NOTES:
1. FOR LEGEND, TABLES, AND ADDITIONAL NOTES: SEE TC249, SHEET 1.
2. ACTUAL NUMBER OF LANES MAY VARY.
3. SEE DETOUR PLAN FOR ADDITIONAL RAMP CLOSURE DETOUR SIGNAGE.
4. FOR RIGHT EXIT-RAMP AND RIGHT ON-RAMP DETAILS FOR A SINGLE RIGHT LANE CLOSURE SEE TC248, SHEET 2.

PROJECT:
WASH 10
FREEWAY (3+ LANES): DOUBLE RIGHT LANE CLOSURE WITH NO LANE SHIFTS
(60 MPH TO 50 MPH VARIABLE WORK ZONE SPEED LIMIT REDUCTION)

FREEWAY (3+ LANES): DOUBLE RIGHT LANE CLOSURE WITH NO LANE SHIFTS
(60 MPH TO 50 MPH VARIABLE WORK ZONE SPEED LIMIT REDUCTION)

PCMS 3
EXIT RAMP CLOSURE TO AHEAD EXIT MIN
2.0 SEC
LOCATE PCMS PER WSDOT STANDARD.
LOCATE 1/4 +/- MILE IN ADVANCE OF FIELD LOCATE.

RIGHT LANE CLOSURE SEE TC248, SHEET 2.

FILE NAME: 249Fwy2RtLanes60to50WZSL.dgn
DATE: 3/19/2019

REGIONAL ADM.
REVISION
DATE

TC249
Washington State Department of Transportation
TYPICAL TRAFFIC CONTROL PLANS
NOT TO SCALE

NOTES:
1. FOR LEGEND, TABLES AND ADDITIONAL NOTES: SEE TC249, SHEET 1.
2. ACTUAL NUMBER OF LANES MAY VARY
3. SEE DETOUR PLAN FOR ADDITIONAL RAMP CLOSURE DETOUR SIGNAGE.
4. FOR LEFT EXIT-RAMP AND LEFT ON-RAMP DETAILS FOR A SINGLE RIGHT LANE CLOSURE SEE TC249, SHEET 3.

OPEN LEFT EXIT-RAMP DETAIL

CLOSED LEFT EXIT-RAMP DETAIL
LEFT EXIT-RAMPS ARE TO REMAIN OPEN WITH THIS DOUBLE RIGHT LANE CLOSURE CONFIGURATION

CLOSED LEFT ON-RAMP DETAIL
NOT TO SCALE

OPEN LEFT ON-RAMP DETAIL
NOT TO SCALE

FREEWAY (3+ LANES): DOUBLE RIGHT LANE CLOSURE WITH NO LANE SHIFTS
(60 MPH TO 50 MPH VARIABLE WORK ZONE SPEED LIMIT REDUCTION)
NOT TO SCALE
DISCLAIMER NOTES:

A. SEE WSDOT PROJECT DELIVERY MEMO 19-01 IN REGARDS TO FREEWAY WORK ZONE VARIABLE REGULATORY SPEED LIMIT AND ADVISORY SPEED IMPLEMENTATION. IN ADDITION, SEE WSDOT EXECUTIVE ORDER 123-18 IN REGARDS TO AUTHORIZATION FOR VARIABLE REGULATORY AND ADVISORY SPEED LIMITS IN WORK ZONES. CONTACT WSDOT REGION TRAFFIC OFFICES FOR ADDITIONAL INFORMATION.

B. THESE TRAFFIC CONTROL PLANS ARE TYPICAL AND MAY BE MODIFIED FOR SITE SPECIFIC SITUATIONS AND/OR WSDOT REGION TRAFFIC PRACTICES. CONTACT WSDOT REGION TRAFFIC OFFICES FOR ANY MODIFICATIONS OF THE WORK ZONE VARIABLE REGULATORY SPEED LIMIT OR ADVISORY SPEED LIMIT FOR FIELD CONDITIONS. REDUCING FREEWAY SIGN SPACING TO 1000’ +/- IS ACCEPTABLE. A MINIMUM SPACING OF 500’ +/- SHOULD BE USED ON FREEWAY MAINLINES ONLY WHEN NECESSARY. ADVISORY SIGNS AND RADAR SPEED DISPLAY SIGNS CAN BE SPACED AT 300’ +/-.

C. PER WAC 468-95-300, ALL SIGN SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMP, ON-RAMP, EXIT-RAMP CLOSURES, AND TEMPORARY TRAFFIC CONTROL. MAKING THE MOST OPTIMIZED USE OF THE UNIQUE WORK ZONE SPACING (AT 45° AND 5 FOOT SPACING) IS AN EFFECTIVE TECHNIQUE TO MOVE MATTRESS DRIVERS BACK OUT OF CLOSED LANE AND SHOULDERS.

D. THE RADAR SPEED DISPLAY SIGN (RSDS) IS OPTIONAL FOR FREEWAY LANE CLOSURES NOT SHIFTED OR REDUCED. RSDS SHOULD BE PLACED WHEN TRAFFIC REDUCED TO A SINGLE OPEN LANE. CONTACT REGION TRAFFIC OFFICES FOR THEIR POLICY.

E. WITHIN THE REDUCED WORK ZONE SPEED LIMIT ZONE, THE DESIGN SPEED IS THE WORK ZONE SPEED LIMIT ON EXISTING ROAD (E.g. 50 MPH) FOR SIGN SPACING, TAPERS, CHANNELIZATION DEVICE SPACING, BUFFER, AND ROLL AHEAD DISTANCES.

F. WARNING LIGHTS ON CHANNELIZATION DEVICES ARE OPTIONAL. CONTACT REGION TRAFFIC OFFICES FOR THEIR POLICY.

G. CHANNELIZATION DEVICES MAY BE MODIFIED FROM THOSE SHOWN ON THESE PLANS. PER MUTCD, THE MINIMUM REQUIRED DEVICE ON HIGH-SPEED ROADWAYS IS A 28” REFLECTIVE CONE.

H. VERTICAL PANEL CHANNELIZATION DEVICES SHALL NOT BE USED.

I. CHANNELIZATION SPACE SPACING PLANS BASED ON WAC 468-95-301; HOWEVER, DEVICE SPACING MAY BE REDUCED.

J. TAPER LENGTHS ARE BASED ON MUTCD TABLES 6C-1 AND 4C-4. TAPER LENGTHS SHALL MEET OR EXCEED THIS SPECIFIED RATE WITHOUT EXCEPTION. THE TAPER DISTANCES ON THIS TYPICAL TRAFFIC CONTROL PLAN WERE BASED ON THE ASSUMPTION OF 15’ LANE. BECAUSE SHOULDER WIDTHS VARY, A SHOULDER CHANNEL TAPER TABLE IS INCLUDED TO ADDRESS VARIOUS WIDTHS.

K. CHANNELIZATION DEVICES MAY BE PLACED AT THE SAME LOCATION AS THE INTERSECTING ROADWORK.

L. TAPER LENGTHS ARE BASED ON MUTCD TABLES 6C-1 AND 4C-4. TAPER LENGTHS SHALL MEET OR EXCEED THIS SPECIFIED RATE WITHOUT EXCEPTION. THE TAPER DISTANCES ON THIS TYPICAL TRAFFIC CONTROL PLAN WERE BASED ON THE ASSUMPTION OF 15’ LANE. BECAUSE SHOULDER WIDTHS VARY, A SHOULDER CHANNEL TAPER TABLE IS INCLUDED TO ADDRESS VARIOUS WIDTHS.

M. CHANNELIZATION SPACE SPACING PLANS BASED ON WAC 468-95-301; HOWEVER, DEVICE SPACING MAY BE REDUCED.

N. TAPER LENGTHS ARE BASED ON MUTCD TABLES 6C-1 AND 4C-4. TAPER LENGTHS SHALL MEET OR EXCEED THIS SPECIFIED RATE WITHOUT EXCEPTION. THE TAPER DISTANCES ON THIS TYPICAL TRAFFIC CONTROL PLAN WERE BASED ON THE ASSUMPTION OF 15’ LANE. BECAUSE SHOULDER WIDTHS VARY, A SHOULDER CHANNEL TAPER TABLE IS INCLUDED TO ADDRESS VARIOUS WIDTHS.

O. PER MUTCD FIGURE 6H-33, SEQUENTIAL ARROW BOARDS SHALL BE USED FOR ALL FREEWAY LANE CLOSURE TAPERS. EACH LANE CLOSURE SHALL HAVE A SEPARATE SEQUENTIAL ARROW BOARD. SEQUENTIAL ARROW BOARDS SHALL NOT BE USED FOR LANE SHIFTS, RAMP SHIFTS, OR ON-RAMP MERGES.

P. THE “L2” TANDEM BETWEEN LANE CLOSURE TAPERS MAY BE REDUCED TO “L” IN TIGHT GEOMETRIC SITUATIONS, BUT “L2” SHOULD BE OBTAINED WHEN POSSIBLE.


R. THE TRANSVERSE BUFFER (LATERALLY BETWEEN TRAVEL LANE AND WORK AREA) IS RECOMMENDED AS 2-FOOT BUT MAY BE INCREASED AS DESIRED.

S. PER MUTCD FIGURE 6H-33, TRANSPORTABLE ATTENUATORS ARE OPTIONAL BUT THEIR USE IS STRONGLY RECOMMENDED FOR FREEWAY LANE CLOSURES. TRANSPORTABLE ATTENUATORS SHOULD BE PLACED IN CLOSED LANE ADJACENT TO TRAFFIC PRIOR TO SEPARATE WORK AREAS, PARTICULARLY AFTER OPEN TEMPORARY EXIT/RAMPS. TRANSPORTABLE ATTENUATORS CAN BE PLACED IN THE ADDITIONAL CLOSED LANES EXCEPT THE CLOSED LANE ADJACENT TO TRAFFIC.

T. CHANNELIZATION DEVICES PLACED TRANSVERSALLY (AT 45° AND 5-FOOT SPACING) IS AN EFFECTIVE TECHNIQUE TO MOVE MATTRESS DRIVERS BACK OUT OF CLOSED LANE AND SHOULDER.

U. PER MUTCD FIGURE 6H-33, THE OPENING TAPER IS OPTIONAL.

V. A TAPERED TEMPORARY EXIT-RAMP IS TYPICALLY USED WITH A TYPICAL 20:1 TAPER RATE. THE ON-RAMP SHIFT CAN OCCUR THROUGH THE PAVED GEORGE INSTEAD OF THE GORE PAVEMENT MARKINGS BUT VERIFY CROSS-SLOPE IS TRAVERSIBLE. PAVEMENT THICKNESS IS ADEQUATE, CATCH BasiNbits BOXES ARE TRAFFIC BEARING TYPES.

W. A PARALLEL TEMPORARY ON-RAMP IS TYPICALLY USED. THE PARALLEL TEMPORARY ON-RAMP IS BASED ON WSDOT DESIGN MANUAL EXHIBIT 1305-1306. THE TAPER IS LOWED ACROSS EACH CLOSED LANE AT L2 PER CLOSED LANE SHIFT RATE THEN AN ACCELERATION TANGENT OF L2 IS FOLLOWED BY AN L2 ON-RAMP MERGE TAPER. IT IS IMPORTANT TO UNDERSTAND MUTCD FIGURE 6H-44 TYPICAL APPLICATION IS GUIDANCE PER MUTCD SECTION 6H-01.

X. TO DISCOURAGE WORK ZONE INTRUSIONS, DEVICE SPACING IS REDUCED BY HALF ACROSS CLOSED EXIT-RAMPS BETWEEN THE “EXIT CLOSED” SIGN AND THE END OF THE EXIT-RAMP’S PAVED GORE.

Y. ACTUAL WORK AREA LIMITS CAN BE MODIFIED.

AA. RAMP DETOUR SIGNAGE IS RECOMMENDED BY MUTCD 6C-09. IT IS RECOMMENDED TO USE ROUTE SPECIFIC DETOUR SIGNAGE FOR SIGNIFICANT RAMP CLOSURES.

BB. THE ROUTE SPECIFIC DETOUR ROUTE SIGN includes EITHER AN INTERSTATE SHIELD (FOR FREEWAY RAMPS), HIGHWAY SHIELDS (FOR STATE HIGHWAY RAMPS), OR ROADWAY DESCRIPTION. IF THE RAMP IS TO A SPECIFIC ROUTE DIRECTION, INCLUDE ITS DIRECTION. MAXIMIZE THE SHIELDS, TEXT SIZE, AND ARROWS TO FIT ON THE 45°x48° SIGN.

CC. THIS TRAFFIC CONTROL PLAN IS NOT APPLICABLE WHEN HOV-RESTRICTED LANE ARE PRESENT. FOR PREPAREDNESS WITH LIMITATIONS, SEPARATE TRAFFIC CONTROL PLANS ARE PROVIDED IN THE WORK ZONE LIBRARY. FOR UNIQUE HOV LANE CONFIGURATIONS (SUCH AS HOV LANE-CHANGE RESTRICTIONS INCLUDING A BUFFER SEPARATION DIRECT-ACCESS HOV RAMPS OR RIGHT LANES THAT ARE HOV-RESTRICTED) CONTACT REGION TRAFFIC OFFICE WHEN DEVELOPING PLANS.

DD. THIS TRAFFIC CONTROL PLAN IS NOT APPLICABLE WHEN EXPRESS TOLL LANE(S) PRESENT. FOR FREEWAYS WITH EXPRESS TOLL LANE(S), CONTACT REGION TRAFFIC OFFICE WHEN DEVELOPING PLANS.