

RECOMMENDED SIGN SPACING = X (1)		
RURAL ROADS & URBAN ARTERIALS	35-40 MPH	350±
RURAL ROADS & URBAN ARTERIALS	25-30 MPH	200± (2)
RESIDENTIAL & BUSINESS DISTRICTS	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.		

MAXIMUM CHANNELIZATION DEVICE SPACING (feet)	
TAPER	TANGENT
10'	20'

SPEED REDUCTION AHEAD SIGN SPACING = Z		
EXISTING SPEED LIMIT (MPH)	35	40
SPACING (feet)	350	480

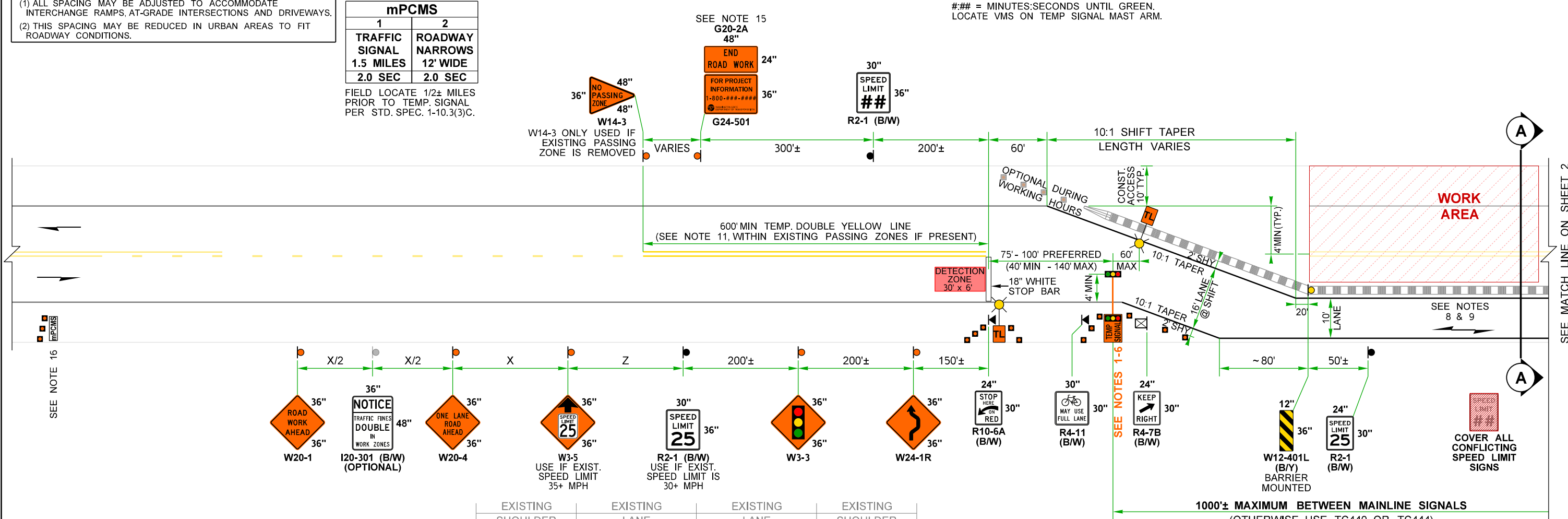
WAIT-TIME DISPLAY VMS		
GREEN	YELLOW	RED
25 MPH ZONE	(Blank)	WAIT #:#

### = MINUTES:SECONDS UNTIL GREEN.  
LOCATE VMS ON TEMP SIGNAL MAST ARM.

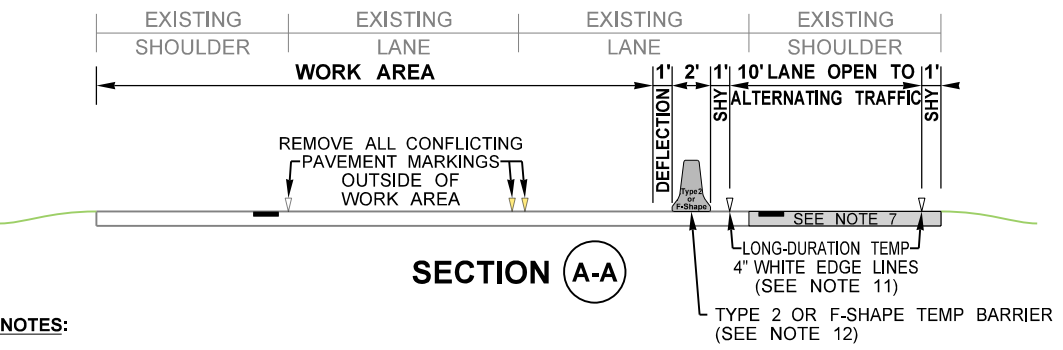
FOR DRIVEWAY, BUSINESS ACCESS, AND INTERSECTING ROADWAY DETAILS SEE TC441, SHEET 3.

mPCMS	
1	2
TRAFFIC SIGNAL	ROADWAY NARROWS
1.5 MILES	12' WIDE
2.0 SEC	2.0 SEC

FIELD LOCATE 1/2± MILES PRIOR TO TEMP. SIGNAL PER STD. SPEC. 1-10.3(3)C.



- LEGEND:**
- CLASS A SIGN LOCATION (POST OR BARRIER-MOUNTED)
  - CLASS A TRIPOD-MOUNTED SIGN LOCATION (1' MIN HEIGHT)
  - CLASS A TRIPOD-MOUNTED SIGN LOCATION (5' MIN HEIGHT)
  - 28" TRAFFIC CONES (SEE NOTE 11)
  - UNANCHORED TEMPORARY BARRIER (SEE NOTE 13)
  - SLOPED BARRIER TERMINAL (SEE NOTE 13)
  - TYPE 3 BARRICADE
  - PROTECTIVE VEHICLE
  - TEMPORARY TRAFFIC SIGNAL (SEE NOTES 1-6)
  - COMPACT TEMP. TRAFFIC SIGNAL (SEE NOTES 1-6)
  - TEMPORARY BICYCLE PUSH-BUTTON (SEE NOTES 1, 6, & 7)
  - TEMPORARY LIGHTING (SEE NOTE 6)
  - miniPORTABLE CHANGEABLE MESSAGE SIGN (SEE NOTE 16)



- NOTES:**
- ALL TEMPORARY TRAFFIC SIGNAL TIMING PLANS MUST BE APPROVED BY THE ENGINEER. THIS SIGNAL TIMING PLAN ACCOMMODATES BOTH VEHICLES AND BICYCLES EVERY CYCLE. THE SIGNAL IS TIMED FOR VEHICLES, BUT THE ALL-RED CLEARANCE INTERVAL IS EXTENDED EVERY TIME TO ALLOW BICYCLES TO CLEAR THE LANE CLOSURE FROM THE STOP BAR AT THE END OF THE YELLOW PHASE. THIS WILL INCREASE TRAFFIC QUEUES AND DELAYS TO ALL BECAUSE IT REDUCES THE WORK ZONE CAPACITY.
  - TEMPORARY SIGNALS ARE FULLY ACTUATED CONTROLLED VIA VIDEO AND/OR RADAR DETECTION. WHEN NO VEHICLES DETECTED IN ANY DIRECTION, ALL TRAFFIC SIGNAL REST IN RED DISPLAY UNTIL THE NEXT VEHICLE IS DETECTED WHICH RECEIVES THE IMMEDIATE GREEN DISPLAY TO MINIMIZE DISPLAYS.

- TRAFFIC CONTROL MANAGER, TRAFFIC CONTROL SUPERVISOR (PRIMARY AND ALTERNATE), AND WSDOT ENGINEER SHALL BE NOTIFIED VIA EM AIL, TEXT, AND/OR PAGE IF ANY TEMPORARY SIGNAL MALFUNCTIONS.
  - AVOID PLACING TEMPORARY SIGNALS WITHIN OR IMMEDIATELY FOLLOWING HORIZONTAL & VERTICAL CURVES BY ADJUSTING LONGITUDINAL BUFFER SPACE OR EXTENDING WORK AREA.
  - TEMPORARY TRAFFIC SIGNALS LOCATED WITHIN 1/4 MILE OF A RAILROAD GRADE CROSSING SHALL BE EVALUATED FOR RAILROAD PREEMPTION. CONTACT REGION TRANSPORTATION OPERATIONS.
  - WHEN PRACTICAL, PROVIDE AT LEAST 4 FEET OF LATERAL CLEARANCE FROM TRAVEL LANE TO TEMPORARY SIGNAL AND TEMPORARY LIGHTING. ACCEPTABLE TO PLACE THESE DEVICES BEHIND EXISTING GUARDRAIL OR BARRIER, BUT VERIFY STRUCTURAL LOADING ON TEMP SIGNAL MAST ARM IS SUFFICIENT. IF A GRAVEL LEVELING PAD IS NEEDED, CONTACT ENGINEER PRIOR TO INSTALLING.
  - EXISTING SHOULDER PAVEMENT MAY NEED TO BE REBUILT TO FULL-DEPTH TO HANDLE TRAFFIC LONG TERM. AT A MINIMUM, REMOVE EXISTING RUMBLE STRIP VIA MILL & HMA FILL. VERIFY EXISTING ITS BOXES AND CATCH BASINS ARE TRAFFIC WORTHY PRIOR TO PLACING TRAFFIC ON SHOULDER LONG-TERM.
- NOTES CONTINUED ON SHEET 2.

## SIMPLE TEMPORARY SIGNAL-CONTROLLED ALTERNATING 1-LANE, 2-WAY TRAFFIC 25 WZSL + TEMP BARRIER (HIGHWAYS 40 MPH OR LESS, 8+ DAYS) NOT TO SCALE

FILE NAME: C:\Users\LintzF\OneDrive - Washington State Department of Transportation\Desktop\Work Zone TCPs\441Hwy40-AltTrafficSimpleTempSignal25WZSLShareLn.dgn		REGION NO. STATE		FED.AID PROJ.NO.				Plot 1	
TIME: 8:27:55 AM	DATE: 8/1/2024	10	WASH					PLAN REF NO. TC441	
PLOTTED BY: LintzF	DESIGNED BY:	JOB NUMBER		LOCATION NO.		Washington State Department of Transportation		SHEET 1 OF 6 SHEETS	
ENTERED BY:	CHECKED BY:	CONTRACT NO.		DATE				TYPICAL TRAFFIC CONTROL PLANS	
PROJ. ENGR.	REGIONAL ADM.	REVISION	DATE	BY	P.E. STAMP BOX	DATE			

FOR DRIVEWAY, BUSINESS ACCESS, AND INTERSECTING ROADWAY DETAILS SEE TC441, SHEET 3.

WAIT-TIME DISPLAY VMS		
GREEN	YELLOW	RED
25 MPH ZONE	(Blank)	WAIT #:##

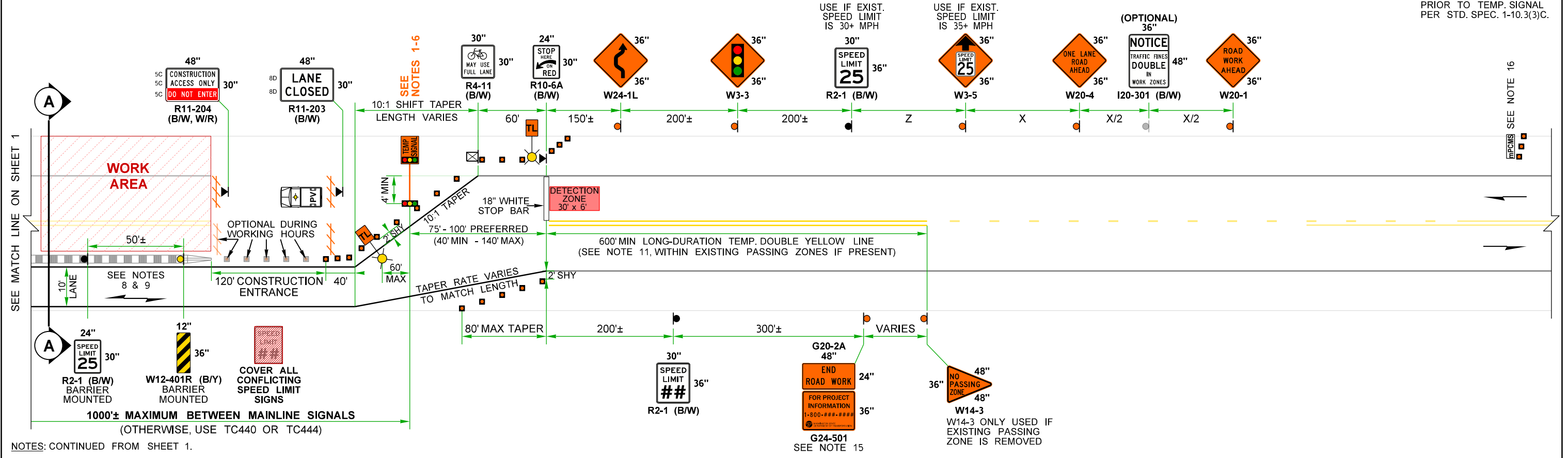
### = MINUTES:SECONDS UNTIL GREEN. LOCATE VMS ON TEMP SIGNAL MAST ARM.

MAXIMUM CHANNELIZATION DEVICE SPACING (feet)	
TAPER	TANGENT
10'	20'

SPEED REDUCTION AHEAD SIGN SPACING = Z		
EXISTING SPEED LIMIT (MPH)	35	40
SPACING (feet)	350	480

mPCMS	
1	2
TRAFFIC SIGNAL 1.5 MILES	ROADWAY NARROWS 12' WIDE
2.0 SEC	2.0 SEC

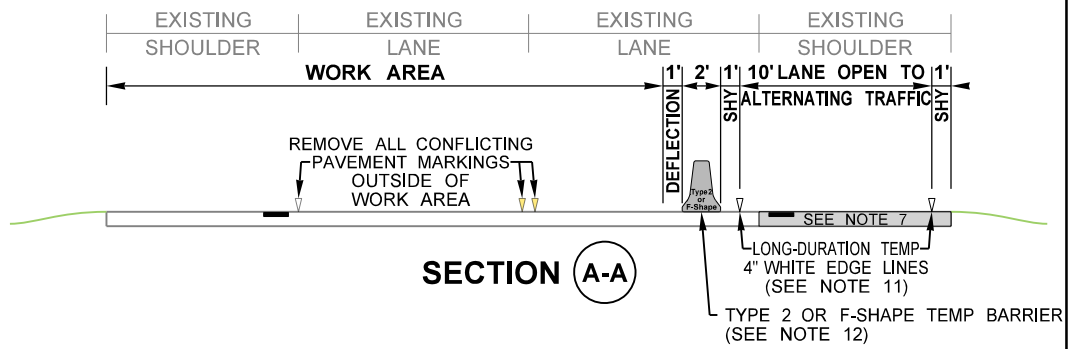
FIELD LOCATE 1/2± MILES PRIOR TO TEMP. SIGNAL PER STD. SPEC. 1-10.3(3)C.



NOTES: CONTINUED FROM SHEET 1.

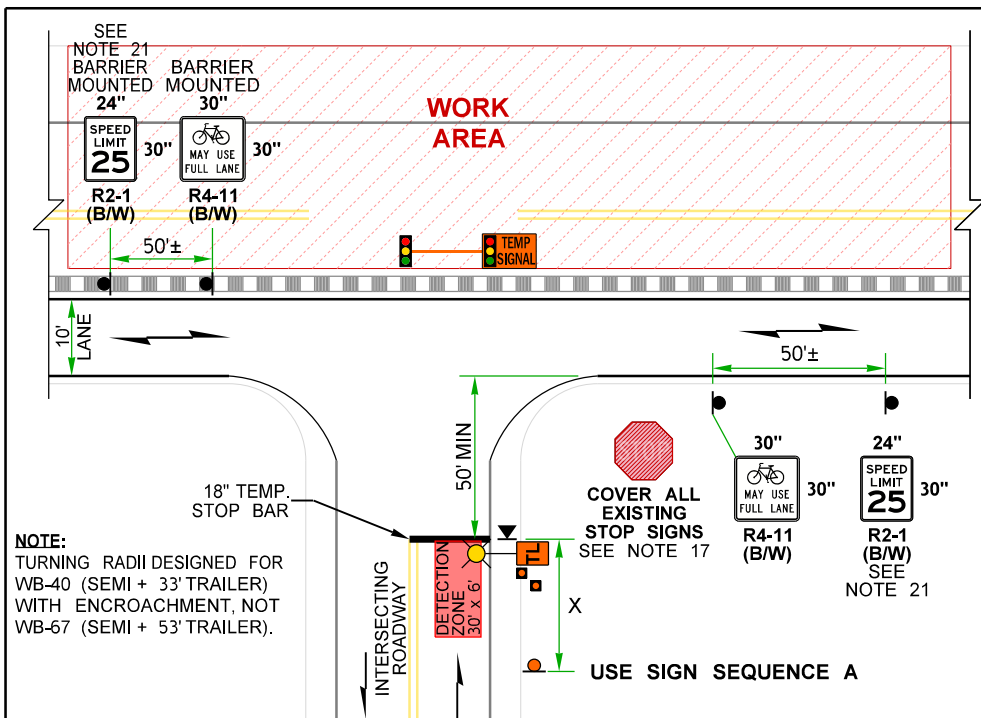
- 8. BICYCLISTS ARE COMBINED WITH VEHICULAR TRAFFIC THROUGH THE LANE CLOSURE.
- 9. ACCOMMODATE PEDESTRIANS VIA SHUTTLE THROUGH LANE CLOSURE OR ANOTHER METHOD THE ENGINEER ACCEPTS.
- 10. 36" TRAFFIC CONES, 42" TALL CHANNELIZATION DEVICES, OR TRAFFIC SAFETY DRUMS OK.
- 11. EXISTING CENTERLINE PAVEMENT MARKINGS MAY VARY. IF PASSING ZONE PRESENT WITHIN 600' OF TEMPORARY STOP BAR, REMOVE EXISTING CENTERLINE MARKING, OR COVER WITH BLACK TEMP. TAPE, AND INSTALL LONG-DURATION TEMP. DOUBLE YELLOW LINE (MAY BE SUPPLEMENTED WITH SURFACE-MOUNTED TYPE 2YY RPMs @ 40' SPACING). ALL OTHER CONFLICTING PAVEMENT MARKINGS SHALL BE REMOVED OR COVERED WITH BLACK TEMP. TAPE (THOSE WITHIN THE WORK AREA MAY REMAIN AS SHOWN).
- 12. TYPE 2 OR F-SHAPE TEMPORARY BARRIER PERMITTED. SLOPED CONCRETE TERMINAL ALLOWED FOR REGULATORY WORK ZONE SPEED LIMITS 25 MPH OR LESS. TYPE 2 TEMPORARY BARRIER AND SLOPED CONCRETE TERMINAL PER STANDARD PLAN K80-32. F-SHAPE TEMPORARY BARRIER PER STANDARD PLAN C-60.10 (C-60.15 IF SCUPPERS USED FOR DRAINAGE) AND STANDARD PLAN C-60.80 FOR F-SHAPE CONCRETE BARRIER TERMINAL.
- 13. SEE STANDARD SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS:
  - 1-10.3(3)K PORTABLE TEMPORARY TRAFFIC CONTROL SIGNAL
  - 6-10.3(5) TEMPORARY BARRIER
  - 8-23.3(4)B TEMPORARY PAVEMENT MARKINGS - LONG DURATION
  - 9-35.14 PORTABLE TEMPORARY TRAFFIC CONTROL SIGNAL

- 14. FOR PROJECT-SPECIFIC REQUIREMENTS, SEE SPECIAL PROVISIONS.
- 15. WSDOT PROJECT ENGINEERING OFFICE WILL PROVIDE PHONE NUMBER.
- 16. FULL-SIZE PCMS MAY BE USED IN LIEU OF mPCMS WHERE SPACE ALLOWS.
- 17. REMOVE OR COVER ALL CONFLICTING SIGNAGE PER STD. SPEC. 1-10.3(3)A.
- 18. SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE INDICATED.
- 19. CONTACT WSDOT COMMERCIAL VEHICLE SERVICES AT LEAST 7 DAYS IN ADVANCE OF ROADWAY WIDTH RESTRICTIONS. 30 DAY NOTICE REQUIRED ON MAJOR FREIGHT CORRIDORS.

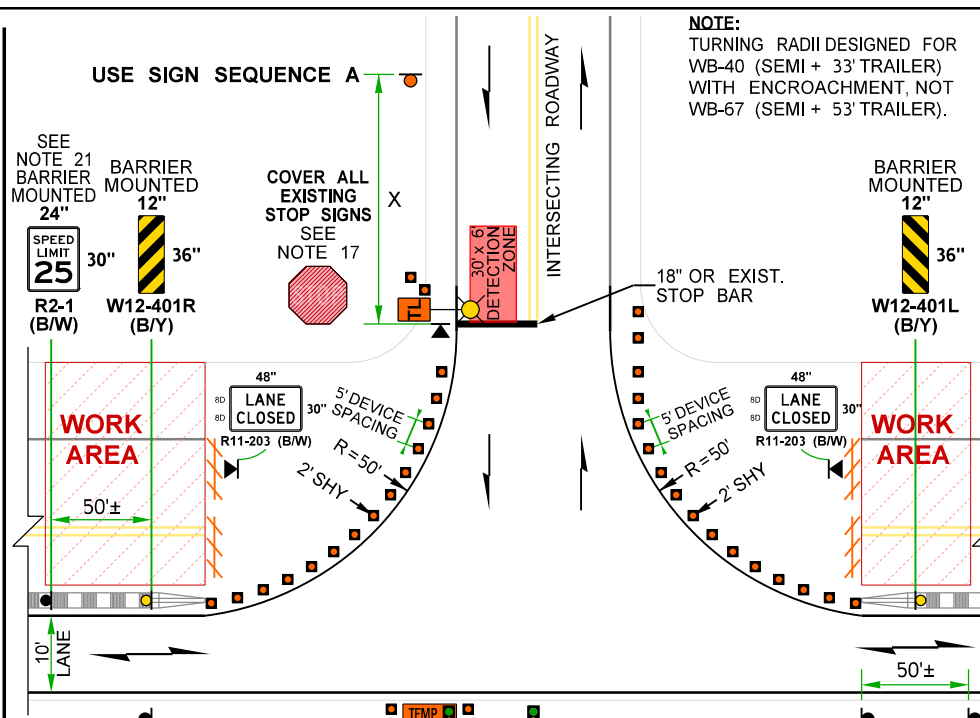


## SIMPLE TEMPORARY SIGNAL-CONTROLLED ALTERNATING 1-LANE, 2-WAY TRAFFIC 25 WZSL + TEMP BARRIER (HIGHWAYS 40 MPH OR LESS, 8+ DAYS) NOT TO SCALE

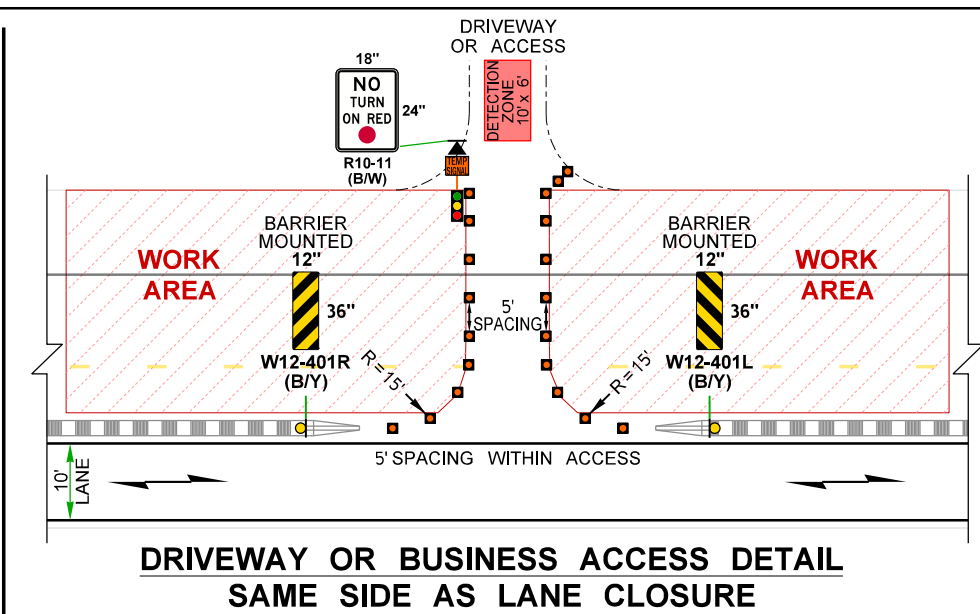
FILE NAME	C:\Users\LintzF\OneDrive - Washington State Department of Transportation\Desktop\Work Zone TCPS\441Hwy40-AltTrafficSimpleTempSignal25WZSLShareLn.dgn								Plot 2
TIME	8:27:55 AM								PLAN REF NO
DATE	8/1/2024								<b>TC441</b>
PLOTTED BY	LintzF								SHEET
DESIGNED BY									2
ENTERED BY									OF
CHECKED BY									6
PROJ. ENGR.									SHEETS
REGIONAL ADM.									<b>TYPICAL TRAFFIC CONTROL PLANS</b>



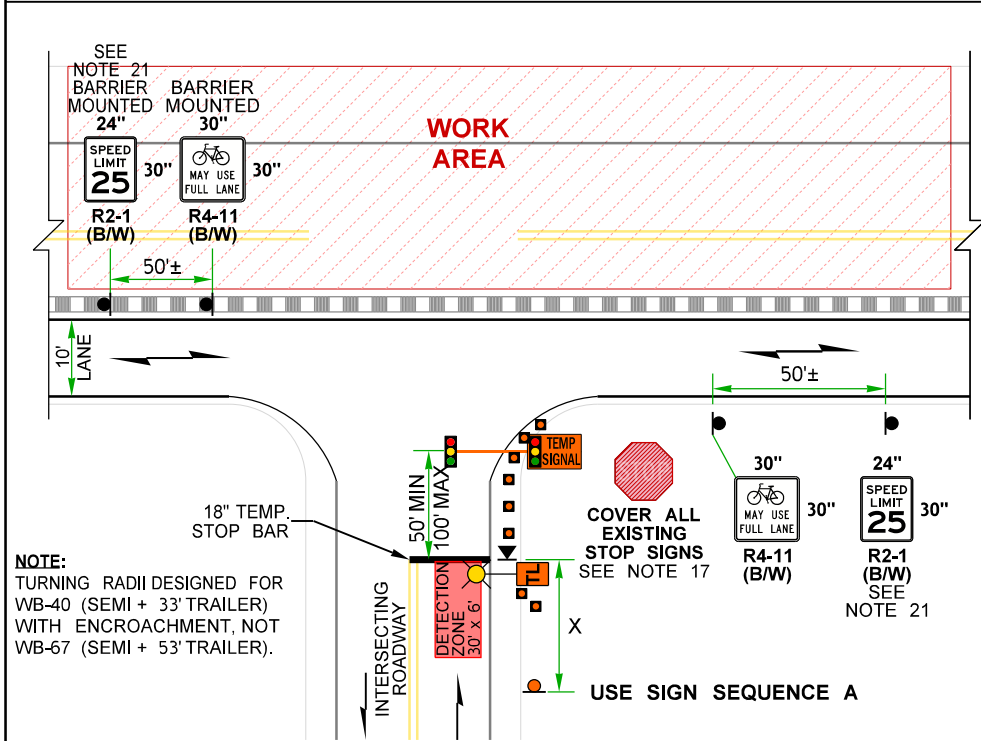
**UNSIGNALIZED INTERSECTING ROADWAY DETAIL  
OPPOSITE OF LANE CLOSURE (SIGNAL FAR-SIDE)**



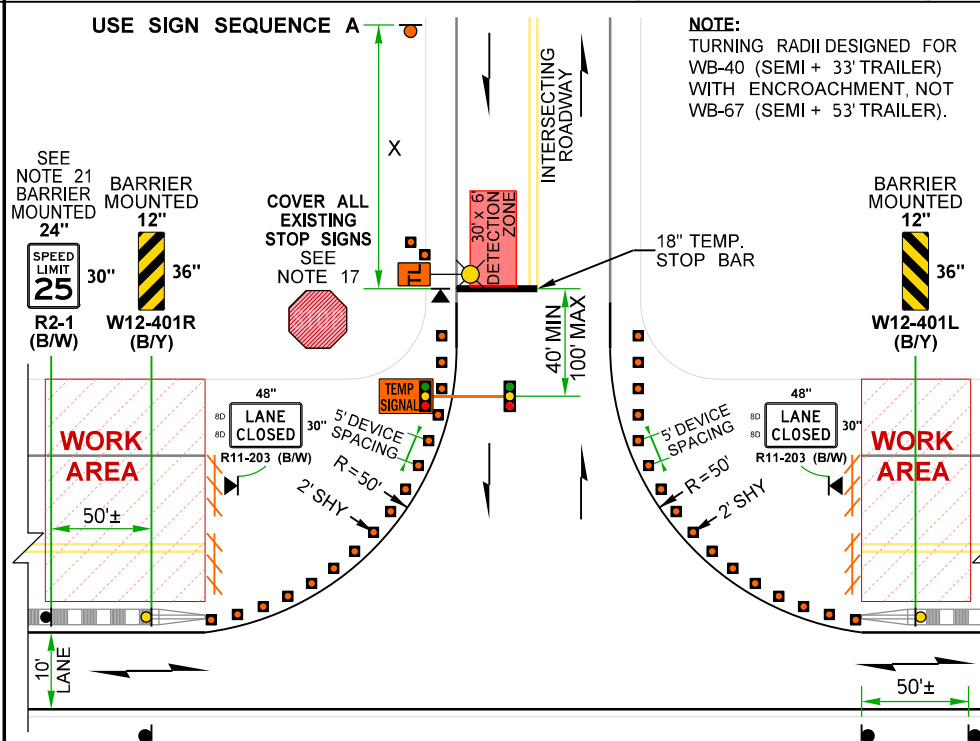
**UNSIGNALIZED INTERSECTING ROADWAY DETAIL  
SAME SIDE AS LANE CLOSURE (SIGNAL FAR-SIDE)**



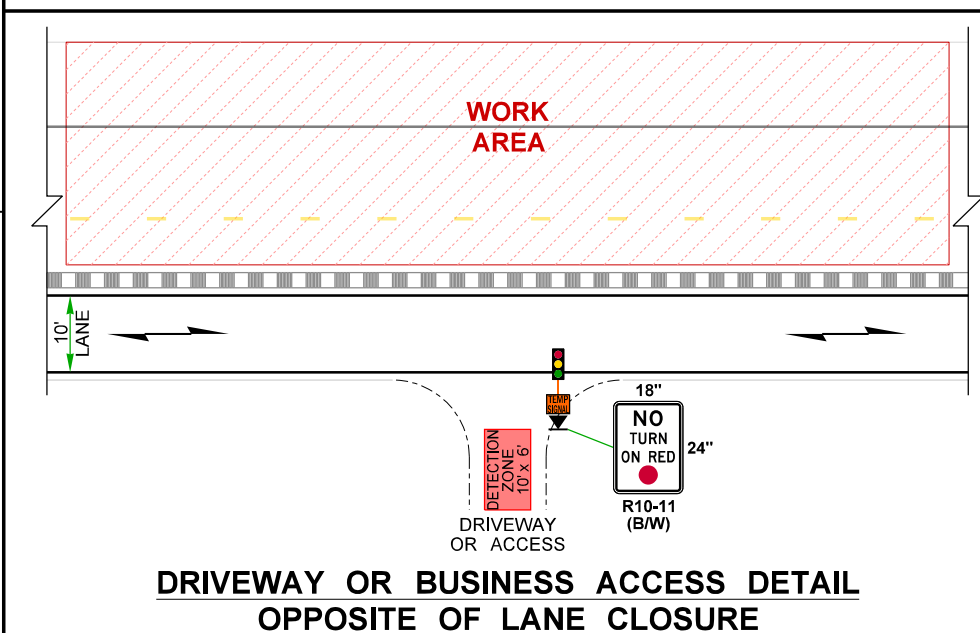
**DRIVEWAY OR BUSINESS ACCESS DETAIL  
SAME SIDE AS LANE CLOSURE**



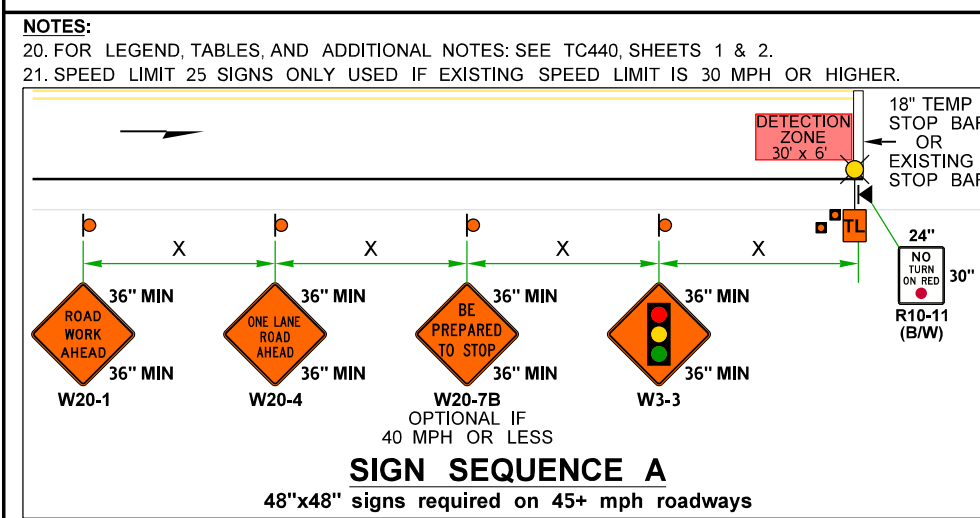
**UNSIGNALIZED INTERSECTING ROADWAY DETAIL  
OPPOSITE OF LANE CLOSURE (SIGNAL NEAR-SIDE)**



**UNSIGNALIZED INTERSECTING ROADWAY DETAIL  
SAME SIDE AS LANE CLOSURE (SIGNAL NEAR-SIDE)**



**DRIVEWAY OR BUSINESS ACCESS DETAIL  
OPPOSITE OF LANE CLOSURE**



**SIGN SEQUENCE A**

**SIMPLE TEMPORARY SIGNAL-CONTROLLED ALTERNATING 1-LANE, 2-WAY TRAFFIC  
25 WZSL + TEMP BARRIER (HIGHWAYS 40 MPH OR LESS, 8+ DAYS)  
NOT TO SCALE**

FILE NAME	C:\Users\LintzF\OneDrive - Washington State Department of Transportation\Desktop\Work Zone TCPs\441Hwy40-AltTraffic\SimpleTempSignal25WZSL\ShareLn.dgn			REGION NO.	10	STATE	WASH	FED.AID PROJ.NO.	
TIME	8:27:56 AM			JOB NUMBER		CONTRACT NO.		LOCATION NO.	
DATE	8/1/2024			DATE		DATE			
PLOTTED BY	LintzF			REVISION		DATE		BY	
DESIGNED BY									
ENTERED BY									
CHECKED BY									
PROJ. ENGR.									
REGIONAL ADM.									





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

MAXIMUM CHANNELIZATION DEVICE SPACING (feet)	
TAPER	TANGENT
10'	20'

SPEED REDUCTION AHEAD SIGN SPACING = Z		
EXISTING SPEED LIMIT (MPH)	35	40
SPACING (feet)	350	480

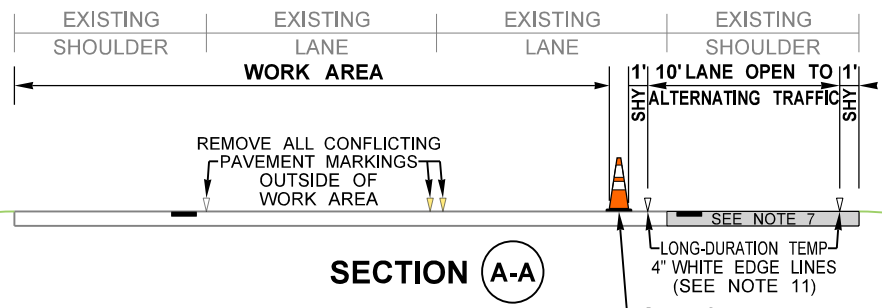
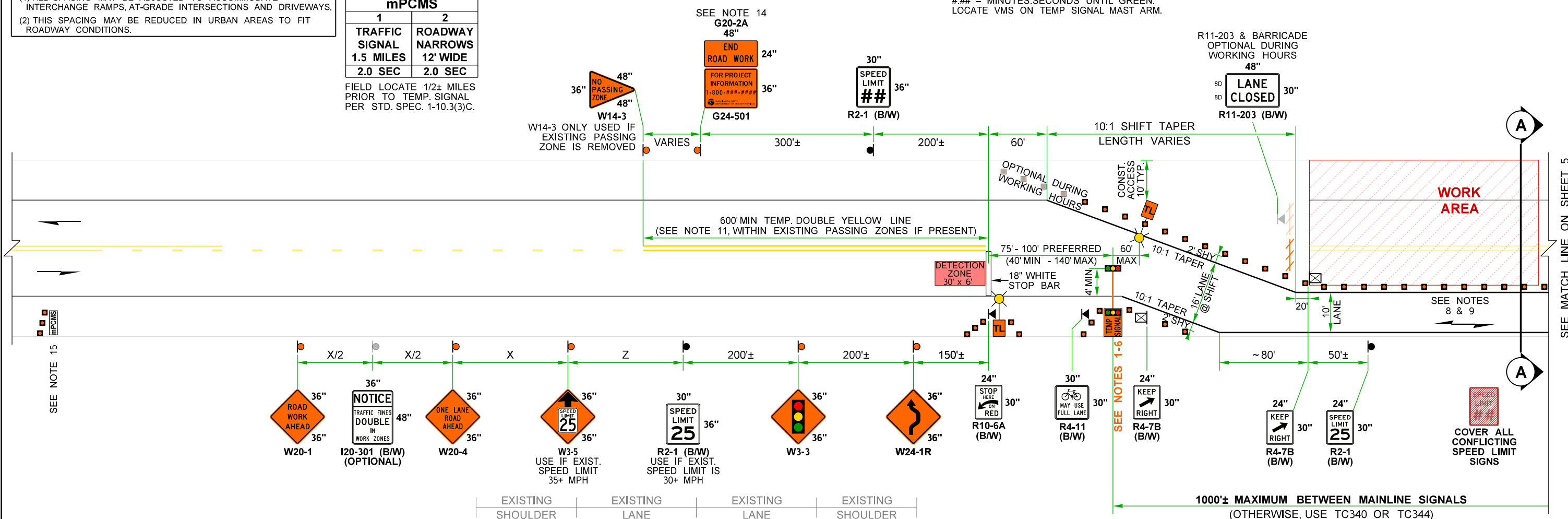
WAIT-TIME DISPLAY VMS		
GREEN	YELLOW	RED
25 MPH ZONE	(Blank)	WAIT #:#

### = MINUTES:SECONDS UNTIL GREEN. LOCATE VMS ON TEMP SIGNAL MAST ARM.

FOR DRIVEWAY, BUSINESS ACCESS, AND INTERSECTING ROADWAY DETAILS SEE TC441, SHEET 6.

mPCMS	
1	2
TRAFFIC SIGNAL	ROADWAY NARROWS
1.5 MILES	12' WIDE
2.0 SEC	2.0 SEC

FIELD LOCATE 1/2± MILES PRIOR TO TEMP. SIGNAL PER STD. SPEC. 1-10.3(3)C.



- LEGEND:**
- CLASS A SIGN LOCATION (POST OR BARRIER-MOUNTED)
  - ▲ CLASS A TRIPOD-MOUNTED SIGN LOCATION (1' MIN HEIGHT)
  - ⊠ CLASS A TRIPOD-MOUNTED SIGN LOCATION (5' MIN HEIGHT)
  - 28" TRAFFIC CONES (SEE NOTE 11)
  - ⚡ TYPE 3 BARRICADE
  - 🚚 PROTECTIVE VEHICLE
  - 🚦 TEMP SIGNAL TEMPORARY TRAFFIC SIGNAL (SEE NOTES 1-6)
  - 🚦 COMPACT TEMP. TRAFFIC SIGNAL (SEE NOTES 1-6)
  - 🚲 TEMPORARY BICYCLE PUSH-BUTTON (SEE NOTES 1, 6, & 7)
  - 💡 TEMPORARY LIGHTING (SEE NOTE 6)
  - mPCMS mini PORTABLE CHANGEABLE MESSAGE SIGN (SEE NOTE 15)

**NOTES:**

1. ALL TEMPORARY TRAFFIC SIGNAL TIMING PLANS MUST BE APPROVED BY THE ENGINEER. THIS SIGNAL TIMING PLAN ACCOMMODATES BOTH VEHICLES AND BICYCLES EVERY CYCLE. THE SIGNAL IS TIMED FOR VEHICLES, BUT THE ALL-RED CLEARANCE INTERVAL IS EXTENDED EVERY TIME TO ALLOW BICYCLES TO CLEAR THE LANE CLOSURE FROM THE STOP BAR AT THE END OF THE YELLOW PHASE. THIS WILL INCREASE TRAFFIC QUEUES AND DELAYS TO ALL BECAUSE IT REDUCES THE WORK ZONE CAPACITY.
2. TEMPORARY SIGNALS ARE FULLY ACTUATED CONTROLLED VIA VIDEO AND/OR RADAR DETECTION. WHEN NO VEHICLES DETECTED IN ANY DIRECTION, ALL TRAFFIC SIGNAL REST IN RED DISPLAY UNTIL THE NEXT VEHICLE IS DETECTED WHICH RECEIVES THE IMMEDIATE GREEN DISPLAY TO MINIMIZE DISPLAYS.

3. TRAFFIC CONTROL MANAGER, TRAFFIC CONTROL SUPERVISOR (PRIMARY AND ALTERNATE), AND WSDOT ENGINEER SHALL BE NOTIFIED VIA EM AIL, TEXT, AND/OR PAGE IF ANY TEMPORARY SIGNAL MALFUNCTIONS.
  4. AVOID PLACING TEMPORARY SIGNALS WITHIN OR IMMEDIATELY FOLLOWING HORIZONTAL & VERTICAL CURVES BY ADJUSTING LONGITUDINAL BUFFER SPACE OR EXTENDING WORK AREA.
  5. TEMPORARY TRAFFIC SIGNALS LOCATED WITHIN 1/4 MILE OF A RAILROAD GRADE CROSSING SHALL BE EVALUATED FOR RAILROAD PREEMPTION. CONTACT REGION TRANSPORTATION OPERATIONS.
  6. WHEN PRACTICAL, PROVIDE AT LEAST 4 FEET OF LATERAL CLEARANCE FROM TRAVEL LANE TO TEMPORARY SIGNAL AND TEMPORARY LIGHTING. ACCEPTABLE TO PLACE THESE DEVICES BEHIND EXISTING GUARDRAIL OR BARRIER, BUT VERIFY STRUCTURAL LOADING ON TEMP SIGNAL MAST ARM IS SUFFICIENT. IF A GRAVEL LEVELING PAD IS NEEDED, CONTACT ENGINEER PRIOR TO INSTALLING.
  7. EXISTING SHOULDER PAVEMENT MAY NEED TO BE REBUILT TO FULL-DEPTH TO HANDLE TRAFFIC LONG TERM. AT A MINIMUM, REMOVE EXISTING RUMBLE STRIP VIA MILL & HMA FILL. VERIFY EXISTING ITS BOXES AND CATCH BASINS ARE TRAFFIC WORTHY PRIOR TO PLACING TRAFFIC ON SHOULDER LONG-TERM.
- NOTES CONTINUED ON SHEET 5.

## SIMPLE TEMPORARY SIGNAL-CONTROLLED ALTERNATING 1-LANE, 2-WAY TRAFFIC 25 WZSL + CHANNELIZING DEVICES (HIGHWAYS 40 MPH OR LESS, 8+ DAYS)

NOT TO SCALE

FILE NAME: C:\Users\LintzF\OneDrive - Washington State Department of Transportation\Desktop\Work Zone TCPs\441Hwy40-AltTrafficSimpleTempSignal25WZSLShareLn.dgn		REGION NO. STATE		FED.AID PROJ.NO.		 Washington State Department of Transportation		Plot 4	
TIME: 8:27:57 AM	DATE: 8/1/2024	10	WASH					PLAN REF NO <b>TC441</b>	
PLOTTED BY: LintzF	DESIGNED BY:	JOB NUMBER		LOCATION NO.		SHEET 4 OF 6 SHEETS		TYPICAL TRAFFIC CONTROL PLANS	
ENTERED BY:	CHECKED BY:	CONTRACT NO.		DATE					
PROJ. ENGR.	REGIONAL ADM.	REVISION	DATE	BY	P.E. STAMP BOX	DATE			

FOR DRIVEWAY, BUSINESS ACCESS, AND INTERSECTING ROADWAY DETAILS SEE TC441, SHEET 6.

WAIT-TIME DISPLAY VMS		
GREEN	YELLOW	RED
25 MPH ZONE	(Blank)	WAIT #:##

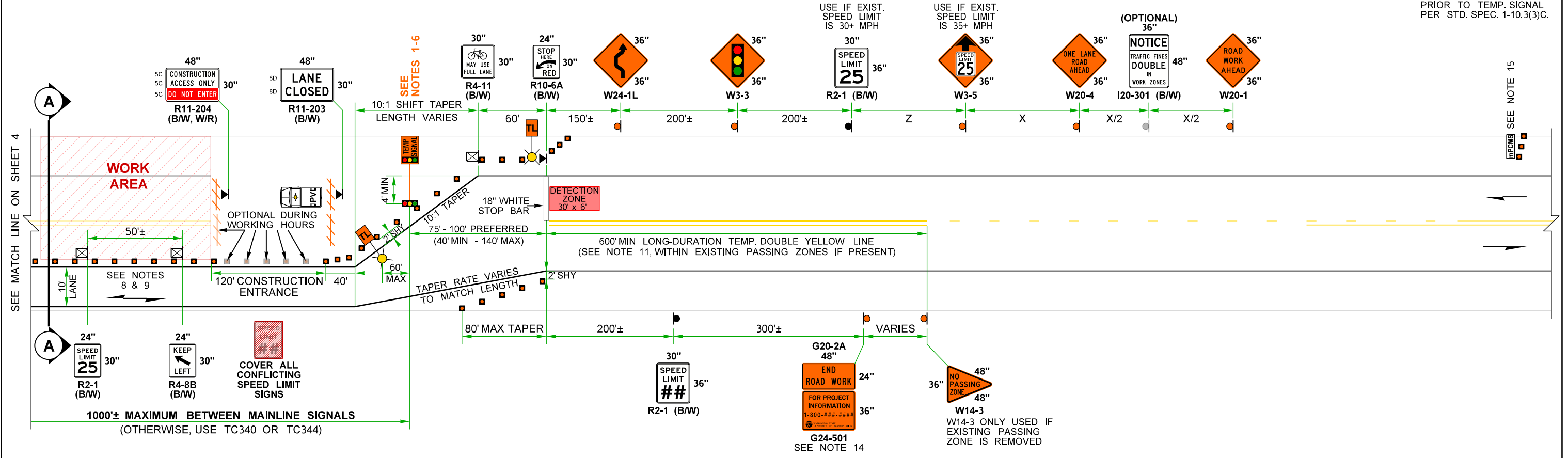
### = MINUTES:SECONDS UNTIL GREEN. LOCATE VMS ON TEMP SIGNAL MAST ARM.

MAXIMUM CHANNELIZATION DEVICE SPACING (feet)	
TAPER	TANGENT
10'	20'

SPEED REDUCTION AHEAD SIGN SPACING = Z		
EXISTING SPEED LIMIT (MPH)	35	40
SPACING (feet)	350	480

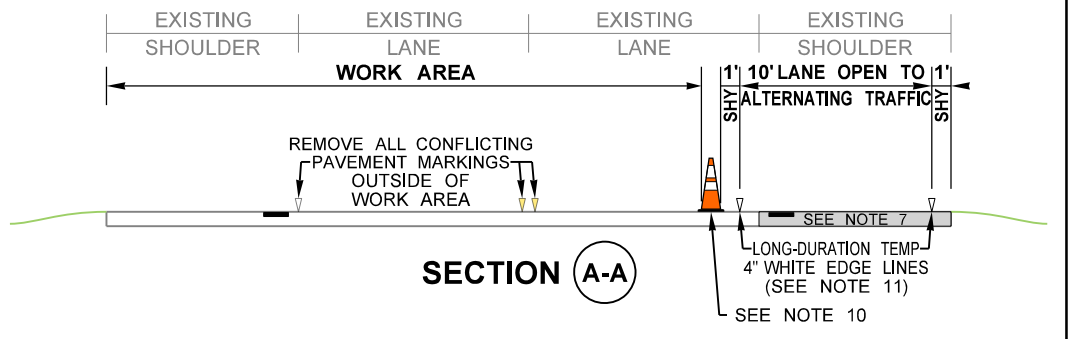
mPCMS	
1	2
TRAFFIC SIGNAL 1.5 MILES	ROADWAY NARROWS 12' WIDE
2.0 SEC	2.0 SEC

FIELD LOCATE 1/2± MILES PRIOR TO TEMP. SIGNAL PER STD. SPEC. 1-10.3(3)C.



- NOTES: CONTINUED FROM SHEET 4.
- BICYCLISTS ARE COMBINED WITH VEHICULAR TRAFFIC THROUGH THE LANE CLOSURE.
  - ACCOMMODATE PEDESTRIANS VIA SHUTTLE THROUGH LANE CLOSURE OR ANOTHER METHOD THE ENGINEER ACCEPTS.
  - 36" TRAFFIC CONES, 42" TALL CHANNELIZATION DEVICES, OR TRAFFIC SAFETY DRUMS OK.
  - EXISTING CENTERLINE PAVEMENT MARKINGS MAY VARY. IF PASSING ZONE PRESENT WITHIN 600' OF TEMPORARY STOP BAR, REMOVE EXISTING CENTERLINE MARKING, OR COVER WITH BLACK TEMP. TAPE, AND INSTALL LONG-DURATION TEMP. DOUBLE YELLOW LINE (MAY BE SUPPLEMENTED WITH SURFACE-MOUNTED TYPE 2YY RPMs @ 40' SPACING). ALL OTHER CONFLICTING PAVEMENT MARKINGS SHALL BE REMOVED OR COVERED WITH BLACK TEMP. TAPE (THOSE WITHIN THE WORK AREA MAY REMAIN AS SHOWN).
  - SEE STANDARD SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS:
    - 1-10.3(3)K PORTABLE TEMPORARY TRAFFIC CONTROL SIGNAL
    - 6-10.3(5) TEMPORARY BARRIER
    - 8-23.3(4)B TEMPORARY PAVEMENT MARKINGS - LONG DURATION
    - 9-35.14 PORTABLE TEMPORARY TRAFFIC CONTROL SIGNAL
  - FOR PROJECT-SPECIFIC REQUIREMENTS, SEE SPECIAL PROVISIONS.

- WSDOT PROJECT ENGINEERING OFFICE WILL PROVIDE PHONE NUMBER.
- FULL-SIZE PCMS MAY BE USED IN LIEU OF mPCMS WHERE SPACE ALLOWS.
- REMOVE OR COVER ALL CONFLICTING SIGNAGE PER STD. SPEC. 1-10.3(3)A.
- SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE INDICATED.
- CONTACT WSDOT COMMERCIAL VEHICLE SERVICES AT LEAST 7 DAYS IN ADVANCE OF ROADWAY WIDTH RESTRICTIONS. 30 DAY NOTICE REQUIRED ON MAJOR FREIGHT CORRIDORS.

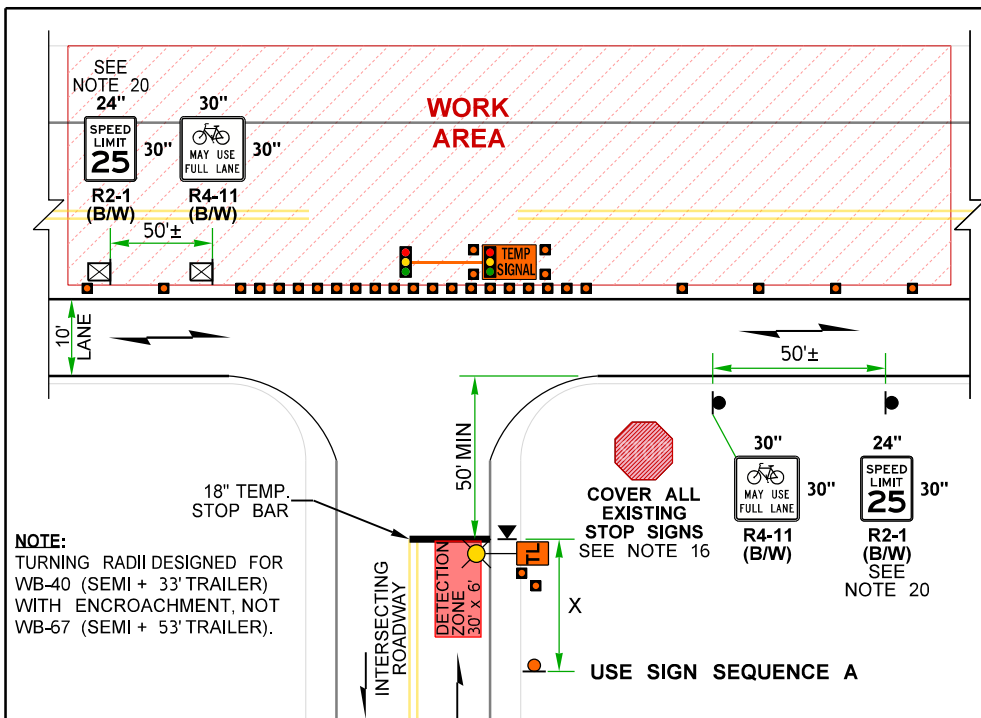


## SIMPLE TEMPORARY SIGNAL-CONTROLLED ALTERNATING 1-LANE, 2-WAY TRAFFIC 25 WZSL + CHANNELIZING DEVICES (HIGHWAYS 40 MPH OR LESS, 8+ DAYS)

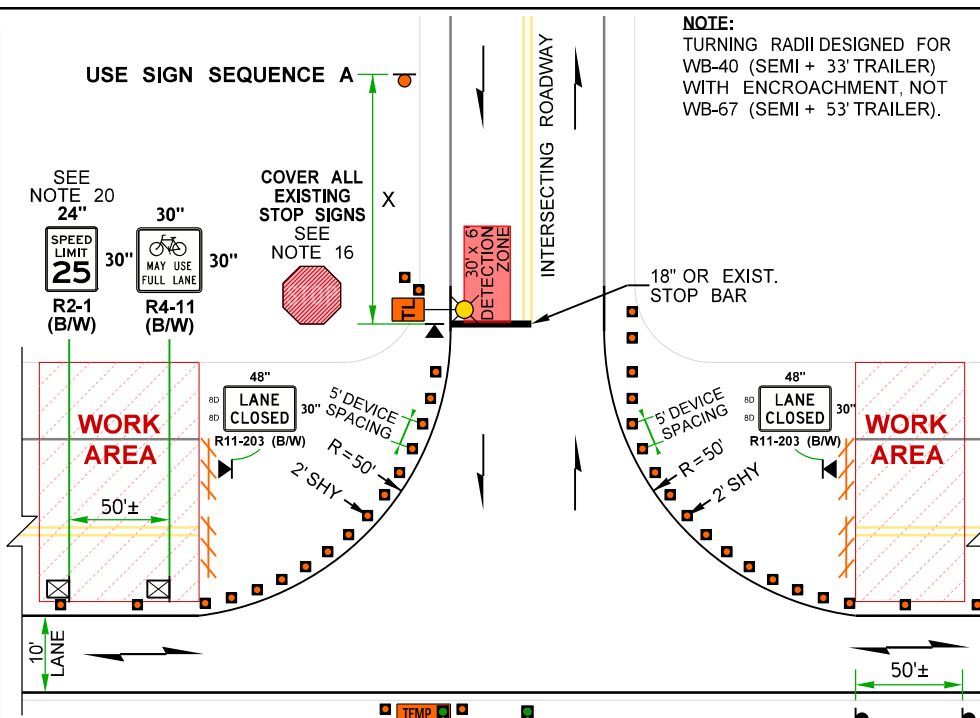
NOT TO SCALE

FILE NAME	C:\Users\LintzF\OneDrive - Washington State Department of Transportation\Desktop\Work Zone TCPS\441Hwy40-AltTrafficSimpleTempSignal25WZSLShareLn.dgn					Plot 5
TIME	8:27:57 AM					PLAN REF NO
DATE	8/1/2024					TC441
PLOTTED BY	LintzF					SHEET 5 OF 6 SHEETS
DESIGNED BY						
ENTERED BY						TYPICAL TRAFFIC CONTROL PLANS
CHECKED BY						
PROJ. ENGR.						
REGIONAL ADM.						
REVISION	DATE	BY	FED.AID PROJ.NO.	DATE	DATE	

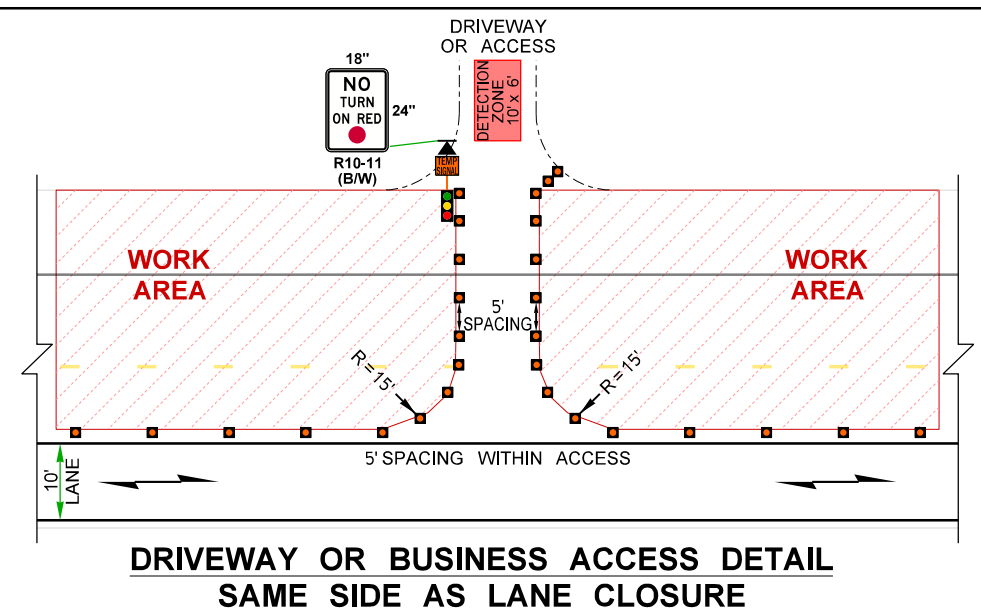




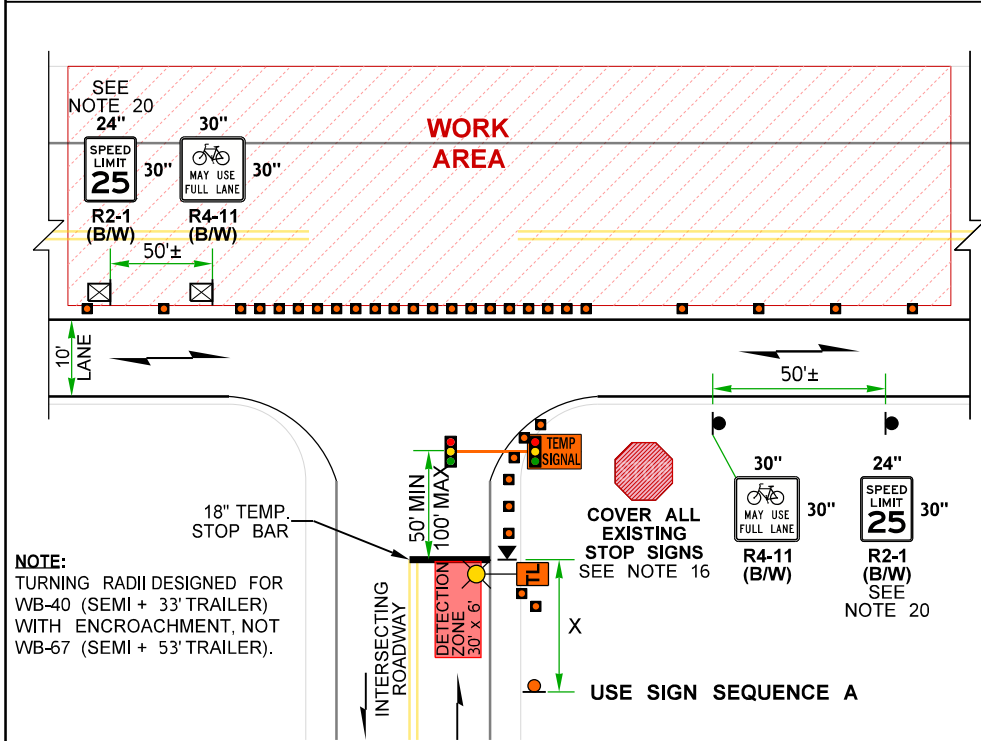
**UNSIGNALIZED INTERSECTING ROADWAY DETAIL  
OPPOSITE OF LANE CLOSURE (SIGNAL FAR-SIDE)**



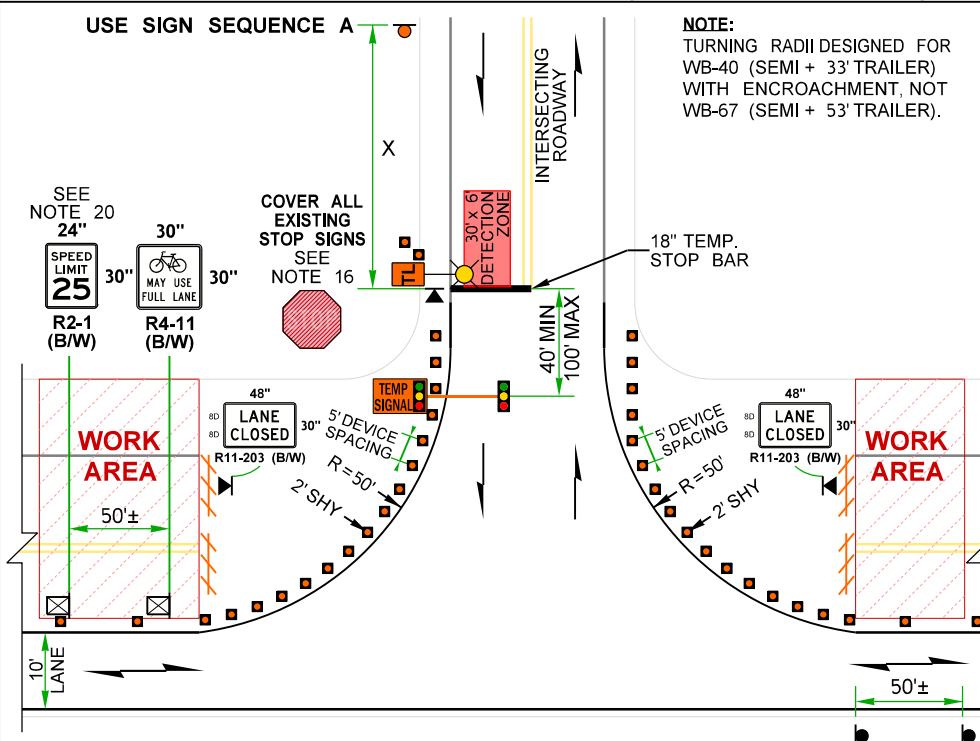
**UNSIGNALIZED INTERSECTING ROADWAY DETAIL  
SAME SIDE AS LANE CLOSURE (SIGNAL FAR-SIDE)**



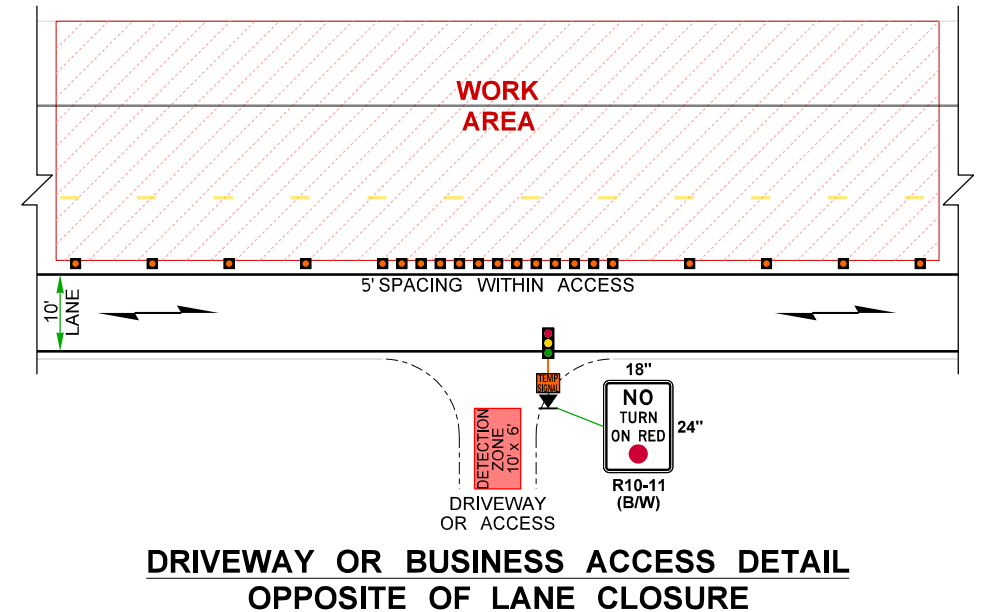
**DRIVEWAY OR BUSINESS ACCESS DETAIL  
SAME SIDE AS LANE CLOSURE**



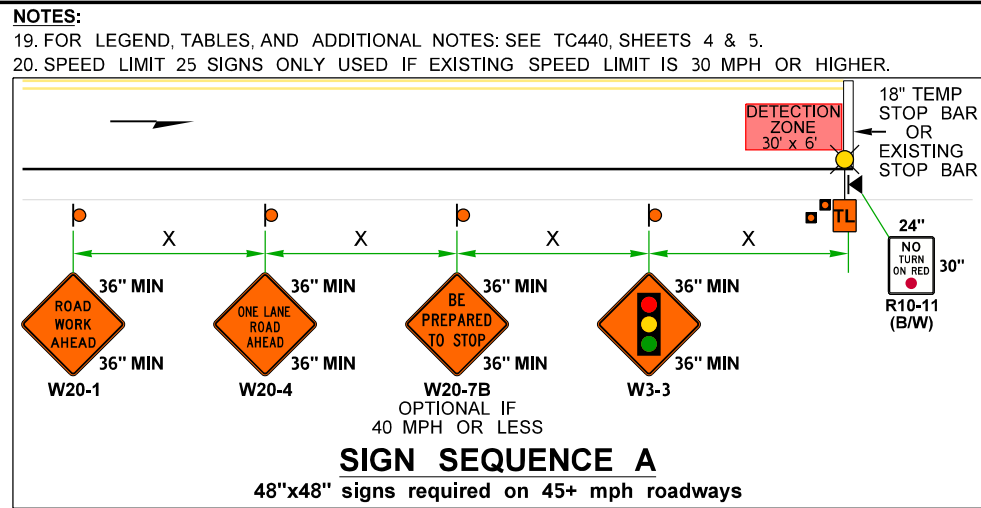
**UNSIGNALIZED INTERSECTING ROADWAY DETAIL  
OPPOSITE OF LANE CLOSURE (SIGNAL NEAR-SIDE)**



**UNSIGNALIZED INTERSECTING ROADWAY DETAIL  
SAME SIDE AS LANE CLOSURE (SIGNAL NEAR-SIDE)**



**DRIVEWAY OR BUSINESS ACCESS DETAIL  
OPPOSITE OF LANE CLOSURE**



**SIGN SEQUENCE A**

**SIMPLE TEMPORARY SIGNAL-CONTROLLED ALTERNATING 1-LANE, 2-WAY TRAFFIC  
25 WZSL + CHANNELIZING DEVICES (HIGHWAYS 40 MPH OR LESS, 8+ DAYS)  
NOT TO SCALE**

FILE NAME	C:\Users\LintzF\OneDrive - Washington State Department of Transportation\Desktop\Work Zone TCPs\441Hwy40-AltTraffic\SimpleTempSignal25WZSL\ShareLn.dgn			REGION NO.	10	STATE	WASH	FED.AID PROJ.NO.	
TIME	8:27:58 AM			JOB NUMBER		CONTRACT NO.		LOCATION NO.	
DATE	8/1/2024			DATE		DATE			
PLOTTED BY	LintzF			P.E. STAMP BOX		P.E. STAMP BOX			
DESIGNED BY									
ENTERED BY									
CHECKED BY									
PROJ. ENGR.									
REGIONAL ADM.									
REVISION									
DATE									
BY									



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

MAXIMUM CHANNELIZATION DEVICE SPACING (feet)	
TAPER	TANGENT
10'	20'

SPEED REDUCTION AHEAD SIGN SPACING = Z		
EXISTING SPEED LIMIT (MPH)	35	40
SPACING (feet)	350	480

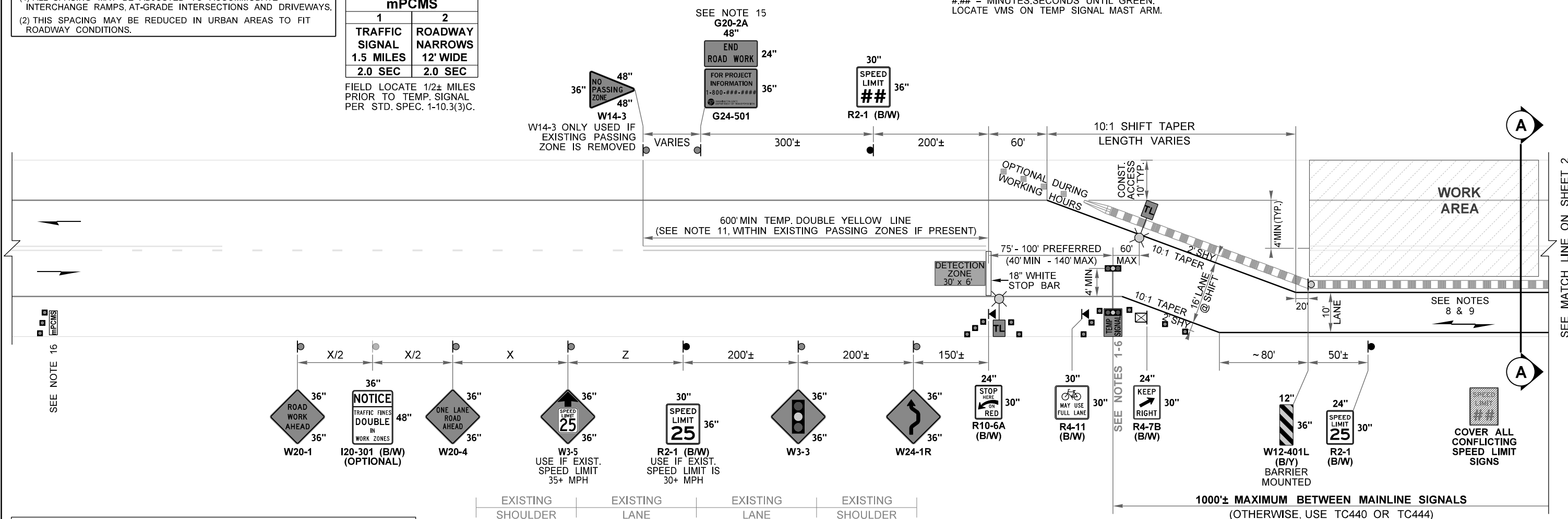
WAIT-TIME DISPLAY VMS		
GREEN	YELLOW	RED
25 MPH ZONE	(Blank)	WAIT #:#

### = MINUTES:SECONDS UNTIL GREEN.  
LOCATE VMS ON TEMP SIGNAL MAST ARM.

FOR DRIVEWAY, BUSINESS ACCESS, AND INTERSECTING ROADWAY DETAILS SEE TC441, SHEET 3.

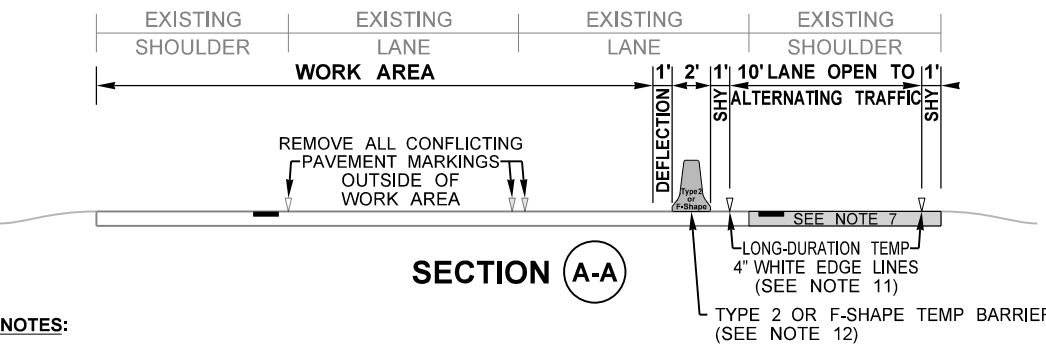
mPCMS	
1 TRAFFIC SIGNAL 1.5 MILES	2 ROADWAY NARROWS 12' WIDE
2.0 SEC	2.0 SEC

FIELD LOCATE 1/2± MILES PRIOR TO TEMP. SIGNAL PER STD. SPEC. 1-10.3(3)C.



**LEGEND:**

- CLASS A SIGN LOCATION (POST OR BARRIER-MOUNTED)
- CLASS A TRIPOD-MOUNTED SIGN LOCATION (1' MIN HEIGHT)
- CLASS A TRIPOD-MOUNTED SIGN LOCATION (5' MIN HEIGHT)
- 28" TRAFFIC CONES (SEE NOTE 11)
- UNANCHORED TEMPORARY BARRIER (SEE NOTE 13)
- SLOPED BARRIER TERMINAL (SEE NOTE 13)
- TYPE 3 BARRICADE
- PROTECTIVE VEHICLE
- TEMPORARY TRAFFIC SIGNAL (SEE NOTES 1-6)
- COMPACT TEMP. TRAFFIC SIGNAL (SEE NOTES 1-6)
- TEMPORARY BICYCLE PUSH-BUTTON (SEE NOTES 1, 6, & 7)
- TEMPORARY LIGHTING (SEE NOTE 6)
- miniPORTABLE CHANGEABLE MESSAGE SIGN (SEE NOTE 16)



- NOTES:**
- ALL TEMPORARY TRAFFIC SIGNAL TIMING PLANS MUST BE APPROVED BY THE ENGINEER. THIS SIGNAL TIMING PLAN ACCOMMODATES BOTH VEHICLES AND BICYCLES EVERY CYCLE. THE SIGNAL IS TIMED FOR VEHICLES, BUT THE ALL-RED CLEARANCE INTERVAL IS EXTENDED EVERY TIME TO ALLOW BICYCLES TO CLEAR THE LANE CLOSURE FROM THE STOP BAR AT THE END OF THE YELLOW PHASE. THIS WILL INCREASE TRAFFIC QUEUES AND DELAYS TO ALL BECAUSE IT REDUCES THE WORK ZONE CAPACITY.
  - TEMPORARY SIGNALS ARE FULLY ACTUATED CONTROLLED VIA VIDEO AND/OR RADAR DETECTION. WHEN NO VEHICLES DETECTED IN ANY DIRECTION, ALL TRAFFIC SIGNAL REST IN RED DISPLAY UNTIL THE NEXT VEHICLE IS DETECTED WHICH RECEIVES THE IMMEDIATE GREEN DISPLAY TO MINIMIZE DISPLAYS.

- TRAFFIC CONTROL MANAGER, TRAFFIC CONTROL SUPERVISOR (PRIMARY AND ALTERNATE), AND WSDOT ENGINEER SHALL BE NOTIFIED VIA EM AIL, TEXT, AND/OR PAGE IF ANY TEMPORARY SIGNAL MALFUNCTIONS.
  - AVOID PLACING TEMPORARY SIGNALS WITHIN OR IMMEDIATELY FOLLOWING HORIZONTAL & VERTICAL CURVES BY ADJUSTING LONGITUDINAL BUFFER SPACE OR EXTENDING WORK AREA.
  - TEMPORARY TRAFFIC SIGNALS LOCATED WITHIN 1/4 MILE OF A RAILROAD GRADE CROSSING SHALL BE EVALUATED FOR RAILROAD PREEMPTION. CONTACT REGION TRANSPORTATION OPERATIONS.
  - WHEN PRACTICAL, PROVIDE AT LEAST 4 FEET OF LATERAL CLEARANCE FROM TRAVEL LANE TO TEMPORARY SIGNAL AND TEMPORARY LIGHTING. ACCEPTABLE TO PLACE THESE DEVICES BEHIND EXISTING GUARDRAIL OR BARRIER, BUT VERIFY STRUCTURAL LOADING ON TEMP SIGNAL MAST ARM IS SUFFICIENT. IF A GRAVEL LEVELING PAD IS NEEDED, CONTACT ENGINEER PRIOR TO INSTALLING.
  - EXISTING SHOULDER PAVEMENT MAY NEED TO BE REBUILT TO FULL-DEPTH TO HANDLE TRAFFIC LONG TERM. AT A MINIMUM, REMOVE EXISTING RUMBLE STRIP VIA MILL & HMA FILL. VERIFY EXISTING ITS BOXES AND CATCH BASINS ARE TRAFFIC WORTHY PRIOR TO PLACING TRAFFIC ON SHOULDER LONG-TERM.
- NOTES CONTINUED ON SHEET 2.

## SIMPLE TEMPORARY SIGNAL-CONTROLLED ALTERNATING 1-LANE, 2-WAY TRAFFIC 25 WZSL + TEMP BARRIER (HIGHWAYS 40 MPH OR LESS, 8+ DAYS) NOT TO SCALE

FILE NAME: C:\Users\LintzF\OneDrive - Washington State Department of Transportation\Desktop\Work Zone TCPs\441Hwy40-AltTrafficSimpleTempSignal25WZSLShareLn.dgn		REGION NO. STATE		FED.AID PROJ.NO.				Plot 1	
TIME: 8:27:58 AM	DATE: 8/1/2024	10	WASH					PLAN REF NO: TC441	
PLOTTED BY: LintzF	DESIGNED BY:	JOB NUMBER		LOCATION NO.		Washington State Department of Transportation		SHEET 1 OF 6 SHEETS	
ENTERED BY:	CHECKED BY:	CONTRACT NO.		DATE				TYPICAL TRAFFIC CONTROL PLANS	
PROJ. ENGR.	REGIONAL ADM.	REVISION	DATE	BY	P.E. STAMP BOX	DATE			



FOR DRIVEWAY, BUSINESS ACCESS,  
AND INTERSECTING ROADWAY DETAILS  
SEE TC441, SHEET 3.

WAIT-TIME DISPLAY VMS		
GREEN	YELLOW	RED
25 MPH ZONE	(Blank)	WAIT #:#

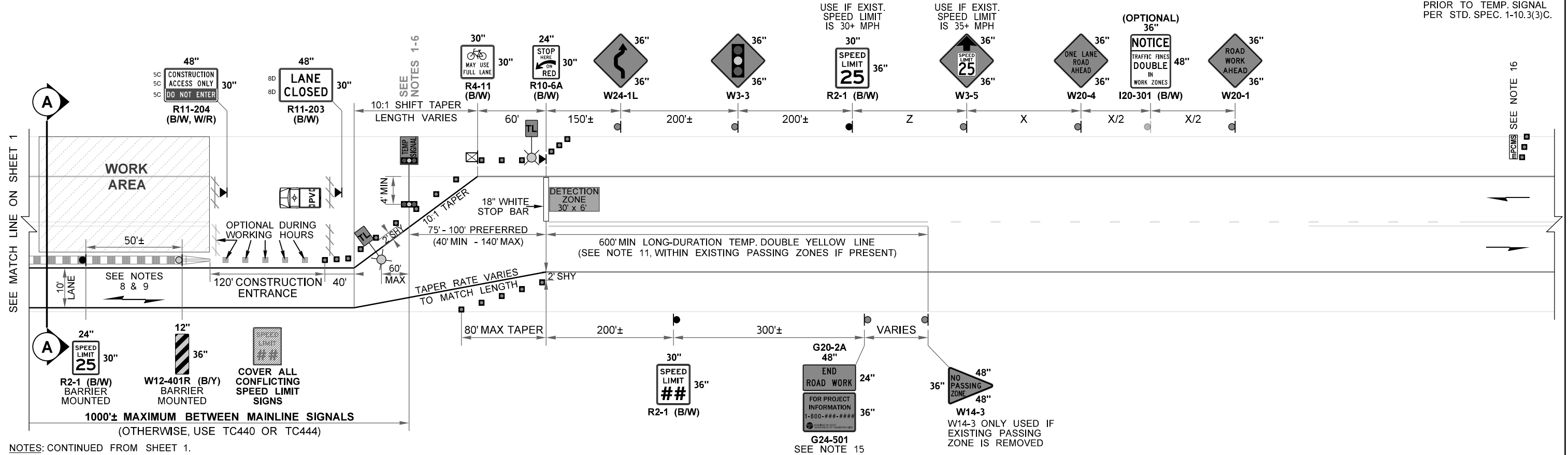
### = MINUTES:SECONDS UNTIL GREEN.  
LOCATE VMS ON TEMP SIGNAL MAST ARM.

MAXIMUM CHANNELIZATION DEVICE SPACING (feet)	
TAPER	TANGENT
10'	20'

SPEED REDUCTION AHEAD SIGN SPACING = Z		
EXISTING SPEED LIMIT (MPH)	35	40
SPACING (feet)	350	480

mPCMS	
1	2
TRAFFIC SIGNAL 1.5 MILES	ROADWAY NARROWS 12' WIDE
2.0 SEC	2.0 SEC

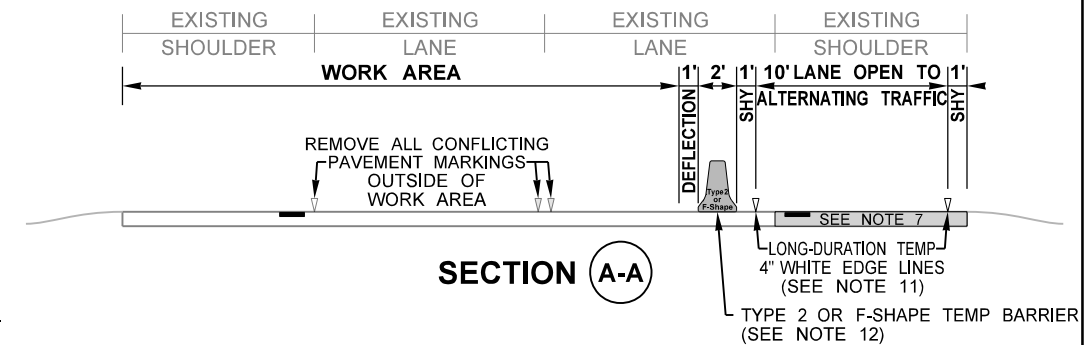
FIELD LOCATE 1/2± MILES  
PRIOR TO TEMP. SIGNAL  
PER STD. SPEC. 1-10.3(3)C.



NOTES: CONTINUED FROM SHEET 1.

- 8. BICYCLISTS ARE COMBINED WITH VEHICULAR TRAFFIC THROUGH THE LANE CLOSURE.
- 9. ACCOMMODATE PEDESTRIANS VIA SHUTTLE THROUGH LANE CLOSURE OR ANOTHER METHOD THE ENGINEER ACCEPTS.
- 10. 36" TRAFFIC CONES, 42" TALL CHANNELIZATION DEVICES, OR TRAFFIC SAFETY DRUMS OK.
- 11. EXISTING CENTERLINE PAVEMENT MARKINGS MAY VARY. IF PASSING ZONE PRESENT WITHIN 600' OF TEMPORARY STOP BAR, REMOVE EXISTING CENTERLINE MARKING, OR COVER WITH BLACK TEMP. TAPE, AND INSTALL LONG-DURATION TEMP. DOUBLE YELLOW LINE (MAY BE SUPPLEMENTED WITH SURFACE-MOUNTED TYPE 2YY RPMs @ 40' SPACING). ALL OTHER CONFLICTING PAVEMENT MARKINGS SHALL BE REMOVED OR COVERED WITH BLACK TEMP. TAPE (THOSE WITHIN THE WORK AREA MAY REMAIN AS SHOWN).
- 12. TYPE 2 OR F-SHAPE TEMPORARY BARRIER PERMITTED. SLOPED CONCRETE TERMINAL ALLOWED FOR REGULATORY WORK ZONE SPEED LIMITS 25 MPH OR LESS. TYPE 2 TEMPORARY BARRIER AND SLOPED CONCRETE TERMINAL PER STANDARD PLAN K80-32. F-SHAPE TEMPORARY BARRIER PER STANDARD PLAN C-60.10 (C-60.15 IF SCUPPERS USED FOR DRAINAGE) AND STANDARD PLAN C-60.80 FOR F-SHAPE CONCRETE BARRIER TERMINAL.
- 13. SEE STANDARD SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS:
  - 1-10.3(3)K PORTABLE TEMPORARY TRAFFIC CONTROL SIGNAL
  - 6-10.3(5) TEMPORARY BARRIER
  - 8-23.3(4)B TEMPORARY PAVEMENT MARKINGS - LONG DURATION
  - 9-35.14 PORTABLE TEMPORARY TRAFFIC CONTROL SIGNAL

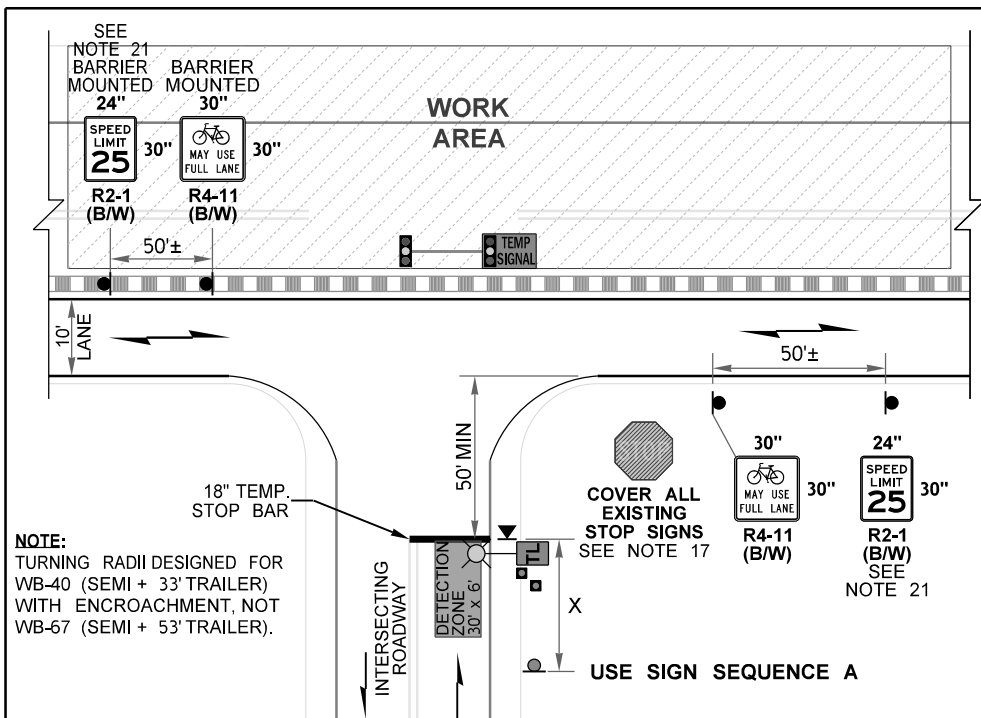
- 14. FOR PROJECT-SPECIFIC REQUIREMENTS, SEE SPECIAL PROVISIONS.
- 15. WSDOT PROJECT ENGINEERING OFFICE WILL PROVIDE PHONE NUMBER.
- 16. FULL-SIZE PCMS MAY BE USED IN LIEU OF mPCMS WHERE SPACE ALLOWS.
- 17. REMOVE OR COVER ALL CONFLICTING SIGNAGE PER STD. SPEC. 1-10.3(3)A.
- 18. SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE INDICATED.
- 19. CONTACT WSDOT COMMERCIAL VEHICLE SERVICES AT LEAST 7 DAYS IN ADVANCE OF ROADWAY WIDTH RESTRICTIONS. 30 DAY NOTICE REQUIRED ON MAJOR FREIGHT CORRIDORS.



## SIMPLE TEMPORARY SIGNAL-CONTROLLED ALTERNATING 1-LANE, 2-WAY TRAFFIC 25 WZSL + TEMP BARRIER (HIGHWAYS 40 MPH OR LESS, 8+ DAYS) NOT TO SCALE

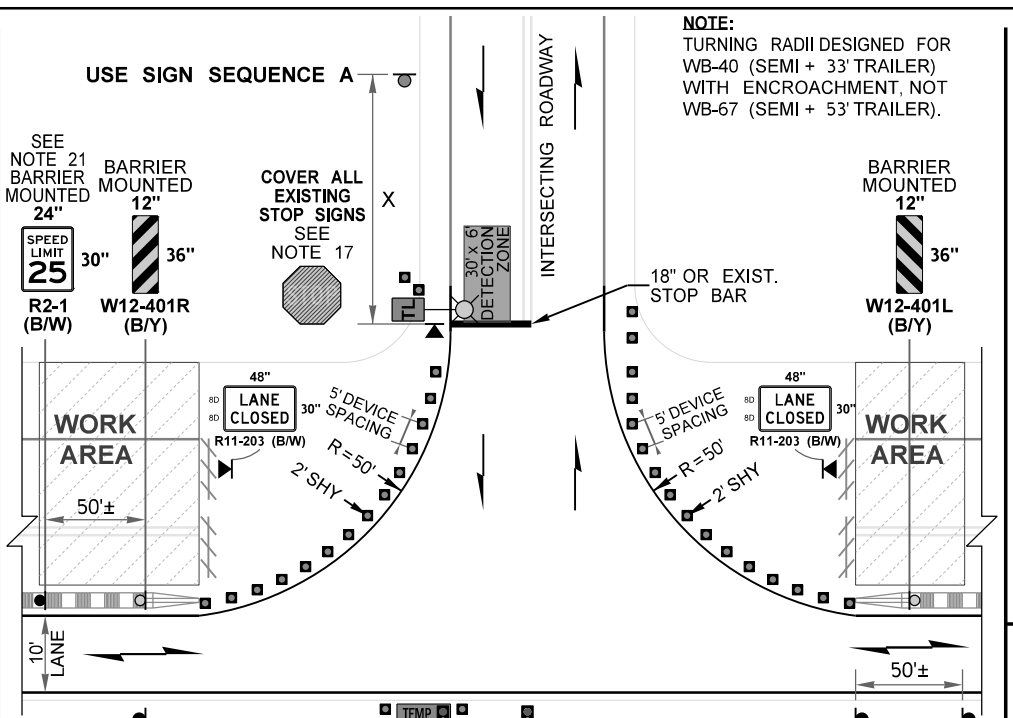
FILE NAME	C:\Users\LintzF\OneDrive - Washington State Department of Transportation\Desktop\Work Zone TCPS\441Hwy40-AltTrafficSimpleTempSignal25WZSLSharedLn.dgn							Plot 2
TIME	8:27:59 AM				FED.AID PROJ.NO.	10	WASH	PLAN REF NO
DATE	8/1/2024							TC441
PLOTTED BY	LintzF				Washington State Department of Transportation	REVISION	DATE	BY
DESIGNED BY								SHEET
ENTERED BY					2	OF	6	
CHECKED BY					TYPICAL TRAFFIC CONTROL PLANS	SHEETS	6	
PROJ. ENGR.					DATE	DATE	DATE	DATE
REGIONAL ADM.					P.E. STAMP BOX	P.E. STAMP BOX	P.E. STAMP BOX	P.E. STAMP BOX





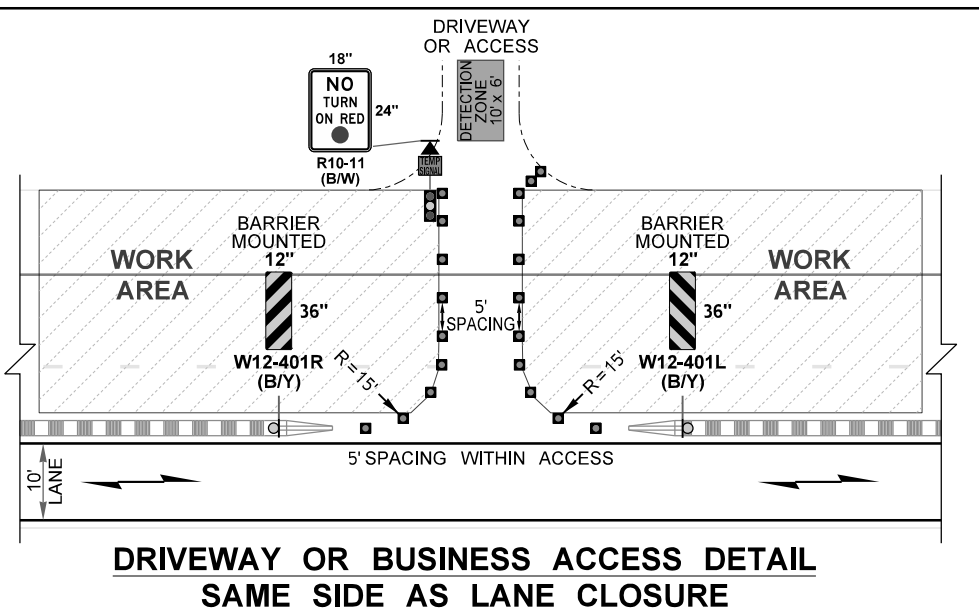
NOTE:  
TURNING RADII DESIGNED FOR  
WB-40 (SEMI + 33' TRAILER),  
WITH ENCROACHMENT, NOT  
WB-67 (SEMI + 53' TRAILER).

**UNSIGNALIZED INTERSECTING ROADWAY DETAIL  
OPPOSITE OF LANE CLOSURE (SIGNAL FAR-SIDE)**

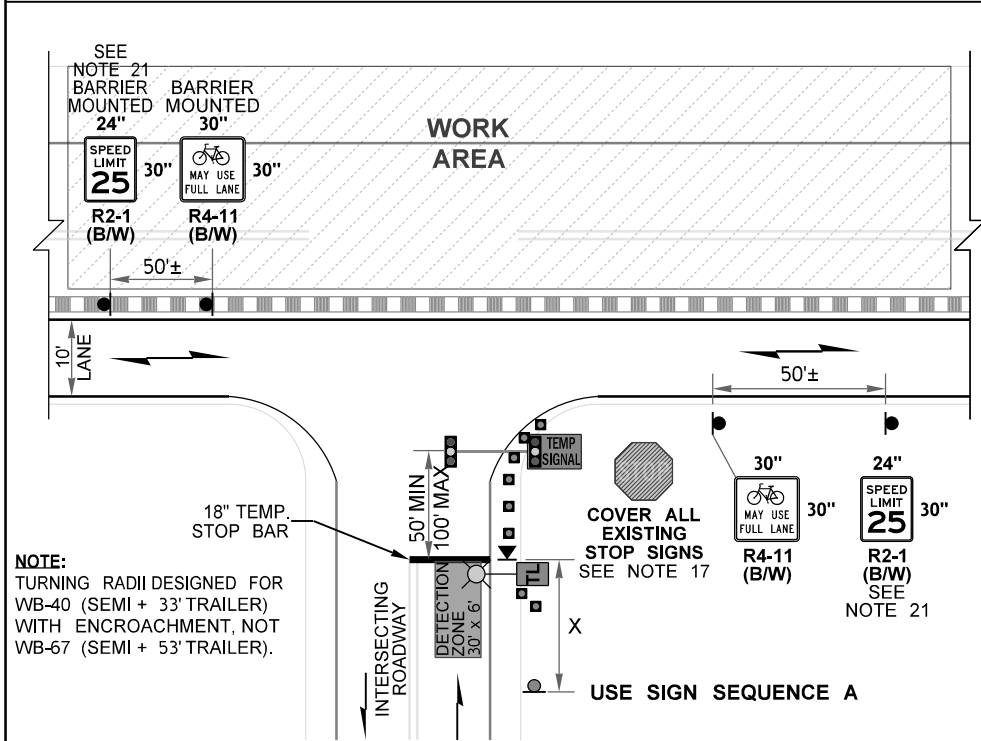


NOTE:  
TURNING RADII DESIGNED FOR  
WB-40 (SEMI + 33' TRAILER)  
WITH ENCROACHMENT, NOT  
WB-67 (SEMI + 53' TRAILER).

**UNSIGNALIZED INTERSECTING ROADWAY DETAIL  
SAME SIDE AS LANE CLOSURE (SIGNAL FAR-SIDE)**

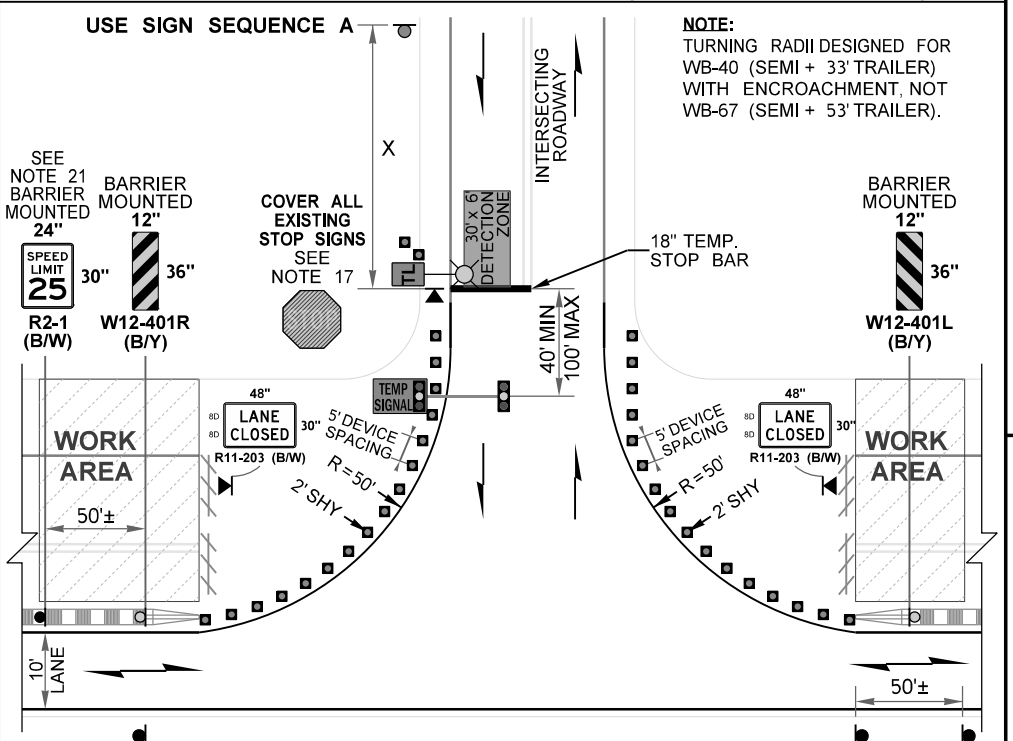


**DRIVEWAY OR BUSINESS ACCESS DETAIL  
SAME SIDE AS LANE CLOSURE**



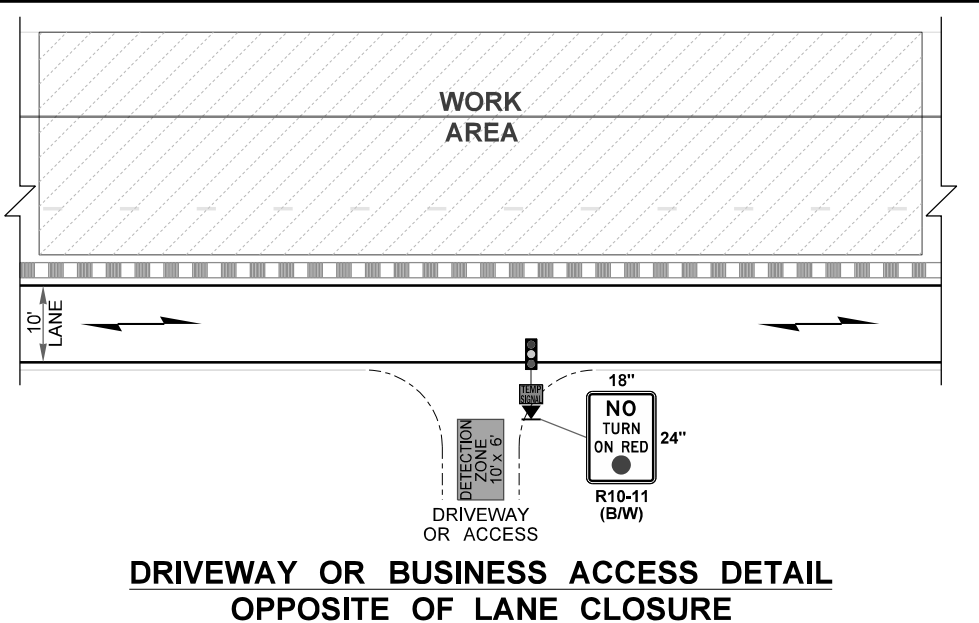
NOTE:  
TURNING RADII DESIGNED FOR  
WB-40 (SEMI + 33' TRAILER)  
WITH ENCROACHMENT, NOT  
WB-67 (SEMI + 53' TRAILER).

**UNSIGNALIZED INTERSECTING ROADWAY DETAIL  
OPPOSITE OF LANE CLOSURE (SIGNAL NEAR-SIDE)**

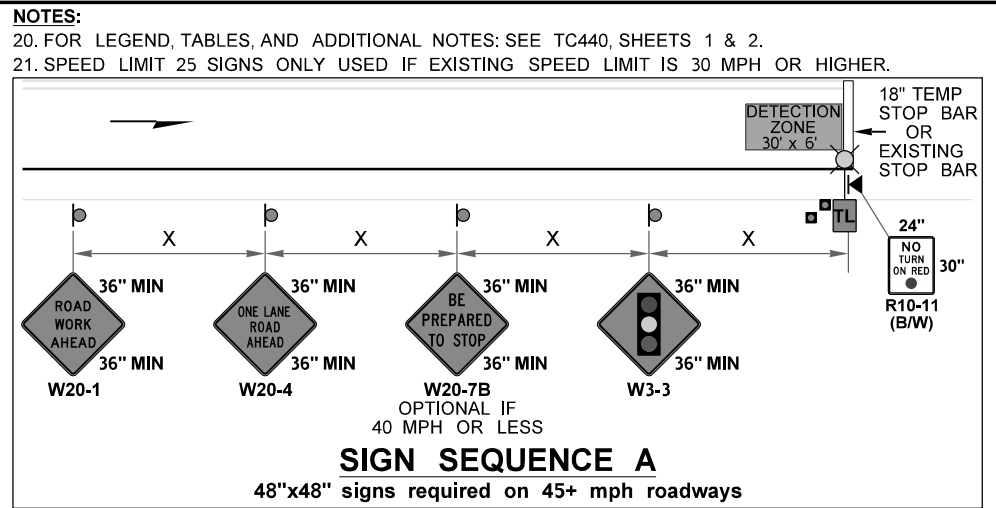


NOTE:  
TURNING RADII DESIGNED FOR  
WB-40 (SEMI + 33' TRAILER)  
WITH ENCROACHMENT, NOT  
WB-67 (SEMI + 53' TRAILER).

**UNSIGNALIZED INTERSECTING ROADWAY DETAIL  
SAME SIDE AS LANE CLOSURE (SIGNAL NEAR-SIDE)**



**DRIVEWAY OR BUSINESS ACCESS DETAIL  
OPPOSITE OF LANE CLOSURE**



FILE NAME	C:\Users\LintzF\OneDrive - Washington State Department of Transportation\Desktop\Work Zone TCPs\441Hwy40-AltTraffic\SimpleTempSignal25WZSL\ShareLn.dgn		
TIME	8:27:59 AM		
DATE	8/1/2024		
PLOTTED BY	LintzF		
DESIGNED BY			
ENTERED BY			
CHECKED BY			
PROJ. ENGR.			
REGIONAL ADM.			
	REVISION	DATE	BY

FED.AID PROJ.NO.

REGION NO. STATE  
10 WASH

JOB NUMBER

CONTRACT NO.

LOCATION NO.

P.E. STAMP BOX DATE

P.E. STAMP BOX DATE



Plot 3  
PLAN REF NO  
**TC441**

SHEET  
3  
OF  
6  
SHEETS  
**TYPICAL TRAFFIC CONTROL PLANS**

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

MAXIMUM CHANNELIZATION DEVICE SPACING (feet)	
TAPER	TANGENT
10'	20'

SPEED REDUCTION AHEAD SIGN SPACING = Z		
EXISTING SPEED LIMIT (MPH)	35	40
SPACING (feet)	350	480

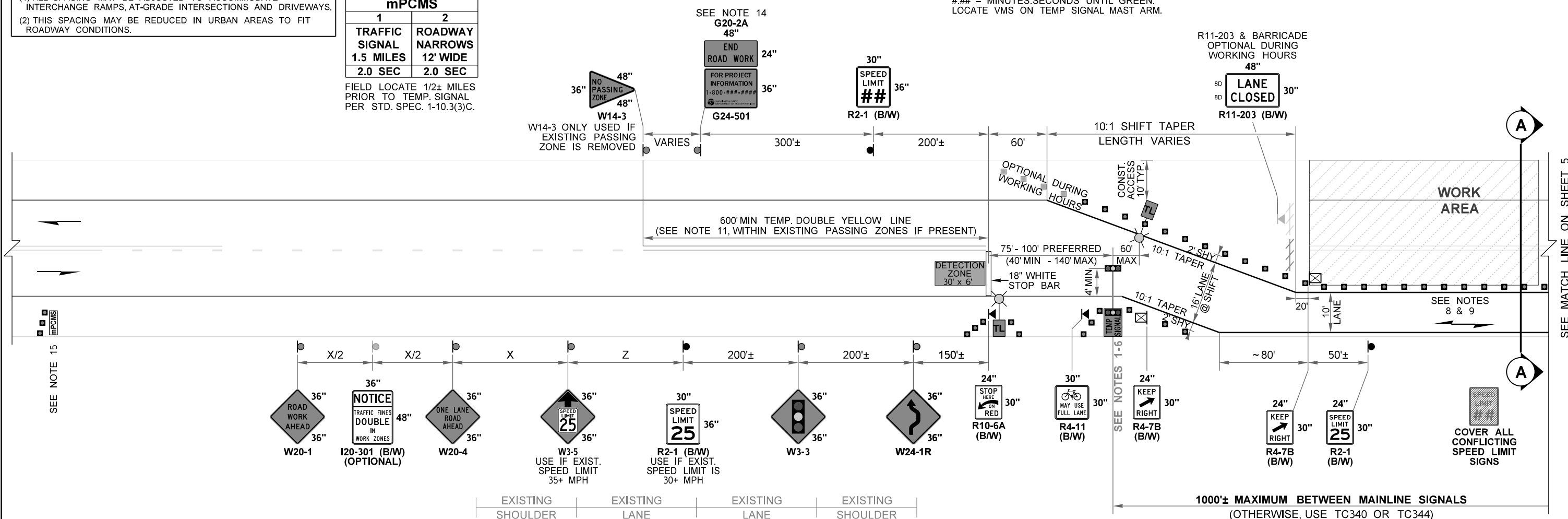
WAIT-TIME DISPLAY VMS		
GREEN	YELLOW	RED
25 MPH ZONE	(Blank)	WAIT #:#

### = MINUTES:SECONDS UNTIL GREEN.  
LOCATE VMS ON TEMP SIGNAL MAST ARM.

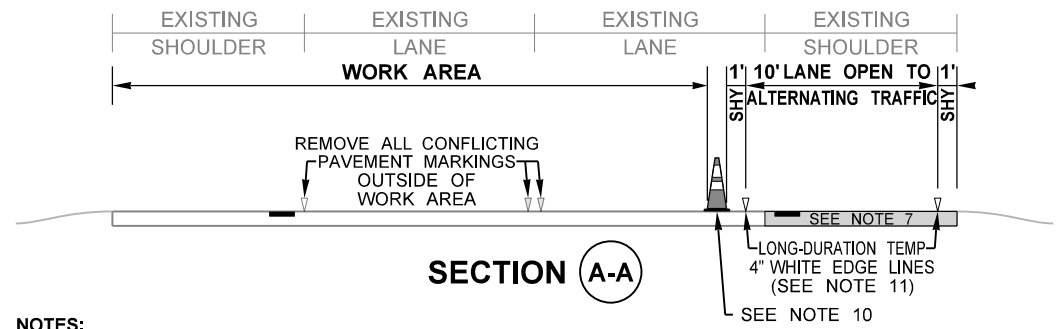
FOR DRIVEWAY, BUSINESS ACCESS, AND INTERSECTING ROADWAY DETAILS SEE TC441, SHEET 6.

mPCMS	
1 TRAFFIC SIGNAL 1.5 MILES	2 ROADWAY NARROWS 12' WIDE
2.0 SEC	2.0 SEC

FIELD LOCATE 1/2± MILES PRIOR TO TEMP. SIGNAL PER STD. SPEC. 1-10.3(3)C.



- LEGEND:**
- CLASS A SIGN LOCATION (POST OR BARRIER-MOUNTED)
  - CLASS A TRIPOD-MOUNTED SIGN LOCATION (1' MIN HEIGHT)
  - CLASS A TRIPOD-MOUNTED SIGN LOCATION (5' MIN HEIGHT)
  - 28" TRAFFIC CONES (SEE NOTE 11)
  - TYPE 3 BARRICADE
  - PROTECTIVE VEHICLE
  - TEMPORARY TRAFFIC SIGNAL (SEE NOTES 1-6)
  - COMPACT TEMP. TRAFFIC SIGNAL (SEE NOTES 1-6)
  - TEMPORARY BICYCLE PUSH-BUTTON (SEE NOTES 1, 6, & 7)
  - TEMPORARY LIGHTING (SEE NOTE 6)
  - miniPORTABLE CHANGEABLE MESSAGE SIGN (SEE NOTE 15)



- NOTES:**
- ALL TEMPORARY TRAFFIC SIGNAL TIMING PLANS MUST BE APPROVED BY THE ENGINEER. THIS SIGNAL TIMING PLAN ACCOMMODATES BOTH VEHICLES AND BICYCLES EVERY CYCLE. THE SIGNAL IS TIMED FOR VEHICLES, BUT THE ALL-RED CLEARANCE INTERVAL IS EXTENDED EVERY TIME TO ALLOW BICYCLES TO CLEAR THE LANE CLOSURE FROM THE STOP BAR AT THE END OF THE YELLOW PHASE. THIS WILL INCREASE TRAFFIC QUEUES AND DELAYS TO ALL BECAUSE IT REDUCES THE WORK ZONE CAPACITY.
  - TEMPORARY SIGNALS ARE FULLY ACTUATED CONTROLLED VIA VIDEO AND/OR RADAR DETECTION. WHEN NO VEHICLES DETECTED IN ANY DIRECTION, ALL TRAFFIC SIGNAL REST IN RED DISPLAY UNTIL THE NEXT VEHICLE IS DETECTED WHICH RECEIVES THE IMMEDIATE GREEN DISPLAY TO MINIMIZE DISPLAYS.

- TRAFFIC CONTROL MANAGER, TRAFFIC CONTROL SUPERVISOR (PRIMARY AND ALTERNATE), AND WSDOT ENGINEER SHALL BE NOTIFIED VIA EM AIL, TEXT, AND/OR PAGE IF ANY TEMPORARY SIGNAL MALFUNCTIONS.
  - AVOID PLACING TEMPORARY SIGNALS WITHIN OR IMMEDIATELY FOLLOWING HORIZONTAL & VERTICAL CURVES BY ADJUSTING LONGITUDINAL BUFFER SPACE OR EXTENDING WORK AREA.
  - TEMPORARY TRAFFIC SIGNALS LOCATED WITHIN 1/4 MILE OF A RAILROAD GRADE CROSSING SHALL BE EVALUATED FOR RAILROAD PREEMPTION. CONTACT REGION TRANSPORTATION OPERATIONS.
  - WHEN PRACTICAL, PROVIDE AT LEAST 4 FEET OF LATERAL CLEARANCE FROM TRAVEL LANE TO TEMPORARY SIGNAL AND TEMPORARY LIGHTING. ACCEPTABLE TO PLACE THESE DEVICES BEHIND EXISTING GUARDRAIL OR BARRIER, BUT VERIFY STRUCTURAL LOADING ON TEMP SIGNAL MAST ARM IS SUFFICIENT. IF A GRAVEL LEVELING PAD IS NEEDED, CONTACT ENGINEER PRIOR TO INSTALLING.
  - EXISTING SHOULDER PAVEMENT MAY NEED TO BE REBUILT TO FULL-DEPTH TO HANDLE TRAFFIC LONG TERM. AT A MINIMUM, REMOVE EXISTING RUMBLE STRIP VIA MILL & HMA FILL. VERIFY EXISTING ITS BOXES AND CATCH BASINS ARE TRAFFIC WORTHY PRIOR TO PLACING TRAFFIC ON SHOULDER LONG-TERM.
- NOTES CONTINUED ON SHEET 5.

## SIMPLE TEMPORARY SIGNAL-CONTROLLED ALTERNATING 1-LANE, 2-WAY TRAFFIC 25 WZSL + CHANNELIZING DEVICES (HIGHWAYS 40 MPH OR LESS, 8+ DAYS)

NOT TO SCALE

FILE NAME: C:\Users\LintzF\OneDrive - Washington State Department of Transportation\Desktop\Work Zone TCPs\441Hwy40-AltTrafficSimpleTempSignal25WZSLShareLn.dgn		REGION NO. STATE		FED.AID PROJ.NO.				Plot 4	
TIME: 8:28:00 AM	DATE: 8/1/2024	10 WASH						PLAN REF NO <b>TC441</b>	
PLOTTED BY: LintzF	DESIGNED BY:	JOB NUMBER		LOCATION NO.		Washington State Department of Transportation		SHEET 4 OF 6 SHEETS	
ENTERED BY:	CHECKED BY:	CONTRACT NO.		DATE				<b>TYPICAL TRAFFIC CONTROL PLANS</b>	
PROJ. ENGR.	REGIONAL ADM.	REVISION	DATE	BY	P.E. STAMP BOX	DATE			

FOR DRIVEWAY, BUSINESS ACCESS,  
AND INTERSECTING ROADWAY DETAILS  
SEE TC441, SHEET 6.

**WAIT-TIME DISPLAY VMS**

GREEN	YELLOW	RED
25 MPH ZONE	(Blank)	WAIT #:#

### = MINUTES:SECONDS UNTIL GREEN.  
LOCATE VMS ON TEMP SIGNAL MAST ARM.

**MAXIMUM CHANNELIZATION  
DEVICE SPACING (feet)**

TAPER	TANGENT
10'	20'

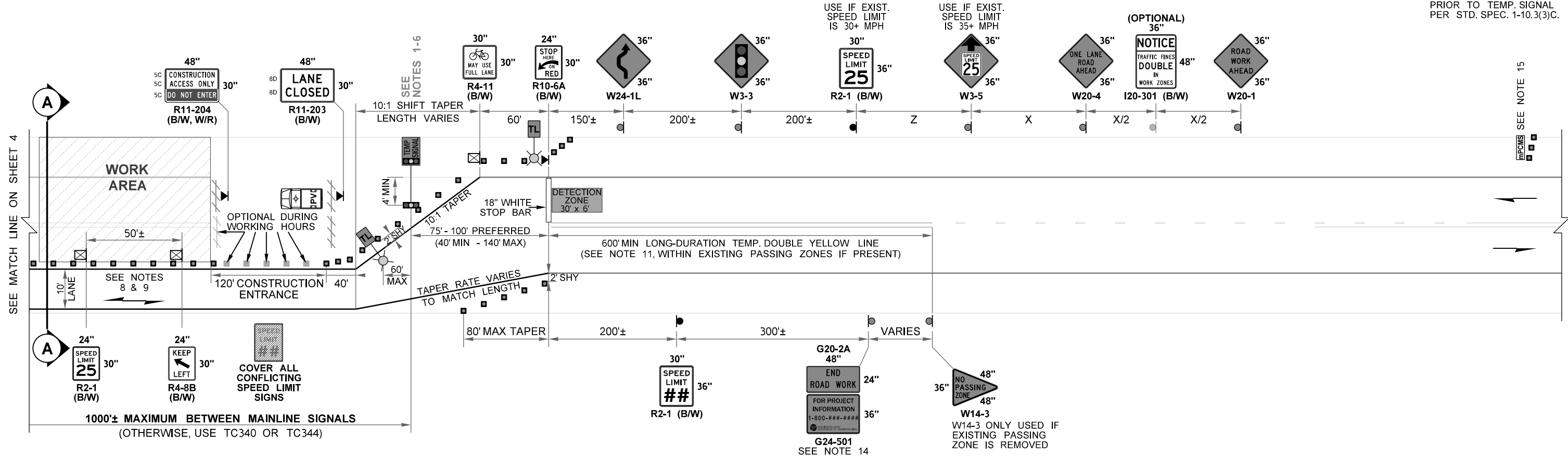
**SPEED REDUCTION AHEAD SIGN SPACING = Z**

EXISTING SPEED LIMIT (MPH)	35	40
SPACING (feet)	350	480

**mPCMS**

1	2
TRAFFIC SIGNAL 1.5 MILES	ROADWAY NARROWS 12' WIDE
2.0 SEC	2.0 SEC

FIELD LOCATE 1/2± MILES  
PRIOR TO TEMP. SIGNAL  
PER STD. SPEC. 1-10.3(3)C.



NOTES: CONTINUED FROM SHEET 4.

8. BICYCLISTS ARE COMBINED WITH VEHICULAR TRAFFIC THROUGH THE LANE CLOSURE.

9. ACCOMMODATE PEDESTRIANS VIA SHUTTLE THROUGH LANE CLOSURE OR ANOTHER METHOD THE ENGINEER ACCEPTS.

10. 36" TRAFFIC CONES, 42" TALL CHANNELIZATION DEVICES, OR TRAFFIC SAFETY DRUMS OK.

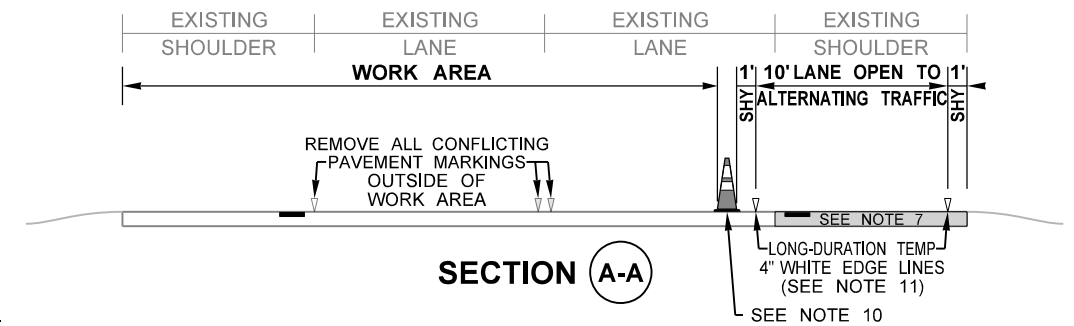
11. EXISTING CENTERLINE PAVEMENT MARKINGS MAY VARY. IF PASSING ZONE PRESENT WITHIN 600' OF TEMPORARY STOP BAR, REMOVE EXISTING CENTERLINE MARKING, OR COVER WITH BLACK TEMP. TAPE, AND INSTALL LONG-DURATION TEMP. DOUBLE YELLOW LINE (MAY BE SUPPLEMENTED WITH SURFACE-MOUNTED TYPE 2YY RPMs @ 40' SPACING). ALL OTHER CONFLICTING PAVEMENT MARKINGS SHALL BE REMOVED OR COVERED WITH BLACK TEMP. TAPE (THOSE WITHIN THE WORK AREA MAY REMAIN AS SHOWN).

12. SEE STANDARD SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS:

- 1-10.3(3)K PORTABLE TEMPORARY TRAFFIC CONTROL SIGNAL
- 6-10.3(5) TEMPORARY BARRIER
- 8-23.3(4)B TEMPORARY PAVEMENT MARKINGS - LONG DURATION
- 9-35.14 PORTABLE TEMPORARY TRAFFIC CONTROL SIGNAL

13. FOR PROJECT-SPECIFIC REQUIREMENTS, SEE SPECIAL PROVISIONS.

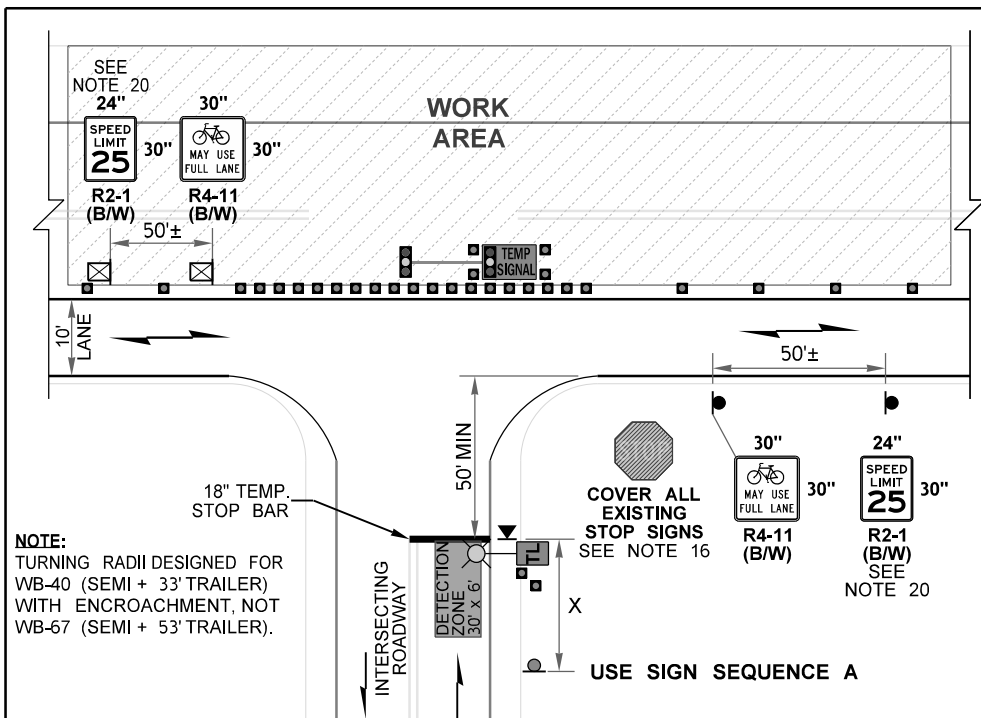
- 14. WSDOT PROJECT ENGINEERING OFFICE WILL PROVIDE PHONE NUMBER.
- 15. FULL-SIZE PCMS MAY BE USED IN LIEU OF mPCMS WHERE SPACE ALLOWS.
- 16. REMOVE OR COVER ALL CONFLICTING SIGNAGE PER STD. SPEC. 1-10.3(3)A.
- 17. SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE INDICATED.
- 18. CONTACT WSDOT COMMERCIAL VEHICLE SERVICES AT LEAST 7 DAYS IN ADVANCE OF ROADWAY WIDTH RESTRICTIONS. 30 DAY NOTICE REQUIRED ON MAJOR FREIGHT CORRIDORS.



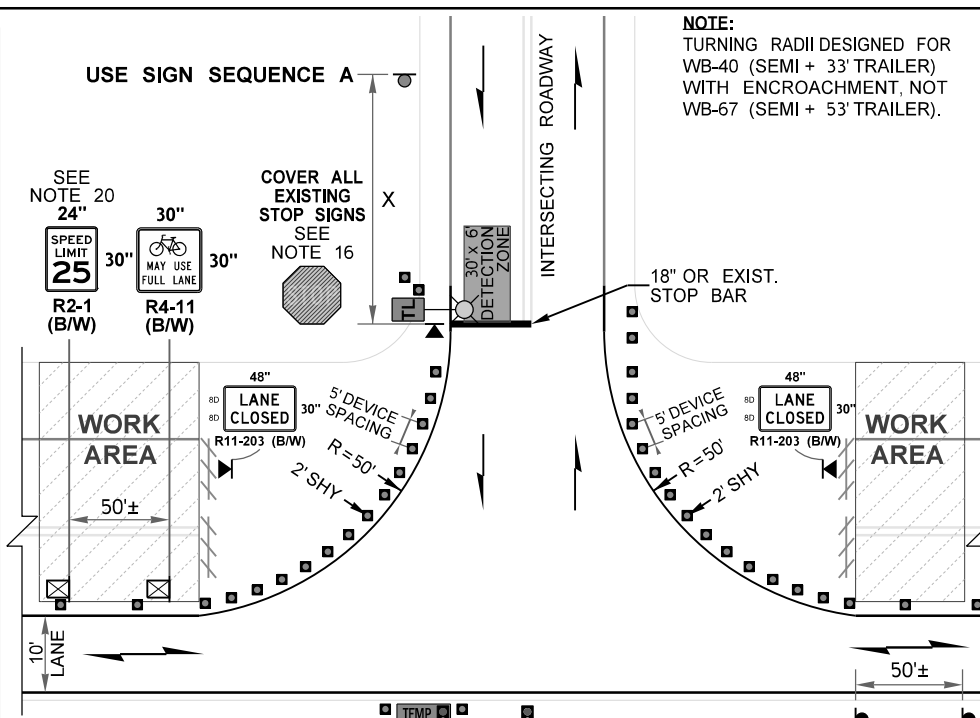
**SIMPLE TEMPORARY SIGNAL-CONTROLLED ALTERNATING 1-LANE, 2-WAY TRAFFIC  
25 WZSL + CHANNELIZING DEVICES (HIGHWAYS 40 MPH OR LESS, 8+ DAYS)**

NOT TO SCALE

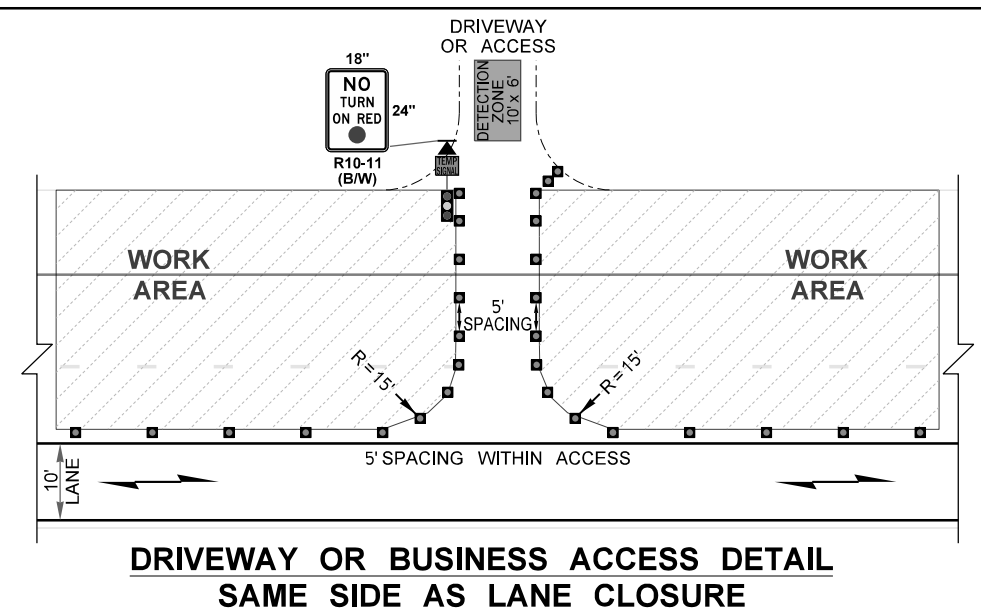
FILE NAME	C:\Users\LintzF\OneDrive - Washington State Department of Transportation\Desktop\Work Zone TCPS\441Hwy40-AltTrafficSimpleTempSignal25WZSLShareLn.dgn				Plot 5
TIME	8:28:01 AM				PLAN REF NO
DATE	8/1/2024				TC441
PLOTTED BY	LintzF				SHEET 5 OF 6 SHEETS
DESIGNED BY					
ENTERED BY					TYPICAL TRAFFIC CONTROL PLANS
CHECKED BY					
PROJ. ENGR.					
REGIONAL ADM.	REVISION	DATE	BY		



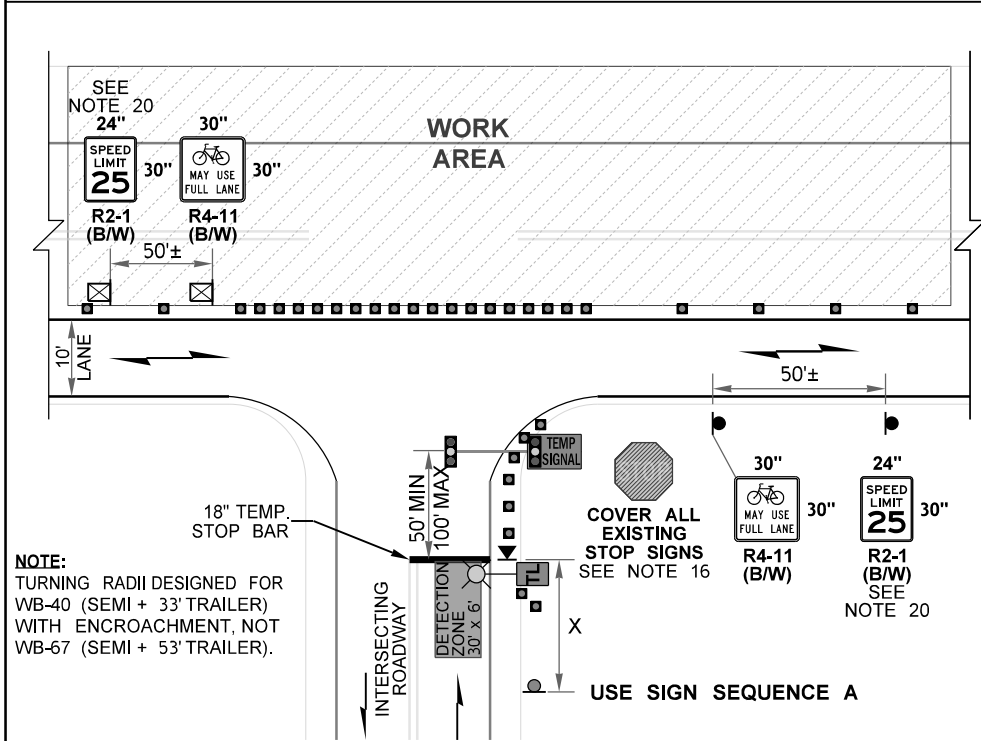
**UNSIGNALIZED INTERSECTING ROADWAY DETAIL  
OPPOSITE OF LANE CLOSURE (SIGNAL FAR-SIDE)**



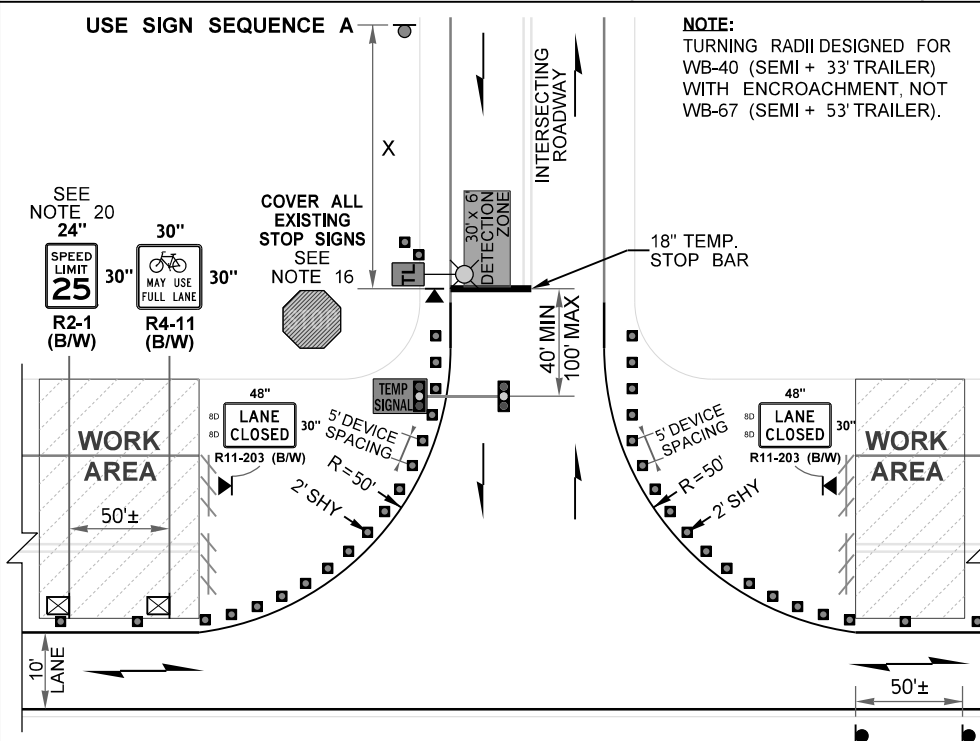
**UNSIGNALIZED INTERSECTING ROADWAY DETAIL  
SAME SIDE AS LANE CLOSURE (SIGNAL FAR-SIDE)**



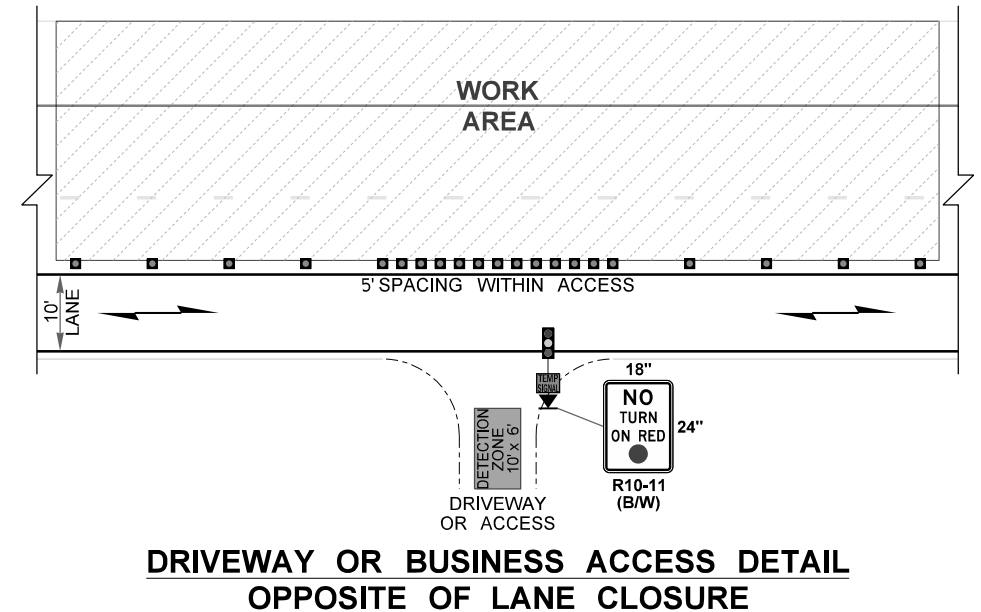
**DRIVEWAY OR BUSINESS ACCESS DETAIL  
SAME SIDE AS LANE CLOSURE**



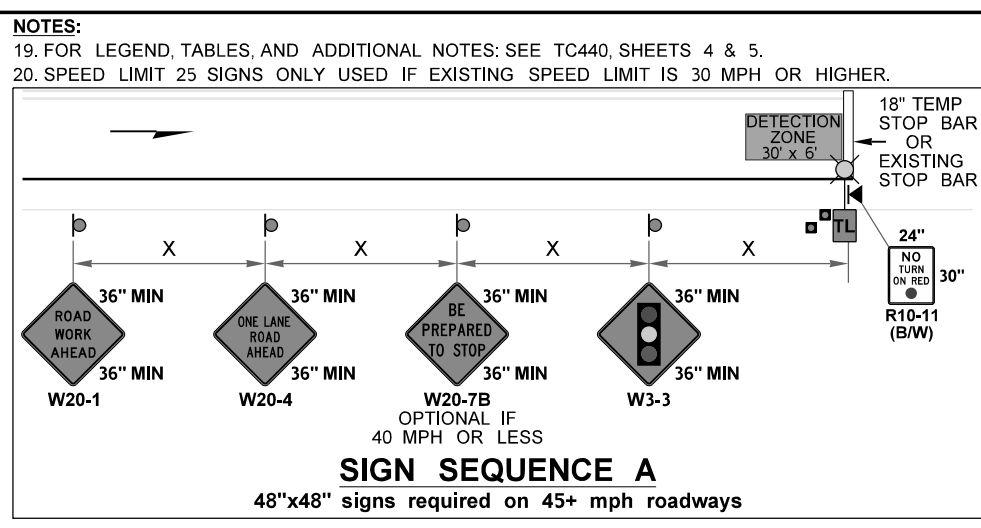
**UNSIGNALIZED INTERSECTING ROADWAY DETAIL  
OPPOSITE OF LANE CLOSURE (SIGNAL NEAR-SIDE)**



**UNSIGNALIZED INTERSECTING ROADWAY DETAIL  
SAME SIDE AS LANE CLOSURE (SIGNAL NEAR-SIDE)**



**DRIVEWAY OR BUSINESS ACCESS DETAIL  
OPPOSITE OF LANE CLOSURE**



**SIGN SEQUENCE A**

**SIMPLE TEMPORARY SIGNAL-CONTROLLED ALTERNATING 1-LANE, 2-WAY TRAFFIC  
25 WZSL + CHANNELIZING DEVICES (HIGHWAYS 40 MPH OR LESS, 8+ DAYS)  
NOT TO SCALE**

FILE NAME	C:\Users\LintzF\OneDrive - Washington State Department of Transportation\Desktop\Work Zone TCPs\441Hwy40-AltTraffic\SimpleTempSignal25WZSL\ShareLn.dgn			REGION NO.	STATE	FED.AID PROJ.NO.	Plot 6
TIME	8:28:01 AM			10	WASH		PLAN REF NO
DATE	8/1/2024						TC441
PLOTTED BY	LintzF			JOB NUMBER			SHEET
DESIGNED BY				CONTRACT NO.	LOCATION NO.		6
ENTERED BY							OF
CHECKED BY							6
PROJ. ENGR.							SHEETS
REGIONAL ADM.	REVISION	DATE	BY	P.E. STAMP BOX	DATE	P.E. STAMP BOX	TYPICAL TRAFFIC CONTROL PLANS





**WORK ZONE MICROSTATION CELLS: Updated work zone cells incorporated (July 2024).**

WSDOT CAE automatically updates cell libraries on WSDOT and on-site consultant staff computers (no action needed); however, external users or off-site consultants must manually install them. For additional information e-mail HQCAEHelpDesk@wsdot.wa.gov.

Division 4 in WSDOT Plans Preparation Manual, Section 400.06(29), provides updated work zone cell library policy and information for PS&Es. See <https://wsdot.wa.gov/engineering-standards/all-manuals-and-standards/manuals/plans-preparation-manual>

**TYPICAL TCP USAGE EXPLANATION:**

**Plots 1-3:** Simple temporary signal-controlled 1-lane, 2-way alternating traffic on 40- mph, 2-lane highways with temporary barrier separating work area for long-duration closures (8+ days). Details for driveway, business access, and/or intersecting roadways included in Plot 3.

**Plots 4-6:** Simple temporary signal-controlled 1-lane, 2-way alternating traffic on 40- mph, 2-lane highways with channelizing devices separating work area for long-duration closures (8+ days). Details for driveway, business access, and/or intersecting roadways included in Plot 6.

**Plots 11-14:** Version for 20 mph highways of Sheet 1 & 2 (temporary barrier) and Sheet 4 & 5 (channelizing device). Plot 3 and 6 still used but change title to "(20 MPH HIGHWAYS, 8+ DAYS)" and delete R2-1 (SPEED LIMIT 25) signs. See Microstation file in .ZIP file.

**Plots 16-19:** Version for 25 mph highways of Sheet 1 & 2 (temporary barrier) and Sheet 4 & 5 (channelizing device). Plot 3 and 6 still used but change title to "(25 MPH HIGHWAYS, 8+ DAYS)" and delete R2-1 (SPEED LIMIT 25) signs. See Microstation file in .ZIP file.

**Plots 21-24:** Version for 30 mph highways of Sheet 1 & 2 (temporary barrier) and Sheet 4 & 5 (channelizing device). Plot 3 and 6 still used but change title to "(30 MPH HIGHWAYS, 8+ DAYS)". See Microstation file in .ZIP file.

**Plots 26-29:** Version for 35 mph highways of Sheet 1 & 2 (temporary barrier) and Sheet 4 & 5 (channelizing device). Plot 3 and 6 still used but change title to "(35 MPH HIGHWAYS, 8+ DAYS)". See Microstation file in .ZIP file.

**Plots 31-34:** Version for 40 mph highways of Sheet 1 & 2 (temporary barrier) and Sheet 4 & 5 (channelizing device). Plot 3 and 6 still used but change title to "(40 MPH HIGHWAYS, 8+ DAYS)". See Microstation file in .ZIP file.

**Other Alternating Traffic TCPs (45+ mph):** See Typical Traffic Control Plan Library (<https://wsdot.wa.gov/engineering-standards/all-manuals-and-standards/plan-sheet-library/work-zone-typical-traffic-control-plans-tcp>)

- \* TC320s for flagger-controlled alternating traffic plans
- \* TC330s for other variations of AFAD-controlled alternating traffic plans
- \* TC440s for temporary signal-controlled alternating traffic plans, including a 35 mph regulatory speed limit version.
- \* TC350s for traffic holds

If not published yet, they will be added in the future.

**Other Alternating Traffic TCPs (40 mph or less):** See Typical Traffic Control Plan Library (<https://wsdot.wa.gov/engineering-standards/all-manuals-and-standards/plan-sheet-library/work-zone-typical-traffic-control-plans-tcp>)

- \* TC420s for flagger-controlled alternating traffic
- \* TC430s for AFAD-controlled alternating traffic
- \* TC440s for temporary signal-controlled alternating traffic plans
- \* TC450s for traffic holds

If not published yet, they will be added in the future.

**DESIGNER NOTES:**

A. Temporary Traffic Signals located within 1/4 mile of a railroad grade crossing shall be evaluated for railroad preemption per WSDOT Manual 1330.04(7)(b). Note, this process tends to take up to 6 months due to collaboration with railroads.

B. Contact Region Traffic Operations to determine which Typical TCP(s) to utilize, as there are several variations available (or soon will be).

C. These typical traffic control plans may be modified for site specific situations and/or WSDOT Region Traffic Operations standard practices. **Typical TCPs are not "Standard Plans".**

D. Per WSDOT Executive Order E1060 (<https://wwwi.wsdot.wa.gov/publications/policies/fulltext/1060.pdf>); speed limit reductions and advisory speeds must be approved for work zones. Submit speed reduction reductions & advisory speed requests for work zones through WSDOT Region Transportation Operations. See Traffic Manual Section 5-18 for additional information for documentation and notification requirements.

E. See MUTCD Table 6F-1 for additional temporary sign size information. Work zone signs are usually smaller than those used permanently.

**DESIGNER NOTES: (continued)**

F. WAC 468-95-300 modifies MUTCD Table 6-1 "Recommended Advance Warning Sign Minimum Spacing". Sign spacing may be adjusted for field conditions based on engineering judgement. The Sign Spacing table is acceptable to use in Typical TCPs; however, site-specific traffic control plans should include actual sign spacing values (withA) that have been verified in the field, on SR view, or via Google Maps.

G. The temporary sign spacing between W3-5 (speed reduction ahead) and R2-1 (speed limit) signage is based on Exhibit 2-8 in Chapter 2 of the WSDOT Traffic Manual (<https://www.wsdot.wa.gov/publications/manuals/fulltext/m51-02/chapter2.pdf>).

H. For 8+ day traffic control plans, Class A construction signs will be used and are typically mounted per Standard Plan K-80.10; however, tripod-mounted (1-foot, 5-foot when behind channelizing devices) and barrier-mounted signs are also used in these plans. For 7 day or less plans, Class B construction signs are used and consist of tripod-mounted (1-foot, 5-foot when behind channelizing devices) and barrier-mounted signs.

I. For this Typical TCP, the work zone design speed is based on the 25 mph continuous regulatory speed limit for sign spacing, channelizing device spacing, buffer, roll ahead distances, and use of concrete barrier terminals. If 30 mph or higher speed limits are used, temporary impact attenuators shall be used. If the 8+ day bypass needs to be designed at a lower speed (15 mph or 20 mph), then add a W13-1P advisory speed plaque below the W24-1 series signs based on the design speed in addition to using the 25 mph regulatory speed limit.

J. Lane closure tapers for temporary signal alternating traffic is typically 50'-100' per closed lane with 6 devices minimum (10'-20' spacing on the taper) regardless of the posted speed limit or lane width per MUTCD 6C.08, Paragraph 15. Never use "L" for these tapers. This Typical TCP 10:1 tapers (but this can be reduced to 5:1 tapers in restricted areas) in lieu of actual taper distances to account for the additional lane shift behind centerline due to varying shoulder widths (10' shoulders shown in Typical TCP) which impacts the taper length. Site-specific traffic control plans may use this Typical TCP as reference and modify it from stopbar to stopbar using curvilinear alignment.

K. Channelization devices types may be modified (vertical panel channelizing devices prohibited). Warning lights on channelizing devices is being phased out in Washington. Contact Region Traffic Operations for information regarding their standard practices.

L. Maximum channelizing device spacing table for tangents is reduced to 20' spacing to enhance delineation through the lane closure, even though 40' allowed in WAC 468-95-301 for 25 mph. Channelization spacing may ALWAYS be reduced. To allow construction access into the work area, truck & trailers need about 120' gap in devices to maneuver--so these devices are optional during working hours to allow that movement.

M. Per MUTCD Section 6C.06, longitudinal buffer spaces are optional. This Typical TCP uses a 40' tangent & 120' construction access as the 160' longitudinal buffer (155' buffer for 25 mph). A protective vehicle has been added in the closed lane behind the first set of Type 3 barricades with just a 40' buffer to keep the distance between signals minimized (which maximizes traffic capacity).

N. The lateral buffer (transverse distance between open travel lanes and work area) is optional. No lateral buffer has been provided in these Typical TCPs due to the low speeds of alternating traffic when channelizing devices used but a 1' lateral deflection distance used for temporary barrier (for their deflection space) due to 25 mph speeds versus the typical 3 feet. Actual work area limits may be modified.

O. See Design Manual Chapter 1610 for temporary barrier design & sloped concrete barrier terminal (allowed 25 mph or less). See Design Manual Chapter 1620 for temporary impact attenuators (required 30+ mph, approved Temporary Impact Attenuator list required to be provided on TCPs).

P. Placing Type 3 barricades or channelizing devices transversely (at 0° and 3-foot spacing) is an optional strategy to stop move errant drivers traveling within the closed lane(s). This Typical TCP uses several Type 3 barricades strategically placed.

**Q. In lieu of portable trailer-mounted traffic signals, WSDOT HQ has a timber-pole mounted traffic signal variation that is more economical if traffic signals remain in place for 4 months or longer. For additional information, contact HQworkzone@wsdot.wa.gov.**

R. If distance between mainline temporary lights exceed 200 feet, perform Light Level Criteria calculations per Design Manual 1040.10. At intersections, a single 200W+ class light at the stopbar is sufficient if the stop line for the cross-street is within 75 feet from the edge line of the main roadway.

**SIMPLE TEMPORARY SIGNAL-CONTROLLED ALTERNATING 1-LANE, 2-WAY TRAFFIC  
25 WZSL (HIGHWAYS 40 MPH OR LESS, 8+ DAYS)**

FILE NAME		C:\Users\LintzF\OneDrive - Washington State Department of Transportation\Desktop\Work Zone TCPs\441Hwy40-AltTrafficSimpleTempSignal25WZSLSharedLn.dgn									
TIME	8:28:02 AM	REGION NO.		STATE		FED.AID PROJ.NO.					
DATE	8/1/2024	10		WASH							
PLOTTED BY	LintzF	JOB NUMBER									
DESIGNED BY		CONTRACT NO.				LOCATION NO.					
ENTERED BY											
CHECKED BY											
PROJ. ENGR.											
REGIONAL ADM.		REVISION	DATE	BY		DATE		DATE			



**INFORMATIONAL USE ONLY**

**DO NOT INCLUDE THIS SHEET IN CONTRACT PS&Es or TCP SUBMITTALS.**

**DESIGNER GUIDANCE**

PLAN REF NO  
**TC441**

SHEET  
OF  
SHEETS