NOTES:

1. THIS PLAN IS USED IN CONJUNCTION WITH 2-LANE FREEWAY SINGLE RIGHT LANE CLOSURE TRAFFIC CONTROL PLAN (WITH PCMS IN ADVANCE OF LANE CLOSURE TAPER REMOVED).

2. SEE QUEUE WARNING SYSTEM (QWS) SPECIAL PROVISION OR RFP FOR DETAILS.

3. MODIFICATIONS TO PCMS MESSAGES SHALL BE ACCEPTED BY THE ENGINEER.

4. ADJUST QWS COMPONENTS TO AVOID CONFLICTS WITH SEQUENTIAL ARROW SIGNS OR OTHER TRAFFIC CONTROL DEVICES, NARROW SHOULDERS, AND RAMPS.

5. LOCATE PCMSs PER STANDARD SPECIFICATION 1-10.3(3)C. PCMS MAY BE PLACED ON OPPOSITE SHOULDER BUT AVOID RAMP GORES. TRAFFIC SAFETY DRUMS OR OTHER TRAFFIC CONTROL DEVICES, NARROW SHOULDERS, AND RAMPS. PCMSs MAY BE PLACED ON OPPOSITE SHOULDER BUT AVOID RAMP GORES. TRAFFIC SAFETY DRUMS OR OTHER TRAFFIC CONTROL DEVICES, NARROW SHOULDERS, AND RAMPS.

6. IF SYSTEM FAILS, SEE ‘QUEUE WARNING SYSTEM FAILURE PROTOCOL’ PROVISION.

7. IF TRAFFIC QUEUES REACH 5 MILES, PLACE ADDITIONAL PCMS AT 6.5 MILES.

RESOURCE ADMS. / PROJ. ENGR. / CHECKED BY / ENTERED BY / DESIGNED BY / PLOTTED BY / DATE / TIME / FILE NAME

OPTIONSAL. REMOVE PCMS WHEN DISSIPATING QUEUES ARE LESS THAN 5 MILES.

WITH 10+ INCH CHARACTERS ACCEPTABLE. TRANSVERSE TRAFFIC SAFETY DRUMS RELOCATE TO REMAIN 0.5+/- MILE IN ADVANCE OF QUEUE. TRUCK-MOUNTED PCMS OR OTHER TRAFFIC CONTROL DEVICES, NARROW SHOULDERS, AND RAMPS. PCMSs MAY BE PLACED ON OPPOSITE SHOULDER BUT AVOID RAMP GORES. TRAFFIC SAFETY DRUMS OR OTHER TRAFFIC CONTROL DEVICES, NARROW SHOULDERS, AND RAMPS.

CLOSURE TRAFFIC CONTROL PLAN (WITH PCMSs IN ADVANCE OF LANE CLOSURE TAPER REMOVED)

FREEWAY (2+ LANES): SINGLE RIGHT LANE CLOSURE

NOTE: ACTUAL NUMBER OF LANES MAY VARY.

FREEFLOW

ADDED PCMS MESSAGE: TRAFFIC BACKUPS PRESENT / WATCH FOR SLOW TRAFFIC

1. THIS PLAN IS USED IN CONJUNCTION WITH 2-LANE FREEWAY SINGLE RIGHT LANE CLOSURE TRAFFIC CONTROL PLAN (WITH PCMS IN ADVANCE OF LANE CLOSURE TAPER REMOVED).

2. SEE QUEUE WARNING SYSTEM (QWS) SPECIAL PROVISION OR RFP FOR DETAILS.

3. MODIFICATIONS TO PCMS MESSAGES SHALL BE ACCEPTED BY THE ENGINEER.

4. ADJUST QWS COMPONENTS TO AVOID CONFLICTS WITH SEQUENTIAL ARROW SIGNS OR OTHER TRAFFIC CONTROL DEVICES, NARROW SHOULDERS, AND RAMPS.

5. LOCATE PCMSs PER STANDARD SPECIFICATION 1-10.3(3)C. PCMS MAY BE PLACED ON OPPOSITE SHOULDER BUT AVOID RAMP GORES. TRAFFIC SAFETY DRUMS OR OTHER TRAFFIC CONTROL DEVICES, NARROW SHOULDERS, AND RAMPS. PCMSs MAY BE PLACED ON OPPOSITE SHOULDER BUT AVOID RAMP GORES. TRAFFIC SAFETY DRUMS OR OTHER TRAFFIC CONTROL DEVICES, NARROW SHOULDERS, AND RAMPS.

6. IF SYSTEM FAILS, SEE ‘QUEUE WARNING SYSTEM FAILURE PROTOCOL’ PROVISION.

7. IF TRAFFIC QUEUES REACH 5 MILES, PLACE ADDITIONAL PCMS AT 6.5 MILES.

RESOURCE ADMS. / PROJ. ENGR. / CHECKED BY / ENTERED BY / DESIGNED BY / PLOTTED BY / DATE / TIME / FILE NAME

OPTIONSAL. REMOVE PCMS WHEN DISSIPATING QUEUES ARE LESS THAN 5 MILES.

WITH 10+ INCH CHARACTERS ACCEPTABLE. TRANSVERSE TRAFFIC SAFETY DRUMS RELOCATE TO REMAIN 0.5+/- MILE IN ADVANCE OF QUEUE. TRUCK-MOUNTED PCMS OR OTHER TRAFFIC CONTROL DEVICES, NARROW SHOULDERS, AND RAMPS. PCMSs MAY BE PLACED ON OPPOSITE SHOULDER BUT AVOID RAMP GORES. TRAFFIC SAFETY DRUMS OR OTHER TRAFFIC CONTROL DEVICES, NARROW SHOULDERS, AND RAMPS.

CLOSURE TRAFFIC CONTROL PLAN (WITH PCMSs IN ADVANCE OF LANE CLOSURE TAPER REMOVED)

FREEWAY (2+ LANES): SINGLE RIGHT LANE CLOSURE

NOTE: ACTUAL NUMBER OF LANES MAY VARY.

FREEFLOW

ADDED PCMS MESSAGE: TRAFFIC BACKUPS PRESENT / WATCH FOR SLOW TRAFFIC

1. THIS PLAN IS USED IN CONJUNCTION WITH 2-LANE FREEWAY SINGLE RIGHT LANE CLOSURE TRAFFIC CONTROL PLAN (WITH PCMS IN ADVANCE OF LANE CLOSURE TAPER REMOVED).

2. SEE QUEUE WARNING SYSTEM (QWS) SPECIAL PROVISION OR RFP FOR DETAILS.

3. MODIFICATIONS TO PCMS MESSAGES SHALL BE ACCEPTED BY THE ENGINEER.

4. ADJUST QWS COMPONENTS TO AVOID CONFLICTS WITH SEQUENTIAL ARROW SIGNS OR OTHER TRAFFIC CONTROL DEVICES, NARROW SHOULDERS, AND RAMPS.

5. LOCATE PCMSs PER STANDARD SPECIFICATION 1-10.3(3)C. PCMS MAY BE PLACED ON OPPOSITE SHOULDER BUT AVOID RAMP GORES. TRAFFIC SAFETY DRUMS OR OTHER TRAFFIC CONTROL DEVICES, NARROW SHOULDERS, AND RAMPS. PCMSs MAY BE PLACED ON OPPOSITE SHOULDER BUT AVOID RAMP GORES. TRAFFIC SAFETY DRUMS OR OTHER TRAFFIC CONTROL DEVICES, NARROW SHOULDERS, AND RAMPS.

6. IF SYSTEM FAILS, SEE ‘QUEUE WARNING SYSTEM FAILURE PROTOCOL’ PROVISION.

7. IF TRAFFIC QUEUES REACH 5 MILES, PLACE ADDITIONAL PCMS AT 6.5 MILES.

RESOURCE ADMS. / PROJ. ENGR. / CHECKED BY / ENTERED BY / DESIGNED BY / PLOTTED BY / DATE / TIME / FILE NAME

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CLOSURE TRAFFIC CONTROL PLAN (WITH PCMSs IN ADVANCE OF LANE CLOSURE TAPER REMOVED)

FREEWAY (2+ LANES): SINGLE RIGHT LANE CLOSURE

NOTE: ACTUAL NUMBER OF LANES MAY VARY.

FREEFLOW

ADDED PCMS MESSAGE: TRAFFIC BACKUPS PRESENT / WATCH FOR SLOW TRAFFIC

1. THIS PLAN IS USED IN CONJUNCTION WITH 2-LANE FREEWAY SINGLE RIGHT LANE CLOSURE TRAFFIC CONTROL PLAN (WITH PCMS IN ADVANCE OF LANE CLOSURE TAPER REMOVED).

2. SEE QUEUE WARNING SYSTEM (QWS) SPECIAL PROVISION OR RFP FOR DETAILS.

3. MODIFICATIONS TO PCMS MESSAGES SHALL BE ACCEPTED BY THE ENGINEER.

4. ADJUST QWS COMPONENTS TO AVOID CONFLICTS WITH SEQUENTIAL ARROW SIGNS OR OTHER TRAFFIC CONTROL DEVICES, NARROW SHOULDERS, AND RAMPS. PCMSs MAY BE PLACED ON OPPOSITE SHOULDER BUT AVOID RAMP GORES. TRAFFIC SAFETY DRUMS OR OTHER TRAFFIC CONTROL DEVICES, NARROW SHOULDERS, AND RAMPS.

5. IF SYSTEM FAILS, SEE ‘QUEUE WARNING SYSTEM FAILURE PROTOCOL’ PROVISION.

7. IF TRAFFIC QUEUES REACH 5 MILES, PLACE ADDITIONAL PCMS AT 6.5 MILES.

RESOURCE ADMS. / PROJ. ENGR. / CHECKED BY / ENTERED BY / DESIGNED BY / PLOTTED BY / DATE / TIME / FILE NAME

OPTIONSAL. REMOVE PCMS WHEN DISSIPATING QUEUES ARE LESS THAN 5 MILES.

WITH 10+ INCH CHARACTERS ACCEPTABLE. TRANSVERSE TRAFFIC SAFETY DRUMS RELOCATE TO REMAIN 0.5+/- MILE IN ADVANCE OF QUEUE. TRUCK-MOUNTED PCMS OR OTHER TRAFFIC CONTROL DEVICES, NARROW SHOULDERS, AND RAMPS. PCMSs MAY BE PLACED ON OPPOSITE SHOULDER BUT AVOID RAMP GORES. TRAFFIC SAFETY DRUMS OR OTHER TRAFFIC CONTROL DEVICES, NARROW SHOULDERS, AND RAMPS.

CLOSURE TRAFFIC CONTROL PLAN (WITH PCMSs IN ADVANCE OF LANE CLOSURE TAPER REMOVED)

FREEWAY (2+ LANES): SINGLE RIGHT LANE CLOSURE

NOTE: ACTUAL NUMBER OF LANES MAY VARY.

FREEFLOW

ADDED PCMS MESSAGE: TRAFFIC BACKUPS PRESENT / WATCH FOR SLOW TRAFFIC

1. THIS PLAN IS USED IN CONJUNCTION WITH 2-LANE FREEWAY SINGLE RIGHT LANE CLOSURE TRAFFIC CONTROL PLAN (WITH PCMS IN ADVANCE OF LANE CLOSURE TAPER REMOVED).

2. SEE QUEUE WARNING SYSTEM (QWS) SPECIAL PROVISION OR RFP FOR DETAILS.

3. MODIFICATIONS TO PCMS MESSAGES SHALL BE ACCEPTED BY THE ENGINEER.

4. ADJUST QWS COMPONENTS TO AVOID CONFLICTS WITH SEQUENTIAL ARROW SIGNS OR OTHER TRAFFIC CONTROL DEVICES, NARROW SHOULDERS, AND RAMPS.

5. LOCATE PCMSs PER STANDARD SPECIFICATION 1-10.3(3)C. PCMS MAY BE PLACED ON OPPOSITE SHOULDER BUT AVOID RAMP GORES. TRAFFIC SAFETY DRUMS OR OTHER TRAFFIC CONTROL DEVICES, NARROW SHOULDERS, AND RAMPS. PCMSs MAY BE PLACED ON OPPOSITE SHOULDER BUT AVOID RAMP GORES. TRAFFIC SAFETY DRUMS OR OTHER TRAFFIC CONTROL DEVICES, NARROW SHOULDERS, AND RAMPS.

6. IF SYSTEM FAILS, SEE ‘QUEUE WARNING SYSTEM FAILURE PROTOCOL’ PROVISION.

7. IF TRAFFIC QUEUES REACH 5 MILES, PLACE ADDITIONAL PCMS AT 6.5 MILES.

RESOURCE ADMS. / PROJ. ENGR. / CHECKED BY / ENTERED BY / DESIGNED BY / PLOTTED BY / DATE / TIME / FILE NAME

OPTIONSAL. REMOVE PCMS WHEN DISSIPATING QUEUES ARE LESS THAN 5 MILES.

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CLOSURE TRAFFIC CONTROL PLAN (WITH PCMSs IN ADVANCE OF LANE CLOSURE TAPER REMOVED)
FOR 6-MILE QUEUE WARNING SYSTEM
PCMS MESSAGES AND COMPONENT LAYOUT
SEE TC223, SHEET 0A.

NOTES:

1. IF FEASIBLE, AVOID PLACING LANE CLOSURE OR LANE SHIFT TAPERS WITHIN OR IMMEDIATELY FOLLOWING HORIZONTAL CURVES.

2. DISTANCE INCREASES AS WORK AREA MOVES DOWNSTREAM.

3. RELOCATE R2S AS WORK AREA MOVES DOWNSTREAM. ENGINEER MAY ORDER ADDITIONAL R2S (WITH R2-1) PRIOR TO EACH WORK AREA.

4. USE 3 DEVICES MINIMUM WITHIN 1500’ +/- FOLLOWING THE DOWNSTREAM TAPER.

5. COVER ALL CONFLICTING SIGNAGE PER STANDARD SPEC B21.3(3).

6. DOWNSTREAM TAPER OPTIONAL ACROSS RIGHT LANE. DOWNSTREAM TAPER DEVICE SPACING IS 20’.

7. SIGNS OPTIONAL IF EXISTING SPEED LIMIT SIGNS PRESENT WITHIN 1500’ +/- FOLLOWING THE DOWNSTREAM TAPER.

8. ADD "TRUCKS LEAVING HIGHWAY" AND "TRUCKS ENTERING HIGHWAY" (W21-30, 48"x48", 5’ HEIGHT) SIGNS 500’ +/- PRIOR TO WHERE CONSTRUCTION VEHICLES FREQUENTLY EXIT AND ENTER INTO THE OPEN LANE(S).

9. SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE INDICATED.

10. PLAN IS APPLICABLE TO LANE CLOSURES OF 3 DAYS OR LESS.

11. BICYCLES PROHIBITED THROUGH WORK ZONE; CONSIDER PROVIDING DETOUR ALTERNATIVE ROUTES OR SHUTTLE IN HIGH-USE LOCATIONS PERMITTING PERMANENT BICYCLE ACCESS.

FREEWAY (2+ LANES): SINGLE RIGHT LANE CLOSURE
(60 MPH WORK ZONE SPEED LIMIT)

NOT TO SCALE
3-MILE QUEUE WARNING SYSTEM MESSAGES

3. RELOCATE RSDS AS WORK AREA MOVES DOWNSTREAM. ENGINEER CREW WITHIN WORK AREA.

5. COVER ALL CONFLICTING SIGNAGE PER STANDARD SPEC 8-21.3(3).

7. SIGNS OPTIONAL IF EXISTING SPEED LIMIT SIGNS PRESENT WITHIN 1500' +/- FOLLOWING THE DOWNSTREAM TAPER.

11. BICYCLES PROHIBITED THROUGH WORK ZONE; CONSIDER PROVIDING DETOUR ALTERNATIVE ROUTE OR SHUTTLE IN HIGH-USE LOCATIONS PERMITTING PERMANENT BICYCLE ACCESS.

FREEWAY (2+ LANES): SINGLE RIGHT LANE CLOSURE

(50 MPH WORK ZONE SPEED LIMIT)

NOT TO SCALE
FREeway (2+ LANes): Single Right Lane Closure
(60 MPH Work Zone Speed Limit)

NOTES:

1. IF FEASIBLE, AVOID PLACING LANE CLOSURE OR LANE SHIFT TAPERS WITHIN OR IMMEDIATELY FOLLOWING HORIZONTAL CURVES.

2. DISTANCE INCREASES AS WORK AREA MOVES DOWNSTREAM.

3. RELocate RSDS AS WORK AREA MOVES DOWNSTREAM. ENGINEER MAY ORDER ADDITIONAL RSDS (WITH R2-1) PRIOR TO EACH WORK ZONE RAMP.

4. IF USED, PLACE DEVICES TRANSVERSELY ACROSS CLOSED LANES.

5. COVER ALL CONFLICTING SIGNAGE PER STANDARD SPEC 8213,3).

6. DOWNSTREAM TAPER OPTIONAL ACROSS RIGHT LANE.

7. SIGNS OPTIONAL IF EXISTING SPEED LIMIT SIGNS PRESENT WITHIN 1500' FOLLOWING THE DOWNSTREAM TAPER.

8. ADD "TRUCKS LEAVING HIGHWAY" AND "TRUCKS ENTERING HIGHWAY" (W21-30, 48"x48", 5' HEIGHT) SIGNS 500' +/- PRIOR TO AND WITHIN 1500' +/- FOLLOWING THE DOWNSTREAM TAPER.

9. SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE INDICATED.

10. PLAN IS APPLICABLE TO LANE CLOSURES OF 3 DAYS OR LESS.

11. BICYCLES PROHIBITED THROUGH WORK ZONE: CONSIDER PROVIDING DETOUR, ALTERNATIVE ROUTES, OR SHUTTLE IN HIGH-USE LOCATIONS PERMITTING PERMANENT BICYCLE ACCESS.

LEGEND:

chneral TRANSPORTABLE ATTENUATOR
PORTABLE CHANGEABLE MESSAGE SIGN
"5' MIN HEIGHT"
"5' SPACING AT STRATEGIC LOCATIONS"
NOTES:
1. FOR LEGEND, TABLES, AND ADDITIONAL NOTES SEE TC223, SHEET 0B, 1A, OR 1B.
2. SEE DETOUR PLAN FOR ADDITIONAL RAMP CLOSURE DETOUR SIGNAGE.

FREEWAY (2+ LANES): SINGLE RIGHT LANE CLOSURE (60 MPH WORK ZONE SPEED LIMIT)
NOT TO SCALE

CLOSED RIGHT EXIT-RAMP DETAIL

OPEN RIGHT EXIT-RAMP DETAIL

OPEN RIGHT PARALLEL ON-RAMP DETAIL

CLOSED RIGHT EXIT-RAMP DETAIL

TYPICAL TRAFFIC CONTROL PLANS

Washington State Department of Transportation

TC223

FILE NAME: C:\T223\TC223-223Fwy1RtLane70to60WZSL.dgn

DATE: 3/4/2022
TIME: 1:48:06 PM

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HAAPALA & LINTZ
F. LINTZ
S. HAAPALA

P.E. STAMP BOX

DATE: 3/4/2022

WASHINGTON STATE
DEPARTMENT OF TRANSPORTATION

PLOTTED BY: LINTZ
ENTERED BY: LINTZ
CHECKED BY: HAAPALA
PREP. DRAW

REGIONAL ENG.

REVISION DATE

EXISTING SHOULDER
EXISTING SHOULDERS
EXISTING LANE
EXISTING LANE
EXISTING LANE
EXISTING LANE
EXISTING ON-RAMP
EXISTING ACCELERATION LANE

SECTION 1B-19

36" SPEED LIMIT
60 R-2 (BW)

WASHINGTON STATE
DEPARTMENT OF TRANSPORTATION

10 WASH

DATE: 3/4/2022

TC223

FILE NAME: C:\T223\TC223-223Fwy1RtLane70to60WZSL.dgn

DATE: 3/4/2022
TIME: 1:48:06 PM

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HAAPALA & LINTZ
F. LINTZ
S. HAAPALA

P.E. STAMP BOX

DATE: 3/4/2022

WASHINGTON STATE
DEPARTMENT OF TRANSPORTATION

PLOTTED BY: LINTZ
ENTERED BY: LINTZ
CHECKED BY: HAAPALA
PREP. DRAW

REGIONAL ENG.

REVISION DATE

EXISTING SHOULDER
EXISTING SHOULDERS
EXISTING LANE
EXISTING LANE
EXISTING LANE
EXISTING LANE
EXISTING ON-RAMP
EXISTING ACCELERATION LANE

SECTION 1B-19

36" SPEED LIMIT
60 R-2 (BW)

WASHINGTON STATE
DEPARTMENT OF TRANSPORTATION

10 WASH

DATE: 3/4/2022

TC223

FILE NAME: C:\T223\TC223-223Fwy1RtLane70to60WZSL.dgn

DATE: 3/4/2022
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HAAPALA & LINTZ
F. LINTZ
S. HAAPALA

P.E. STAMP BOX

DATE: 3/4/2022

WASHINGTON STATE
DEPARTMENT OF TRANSPORTATION

PLOTTED BY: LINTZ
ENTERED BY: LINTZ
CHECKED BY: HAAPALA
PREP. DRAW

REGIONAL ENG.

REVISION DATE

EXISTING SHOULDER
EXISTING SHOULDERS
EXISTING LANE
EXISTING LANE
EXISTING LANE
EXISTING LANE
EXISTING ON-RAMP
EXISTING ACCELERATION LANE

SECTION 1B-19

36" SPEED LIMIT
60 R-2 (BW)

WASHINGTON STATE
DEPARTMENT OF TRANSPORTATION

10 WASH

DATE: 3/4/2022

TC223
NOTES:
1. FOR LEGEND, TABLES, AND ADDITIONAL NOTES SEE TC223 SHEET 0B, 1A, OR 1B.
2. SEE DETOUR PLAN FOR ADDITIONAL RAMP CLOSURE, DETOUR SIGNAGE.

TYPICAL TRAFFIC CONTROL PLANS

OPEN RIGHT EXIT-RAMP DETAIL

CLOSED RIGHT EXIT-RAMP DETAIL

FREEWAY (2+ LANES): SINGLE RIGHT LANE CLOSURE (60 MPH WORK ZONE SPEED LIMIT) NOT TO SCALE
NOTES:
1. FOR LEGEND, TABLES, AND ADDITIONAL NOTES, SEE TC223 SHEET 01, 1A, OR 1B.
2. SEE DETOUR PLAN FOR ADDITIONAL RAMP CLOSURE DETOUR SIGNAGE.

FREEWAY (2+ LANES): SINGLE RIGHT LANE CLOSURE (60 MPH WORK ZONE SPEED LIMIT)
NOT TO SCALE

OPEN LEFT EXIT-RAMP DETAIL
LEFT EXIT-RAMPS ARE TO REMAIN OPEN

CLOSED LEFT EXIT-RAMP DETAIL

CLOSED LEFT ON-RAMP DETAIL

OPEN LEFT ON-RAMP DETAIL

WASHINGTON STATE
Department of Transportation

TYPICAL TRAFFIC CONTROL PLANS
### 6-MILE QUEUE WARNING SYSTEM

**FREEWAY (2+ LANES): SINGLE RIGHT LANE CLOSURE**

**NOT TO SCALE**

**TYPICAL TRAFFIC CONTROL PLANS**

**ACTUAL NUMBER OF LANES MAY VARY.**

**NOTES:**

1. This plan is used in conjunction with 2-lane freeway single right lane closure. Traffic control plan (with PCMS in advance of lane closure taper removed).

2. See Queue Warning System (QWS) special provision or RFP for details.

3. Modifications to PCMS Messages shall be accepted by the Engineer.

4. Adjust QWS components to avoid conflicts with sequential arrow signs or other traffic control devices, narrow shoulders, and ramps.

5. Locate PCMSs per standard specification 1-10.3(3)C. PCMS may be placed on opposite shoulder but avoid ramp gories when located behind barrier/guardrail or within closure. Transverse traffic drums optional. Opposite shoulder but avoid ramp gories. When located behind or other traffic control devices, narrow shoulders, and ramps.

6. IF system fails, see 'Queue Warning System Failure Protocol' provision.

7. If traffic queues reach 5 miles, place additional PCMS at 6.5 miles. Relocate to remain 0.5+/- mile in advance of queue. Truck-mounted PCMS with 10-inch characters acceptable. Transverse traffic safety drums optional. Remove PCMS when dissipating queues are less than 5 miles. Added PCMS message: traffic backups present/ watch for slow traffic.

---

#### QUEUE LOCATION

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<tr>
<th>LOCATION (miles)</th>
<th>TRAFFIC SENSORS</th>
<th>PCMS 5</th>
<th>PCMS 4</th>
<th>PCMS 3</th>
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<td>TRAFFIC BACKUPS PRESENT</td>
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<td>(Blank)</td>
<td>LANE CLOSURE 6 MILES</td>
<td>TRAFFIC BACKUPS PRESENT</td>
</tr>
</tbody>
</table>

---

### LEGEND

- **Traffic Safety Drum**
- **Traffic Sensor**
- **Sequential Arrow Sign**
- **PCMS** Portable Changeable Message Sign

---

**NOTES:**

1. This plan is used in conjunction with 2-lane freeway single right lane closure. Traffic control plan (with PCMS in advance of lane closure taper removed).

2. See Queue Warning System (QWS) special provision or RFP for details.

3. Modifications to PCMS Messages shall be accepted by the Engineer.

4. Adjust QWS components to avoid conflicts with sequential arrow signs or other traffic control devices, narrow shoulders, and ramps.

5. Locate PCMSs per standard specification 1-10.3(3)C. PCMS may be placed on opposite shoulder but avoid ramp gories when located behind barrier/guardrail or within closure. Transverse traffic drums optional. Opposite shoulder but avoid ramp gories. When located behind or other traffic control devices, narrow shoulders, and ramps.

6. IF system fails, see 'Queue Warning System Failure Protocol' provision.

7. If traffic queues reach 5 miles, place additional PCMS at 6.5 miles. Relocate to remain 0.5+/- mile in advance of queue. Truck-mounted PCMS with 10-inch characters acceptable. Transverse traffic safety drums optional. Remove PCMS when dissipating queues are less than 5 miles. Added PCMS message: traffic backups present/watch for slow traffic.
NOTES:
1. IF FEASIBLE, AVOID PLACING LANE CLOSURE OR LANE SHIFT TAPERS WITHIN OR IMMEDIATELY FOLLOWING HORIZONTAL CURVES.
2. DISTANCE INCREASES AS WORK AREA MOVES DOWNSTREAM.
3. RELOCATE RSDS AS WORK AREA MOVES DOWNSTREAM.
4. IF USED, PLACE DEVICES TRANSVERSELY ACROSS CLOSED LANES.
5. COVER ALL CONFLICTING SIGNAGE PER STANDARD SPEC B21.3(3).
6. DOWNSTREAM TAPER OPTIONAL ACROSS RIGHT LANE. DOWNSTREAM TAPER DEVICE SPACING IS 20'.
7. SIGNS OPTIONAL IF EXISTING SPEED LIMIT SIGNS PRESENT WITHIN 1500' +/- FOLLOWING THE DOWNSTREAM TAPER.
8. ADD "TRUCKS LEAVING HIGHWAY" AND "TRUCKS ENTERING HIGHWAY" (W21-30, 48"x48", 5' HEIGHT) SIGNS 500' +/- PRIOR TO WHERE CONSTRUCTION VEHICLES FREQUENTLY EXIT AND ENTER INTO THE OPEN LANE(S).
9. SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE INDICATED.
10. PLAN IS APPLICABLE TO LANE CLOSURES OF 3 DAYS OR LESS.
11. BICYCLES PROHIBITED THROUGH WORK ZONE; CONSIDER PROVIDING DETOUR, ALTERNATIVE ROUTES, OR SHUTTLE IN HIGH-USE LOCATIONS PERMITTING PERMANENT BICYCLE ACCESS.

FREEWAY (2+ LANES): SINGLE RIGHT LANE CLOSURE (60 MPH WORK ZONE SPEED LIMIT) NOT TO SCALE
1. IF FEASIBLE, AVOID PLACING LANE CLOSURE OR LANE SHIFT TAPERS WITHIN OR IMMEDIATELY FOLLOWING HORIZONTAL CURVES.

2. DISTANCE INCREASES AS WORK AREA MOVES DOWNSTREAM.

3. COVER ALL CONFLICTING SIGNAGE PER STANDARD SPEC 8-21.3(3).

4. IF USED, PLACE DEVICES TRANSVERSELY ACROSS CLOSED LANES.

5. ADD "TRUCKS LEAVING HIGHWAY" AND "TRUCKS ENTERING HIGHWAY" (W21-30, 48"x48", 5' HEIGHT) SIGNS 500' +/- PRIOR TO PROVIDING DETOUR, ALTERNATIVE ROUTE, OR SHUTTLE IN WORK ZONE. WHERE CONSTRUCTION VEHICLES FREQUENTLY EXIT AND ENTER WORK AREA MEASURE 1.5 +/- MILES PRIOR TO CLOSURE.

6. Downstream Taper Device Spacing is 20'.

7. SIGNS OPTIONAL IF EXISTING SPEED LIMIT SIGNS PRESENT WITHIN 1500' +/- FOLLOWING THE DOWNSTREAM TAPER.

8. IF FEASIBLE, AVOID PLACING LANE CLOSURE OR LANE SHIFT TAPERS WITHIN OR IMMEDIATELY FOLLOWING HORIZONTAL CURVES.

9. Maximum Channeledication Device Spacing is 140' - 80' TAPER.

10. PLAN IS APPLICABLE TO LANE CLOSURES OF 3 DAYS OR LESS.

11. BICYCLES PROHIBITED THROUGH WORK ZONE: CONSIDER PROVIDING DETOUR, ALTERNATIVE ROUTE, OR SHUTTLE IN HIGH-USE LOCATIONS PERMITTING PERMANENT BICYCLE ACCESS.

**NOTES:**

1. IF FEASIBLE, AVOID PLACING LANE CLOSURE OR LANE SHIFT TAPERS WITHIN OR IMMEDIATELY FOLLOWING HORIZONTAL CURVES.

2. DISTANCE INCREASES AS WORK AREA MOVES DOWNSTREAM.

3. COVER ALL CONFLICTING SIGNAGE PER STANDARD SPEC 8-21.3(3).

4.記者機器 PLACING LANE CLOSURE OR LANE SHIFT TAPERS WITHIN OR IMMEDIATELY FOLLOWING HORIZONTAL CURVES.

5. ADD "TRUCKS LEAVING HIGHWAY" AND "TRUCKS ENTERING HIGHWAY" (W21-30, 48"x48", 5' HEIGHT) SIGNS 500' +/- PRIOR TO PROVIDING DETOUR, ALTERNATIVE ROUTE, OR SHUTTLE IN WORK ZONE. WHERE CONSTRUCTION VEHICLES FREQUENTLY EXIT AND ENTER WORK AREA MEASURE 1.5 +/- MILES PRIOR TO CLOSURE.

6. Downstream Taper Device Spacing is 20'.

7. SIGNS OPTIONAL IF EXISTING SPEED LIMIT SIGNS PRESENT WITHIN 1500' +/- FOLLOWING THE DOWNSTREAM TAPER.

8. IF FEASIBLE, AVOID PLACING LANE CLOSURE OR LANE SHIFT TAPERS WITHIN OR IMMEDIATELY FOLLOWING HORIZONTAL CURVES.

9. Maximum Channeledication Device Spacing is 140' - 80' TAPER.

10. PLAN IS APPLICABLE TO LANE CLOSURES OF 3 DAYS OR LESS.

11. BICYCLES PROHIBITED THROUGH WORK ZONE: CONSIDER PROVIDING DETOUR, ALTERNATIVE ROUTE, OR SHUTTLE IN HIGH-USE LOCATIONS PERMITTING PERMANENT BICYCLE ACCESS.

**NOTES:**

1. IF FEASIBLE, AVOID PLACING LANE CLOSURE OR LANE SHIFT TAPERS WITHIN OR IMMEDIATELY FOLLOWING HORIZONTAL CURVES.

2. DISTANCE INCREASES AS WORK AREA MOVES DOWNSTREAM.

3. COVER ALL CONFLICTING SIGNAGE PER STANDARD SPEC 8-21.3(3).

4. IF USED, PLACE DEVICES TRANSVERSELY ACROSS CLOSED LANES.

5. Downstream Taper Device Spacing is 20'.

6. SIGNS OPTIONAL IF EXISTING SPEED LIMIT SIGNS PRESENT WITHIN 1500' +/- FOLLOWING THE DOWNSTREAM TAPER.

7. IF FEASIBLE, AVOID PLACING LANE CLOSURE OR LANE SHIFT TAPERS WITHIN OR IMMEDIATELY FOLLOWING HORIZONTAL CURVES.

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**NOTES:**

1. IF FEASIBLE, AVOID PLACING LANE CLOSURE OR LANE SHIFT TAPERS WITHIN OR IMMEDIATELY FOLLOWING HORIZONTAL CURVES.

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9. PLAN IS APPLICABLE TO LANE CLOSURES OF 3 DAYS OR LESS.

10. BICYCLES PROHIBITED THROUGH WORK ZONE: CONSIDER PROVIDING DETOUR, ALTERNATIVE ROUTE, OR SHUTTLE IN HIGH-USE LOCATIONS PERMITTING PERMANENT BICYCLE ACCESS.
NOTES:
1. FOR LEGEND, TABLES AND ADDITIONAL NOTES SEE TC223 SHEET 0B, 1A, OR 1B.
2. SEE DETOUR PLAN FOR ADDITIONAL RAMP CLOSURE DETOUR SIGNAGE.

FREEWAY (2+ LANES): SINGLE RIGHT LANE CLOSURE (60 MPH WORK ZONE SPEED LIMIT)

TYPICAL TRAFFIC CONTROL PLANS

WASHINGTON STATE
Department of Transportation
P.E. STAMP BOX

LOCATION NO.
CONTRACT NO.
JOB NUMBER
REGIONAL ADM.

NOT TO SCALE
NOTES:
1. FOR LEGEND, TABLES AND ADDITIONAL NOTES SEE TC223 SHEET 0B, 1A, OR 1B.
2. SEE DETOUR PLAN FOR ADDITIONAL RAMP CLOSURE DETOUR SIGNAGE.

TYPICAL TRAFFIC CONTROL PLANS

FREEWAY (2+ LANES): SINGLE RIGHT LANE CLOSURE (60 MPH WORK ZONE SPEED LIMIT)

NOT TO SCALE
NOTES:
1. FOR LEGEND, TABLES, AND ADDITIONAL NOTES, SEE TC223 SHEET 0A, 1A, OR 1B.
2. SEE DETOUR PLAN FOR ADDITIONAL RAMP CLOSURE DETOUR SIGNAGE.

FREEWAY (2+ LANES): SINGLE RIGHT LANE CLOSURE (60 MPH WORK ZONE SPEED LIMIT)

NOT TO SCALE

OPEN LEFT EXIT-RAMP DETAIL

CLOSED LEFT EXIT-RAMP DETAIL
LEFT EXIT-RAMPS ARE TO REMAIN OPEN

OPEN LEFT ON-RAMP DETAIL

CLOSED LEFT ON-RAMP DETAIL
COVER ALL CONFLICTING SPEED LIMIT SIGNS

1. FOR LEGEND, TABLES, AND ADDITIONAL NOTES: SEE TC223, SHEET 0B, 1A, OR 1B.

Washington State Department of Transportation

TYPICAL TRAFFIC CONTROL PLANS
FREEWAY (2+ LANES): SINGLE RIGHT LANE CLOSURE (60 MPH WORK ZONE SPEED LIMIT)

This maximizes work zone capacity and safety for all.

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

G. WAC 468-95-300 modifies MUTCD Table 6-1 "Recommended Advance Warning Sign Minimum Spacing". Sign spacing may be adjusted based on engineering judgement. Actual work area limits may be modified.

H. See MUTCD Table 6F-1, "Recommended Advance Warning Sign Minimum Spacing", for additional sign size information. Work zone signs are usually smaller than those used permanently.

I. With MUTCD Guidance Figure 6H-1A, an additional TA/set of TAs may be added prior to each work area. Additional TAs should be added prior to work areas following temporary exit-ramps or on-ramps through the next TDZ.

J. Per MUTCD Figure 6C-2, the downstream taper is optional across the reopened right lane. Eliminating the downstream taper allows construction to proceed more smoothly. This maximizes work zone capacity and safety for all.

K. This maximizes work zone capacity and safety for all.

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

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

N. Per MUTCD Figure 6C-2, the downstream taper is optional across the reopened right lane. Eliminating the downstream taper allows construction to proceed more smoothly. This maximizes work zone capacity and safety for all.

O. With MUTCD Guidance Figure 6H-1A, an additional TA/set of TAs may be added prior to each work area. Additional TAs should be added prior to work areas following temporary exit-ramps or on-ramps through the next TDZ.

P. The on-ramp shift may occur across the paved on-ramp gore at "L/2", but verify the gore's cross-slopes are traversible, pavement thickness adequate, and cotton bathtubs are traffic bearing types. This TYPICAL TCP begins the ramp shift at the end of the marked gore for simplicity.

Q. Per MUTCD Figure 6C-2, the downstream taper is optional across the reopened right lane. Eliminating the downstream taper allows construction to proceed more smoothly. This maximizes work zone capacity and safety for all.

R. The on-ramp shift may occur across the paved on-ramp gore at "L/2", but verify the gore's cross-slopes are traversible, pavement thickness adequate, and cotton bathtubs are traffic bearing types. This TYPICAL TCP begins the ramp shift at the end of the marked gore for simplicity.

S. Per MUTCD Guidance Figure 6H-1A, an additional TA/set of TAs may be added prior to each work area. Additional TAs should be added prior to work areas following temporary exit-ramps or on-ramps through the next TDZ.

T. To discourage work zone intrusion, device spacing is reduced by one-half approaching and at closed exit-ramps. Tapered on-ramp uses a single 50:1 taper (for all speeds) from the end of the marked gore to the end of the merge, see WSDOT Design Manual Exhibit 1360-13b for guidance. Tapered on-ramp uses a single 50:1 taper (for all speeds) from the end of the marked gore to the end of the merge, see WSDOT Design Manual Exhibit 1360-13b for guidance.

U. Two types of temporary traffic configurations, parallel and tapered. Parallel on-ramps uses a L/2 lane ramp shift, L/2 MIN acceleration pocket that may be used when space allows, and ramp merge taper based on MUTCD Guidance Figure 6H-4H. However, a L/2 ramp merge taper is allowable based on engineering judgment, see WSDOT Design Manual Exhibit 1360-13b for guidance. Tapered on-ramp uses a single 50:1 taper (for all speeds) from the end of the marked gore to the end of the merge, see WSDOT Design Manual Exhibit 1360-13b for guidance.

V. To discourage work zone intrusion, device spacing is reduced by one-half approaching and at closed exit-ramps.

W. Ramp detour signage is required by MUTCD 6C.09, but using alternative routes is acceptable. Contact Region Traffic Operations for their standard practices. Recommended to use route-specific detour signage for significant ramp closures. Work zone cells "Detour_..." for generic and "DetourRS_..." for route-specific detour signage are available. "USE ALTERNATIVE ROUTE" sign is in the pink box above the applicable ramp plots.

X. This TYPICAL TCP is not applicable when MODIFIED or express lane(s) are present. Contact Region Traffic Operations for additional guidance.

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

Z. With MUTCD Guidance Figure 6H-1A, an additional TA/set of TAs may be added prior to each work area. Additional TAs should be added prior to work areas following temporary exit-ramps or on-ramps through the next TDZ.

AA. Contact Region Traffic Operations for their standard practices.

BB. Recommended to use route-specific detour signage for significant ramp closures. Work zone cells "Detour_..." for generic and "DetourRS_..." for route-specific detour signage are available. "USE ALTERNATIVE ROUTE" sign is in the pink box above the applicable ramp plots.

CC. This TYPICAL TCP is not applicable when MODIFIED or express lane(s) are present. Contact Region Traffic Operations for additional guidance.