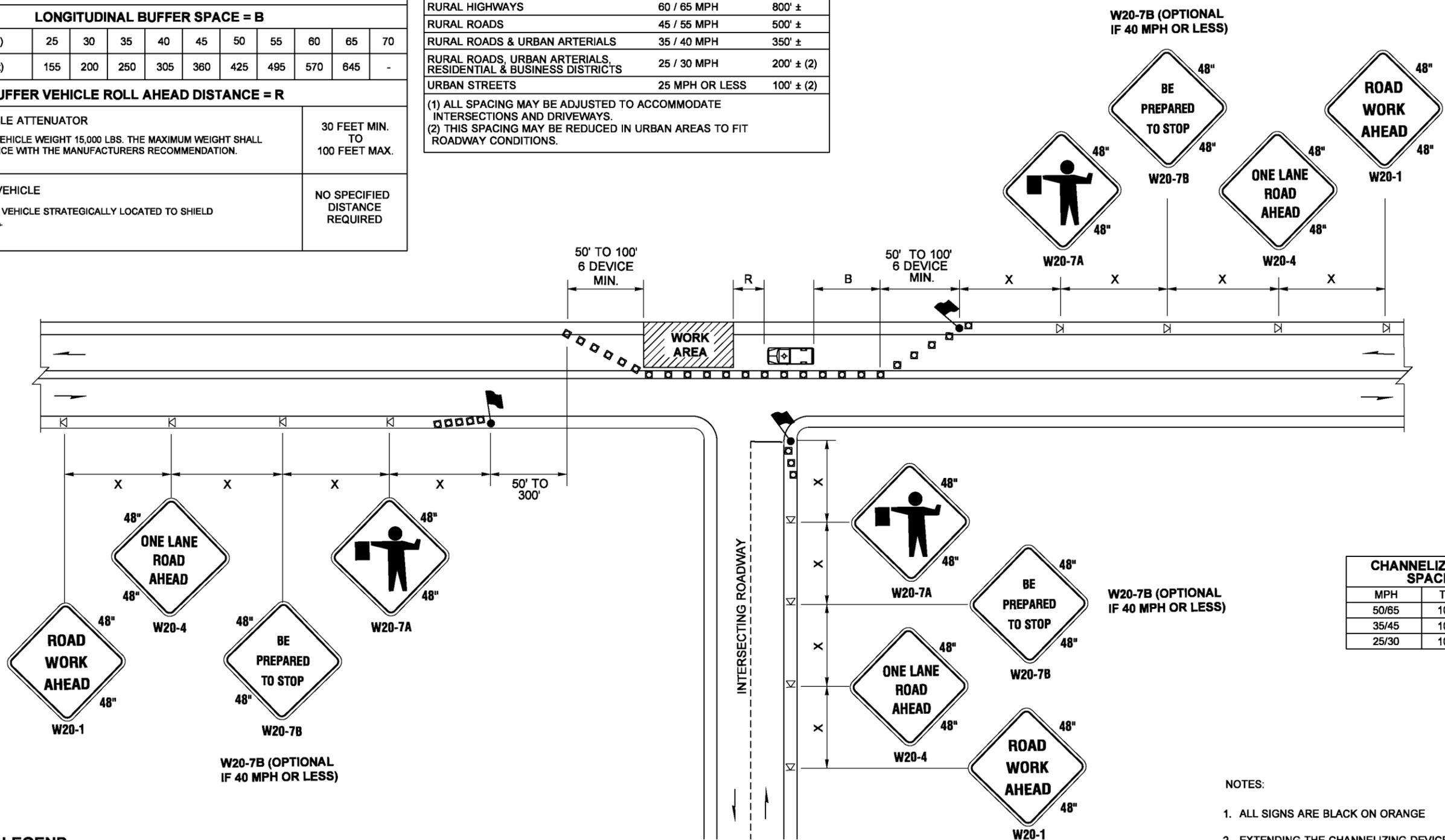


BUFFER DATA										
LONGITUDINAL BUFFER SPACE = B										
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (feet)	155	200	250	305	360	425	495	570	645	-
BUFFER VEHICLE ROLL AHEAD DISTANCE = R										
TRANSPORTABLE ATTENUATOR MINIMUM HOST VEHICLE WEIGHT 15,000 LBS. THE MAXIMUM WEIGHT SHALL BE IN 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)		
RURAL HIGHWAYS	60 / 65 MPH	800' ±
RURAL ROADS	45 / 55 MPH	500' ±
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350' ±
RURAL ROADS, URBAN ARTERIALS, RESIDENTIAL & BUSINESS DISTRICTS	25 / 30 MPH	200' ± (2)
URBAN STREETS	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
50/65	10 to 20	80
35/45	10 to 20	60
25/30	10 to 20	40

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

## ONE-LANE, TWO-WAY TRAFFIC CONTROL WITH FLAGGERS

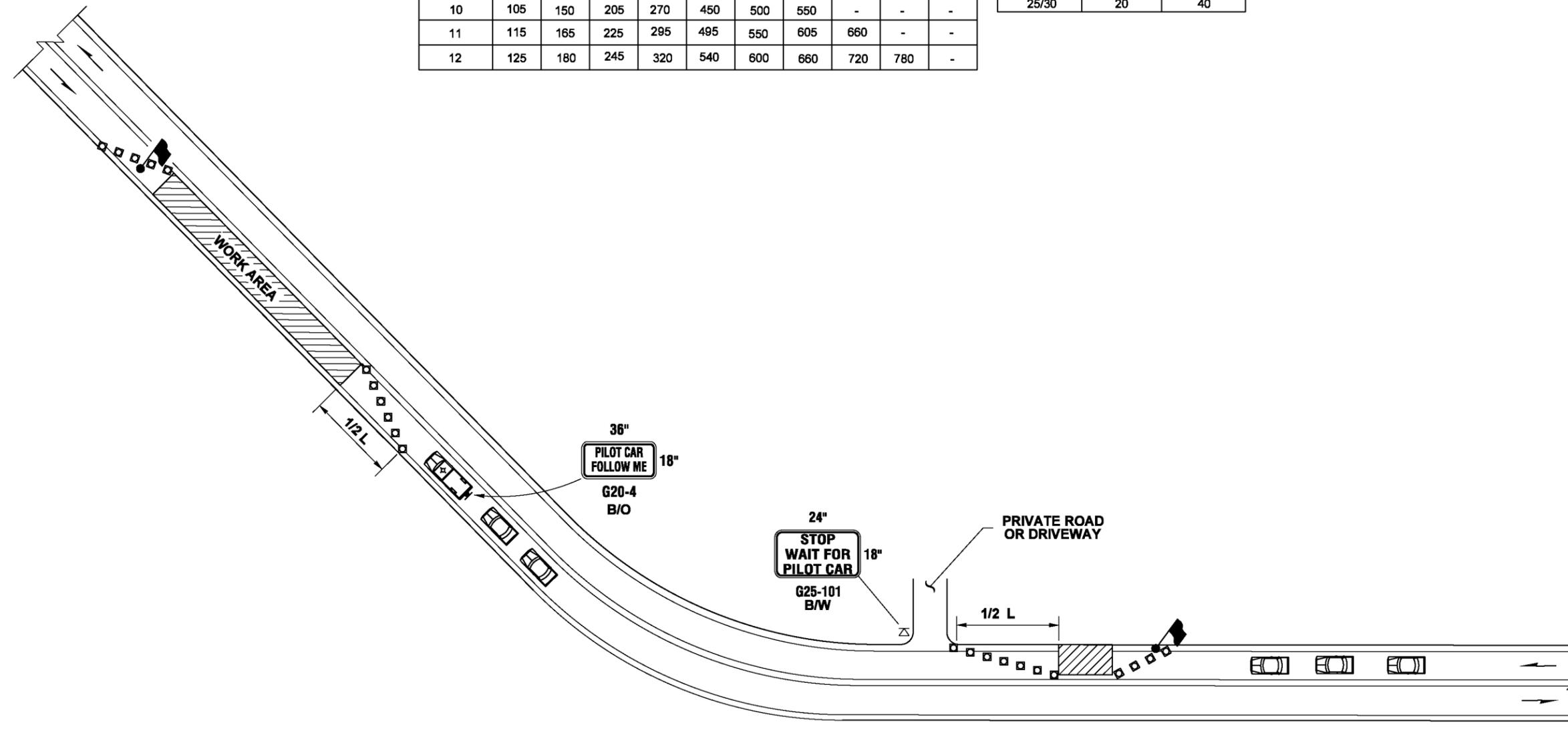
NOT TO SCALE

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

FILE NAME: S:\Design R P& S4-Standard\2-Plan Sheet Library\10-Work Zone Traffic Control (TC)\TC-1\TC-1.dgn		REGION NO. STATE		FED.AID PROJ.NO.				<b>Plot 1</b> <b>TC1</b>	
TIME: 10:39:41 AM	DATE: 5/17/2013	10	WASH						
PLOTTED BY: CyfordL	DESIGNED BY:	JOB NUMBER		LOCATION NO.		<b>Washington State</b> <b>Department of Transportation</b>		<b>TRAFFIC CONTROL PLAN</b>	
ENTERED BY:	CHECKED BY:	CONTRACT NO.		DATE					
PROJ. ENGR.	REVISION	DATE		BY		DATE		SHEET OF SHEETS	
REGIONAL ADM.						DATE			

MINIMUM TAPER LENGTH = L (feet)										
LANE WIDTH (feet)	Posted Speed (mph)									
	25	30	35	40	45	50	55	60	65	70
10	105	150	205	270	450	500	550	-	-	-
11	115	165	225	295	495	550	605	660	-	-
12	125	180	245	320	540	600	660	720	780	-

CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
50/65	40	80
35/45	30	60
25/30	20	40



- LEGEND**
- FLAGGING STATION
  - TEMPORARY SIGN LOCATION
  - CHANNELIZING DEVICES
  - PILOT VEHICLE
  - MOTORIST VEHICLE

- 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 ALL 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.

**PILOT CAR OPERATION**

NOT TO SCALE

FILE NAME: S:\Design R P & S\4-Standards\2-Plan Sheet Library\10-Work Zone Traffic Control (TC)\TC-2\TC-2.dgn		REGION NO. STATE		FED.AID PROJ.NO.		DATE		DATE		Washington State Department of Transportation		Plot 1
TIME: 10:46:06 AM	DATE: 5/17/2013	10	WASH			P.E. STAMP BOX		P.E. STAMP BOX		TRAFFIC CONTROL PLAN		TC2
PLOTTED BY: CyfordL	DESIGNED BY:	JOB NUMBER		LOCATION NO.								SHEET
ENTERED BY:	CHECKED BY:	CONTRACT NO.										OF
PROJ. ENGR.:	REGIONAL ADM.:	REVISION	DATE	BY							SHEETS	

MINIMUM LANE CLOSURE TAPER LENGTH = L (feet)										
LANE WIDTH (feet)	Posted Speed (mph)									
	25	30	35	40	45	50	55	60	65	70
10	105	150	205	270	450	500	550	-	-	-
11	115	165	225	295	495	550	605	660	-	-
12	125	180	245	320	540	600	660	720	780	840

MINIMUM SHOULDER TAPER LENGTH = L/3 (feet)										
SHOULDER WIDTH (feet)	Posted Speed (mph)									
	25	30	35	40	45	50	55	60	65	70
8'	40	40	60	90	120	130	150	160	170	190
10'	40	60	90	90	150	170	190	200	220	240

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

SIGN SPACING = X (1)		
FREEWAYS & EXPRESSWAYS	55 / 70 MPH	1500' ±
RURAL HIGHWAYS	60 / 65 MPH	800' ±
RURAL ROADS	45 / 55 MPH	500' ±
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350' ±
RURAL ROADS & URBAN ARTERIALS	25 / 30 MPH	200' ± (2)
RESIDENTIAL & BUSINESS DISTRICTS		
URBAN STREETS	25 MPH OR LESS	100' ± (2)

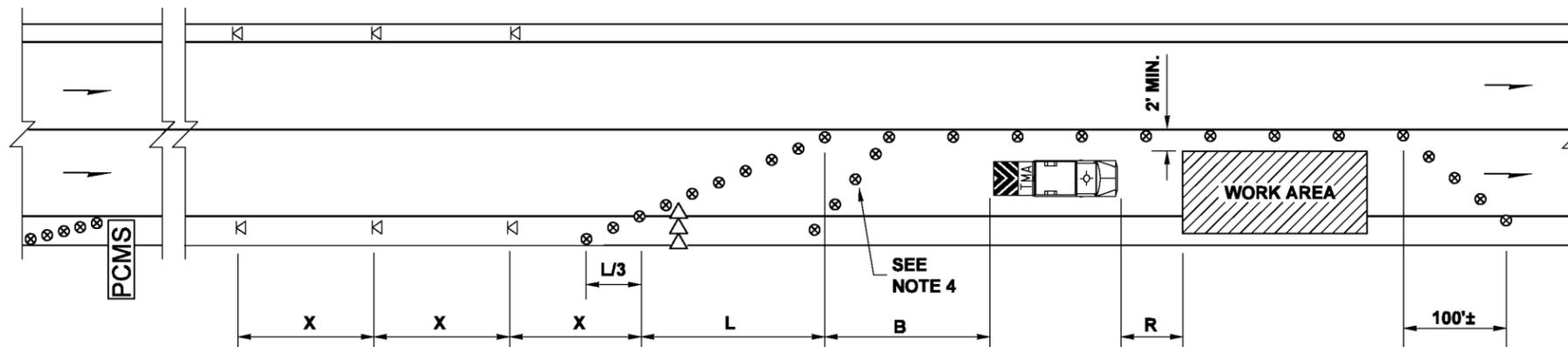
(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMP, AT-GRADE INTERSECTIONS AND DRIVEWAYS.  
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.

CANALIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
50/70	40	80
35/45	30	60
25/30	20	40

BUFFER DATA										
LONGITUDINAL BUFFER SPACE = B										
	25	30	35	40	45	50	55	60	65	70
LENGTH (feet)	155	200	250	305	360	425	495	570	645	730

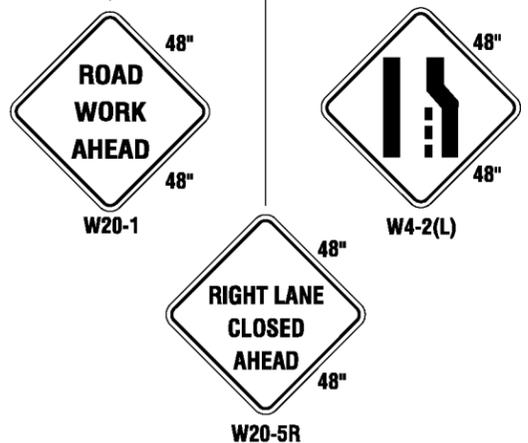
  

BUFFER VEHICLE ROLL AHEAD DISTANCE = R	
TRANSPORTABLE ATTENUATOR	30 FEET MIN. TO 100 FEET MAX.
MINIMUM HOST VEHICLE WEIGHT 15,000 LBS. THE MAXIMUM WEIGHT SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATION.	



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.



- NOTES:
- NO FLAGGERS OR SPOTTERS.
  - EXTEND DEVICE TAPER AT L/3 ACROSS SHOULDER.
  - DEVICES SHALL NOT ENCROACH INTO THE ADJACENT LANE.
  - USE TRANSVERSE DEVICES IN CLOSED LANE EVERY 1000' (RECOMMENDED).
  - DEVICE SPACING FOR THE DOWNSTREAM TAPER SHALL BE 20'
  - ALL SIGNS ARE BLACK ON ORANGE.
  - SEE SPECIAL PROVISIONS FOR WORK HOUR RESTRICTIONS.

- LEGEND**
- ⊠ TEMPORARY SIGN LOCATION
  - ⊗ TRAFFIC SAFETY DRUM
  - ⇨⇨ SEQUENTIAL ARROW SIGN
  - ▶▶▶ TRANSPORTABLE ATTENUATOR
  - PCMS PORTABLE CHANGEABLE MESSAGE SIGN

## SINGLE-LANE CLOSURE FOR MULTI-LANE ROADWAYS

NOT TO SCALE

FILE NAME	S:\Design R P& S4-Standard12-Plan Sheet Library\10-Work Zone Traffic Control (TC)\TC-3\TC-3.dgn					REGION NO.	STATE	FED.AID PROJ.NO.		Plot 1
TIME	10:50:26 AM					10	WASH			TC3
DATE	5/17/2013					JOB NUMBER				SHEET
PLOTTED BY	CyfordL					CONTRACT NO.		LOCATION NO.		OF
DESIGNED BY										SHEETS
ENTERED BY										
CHECKED BY										
PROJ. ENGR.										
REGIONAL ADM.						REVISION	DATE	BY		

Washington State  
Department of Transportation

DATE

P.E. STAMP BOX

DATE

P.E. STAMP BOX

MINIMUM LANE CLOSURE TAPER LENGTH = L (feet)										
LANE WIDTH (feet)	Posted Speed (mph)									
	25	30	35	40	45	50	55	60	65	70
10	105	150	205	270	450	500	550	-	-	-
11	115	165	225	295	495	550	605	660	-	-
12	125	180	245	320	540	600	660	720	780	840

MINIMUM SHOULDER TAPER LENGTH = L/3 (feet)										
SHOULDER WIDTH (feet)	Posted Speed (mph)									
	25	30	35	40	45	50	55	60	65	70
8'	40	40	60	90	120	130	150	160	170	190
10'	40	60	90	90	150	170	190	200	220	240

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

SIGN SPACING = X (1)		
FREEWAYS & EXPRESSWAYS	55 / 70 MPH	1500' ±
RURAL HIGHWAYS	60 / 65 MPH	800' ±
RURAL ROADS	45 / 55 MPH	500' ±
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350' ±
RURAL ROADS & URBAN ARTERIALS	25 / 30 MPH	200' ± (2)
RESIDENTIAL & BUSINESS DISTRICTS		
URBAN STREETS	25 MPH OR LESS	100' ± (2)

(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMP, AT-GRADE INTERSECTIONS AND DRIVEWAYS.  
 (2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.

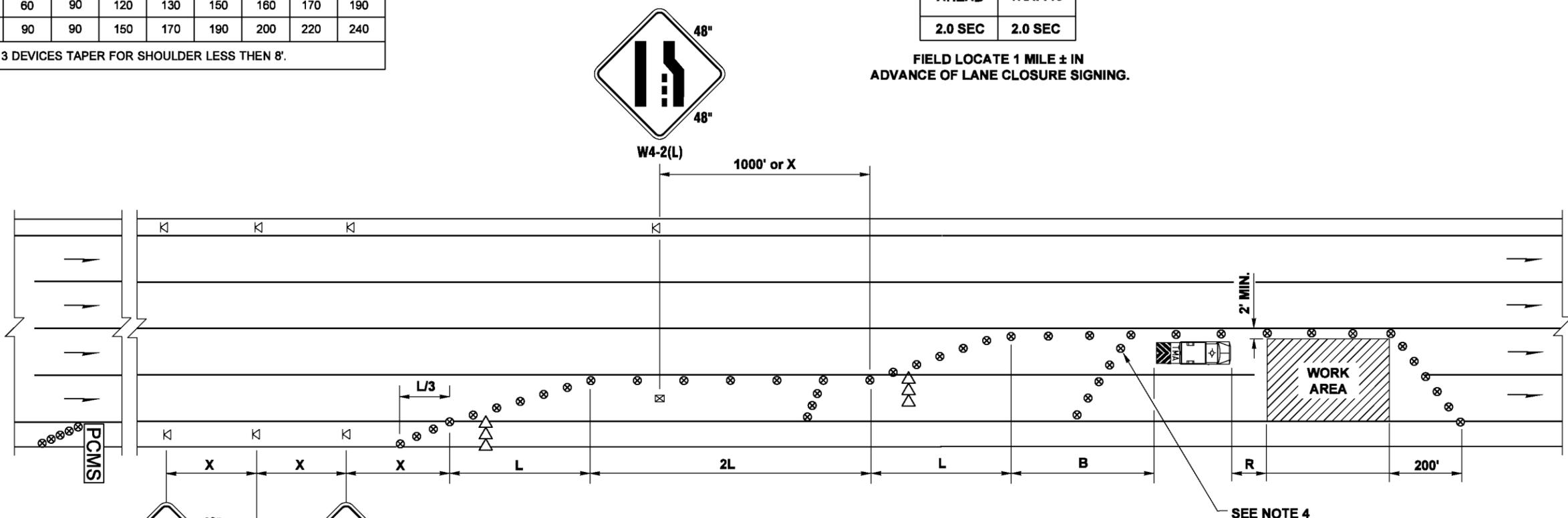
CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
50/70	40	80
35/45	30	60
25/30	20	40

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

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

BUFFER DATA										
LONGITUDINAL BUFFER SPACE = B										
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (feet)	155	200	250	305	360	425	495	570	645	730

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.	



SEE NOTE 4

NOTES:

1. NO FLAGGERS OR SPOTTERS.
2. EXTEND DEVICE TAPER AT L/3 ACROSS SHOULDER.
3. DEVICES SHALL NOT ENCROACH INTO ADJACENT LANES.
4. USE TRANSVERSE DEVICES IN CLOSED LANE EVERY 1000'. (RECOMMENDED).
5. DEVICE SPACING FOR THE DOWNSTREAM TAPER SHALL BE 20'.
6. ALL SIGNS ARE BLACK ON ORANGE.
7. SEE SPECIAL PROVISIONS FOR WORK HOUR RESTRICTIONS.

**LEGEND**

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

W20-1  
 W4-2(L)  
 W20-501

**DOUBLE-LANE CLOSURE FOR MULTI-LANE ROADWAYS**

NOT TO SCALE

FILE NAME	S:\Design R P& S\4-Standards\2-Plan Sheet Library\10-Work Zone Traffic Control (TC)\TC-4\TC-4.dgn	REGION NO.	STATE	FED.AID PROJ.NO.	Plot 1
TIME	10:56:50 AM	10	WASH	TC4	
DATE	5/17/2013	JOB NUMBER			SHEET OF SHEETS
PLOTTED BY	CyfordL	CONTRACT NO.	LOCATION NO.		
DESIGNED BY					TRAFFIC CONTROL PLAN
ENTERED BY					
CHECKED BY					
PROJ. ENGR.					
REGIONAL ADM.	REVISION	DATE	BY	P.E. STAMP BOX	



SIGN SPACING = X (1)		
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350' ±
RURAL ROADS, URBAN ARTERIALS, RESIDENTIAL & BUSINESS DISTRICTS	25 / 30 MPH	200' ± (2)
URBAN STREETS	25 MPH OR LESS	100' ± (2)

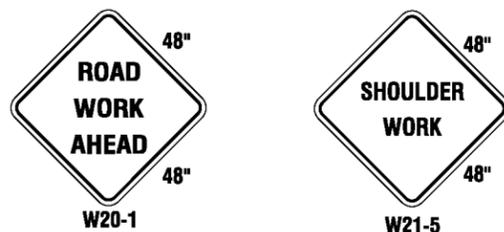
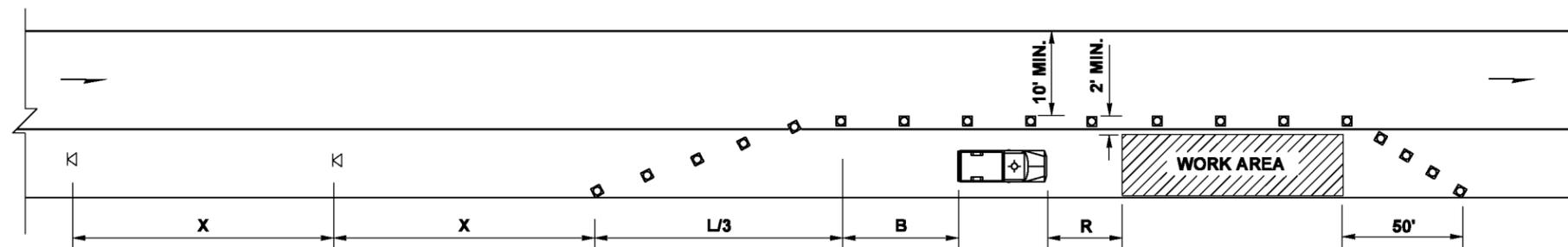
(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERSECTIONS AND DRIVEWAYS.  
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.

MINIMUM SHOULDER TAPER LENGTH = L/3 (feet)										
SHOULDER WIDTH (feet)	Posted Speed (mph)									
	25	30	35	40	45	50	55	60	65	70
8'	40	40	60	90	-	-	-	-	-	-
10'	40	60	90	90	-	-	-	-	-	-

USE A 3 DEVICES TAPER FOR SHOULDERS LESS THEN 8'

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

BUFFER DATA											
LONGITUDINAL BUFFER SPACE = B											
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70	
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	



**LEGEND**

- ⊓ TEMPORARY SIGN LOCATION
- CHANNELIZING DEVICES
- PROTECTIVE VEHICLE

**SHOULDER CLOSURE - LOW SPEED  
(40 MPH OR LESS)**

NOT TO SCALE

**NOTES:**

1. DEVICE SPACING FOR THE DOWNSTREAM TAPER SHALL BE 20'.
2. ALL SIGNS ARE BLACK ON ORANGE.
3. NO FLAGGERS OR SPOTTERS.

FILE NAME	S:\Design R P & S4-Standards\2-Plan Sheet Library\10-Work Zone Traffic Control (TC)\TC-5\TC-5.dgn					REGION NO.	STATE	FED.AID PROJ.NO.	Washington State Department of Transportation	TC5
TIME	10:58:46 AM					10	WASH			
DATE	5/17/2013					JOB NUMBER			TRAFFIC CONTROL PLAN	SHEET OF SHEETS
PLOTTED BY	CyfordL					CONTRACT NO.	LOCATION NO.			
DESIGNED BY										
ENTERED BY										
CHECKED BY										
PROJ. ENGR.										
REGIONAL ADM.	REVISION	DATE	BY			P.E. STAMP BOX	DATE	P.E. STAMP BOX		

SIGN SPACING = X (1)		
FREEWAYS & EXPRESSWAYS	55 / 70 MPH	1500' ±
RURAL HIGHWAYS	80 / 65 MPH	800' ±
RURAL ROADS	45 / 55 MPH	500' ±

(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMP, AT-GRADE INTERSECTIONS AND DRIVEWAYS.

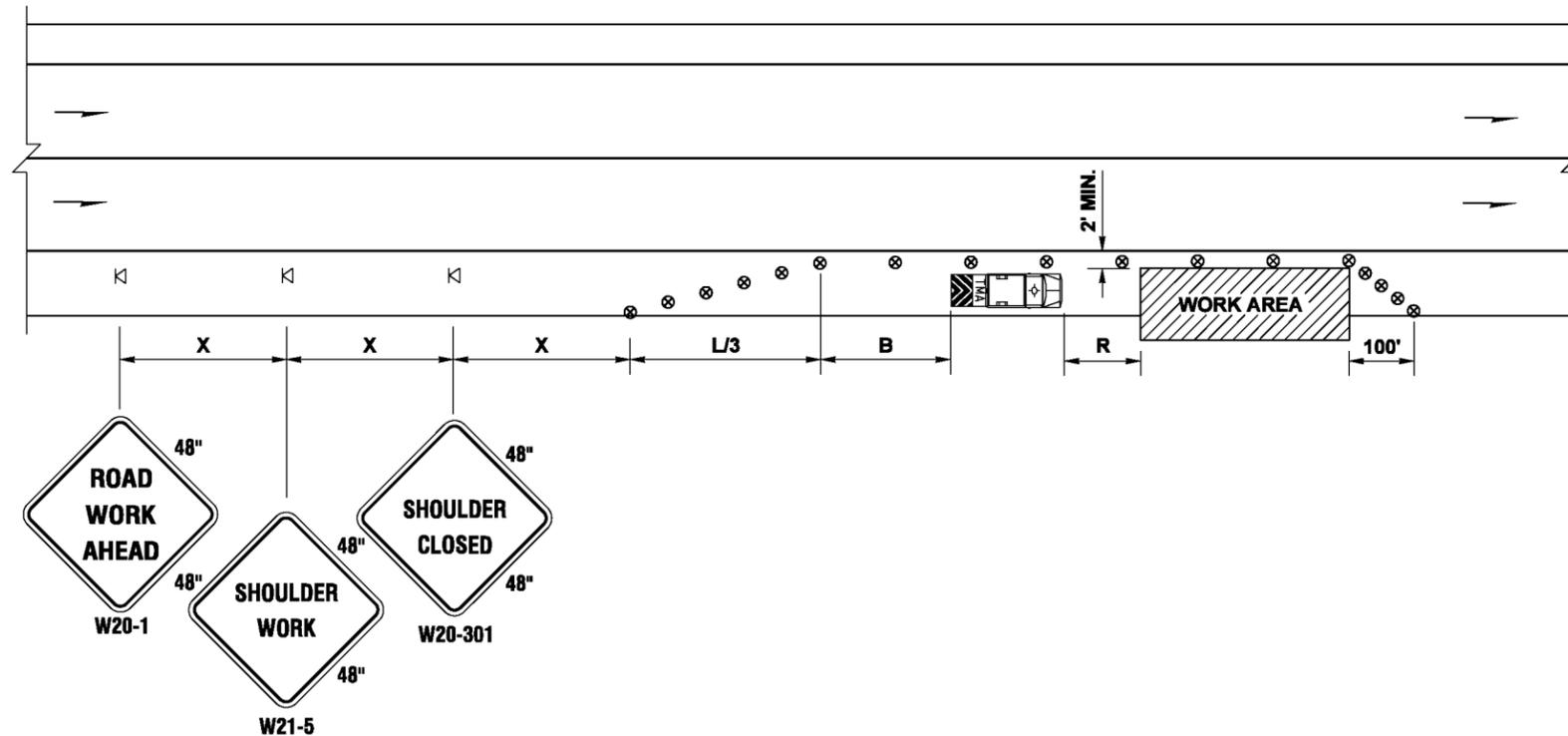
MINIMUM SHOULDER TAPER LENGTH = L/3 (feet)										
SHOULDER WIDTH (feet)	Posted Speed (mph)									
	25	30	35	40	45	50	55	60	65	70
8'	40	40	60	90	120	130	150	160	170	190
10'	40	60	90	90	150	170	190	200	220	240

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

CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
50/70	40	80
35/45	30	60

BUFFER DATA										
LONGITUDINAL BUFFER SPACE = B										
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (feet)	-	-	-	-	360	425	495	570	645	730

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.	



**LEGEND**

- ⋈ TEMPORARY SIGN LOCATION
- ⊗ TRAFFIC SAFETY DRUM
- TRANSPORTABLE ATTENUATOR

**SHOULDER CLOSURE - HIGH SPEED**

NOT TO SCALE

NOTES:

1. NO ENCROACHMENT IN TRAVELLED LANE. IF ENCROACHMENT IS NECESSARY, LANE SHALL BE CLOSED.
2. DEVICE SPACING FOR THE DOWNSTREAM TAPER SHALL BE 20' O. C.
3. ALL SIGNS ARE BLACK ON ORANGE.
4. NO FLAGGERS OR SPOTTERS.

FILE NAME	S:\Design R P& S4-Standards\2-Plan Sheet Library\10-Work Zone Traffic Control (TC)\TC-6\TC-6.dgn					REGION NO.	STATE	FED.AID PROJ.NO.	Washington State Department of Transportation	TC6
TIME	11:00:24 AM					10	WASH			
DATE	5/17/2013					JOB NUMBER			TRAFFIC CONTROL PLAN	SHEET OF SHEETS
PLOTTED BY	CyfordL					CONTRACT NO.	LOCATION NO.			
DESIGNED BY										
ENTERED BY										
CHECKED BY										
PROJ. ENGR.										
REGIONAL ADM.	REVISION	DATE	BY							

MINIMUM LANE CLOSURE TAPER LENGTH = L (feet)										
LANE WIDTH (feet)	Posted Speed (mph)									
	25	30	35	40	45	50	55	60	65	70
10	-	-	-	-	450	500	550	-	-	-
11	-	-	-	-	495	550	605	660	-	-
12	-	-	-	-	540	600	660	720	780	840

MINIMUM SHOULDER TAPER LENGTH = L/3 (feet)										
SHOULDER WIDTH (feet)	Posted Speed (mph)									
	25	30	35	40	45	50	55	60	65	70
8'	40	40	60	90	120	130	150	160	170	190
10'	40	60	90	90	150	170	190	200	220	240

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

SIGN SPACING = X (1)		
FREEWAYS & EXPRESSWAYS	55 / 70 MPH	1500' ±
RURAL HIGHWAYS	60 / 65 MPH	800' ±
RURAL ROADS	45 / 55 MPH	500' ±

(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMPS, AT-GRADE INTERSECTIONS AND DRIVEWAYS.

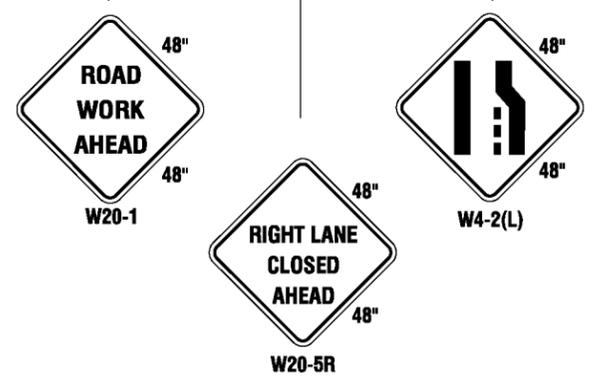
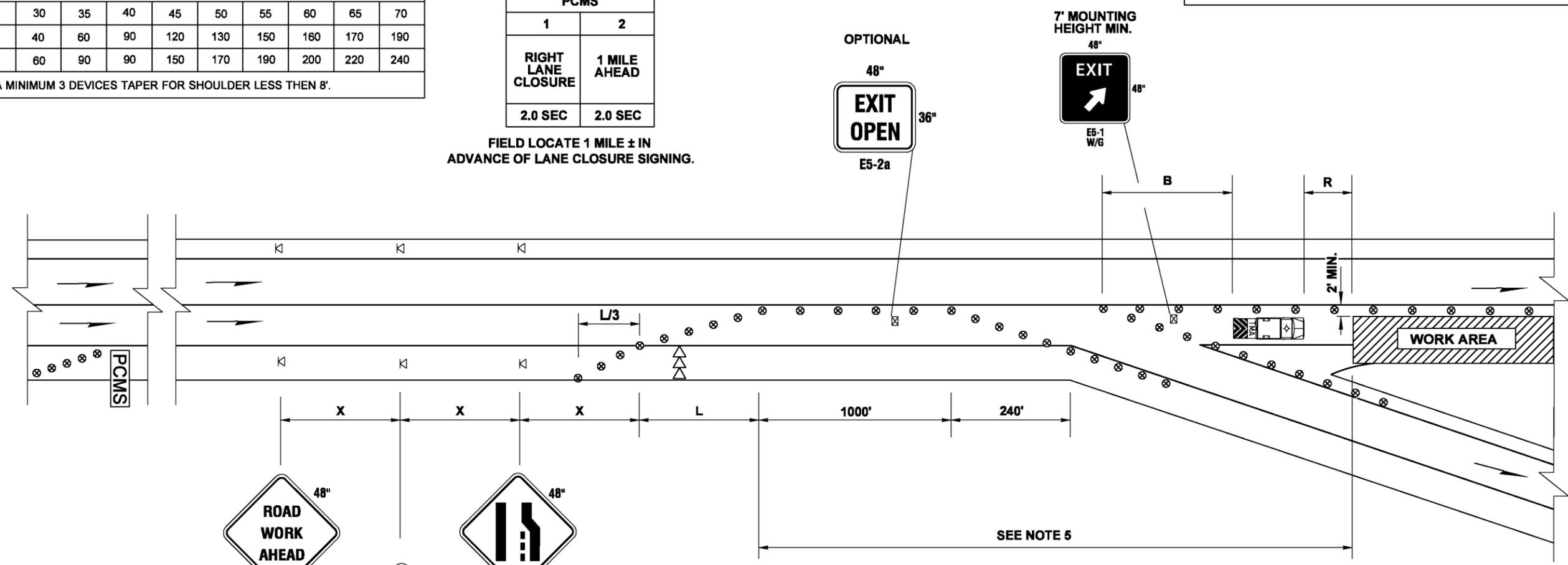
CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
50/70	40	80
40/45	30	60

BUFFER DATA										
LONGITUDINAL BUFFER SPACE = B										
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (feet)	-	-	-	-	360	425	495	570	645	730

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.	

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.



## TEMPORARY OFF-RAMP FOR MULTI-LANE ROADWAYS

NOT TO SCALE

- NOTES:
- NO FLAGGERS OR SPOTTERS.
  - USE A DOWNSTREAM TAPER TO END THE LANE CLOSURE WITH 20' DEVICE SPACING.
  - DEVICES SHALL NOT ENCR OACH INTO ADJACENT LANES.
  - USE TRANSVERSE DEVICES IN CLOSED LANES EVERY 1000'± (RECOMMENDED).
  - SEE SHEET TCXX FOR A SHORT TERM OFF-RAMP CLOSURE WHEN THE WORK AREA LOCATION RESTRICTS RAMP ACCESS.
  - ALL SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE DESIGNATED.
  - SEE SPECIAL PROVISIONS FOR CLOSURE HOUR RESTRICTIONS.

FILE NAME	S:\Design R P& S\4-Standards\2-Plan Sheet Library\10-Work Zone Traffic Control (TC)\TC-7\TC-7.dgn					REGION NO.	STATE	FED.AID PROJ.NO.				Plot 1
TIME	11:03:57 AM					10	WASH					TC7
DATE	5/17/2013					JOB NUMBER						SHEET
PLOTTED BY	CyfordL					CONTRACT NO.	LOCATION NO.					OF
DESIGNED BY												SHEETS
ENTERED BY												
CHECKED BY												
PROJ. ENGR.												
REGIONAL ADM.												
	REVISION		DATE	BY								



TRAFFIC CONTROL PLAN

MINIMUM LANE CLOSURE TAPER LENGTH = L (feet)										
LANE WIDTH (feet)	Posted Speed (mph)									
	25	30	35	40	45	50	55	60	65	70
10	-	-	-	-	450	500	550	-	-	-
11	-	-	-	-	495	550	605	660	-	-
12	-	-	-	-	540	600	660	720	780	840

SIGN SPACING = X (1)		
FREEWAYS & EXPRESSWAYS	55 / 70 MPH	1500' ±
RURAL HIGHWAYS	60 / 65 MPH	800' ±
RURAL ROADS	45 / 55 MPH	500' ±

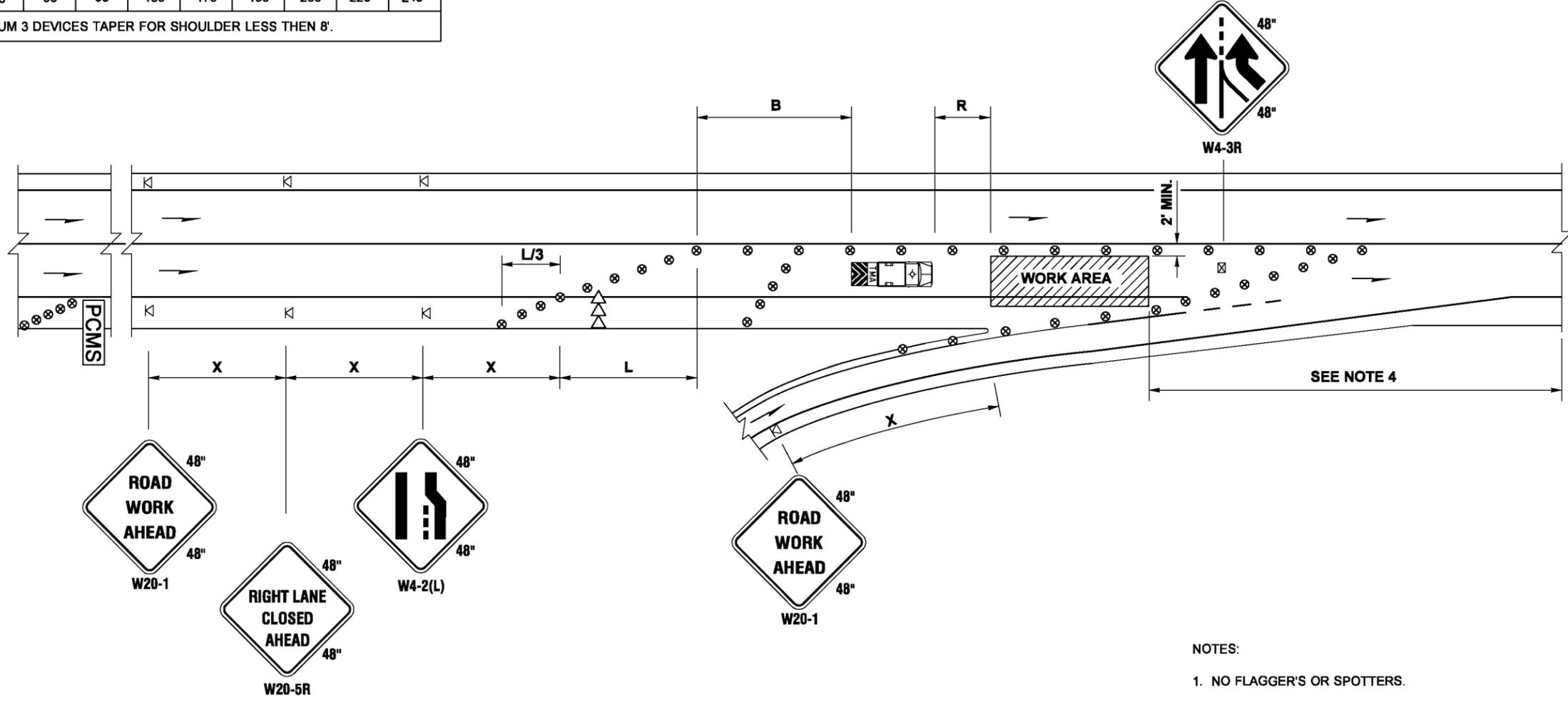
(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMP, AT-GRADE INTERSECTIONS AND DRIVEWAYS.

CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
50/70	40	80
40/45	30	60

BUFFER DATA										
LONGITUDINAL BUFFER SPACE = B										
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (feet)	-	-	-	-	360	425	495	570	645	730
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.

MINIMUM SHOULDER TAPER LENGTH = L/3 (feet)										
SHOULDER WIDTH (feet)	Posted Speed (mph)									
	25	30	35	40	45	50	55	60	65	70
8'	40	40	60	90	120	130	150	160	170	190
10'	40	60	90	90	150	170	190	200	220	240

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



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

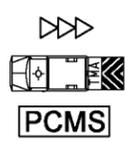
FIELD LOCATE 1 MILE ± IN ADVANCE OF LANE CLOSURE SIGNING.

- NOTES:
1. NO FLAGGER'S OR SPOTTERS.
  2. DEVICES SHALL NOT ENCROACH INTO ADJACENT LANES.
  3. USE TRANSVERSE DEVICES IN CLOSED LANES EVERY 1000'± (RECOMMENDED).
  4. SEE SHEET TCXX FOR A SHORT TERM ON-RAMP CLOSURE WHEN THE WORK AREA LOCATION RESTRICTS RAMP ACCESS.
  5. ALL SIGNS ARE BLACK ON ORANGE.
  6. SEE SPECIAL PROVISIONS FOR CLOSURE HOUR RESTRICTIONS.

## TEMPORARY ON-RAMP FOR MULTI-LANE ROADWAYS

NOT TO SCALE

### LEGEND



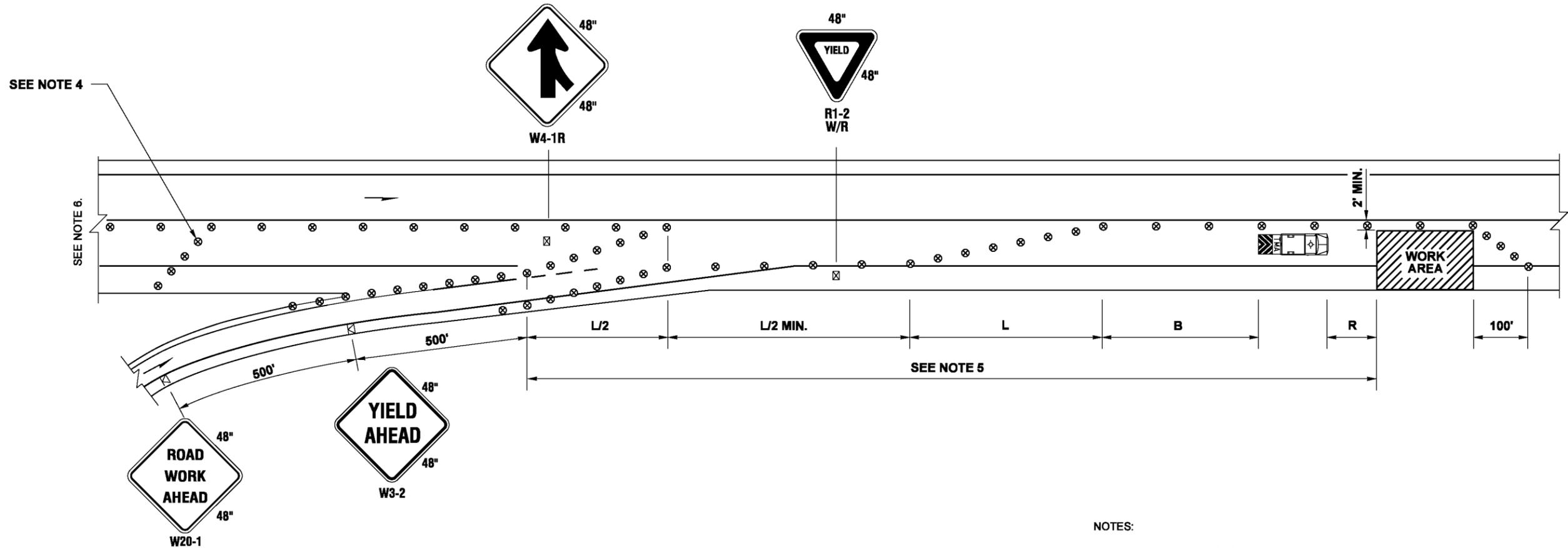
FILE NAME	S:\Design R P& S\4-Standards\2-Plan Sheet Library\10-Work Zone Traffic Control (TC)\TC-8\TC-8.dgn					REGION NO.	STATE	FED.AID PROJ.NO.					Plot 1
TIME	11:06:48 AM					10	WASH						TC8
DATE	5/17/2013					JOB NUMBER							SHEET
PLOTTED BY	CyfordL					CONTRACT NO.		LOCATION NO.					OF
DESIGNED BY													SHEETS
ENTERED BY													
CHECKED BY													
PROJ. ENGR.													
REGIONAL ADM.													
	REVISION		DATE	BY									TRAFFIC CONTROL PLAN



MINIMUM TAPER LENGTH = L (feet)										
LANE WIDTH (feet)	Posted Speed (mph)									
	25	30	35	40	45	50	55	60	65	70
10	-	-	-	-	450	500	550	-	-	-
11	-	-	-	-	495	550	605	660	-	-
12	-	-	-	-	540	600	660	720	780	840

CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
50/70	40	80
40/45	30	60

BUFFER DATA										
LONGITUDINAL BUFFER SPACE = B										
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (feet)	-	-	-	-	360	425	495	570	645	730
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.



NOTES:

1. NO FLAGGER'S OR SPOTTERS.
2. USE A DOWNSTREAM TAPER TO END THE LANE CLOSURE WITH 20' DEVICE SPACING.
3. DEVICES SHALL NOT ENCROACH INTO ADJACENT LANES.
4. USE TRANSVERSE DEVICES IN CLOSED LANES EVERY 1000'± (RECOMMENDED).
5. SEE SHEET TCXX FOR A SHORT TERM ON-RAMP CLOSURE WHEN THE WORK AREA LOCATION RESTRICTS RAMP ACCESS.
6. SEE TC3 OR TC7 FOR RIGHT LANE CLOSURE.
7. ALL SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE DESIGNATED.
8. SEE SPECIAL PROVISIONS FOR CLOSURE HOUR RESTRICTIONS.

LEGEND

- ⊠ TEMPORARY SIGN LOCATION
- ⊗ TRAFFIC SAFETY DRUM
- ↔ SEQUENTIAL ARROW SIGN
- 🚚 TRANSPORTABLE ATTENUATOR
- ⊠ TEMPORARY SIGN LOCATION (5' MOUNTING HEIGHT)

TEMPORARY ON-RAMP FOR MULTI-LANE ROADWAYS

NOT TO SCALE

FILE NAME	S:\Design R P& S4-Standards\2-Plan Sheet Library\10-Work Zone Traffic Control (TC)\TC-9\TC-9.dgn										REGION NO.	STATE	FED.AID PROJ.NO.	DATE	P.E. STAMP BOX	DATE	P.E. STAMP BOX	Washington State Department of Transportation	TC9		
TIME	11:08:28 AM																			10	WASH
DATE	5/17/2013										JOB NUMBER	CONTRACT NO.	LOCATION NO.	REVISION	DATE	BY	DATE	BY	REVISION	DATE	BY
PLOTTED BY	CyfordL										CONTRACT NO.	LOCATION NO.	REVISION	DATE	BY	DATE	BY	REVISION	DATE	BY	
DESIGNED BY											CONTRACT NO.	LOCATION NO.	REVISION	DATE	BY	DATE	BY	REVISION	DATE	BY	
ENTERED BY											CONTRACT NO.	LOCATION NO.	REVISION	DATE	BY	DATE	BY	REVISION	DATE	BY	
CHECKED BY											CONTRACT NO.	LOCATION NO.	REVISION	DATE	BY	DATE	BY	REVISION	DATE	BY	
PROJ. ENGR.											CONTRACT NO.	LOCATION NO.	REVISION	DATE	BY	DATE	BY	REVISION	DATE	BY	
REGIONAL ADM.											CONTRACT NO.	LOCATION NO.	REVISION	DATE	BY	DATE	BY	REVISION	DATE	BY	

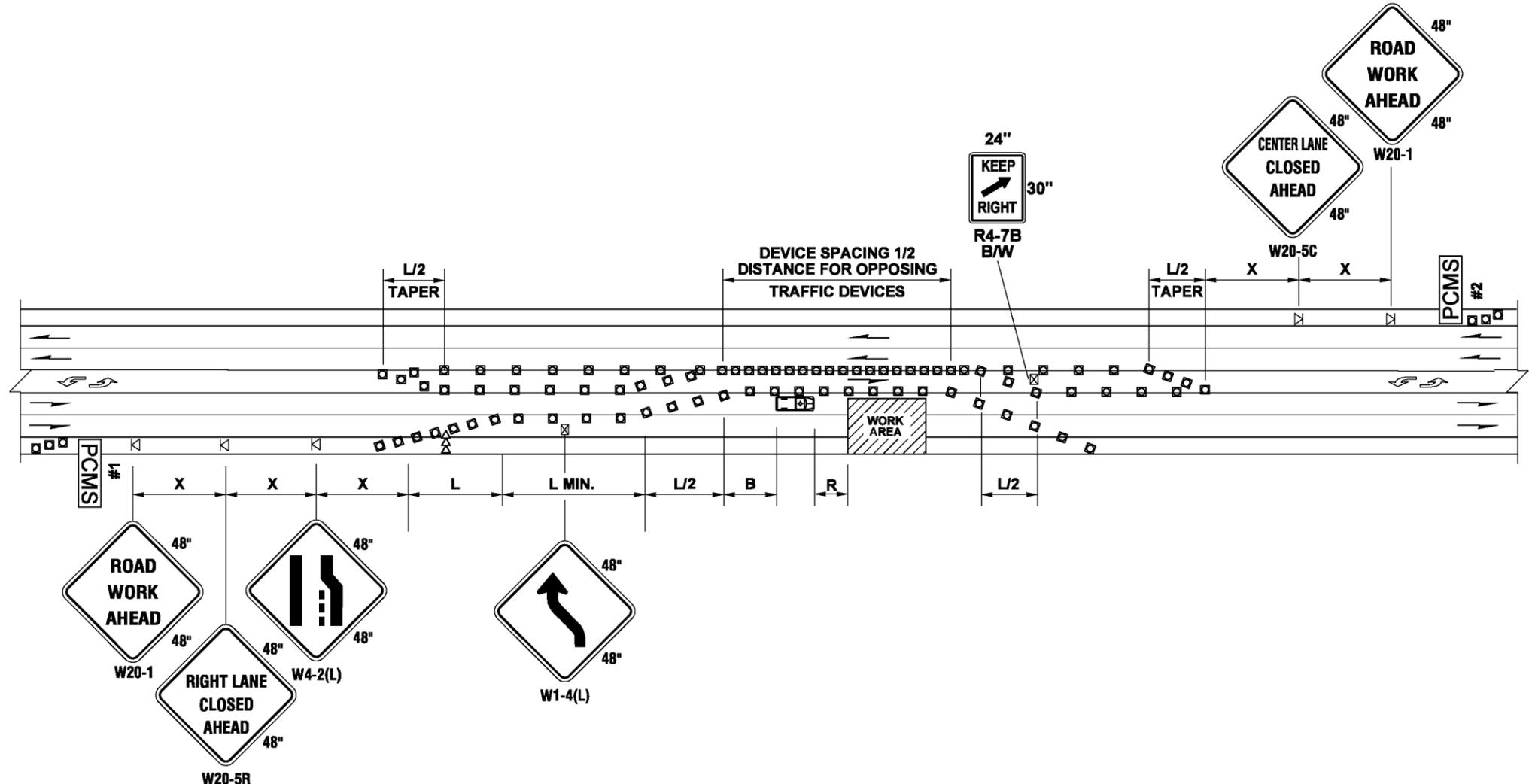
SIGN SPACING = X (1)		
RURAL ROADS	45 / 55 MPH	500' ±
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350' ±
RURAL ROADS & URBAN ARTERIALS	25 / 30 MPH	200' ± (2)
RESIDENTIAL & BUSINESS DISTRICTS		
URBAN STREETS	25 MPH OR LESS	100' ± (2)

(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMP, AT-GRADE INTERSECTIONS AND DRIVEWAYS.  
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.

MINIMUM TAPER LENGTH = L (feet)										
LANE WIDTH (feet)	Posted Speed (mph)									
	25	30	35	40	45	50	55	60	65	70
10	105	150	205	270	450	500	-	-	-	-
11	115	165	225	295	495	550	-	-	-	-
12	125	180	245	320	540	600	-	-	-	-

CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
50	40	80
35/45	30	60
25/30	20	40

BUFFER DATA										
LONGITUDINAL BUFFER SPACE = B										
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (feet)	155	200	250	305	360	425	-	-	-	-
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



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

PCMS #2	
1	2
CENTER LANE CLOSED	NO LEFT TURNING
2.0 SEC	2.0 SEC

FIELD LOCATE IN ADVANCE OF TEMPORARY SIGNS.

FIELD LOCATE IN ADVANCE OF TEMPORARY SIGNS.

NOTES:

- NO FLAGGER'S OR SPOTTERS.
- RECOMMEND EXTENDING DEVICE TAPER (L/3) ACROSS SHOULDER.
- FOR POSTED SPEED LIMITS OF 30 MPH OR LESS, USE SIGN W1-3 IN LIEU OF SIGN W1-4.
- ALL SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE DESIGNATED.
- SEE SPECIAL PROVISIONS FOR WORK HOUR RESTRICTIONS.

LEGEND

- ⊠ TEMPORARY SIGN LOCATION
- ▣ CHANNELIZING DEVICES
- ⇨⇨ SEQUENTIAL ARROW SIGN
- ⊠ B PROTECTIVE VEHICLE
- PCMS PORTABLE CHANGEABLE MESSAGE SIGN
- ⊠ TEMPORARY SIGN LOCATION (5' MOUNTING HEIGHT)

RIGHT LANE CLOSURE WITH SHIFT - 5 LANE ROADWAY

NOT TO SCALE

FILE NAME	S:\Design R P& S\4-Standards\2-Plan Sheet Library\10-Work Zone Traffic Control (TC)\TC-10\TC-10.dgn					REGION NO.	STATE	FED.AID PROJ.NO.	Washington State Department of Transportation	Plot 1 TC10
TIME	11:17:08 AM					10	WASH			
DATE	5/17/2013					JOB NUMBER			TRAFFIC CONTROL PLAN	SHEET OF SHEETS
PLOTTED BY	CyfordL					CONTRACT NO.	LOCATION NO.			
DESIGNED BY										
ENTERED BY										
CHECKED BY										
PROJ. ENGR.										
REGIONAL ADM.						REVISION	DATE	BY		

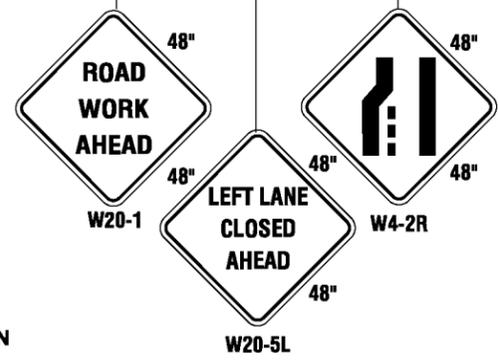
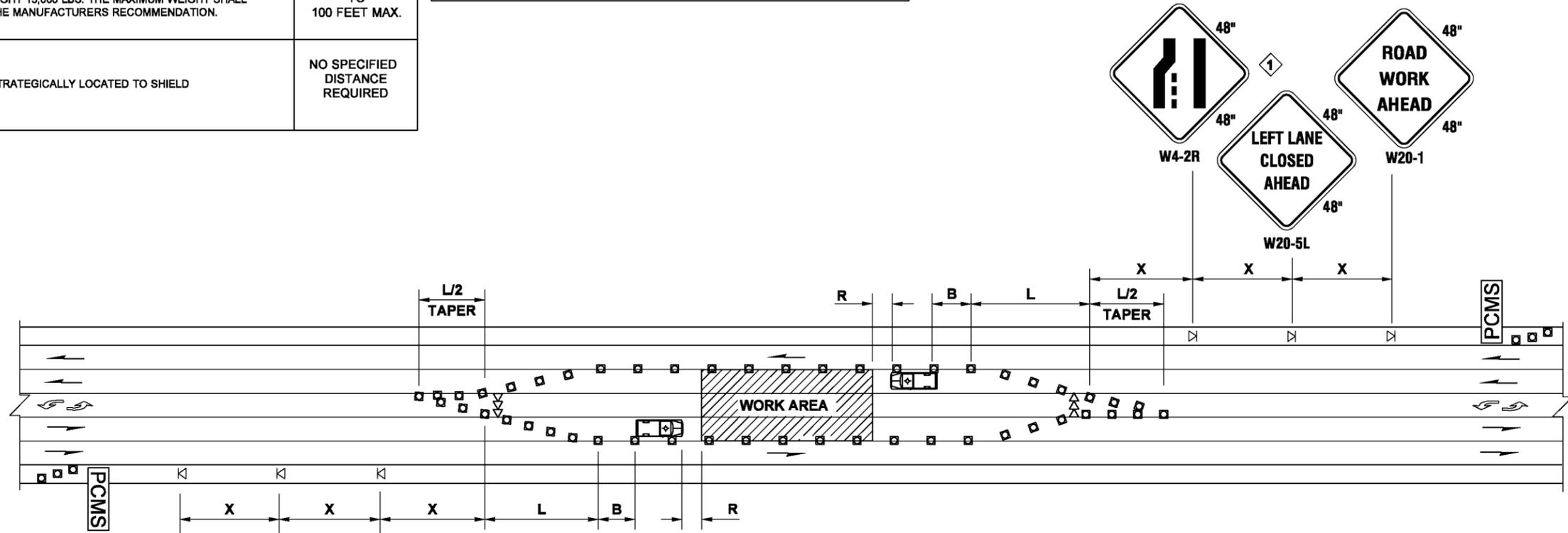
BUFFER DATA										
LONGITUDINAL BUFFER SPACE = B										
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (feet)	155	200	250	305	360	425	-	-	-	-
BUFFER VEHICLE ROLL AHEAD DISTANCE = R										
TRANSPORTABLE ATTENUATOR MINIMUM HOST VEHICLE WEIGHT 15,000 LBS. THE MAXIMUM WEIGHT SHALL BE IN ACCORDANCE 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)		
RURAL ROADS	45 / 55 MPH	500' ±
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350' ±
RURAL ROADS & URBAN ARTERIALS RESIDENTIAL & BUSINESS DISTRICTS	25 / 30 MPH	200' ± (2)
URBAN STREETS	25 MPH OR LESS	100' ± (2)

(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMP, AT-GRADE INTERSECTIONS AND DRIVEWAYS.  
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.

MINIMUM TAPER LENGTH = L (feet)										
LANE WIDTH (feet)	Posted Speed (mph)									
		25	30	35	40	45	50	55	60	65
10	105	150	205	270	450	500	-	-	-	-
11	115	165	225	295	495	550	-	-	-	-
12	125	180	245	320	540	600	-	-	-	-

CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
50	40	80
35/45	30	60
25/30	20	40



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

FIELD LOCATE IN ADVANCE OF TEMPORARY SIGNS.

- NOTES:
- NO FLAGGER'S OR SPOTTERS.
  - ALL SIGNS ARE BLACK ON ORANGE.
  - SEE SPECIAL PROVISIONS FOR WORK HOUR RESTRICTIONS.

### LEFT LANE AND CENTER TURN LANE CLOSURE - 5 LANE ROADWAY

NOT TO SCALE

- LEGEND
- TEMPORARY SIGN LOCATION
  - CHANNELIZING DEVICES
  - SEQUENTIAL ARROW SIGN
  - PROTECTIVE VEHICLE
  - PCMS PORTABLE CHANGEABLE MESSAGE SIGN

FILE NAME	S:\Design R P & S4-Standard\2-Plan Sheet Library\10-Work Zone Traffic Control (TC)\TC-11\TC-11.dgn					REGION NO.	STATE	FED.AID PROJ.NO.	Washington State Department of Transportation	TC11
TIME	11:18:45 AM					10	WASH			
DATE	5/17/2013					JOB NUMBER			TRAFFIC CONTROL PLAN	SHEET OF SHEETS
PLOTTED BY	CyfordL					CONTRACT NO.		LOCATION NO.		
DESIGNED BY										
ENTERED BY										
CHECKED BY										
PROJ. ENGR.										
REGIONAL ADM.	REVISION	DATE	BY							

BUFFER DATA										
LONGITUDINAL BUFFER SPACE = B										
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (feet)	155	200	250	305	360	425	495	570	645	-
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)		
RURAL HIGHWAYS	60 / 65 MPH	800' ±
RURAL ROADS	45 / 55 MPH	500' ±
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350' ±
RURAL ROADS & URBAN ARTERIALS RESIDENTIAL & BUSINESS DISTRICTS	25 / 30 MPH	200' ± (2)
URBAN STREETS	25 MPH OR LESS	100' ± (2)

(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMP, AT-GRADE INTERSECTIONS AND DRIVEWAYS.  
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.

LANE WIDTH (feet)	MINIMUM TAPER LENGTH = L (feet)									
	Posted Speed (mph)									
	25	30	35	40	45	50	55	60	65	70
10	105	150	205	270	450	500	550	-	-	-
11	115	165	225	295	495	550	605	660	-	-
12	125	180	245	320	540	600	660	720	780	-

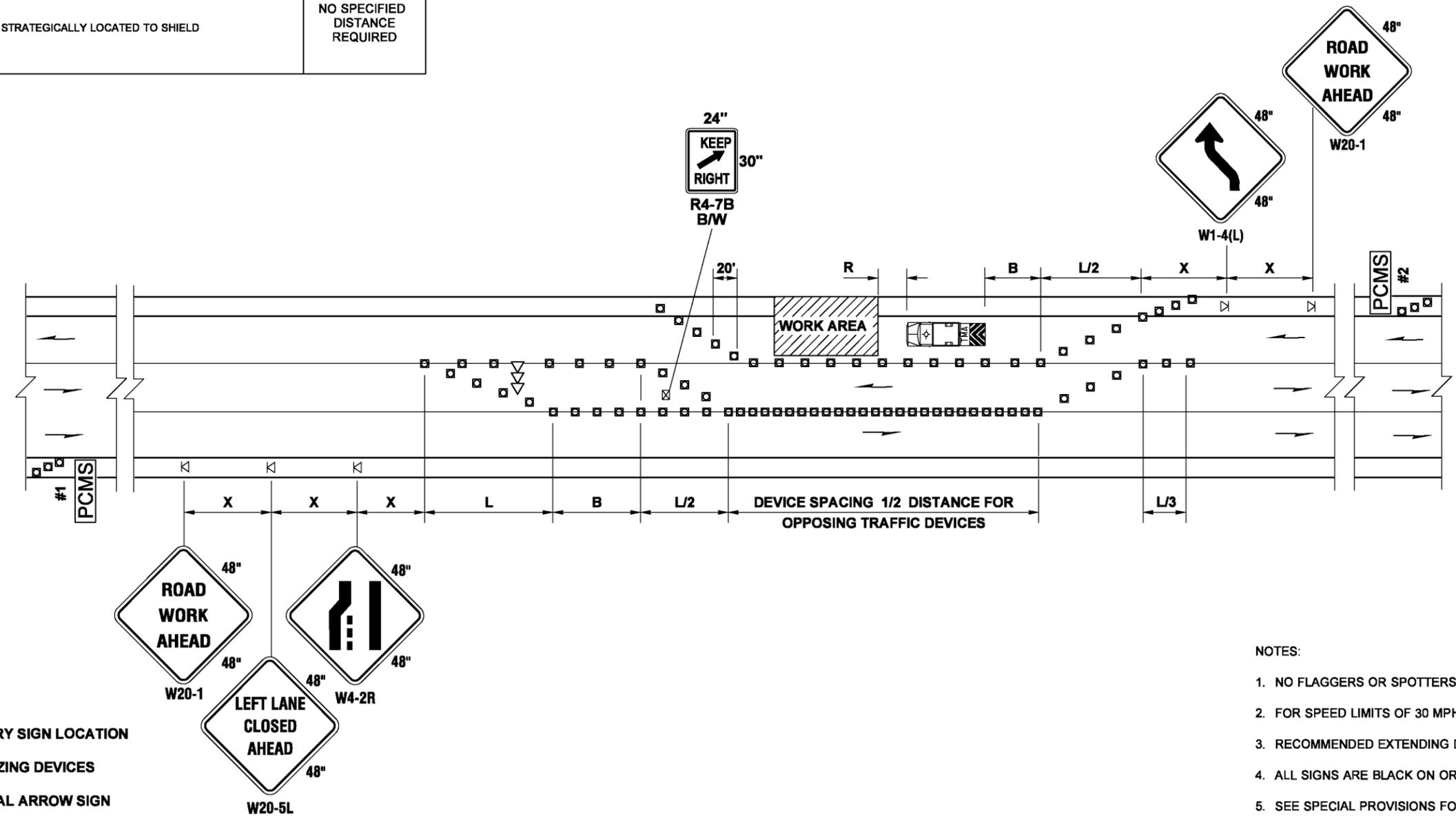
CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
50/60	40	80
35/45	30	60
25/30	20	40

PCMS #1	
1	2
LEFT 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.



NOTES:

1. NO FLAGGERS OR SPOTTERS.
2. FOR SPEED LIMITS 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.
5. SEE SPECIAL PROVISIONS FOR WORK HOUR RESTRICTIONS.

LEGEND

- ⊗ TEMPORARY SIGN LOCATION
- CHANNELIZING DEVICES
- ⇨ SEQUENTIAL ARROW SIGN
- ⊞ TRANSPORTABLE ATTENUATOR
- PCMS PORTABLE CHANGEABLE MESSAGE SIGN
- ⊗ TEMPORARY SIGN LOCATION (5' MOUNTING HEIGHT)

LANE SHIFT - THREE LANE ROADWAY

NOT TO SCALE

FILE NAME	S:\Design R P& S\4-Standards\2-Plan Sheet Library\10-Work Zone Traffic Control (TC)\TC-12\TC-12.dgn					REGION NO.	STATE	FED.AID PROJ.NO.	Washington State Department of Transportation	Plot 1
TIME	11:33:41 AM					10	WASH			TC12
DATE	5/17/2013					JOB NUMBER			TRAFFIC CONTROL PLAN	SHEET
PLOTTED BY	CyfordL					CONTRACT NO.	LOCATION NO.			OF
DESIGNED BY										
ENTERED BY										SHEETS
CHECKED BY										
PROJ. ENGR.										
REGIONAL ADM.										
	REVISION	DATE	BY							

SIGN SPACING = X (1)		
FREeways & EXPRESSWAYS	55 / 70 MPH	1500' ±
RURAL HIGHWAYS	60 / 65 MPH	800' ±
RURAL ROADS	45 / 55 MPH	500' ±
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350' ±
RURAL ROADS & URBAN ARTERIALS	25 / 30 MPH	200' ± (2)
RESIDENTIAL & BUSINESS DISTRICTS		
URBAN STREETS	25 MPH OR LESS	100' ± (2)

(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMPs, AT-GRADE INTERSECTIONS AND DRIVEWAYS.  
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.

MINIMUM SHOULDER TAPER LENGTH = L/3 (feet)										
SHOULDER WIDTH (feet)	Posted Speed (mph)									
		25	30	35	40	45	50	55	60	65
8'	40	40	60	90	120	130	150	160	170	190
10'	40	60	90	90	150	170	190	200	220	240

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

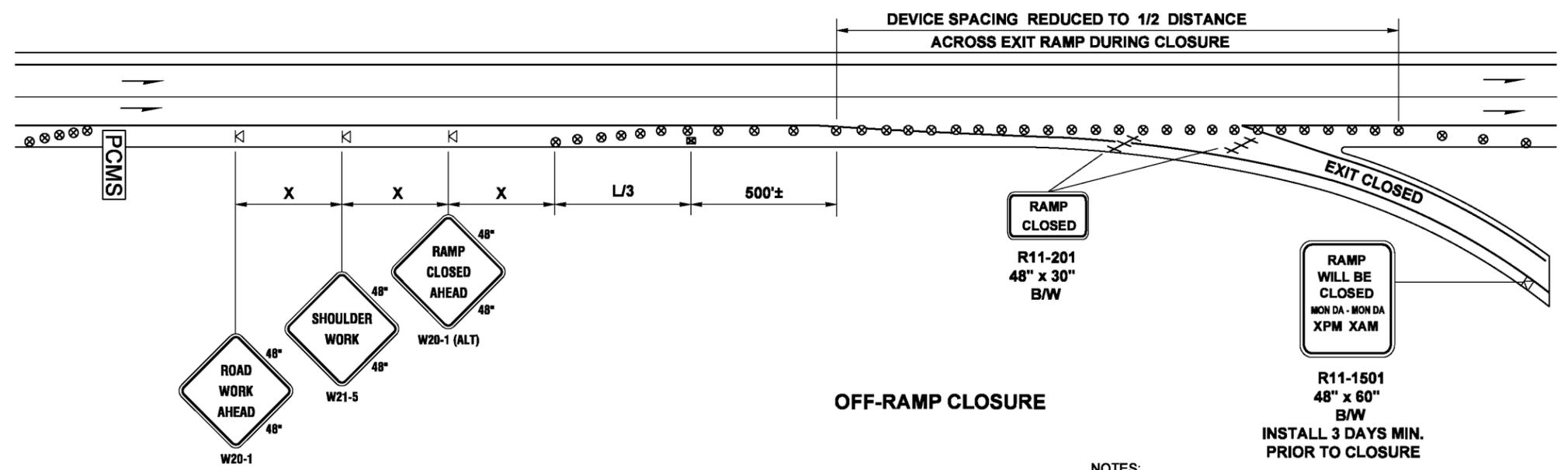
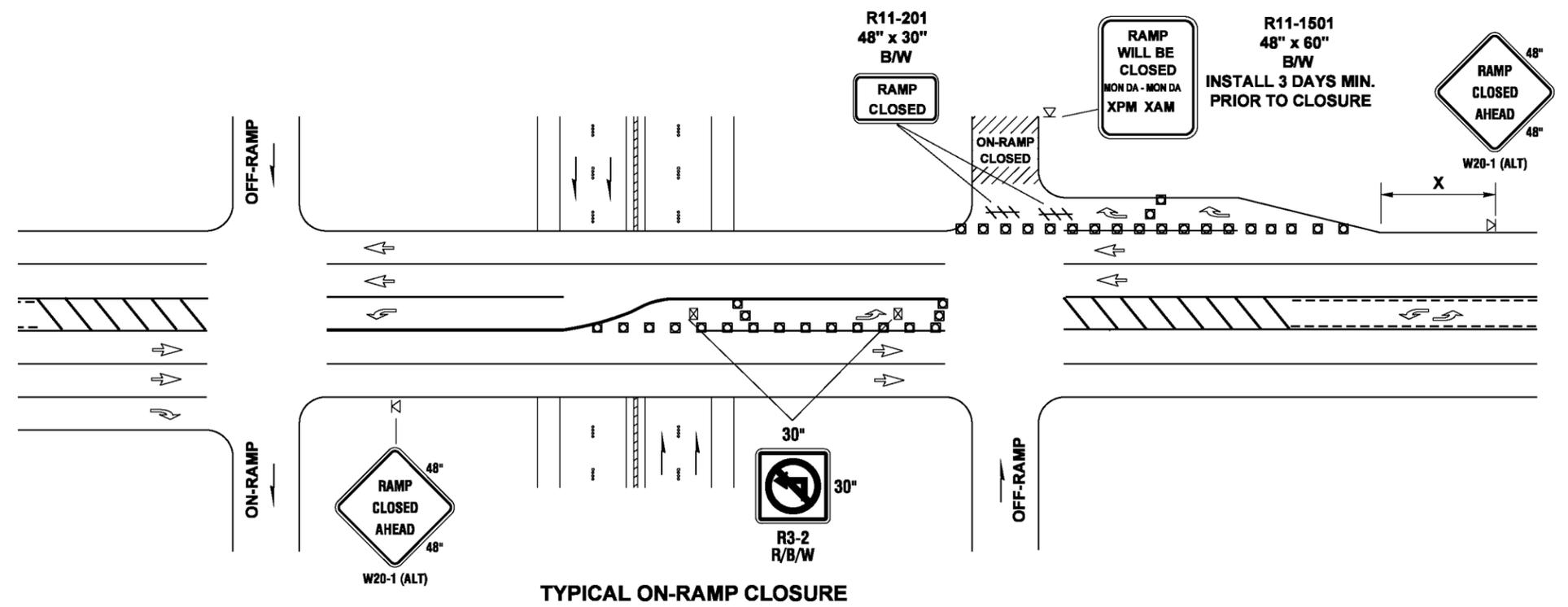
CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
50/70	40	80
35/45	30	60
25/30	20	40

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

FIELD LOCATE

**LEGEND**

- /// TYPE 3 BARRICADE
- ⊏ TEMPORARY SIGN LOCATION
- CHANNELIZING DEVICES
- ⊗ TRAFFIC SAFETY DRUM
- PCMS PORTABLE CHANGEABLE MESSAGE SIGN
- ⊠ TEMPORARY SIGN LOCATION (5' MOUNTING HEIGHT)



**SHORT TERM RAMP CLOSURES**

NOT TO SCALE

- NOTES:
- NO FLAGGERS OR SPOTTERS.
  - TYPICAL APPLICATION SHOWN, ADJUST FOR SITE CONDITIONS.
  - ALL SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE DESIGNATED.
  - SEE SPECIAL PROVISIONS FOR CLOSURE HOUR RESTRICTIONS.

FILE NAME: S:\Design R P & S4-Standard\2-Plan Sheet Library\10-Work Zone Traffic Control (TC)\TC-13\TC-13.dgn		REGION NO. STATE		FED.AID PROJ.NO.		<p>Washington State Department of Transportation</p>	<p><b>TC13</b></p>
TIME: 11:35:17 AM	DATE: 5/17/2013	10	WASH				
PLOTTED BY: CyfordL	DESIGNED BY:	JOB NUMBER		LOCATION NO.		<p><b>TRAFFIC CONTROL PLAN</b></p>	<p>SHEET OF SHEETS</p>
ENTERED BY:	CHECKED BY:	CONTRACT NO.		DATE			
PROJ. ENGR.:	REGIONAL ADM.:	REVISION		DATE BY			

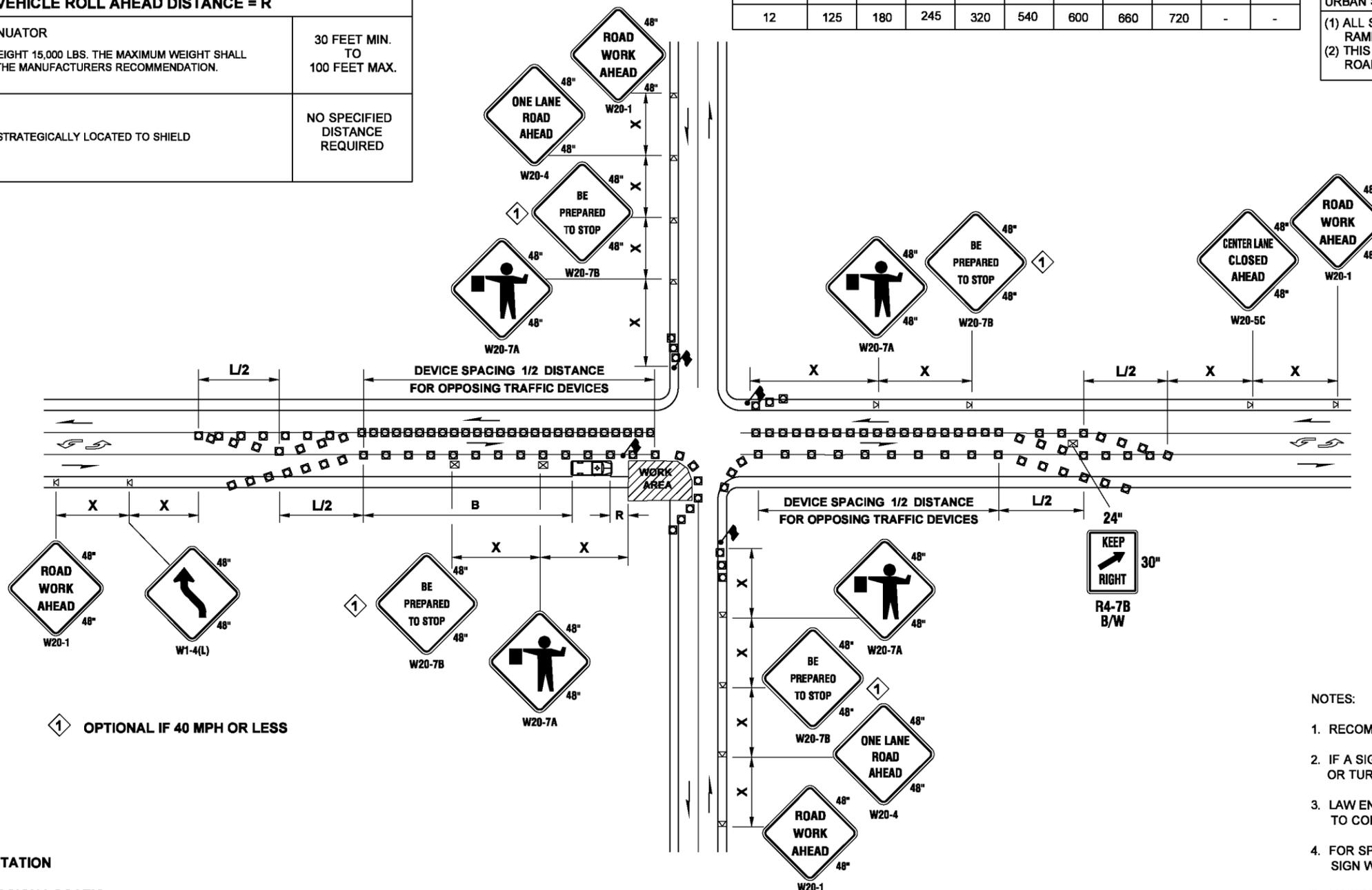
BUFFER DATA										
LONGITUDINAL BUFFER SPACE = B										
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (feet)	155	200	250	305	360	425	495	570	645	-
BUFFER VEHICLE ROLL AHEAD DISTANCE = R										
TRANSPORTABLE ATTENUATOR MINIMUM HOST VEHICLE WEIGHT 15,000 LBS. THE MAXIMUM WEIGHT SHALL BE IN 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		

LANE WIDTH (feet)	MINIMUM TAPER LENGTH = L (feet)									
	Posted Speed (mph)									
10	105	150	205	270	450	500	550	-	-	-
11	115	165	225	295	495	550	605	660	-	-
12	125	180	245	320	540	600	660	720	-	-

SIGN SPACING = X (1)		
RURAL HIGHWAYS	60 / 65 MPH	800' ±
RURAL ROADS	45 / 55 MPH	500' ±
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350' ±
RURAL ROADS & URBAN ARTERIALS RESIDENTIAL & BUSINESS DISTRICTS	25 / 30 MPH	200' ± (2)
URBAN STREETS	25 MPH OR LESS	100' ± (2)

(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMP, AT-GRADE INTERSECTIONS AND DRIVEWAYS.  
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.

CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
50/70	40	80
35/45	30	60
25/30	20	40



1 OPTIONAL IF 40 MPH OR LESS

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

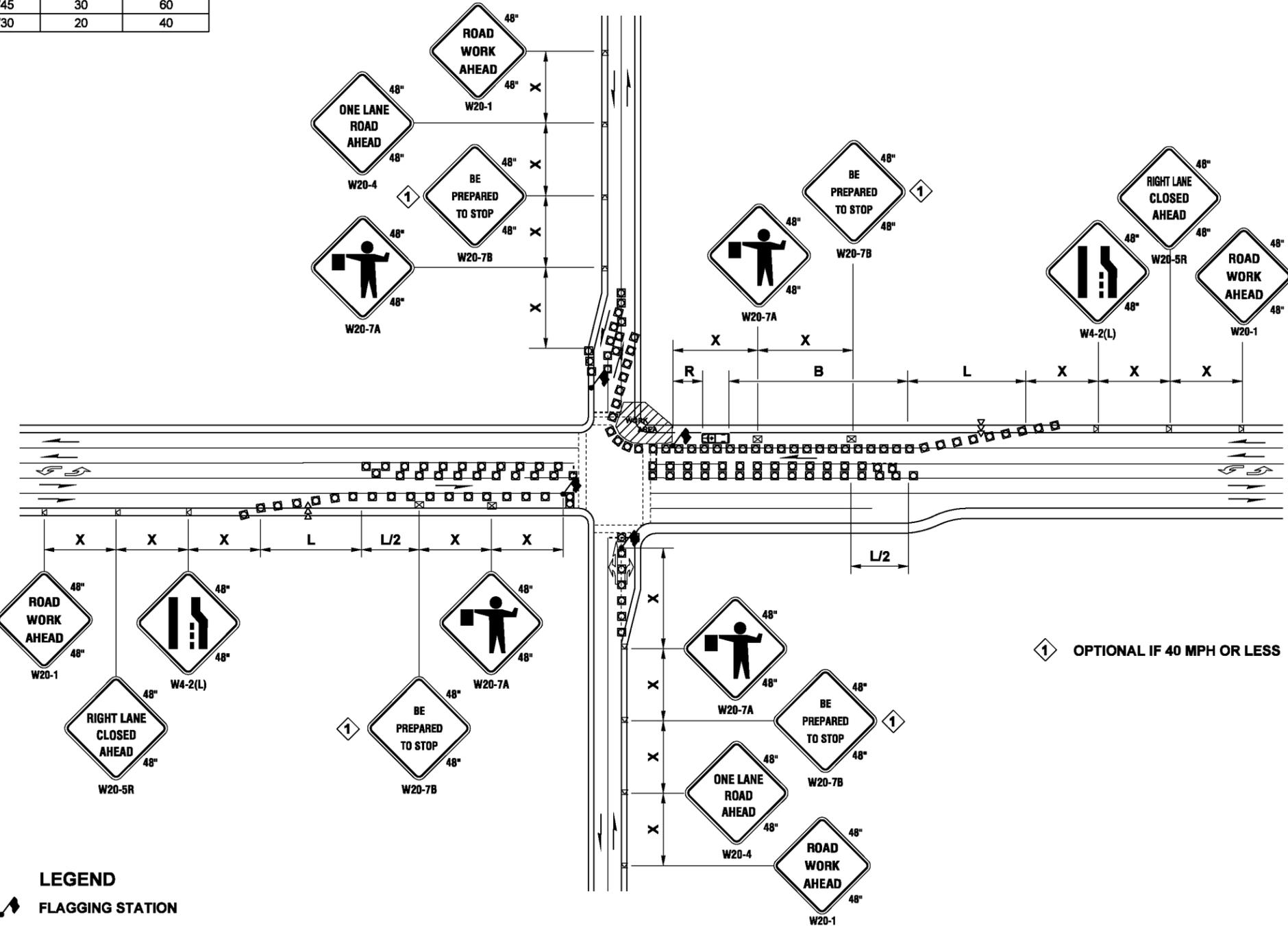
**INTERSECTION LANE CLOSURE ~ THREE LANE ROADWAY**

NOT TO SCALE

- 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.
  - LAW ENFORCEMENT OFFICER MAY BE USED IN LIEU OF FLAGGERS TO CONTROL INTERSECTION TRAFFIC.
  - 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.

FILE NAME	S:\Design R P& S4-Standard\2-Plan Sheet Library\10-Work Zone Traffic Control (TC)\TC-14\TC-14.dgn										FED.AID PROJ.NO.	DATE	P.E. STAMP BOX	DATE	P.E. STAMP BOX	Washington State Department of Transportation	TC14
TIME	11:38:56 AM																
DATE	5/17/2013										REGION NO.	STATE	JOB NUMBER		LOCATION NO.		SHEET
PLOTTED BY	CyfordL										10	WASH					OF
DESIGNED BY											CONTRACT NO.	LOCATION NO.				SHEETS	
ENTERED BY											REVISION		DATE		BY		
CHECKED BY																	
PROJ. ENGR.																	
REGIONAL ADM.																	

CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
50/70	40	80
35/45	30	60
25/30	20	40



**INTERSECTION LANE CLOSURE ~ FIVE LANE ROADWAY**

BUFFER DATA										
LONGITUDINAL BUFFER SPACE = B										
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (feet)	155	200	250	305	360	425	495	570	645	-
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	

MINIMUM TAPER LENGTH = L (feet)											
LANE WIDTH (feet)	Posted Speed (mph)										
	25	30	35	40	45	50	55	60	65	70	
10	105	150	205	270	450	500	550	-	-	-	
11	115	165	225	295	495	550	605	660	-	-	
12	125	180	245	320	540	600	660	720	-	-	

SIGN SPACING = X (1)		
RURAL HIGHWAYS	60 / 65 MPH	800' ±
RURAL ROADS	45 / 55 MPH	500' ±
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350' ±
RURAL ROADS & URBAN ARTERIALS	25 / 30 MPH	200' ± (2)
RESIDENTIAL & BUSINESS DISTRICTS		
URBAN STREETS	25 MPH OR LESS	100' ± (2)

(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMPS, AT-GRADE INTERSECTIONS AND DRIVEWAYS.  
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.

- 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.
  - LAW ENFORCEMENT OFFICER MAY BE USED IN LIEU OF FLAGGERS TO CONTROL INTERSECTION TRAFFIC.
  - MAINTAIN A MINIMUM OF ONE ACCESS POINT FOR EACH BUSINESS WITHIN WORK AREA LIMITS.
  - ALL SIGNS ARE BLACK ON ORANGE.

FILE NAME	S:\Design R P & S4-Standards\2-Plan Sheet Library\10-Work Zone Traffic Control (TC)\TC-15\TC-15.dgn					REGION NO.	STATE	FED.AID PROJ.NO.				Plot 1
TIME	11:41:27 AM					10	WASH					TC15
DATE	5/17/2013					JOB NUMBER						SHEET
PLOTTED BY	CyfordL					CONTRACT NO.	LOCATION NO.					OF
DESIGNED BY												SHEETS
ENTERED BY												
CHECKED BY												
PROJ. ENGR.												
REGIONAL ADM.												
	REVISION		DATE	BY								

Washington State  
Department of Transportation

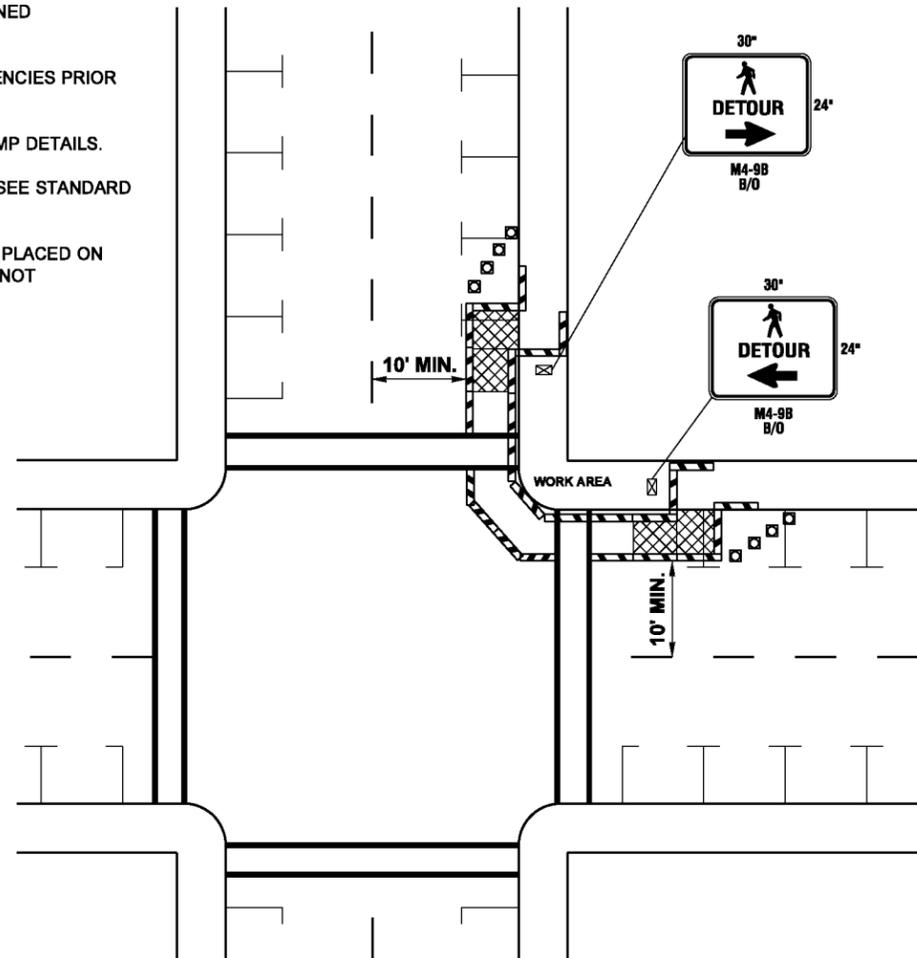
**TRAFFIC CONTROL PLAN**

**NO PARKING** R8-3  
24" x 30"  
R/W

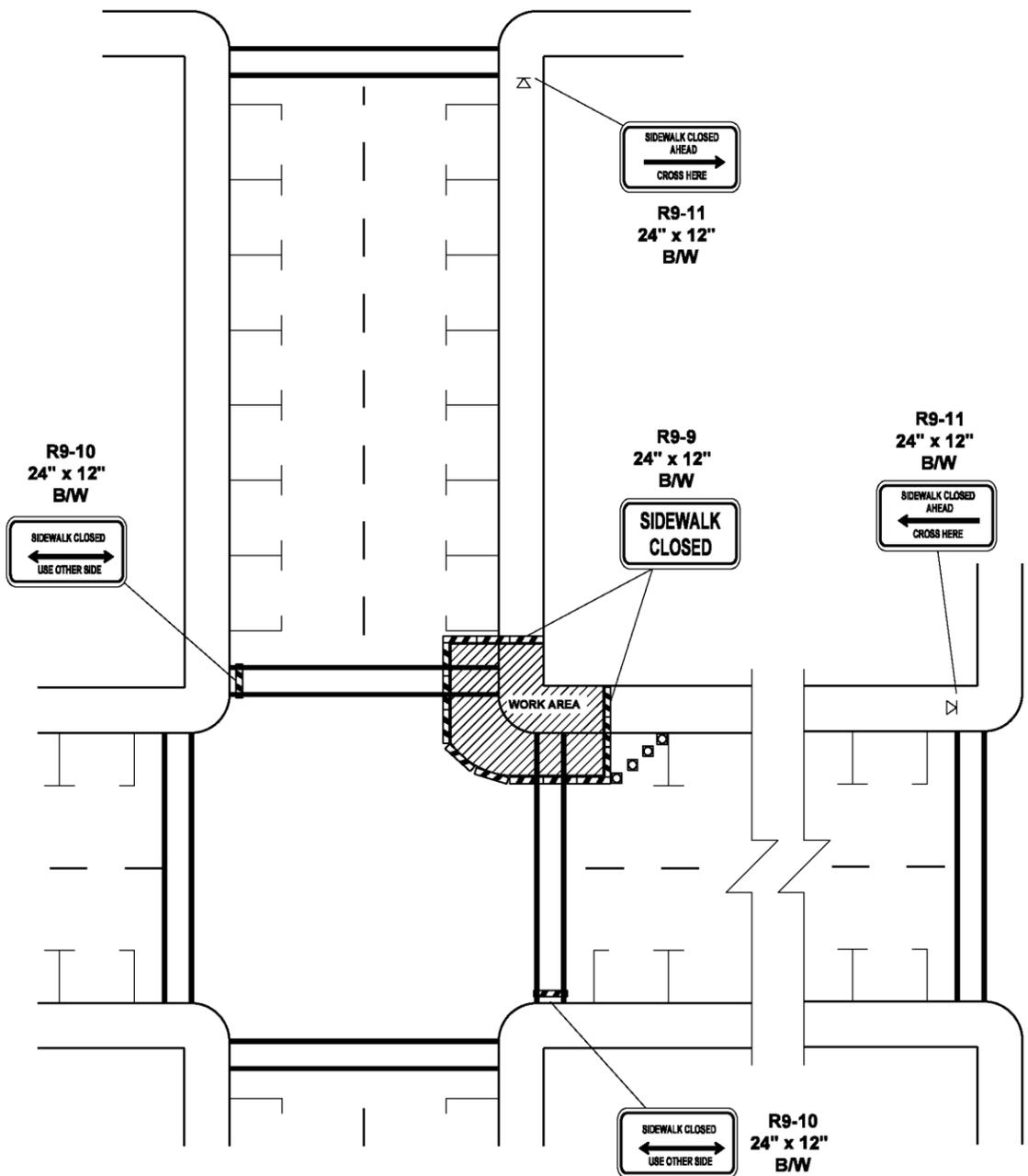
**INSTALL ON TYPE 2 BARRICADES THROUGHOUT THE WORK AREA  
24 HOURS PRIOR TO IMPLEMENTING TRAFFIC CONTROL.  
PRIOR NOTIFICATION OF LOCAL LAW ENFORCEMENT REQUIRED.**

**NOTES:**

1. CONTROLS SHOWN ARE FOR PEDESTRIAN TRAFFIC ONLY.
2. A 60" PEDESTRIAN 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 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 DIVERTED PATH WHEN EXISTING BUTTONS ARE NOT ACCESSIBLE TO PEDESTRIANS.



**SIDEWALK DIVERSION**



**SIDEWALK DETOUR**

**LEGEND**

- ⊗ TEMPORARY SIGN LOCATION
- CHANNELIZING DEVICES
- ▨ PEDESTRIAN CHANNELIZING DEVICES
- TEMPORARY PEDESTRIAN RAMP FOR SIDEWALKS

**INTERSECTION PEDESTRIAN TRAFFIC CONTROL**

NOT TO SCALE

FILE NAME S:\Design R P& S4-Standards\2-Plan Sheet Library\10-Work Zone Traffic Control (TC)\TC-16\TC-16.dgn		REGION NO. STATE		FED.AID PROJ.NO.		Washington State Department of Transportation	TC16
TIME 11:43:01 AM		10	WASH				
DATE 5/17/2013		JOB NUMBER				PEDESTRIAN CONTROL AND PROTECTION	OF
PLOTTED BY CyfordL		CONTRACT NO.		LOCATION NO.			SHEETS
DESIGNED BY		DATE		DATE			
ENTERED BY		BY		P.E. STAMP BOX			
CHECKED BY		REVISION		P.E. STAMP BOX			
PROJ. ENGR.		DATE		DATE			
REGIONAL ADM.		BY		P.E. STAMP BOX			

BUFFER DATA										
LONGITUDINAL BUFFER SPACE = B										
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (feet)	155	200	250	305	360	425	495	570	645	730
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.

MINIMUM LANE CLOSURE TAPER LENGTH = L (feet)										
LANE WIDTH (feet)	Posted Speed (mph)									
	25	30	35	40	45	50	55	60	65	70
10	105	150	205	270	450	500	550	-	-	-
11	115	165	225	295	495	550	605	660	-	-
12	125	180	245	320	540	600	660	720	780	840

MINIMUM SHOULDER TAPER LENGTH = L/3 (feet)										
SHOULDER WIDTH (feet)	Posted Speed (mph)									
	25	30	35	40	45	50	55	60	65	70
8'	40	40	60	90	120	130	150	160	170	190
10'	40	60	90	90	150	170	190	200	220	240

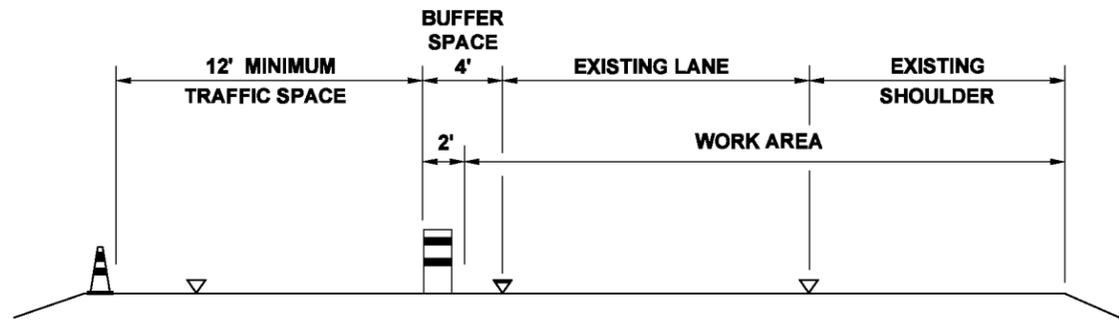
USE A MINIMUM 3 DEVICES TAPER FOR SHOULDER LESS THEN 8'.

CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
50/70	40	80
35/45	30	60
25/30	20	40

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**
- ⊠ TEMPORARY SIGN LOCATION
  - ⊞ CHANNELIZING DEVICES
  - ⊗ TRAFFIC SAFETY DRUM
  - ⇒ SEQUENTIAL ARROW SIGN
  - ▶ TRANSPORTABLE ATTENUATOR
  - PCMS PORTABLE CHANGEABLE MESSAGE SIGN
  - ⊞ TEMPORARY SIGN LOCATION (5' MOUNTING HEIGHT)

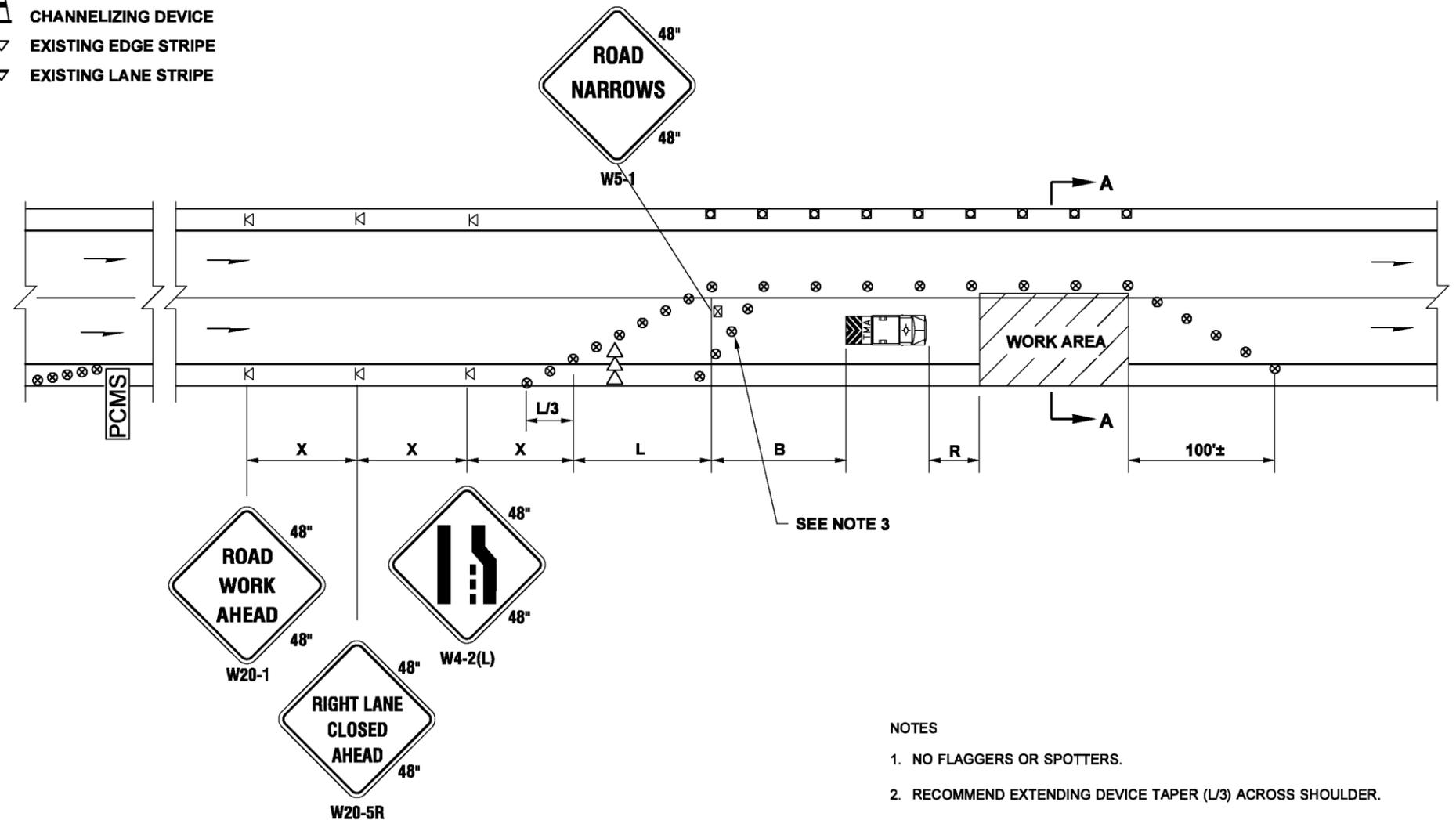


TYPICAL SECTION A-A

- ⊞ CHANNELIZING DEVICE
- ▽ EXISTING EDGE STRIPE
- ▽ EXISTING LANE STRIPE

SIGN SPACING = X (1)		
FREEWAYS & EXPRESSWAYS	55 / 70 MPH	1500' ±
RURAL HIGHWAYS	60 / 65 MPH	800' ±
RURAL ROADS	45 / 55 MPH	500' ±
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350' ±
RURAL ROADS & URBAN ARTERIALS	25 / 30 MPH	200' ± (2)
RESIDENTIAL & BUSINESS DISTRICTS		
URBAN STREETS	25 MPH OR LESS	100' ± (2)

(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMP, AT-GRADE INTERSECTIONS AND DRIVEWAYS.  
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.



**SINGLE-LANE CLOSURE WITH SHIFT**

NOT TO SCALE

**NOTES**

1. NO FLAGGERS OR SPOTTERS.
2. RECOMMEND EXTENDING DEVICE TAPER (L/3) ACROSS SHOULDER.
3. USE TRANSVERSE DEVICES IN CLOSED LANE EVERY 1000' ± (RECOMMENDED).
4. ALL SIGNS ARE BLACK ON ORANGE.
5. RECOMMEND ADVANCE NOTICE FOR ANY OVER WIDTH LOADS PRIOR TO LANE CLOSURE FOR ALTERNATE ROUTES IF APPLICABLE.
6. SEE SPECIAL PROVISIONS FOR WORK HOUR RESTRICTIONS.

FILE NAME	S:\Design R P& S4-Standards\2-Plan Sheet Library\10-Work Zone Traffic Control (TC)\TC-17\TC-17.dgn					REGION NO.	STATE	FED.AID PROJ.NO.			Plot 1
TIME	11:46:41 AM					10	WASH				TC17
DATE	5/17/2013					JOB NUMBER					SHEET
PLOTTED BY	CyfordL					CONTRACT NO.	LOCATION NO.				OF
DESIGNED BY											SHEETS
ENTERED BY											
CHECKED BY											
PROJ. ENGR.											
REGIONAL ADM.											
	REVISION		DATE	BY							

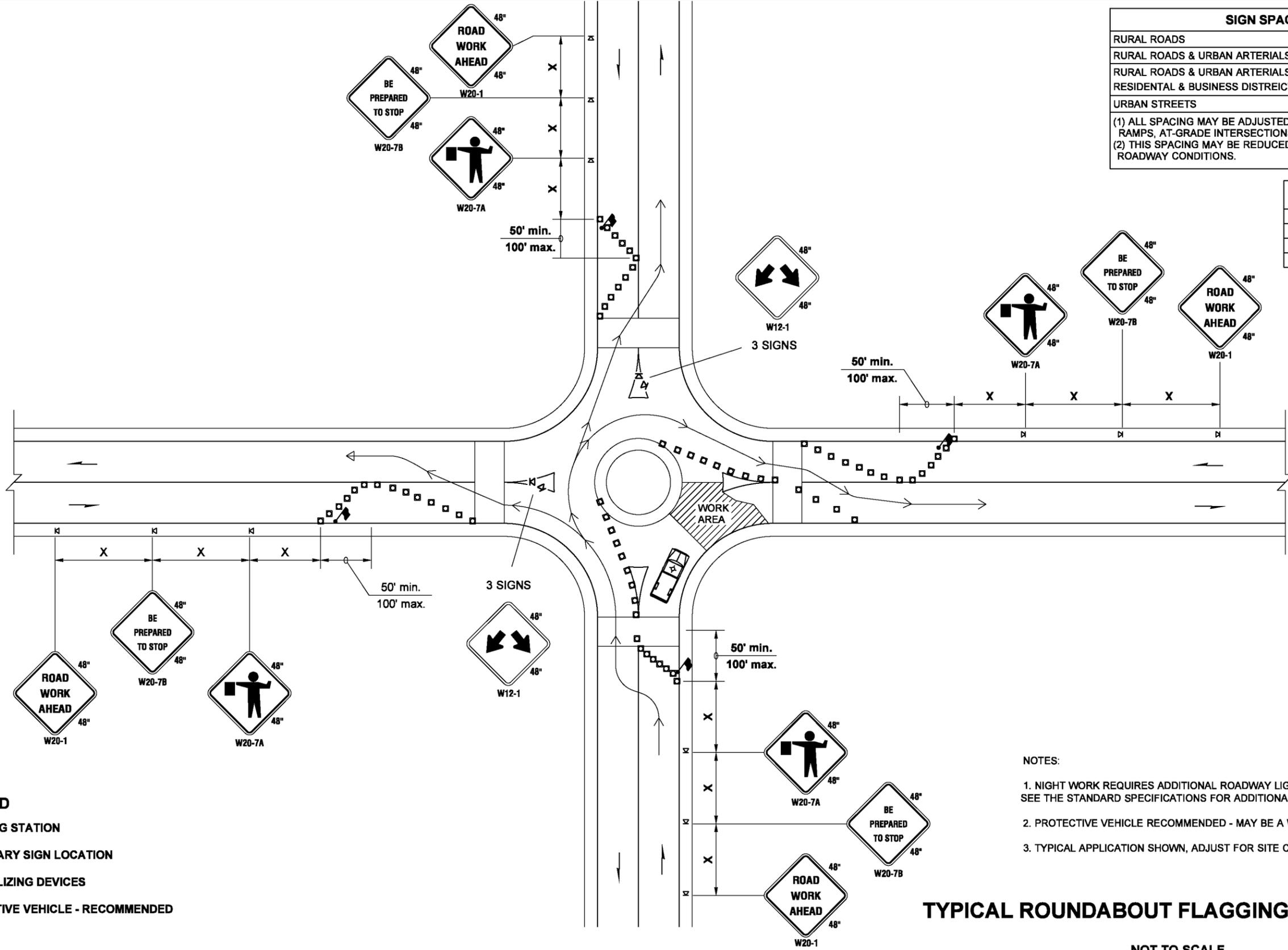
Washington State  
Department of Transportation

**TRAFFIC CONTROL PLAN**

SIGN SPACING = X (1)		
RURAL ROADS	45 / 55 MPH	500' ±
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350' ±
RURAL ROADS & URBAN ARTERIALS RESIDENTIAL & BUSINESS DISTRICTS	25 / 30 MPH	200' ± (2)
URBAN STREETS	25 MPH OR LESS	100' ± (2)

(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMP, AT-GRADE INTERSECTIONS AND DRIVEWAYS.  
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.

CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
50/55	40	80
35/45	30	60
25/30	20	40



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

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

**TYPICAL ROUNDABOUT FLAGGING OPERATION**

NOT TO SCALE

FILE NAME: S:\Design R P & S4-Standard\2-Plan Sheet Library\10-Work Zone Traffic Control (TC)\TC-18\TC-18.dgn		REGION NO. STATE		FED.AID PROJ.NO.		Washington State Department of Transportation	TC18
TIME: 11:48:48 AM	DATE: 5/17/2013	10	WASH				
PLOTTED BY: CyfordL	DESIGNED BY:	JOB NUMBER	LOCATION NO.		DATE		TRAFFIC CONTROL PLAN
ENTERED BY:	CHECKED BY:	CONTRACT NO.	DATE		DATE		
PROJ. ENGR.	REVISION	DATE	BY	P.E. STAMP BOX		SHEET OF SHEETS	