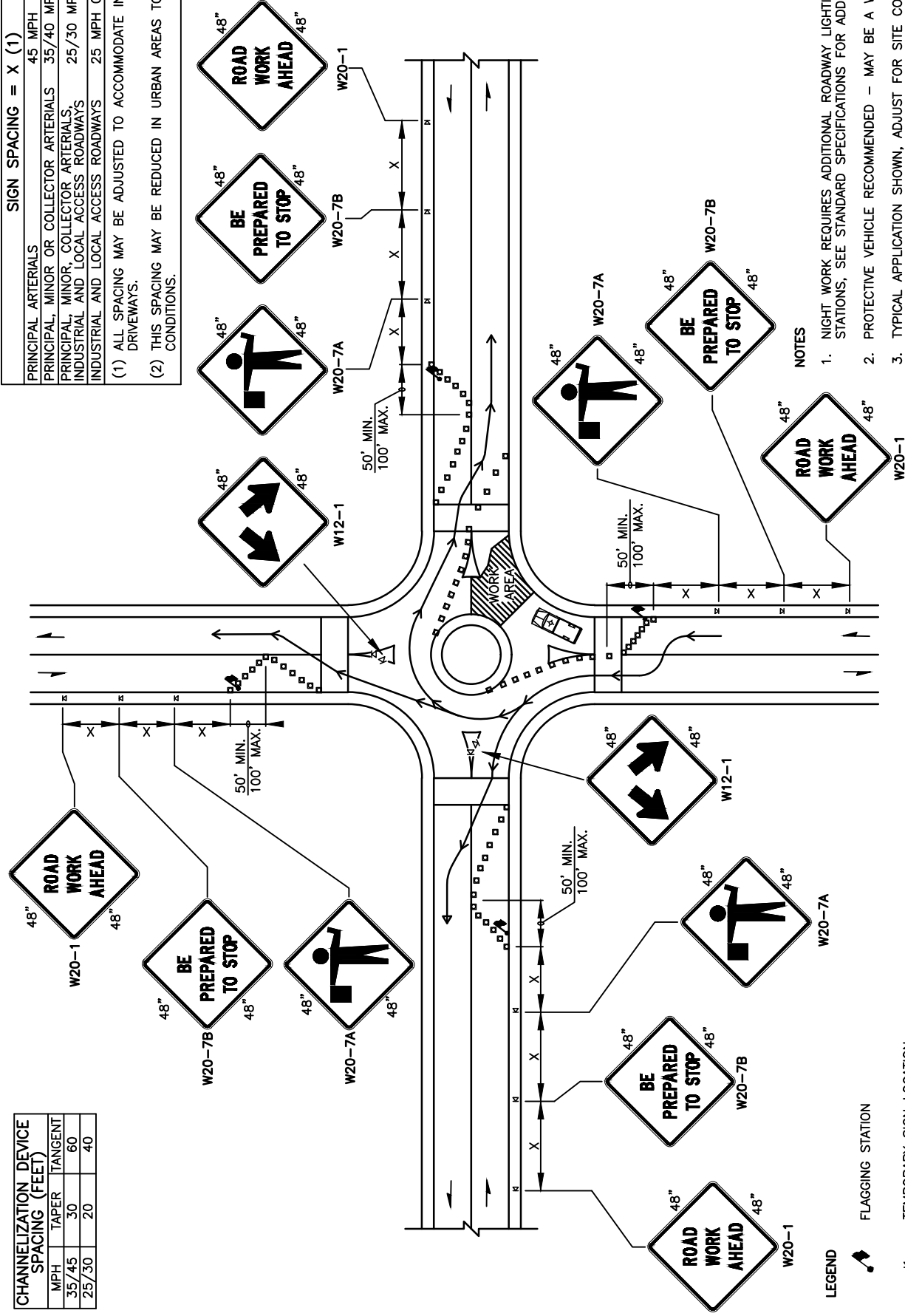
STANDARD PLAN
NUMBER

TC17

CHANNELIZATION DEVICE SPACING (FEET)			
MPH	TAPER	TANGENT	
35/45	30	60	
25/30	20	40	

SIGN SPACING = X (1)			
PRINCIPAL ARTERIALS	45 MPH	500'±	
PRINCIPAL, MINOR OR COLLECTOR ARTERIALS	35/40 MPH	350'±	
PRINCIPAL, MINOR, COLLECTOR ARTERIALS, INDUSTRIAL AND LOCAL ACCESS ROADWAYS	25/30 MPH	200'± (2)	
INDUSTRIAL AND LOCAL ACCESS ROADWAYS	25 MPH OR LESS	100'± (2)	

(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERSECTIONS AND DRIVEWAYS.
 (2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.



NOTES

1. NIGHT WORK REQUIRES ADDITIONAL ROADWAY LIGHTING AT FLAGGING STATIONS, SEE STANDARD SPECIFICATIONS FOR ADDITIONAL DETAILS.
2. PROTECTIVE VEHICLE RECOMMENDED - MAY BE A WORK VEHICLE.
3. TYPICAL APPLICATION SHOWN, ADJUST FOR SITE CONDITIONS.

REV	NO.	DATE	BY	APPR	PUBLIC WORKS - STREETS AND TRANSPORTATION			
1		3/16	RAW	CJC	CJC			
2		9/21	RAW	CJC	CJC			

APPROVED BY: *[Signature]* TRAFFIC ENGINEER MANAGER
 APPROVED DATE: 9/1/2021

CITY OF **Vancouver** WASHINGTON

TRAFFIC CONTROL STANDARD PLAN
 TYPICAL ROUNDABOUT
 FLAGGING OPERATION

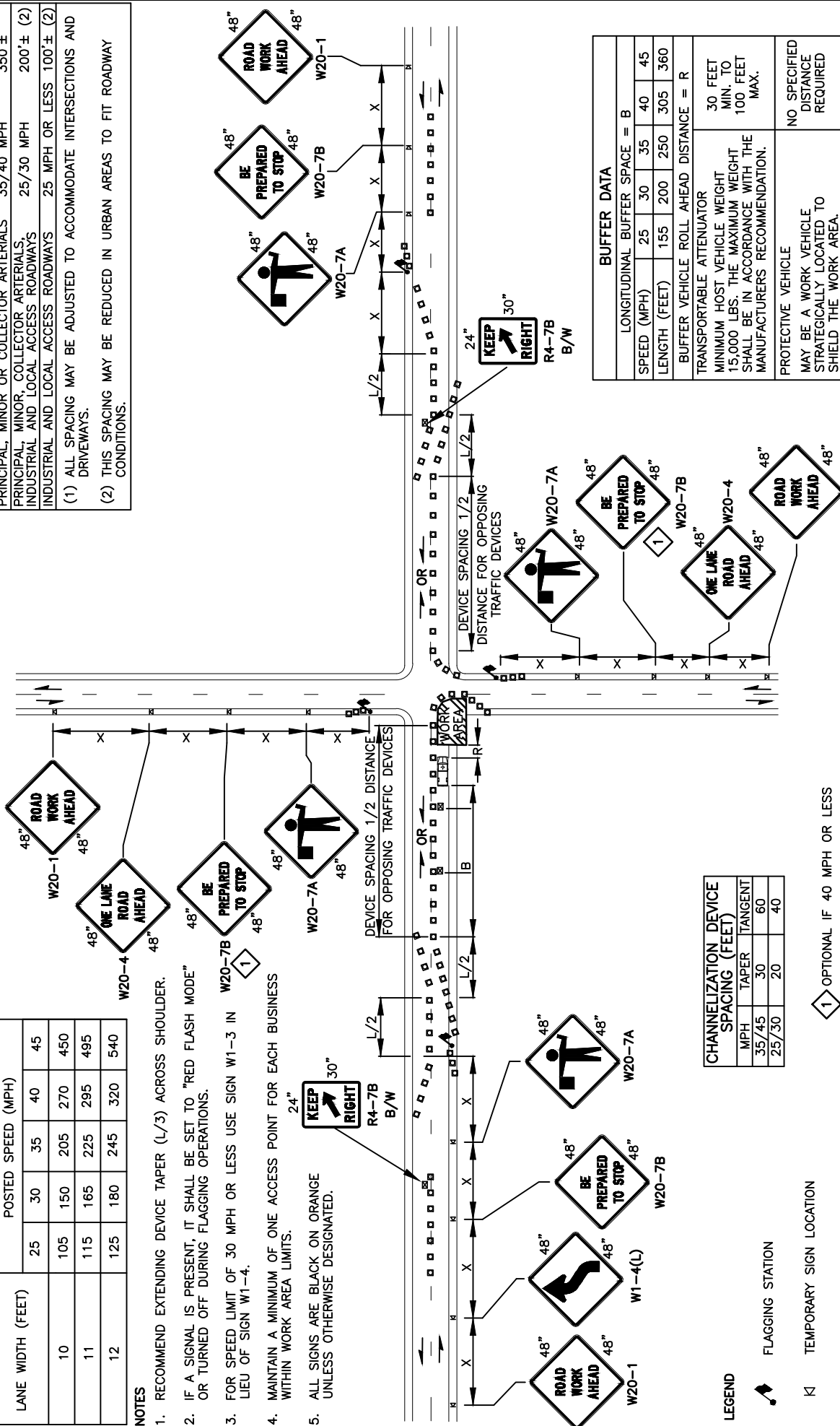
STANDARD PLAN NUMBER
 TC18

- LEGEND
- FLAGGING STATION
 - TEMPORARY SIGN LOCATION
 - CHANNELIZING DEVICES
 - PROTECTIVE VEHICLE - RECOMMENDED

MINIMUM LANE CLOSURE TAPER LENGTH = L (FEET)					
LANE WIDTH (FEET)	POSTED SPEED (MPH)				
	25	30	35	40	45
10	105	150	205	270	450
11	115	165	225	295	495
12	125	180	245	320	540

NOTES

1. RECOMMEND EXTENDING DEVICE TAPER (L/3) ACROSS SHOULDER.
2. IF A SIGNAL IS PRESENT, IT SHALL BE SET TO "RED FLASH MODE" OR TURNED OFF DURING FLAGGING OPERATIONS.
3. FOR SPEED LIMIT OF 30 MPH OR LESS USE SIGN W1-3 IN LIEU OF SIGN W1-4.
4. MAINTAIN A MINIMUM OF ONE ACCESS POINT FOR EACH BUSINESS WITHIN WORK AREA LIMITS.
5. ALL SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE DESIGNATED.



CHANNELIZATION DEVICE SPACING (FEET)			
MPH	TAPER	TANGENT	
35/45	30	60	
25/30	20	40	

LEGEND



FLAGGING STATION

K1 TEMPORARY SIGN LOCATION

CHANNELIZING DEVICES

PROTECTIVE VEHICLE - RECOMMENDED

TEMPORARY SIGN LOCATION (5' MOUNTING HEIGHT)

1 OPTIONAL IF 40 MPH OR LESS

REV	NO.	DATE	BY	APPR	PUBLIC WORKS - STREETS AND TRANSPORTATION			
1	3/16	RAW	CJC	CJC				
2	9/21	RAW	CJC	CJC				

APPROVED BY: TRAFFIC ENGINEER MANAGER
APPROVED DATE: 9/1/2021



STANDARD PLAN NUMBER	TC19
TRAFFIC CONTROL STANDARD PLAN	INTERSECTION LANE CLOSURE
2 LANE ROADWAYS	

SIGN SPACING = X (1)

PRINCIPAL ARTERIALS	45 MPH	500'±
PRINCIPAL, MINOR OR COLLECTOR ARTERIALS	35/40 MPH	350'±
PRINCIPAL, MINOR, COLLECTOR ARTERIALS, INDUSTRIAL AND LOCAL ACCESS ROADWAYS	25/30 MPH	200'± (2)
INDUSTRIAL AND LOCAL ACCESS ROADWAYS	25 MPH OR LESS	100'± (2)

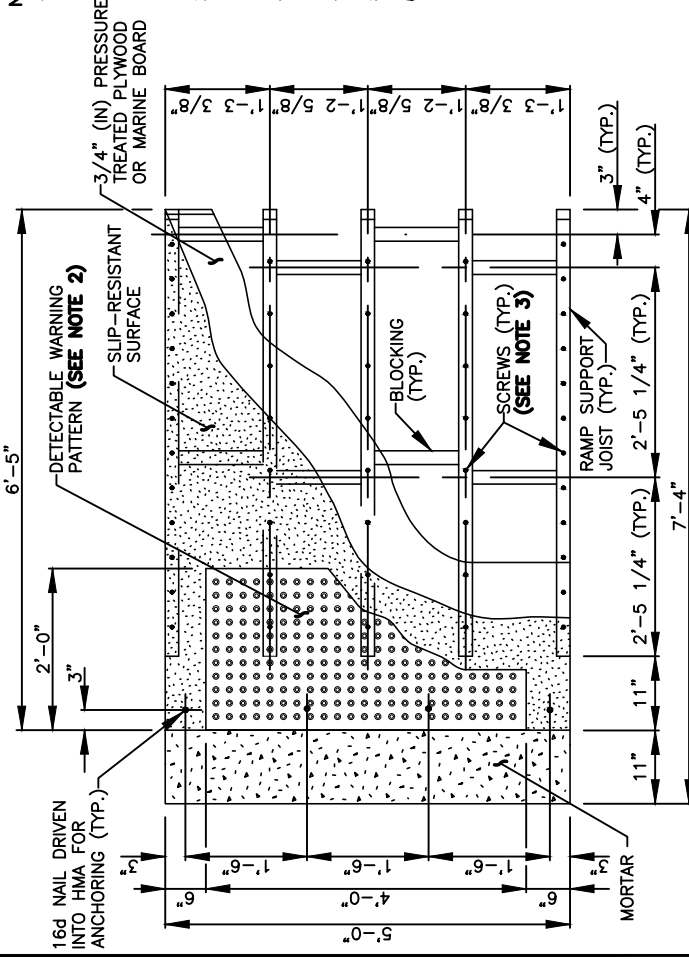
(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERSECTIONS AND DRIVEWAYS.
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.

BUFFER DATA					
LONGITUDINAL BUFFER SPACE = B					
SPEED (MPH)	25	30	35	40	45
LENGTH (FEET)	155	200	250	305	360
BUFFER VEHICLE ROLL AHEAD DISTANCE = R					
TRANSPORTABLE ATTENUATOR					
MINIMUM HOST VEHICLE WEIGHT 15,000 LBS. THE MAXIMUM WEIGHT SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION.					
30 FEET MIN. TO 100 FEET MAX.					
PROTECTIVE VEHICLE					
MAY BE A WORK VEHICLE STRATEGICALLY LOCATED TO SHIELD THE WORK AREA.					
NO SPECIFIED DISTANCE REQUIRED					

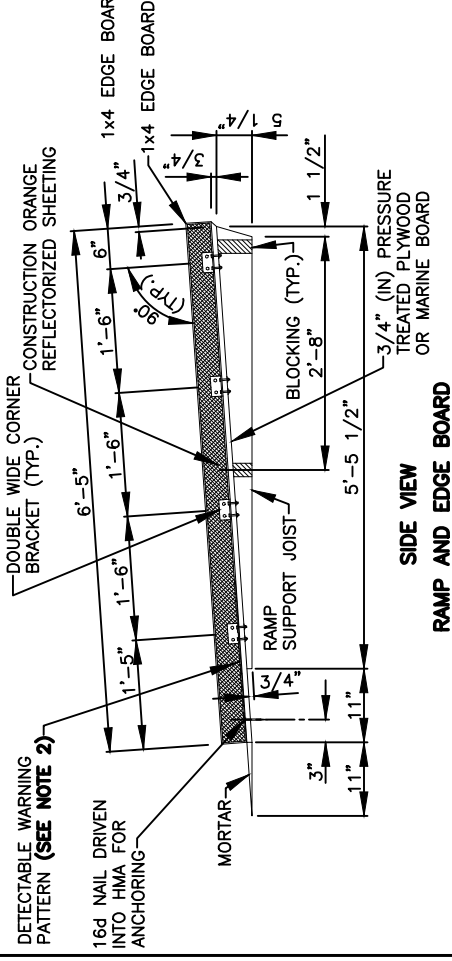
NOTES

1. THIS DESIGN ASSUMES OPTIMAL CONDITIONS AND A STANDARD CURB HEIGHT OF 6" (IN). INSTALLED RAMPS SHALL BE NO STEEPER THAN 12H : 1V, AND SHALL HAVE A CROSS-SLOPE OF 2% OR LESS. USE SHIMS OR GROUT AS REQUIRED TO ADJUST FOR EXISTING CONDITIONS AND TO PREVENT ROCKING. SHIMS SHALL BE NO HIGHER THAN 1" (IN), AND SHALL BE SECURED TO THE RAMP. FOR CURBS SHORTER THAN 6" (IN), INSTALL A RAMP ON THE SIDEWALK, NO STEEPER THAN 12H : 1V, MADE OF GROUT OR AS APPROVED BY THE ENGINEER. ADJUSTMENTS TO THE RAMP DIMENSIONS SHOWN MAY BE REQUIRED TO MATCH EXISTING CONDITIONS.
2. THE DETECTABLE WARNING PATTERN SHALL BE INSTALLED ONLY WHEN THE INTENT IS TO GUIDE PEDESTRIANS DIRECTLY ACROSS THE ROADWAY (CROSSWALK). SEE STANDARD PLAN F-40.10 FOR DETAILS.
3. SCREWS SHALL BE USED TO SECURE THE RAMP SURFACE. SPACING SHALL BE IN ACCORDANCE WITH THE CURRENT BUILDING CODE.
4. USE A SLIP-RESISTANT TREATMENT FOR THE SURFACE OF RAMP.
5. ALL FASTENERS SHALL BE GALVANIZED.
6. DO NOT INSTALL A HAND RAILING IF USING THE EDGE BOARD OPTION.

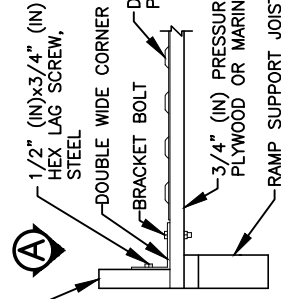
(1) 3/8" (IN) - 16x1 1/2" (IN) BRACKET BOLT ~
 (1) 3/8" (IN) - 16 HEX NUT, STEEL (TYP.)
 (1) 3/8" (IN) - 16 HEX WASHER, STEEL (TYP.)
 (1) 3/8" (IN) - 16 HEX BOLT, STEEL (TYP.)



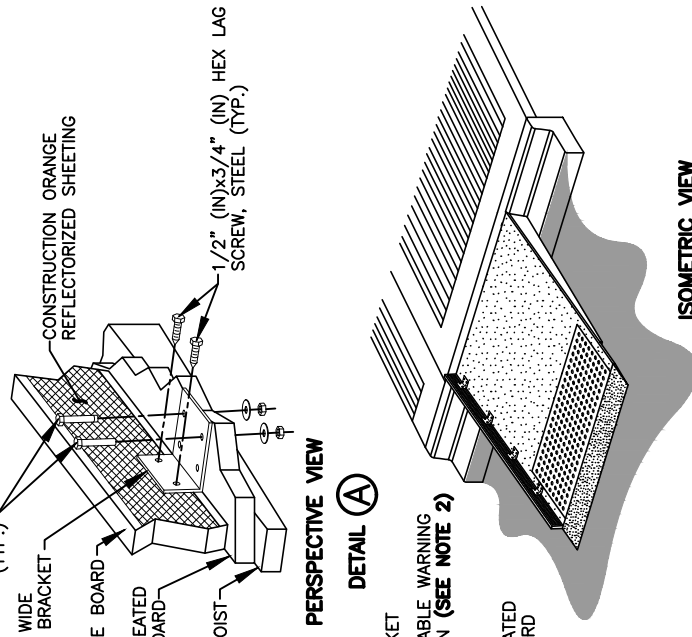
TOP VIEW
RAMP DETAIL



**SIDE VIEW
RAMP AND EDGE BOARD**



END VIEW
EDGE BOARD
ATTACHMENT DETAIL



ISOMETRIC VIEW

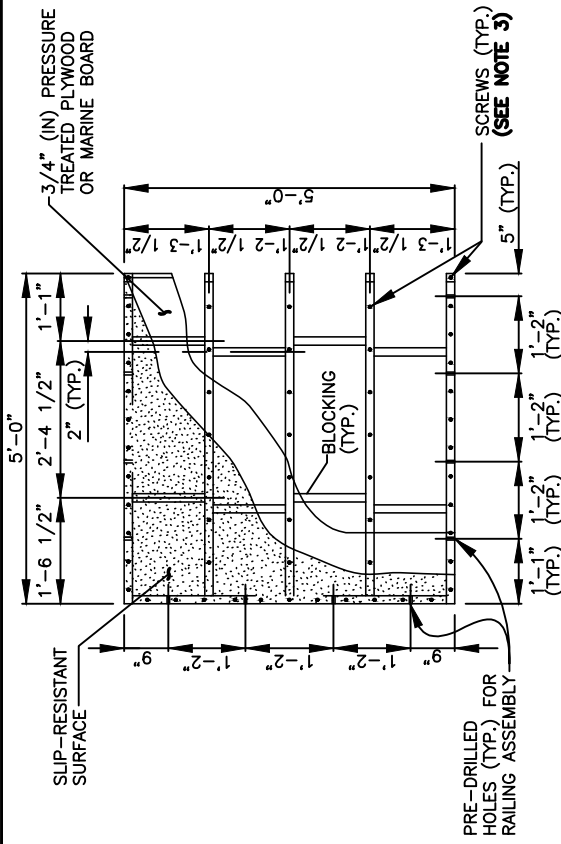
PUBLIC WORKS – STREETS AND TRANSPORTATION

APPROVED BY: 
TRAFFIC ENGINEER MANAGER
APPROVED DATE: 9/1/2021

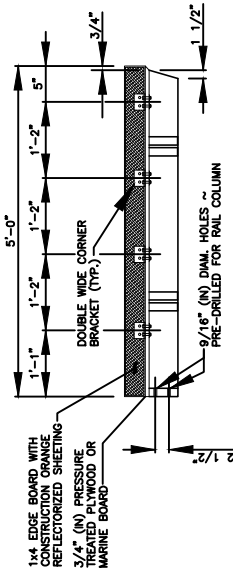


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WASHINGTON

STANDARD PLAN NUMBER	TC52
TRAFFIC CONTROL STANDARD PLAN TEMPORARY PEDESTRIAN RAMP WITH EDGE BOARD	



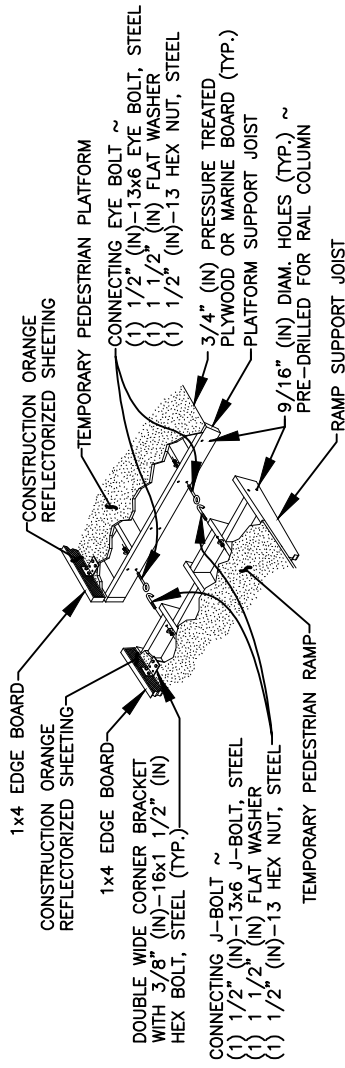
TOP VIEW
PLATFORM DETAIL



ELEVATION

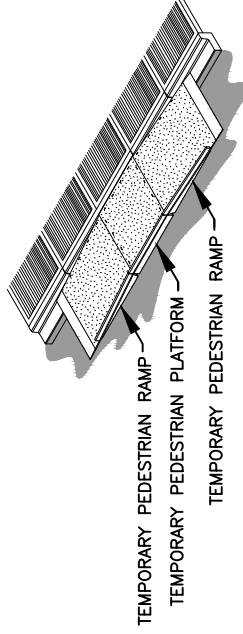
NOTES

1. ALL HOLES SHOWN SHALL BE DRILLED TO FACILITATE RE-USE AND FLEXIBLE EXPANSION.
2. SEE DETAIL SHEET **TC52 COW**, FOR TEMPORARY PEDESTRIAN RAMP DETAILS.
3. THIS DESIGN ASSUMES OPTIMAL CONDITIONS AND A STANDARD CURB HEIGHT OF 6" (IN).
 INSTALLED RAMPS SHALL BE NO STEEPER THAN 12H : 1V, AND SHALL HAVE A CROSS-SLOPE OF 2% OR LESS. USE SHIMS OR GROUT AS REQUIRED TO ADJUST, FOR EXISTING CONDITIONS AND TO PREVENT ROCKING. SHIMS SHALL BE NO HIGHER THAN 1" (IN), AND SHALL BE SECURED TO THE RAMP AND/OR PLATFORM. FOR CURBS SHORTER THAN 6" (IN), INSTALL A RAMP ON THE SIDEWALK, NO STEEPER THAN 12H : 1V, MADE OF GROUT OR AS APPROVED BY THE ENGINEER. ADJUSTMENTS TO THE PLATFORM DIMENSIONS SHOWN MAY BE REQUIRED TO MATCH EXISTING CONDITIONS.
4. SCREWS SHALL BE USED TO SECURE THE RAMP SURFACE.
 SPACING SHALL BE IN ACCORDANCE WITH THE CURRENT BUILDING CODE.
5. USE A SLIP-RESISTANT TREATMENT FOR SURFACE OF RAMP.
6. ALL FASTENERS SHALL BE GALVANIZED.

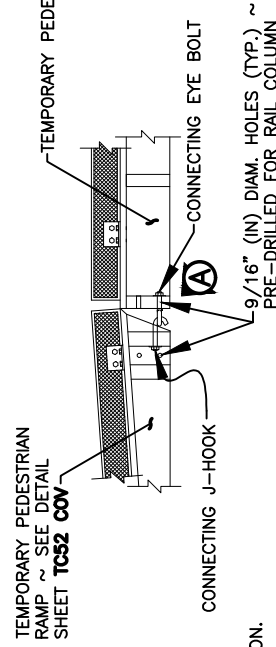


ISOMETRIC VIEW

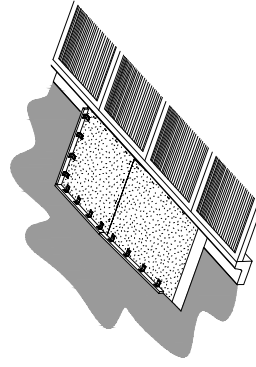
DETAIL (A)



**ISOMETRIC VIEW
DUAL RAMP**



SIDE VIEW
CONNECTION DETAIL



**ISOMETRIC VIEW
SINGLE RAMP**

REV NO.	DATE	BY	APPROVED BY:	DATE
1	3/16	RAW		9/1/2021
2	9/21	RAW		
PUBLIC WORKS – STREETS AND TRANSPORTATION APPROVED DATE: TRAFFIC ENGINEER MANAGER				

4. SCREWS SHALL BE USED TO SECURE THE RAMP SURFACE. SPACING SHALL BE IN ACCORDANCE WITH THE CURRENT BUILDING CODE.
5. USE A SLIP-RESISTANT TREATMENT FOR SURFACE OF RAMPS.
6. ALL FASTENERS SHALL BE GALVANIZED.



CITY OF
Vancouver
WASHINGTON

TRAFFIC CONTROL STANDARD PLAN TEMPORARY PEDESTRIAN PLATFORM WITH EDGE BOARD	STANDARD PLAN NUMBER TC53
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