NOTES:
1. DISTANCE BETWEEN LANE CLOSURE TAPER AND ALL OPEN Ramps shall be 500 MINIMUM.
2. IF FEASIBLE, AVOID PLACING LANE CLOSURE TAPER WITHIN LIMITS OF HORIZONTAL CURVES.
3. AS ORDERED BY THE ENGINEER, ADDITIONAL SPEED LIMIT SIGNS MAY BE USED 50' PRIOR TO EACH WORK AREA WITHIN WORK AREA.
4. PLACE TRANSIENTLY ACROSS CLOSURE AT A 45° ANGLE WITH 5' SPACING AT STRATEGIC LOCATIONS OR EVERY 1000'.
5. ALL SPEED LIMIT SIGNS CONDUCTING WITH WORK ZONE SPEED LIMIT SHALL BE COVERED PER STANDARD SPECIFICATIONS 8-21.3.
6. REOPENING TAPERS OPTIONAL TO ALLOW FOR CONSTRUCTION VEHICLES TO ACCELERATE STRAIGHT OUT OF WORK AREA INTO THE RIGHT LANE.
7. OPTIONAL: IF PERMANENT SPEED LIMIT SIGNS ARE WITHIN 130' OF THE REOPENING TAPER.
8. SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE INDICATED.
9. THIS TRAFFIC CONTROL PLAN IS APPLICABLE TO SHORT TERM AND INTERMEDIATE TERM(3 DAYS OR LESS)
10. THE REOPENING TAPER IS NOT TO SCALE.
NOTES:
1. FOR LEGEND, TABLES, AND ADDITIONAL NOTES: SEE TC228, SHEET 1.
2. ACTUAL NUMBER OF LANES MAY VARY.
3. SEE DETOUR PLAN FOR ADDITIONAL RAMP CLOSURE DETOUR SIGNAGE.

OPEN RIGHT EXIT-RAMP DETAIL
NOT TO SCALE

CLOSED RIGHT EXIT-RAMP DETAIL
NOT TO SCALE

CLOSED RIGHT ON-RAMP DETAIL
NOT TO SCALE

OPEN RIGHT ON-RAMP DETAIL
NOT TO SCALE

FREeways (2+ LANES): SINGLE RIGHT LANE CLOSURE WITH NO LANE SHIFTS
(70 MPH TO 60 MPH VARIABLE WORK ZONE SPEED LIMIT REDUCTION)
NOT TO SCALE
NOTES:
1. FOR LEGEND, TABLES, AND ADDITIONAL NOTES: SEE TC228, SHEET 1.
2. ACTUAL NUMBER OF LANES MAY VARY.

OPEN LEFT EXIT-RAMP DETAIL
NOT TO SCALE

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

OPEN LEFT ON-RAMP DETAIL
NOT TO SCALE

CLOSED LEFT ON-RAMP DETAIL
NOT TO SCALE

FREeways (2+ LANES): SINGLE RIGHT LANE CLOSURE WITH NO LANE SHIFTS
(70 MPH TO 60 MPH VARIABLE WORK ZONE SPEED LIMIT REDUCTION)
Q. M. L. VERTICAL PANEL CHANNELIZATION DEVICES SHALL NOT BE USED.

G. E. B. A. BUFFER CAN EXCEED THE DESIGN BUFFER DISTANCE (THUS "MIN" IS USED) WHEN THE MERGES.

TRAFFIC CONTROL REGION TRAFFIC OFFICES FOR THEIR POLICY.

ON FREEWAY FOR 6-1 INFORMATIONS.

ADVISORY ORDER REGULATORY MUTCD GUIDANCE RADAR 6H-33, FIGURE 190 MUTCD FIGURE 6H-33, THE REOPENING TAPER IS OPTIONAL.

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

AA. 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 48"X48" SIGN.

BB. THIS TRAFFIC CONTROL PLAN IS NOT APPLICABLE WHEN HOV-RESTRICTED LANES ARE PRESENT. FOR FREEWAYS WITH LEFT LANE HOV RESTRICTIONS, SEPARATE TYPICAL TRAFFIC CONTROL PLANS ARE REQUIRED. IF THE PLAN INCLUDES THE SPECIFIC LOCATION OF THE 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.

CC. 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.

FREEWAY (2+ LANES): SINGLE RIGHT LANE CLOSURE WITH NO LANE SHIFTS (70 MPH TO 60 MPH VARIABLE WORK ZONE SPEED LIMIT REDUCTION)

NOT TO SCALE

Washington State Department of Transportation

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TC228

Sheet 1/12

Sheet

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WASHINGTON STATE DEPARTMENT OF TRANSPORTATION

CITY OF EVERETT

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V. A. T. INTEGRAL PANEL CHANNELIZATION DEVICES MAY BE MODIFIED FROM THOSE SHOWN ON THESE TYPICAL PLANS. PER MUTCD, THE MINIMUM REQUIRED DEVICE ON HIGH-SPEED ROADSAYS IS A 28' REFLECTIVE CONE.

L. VERTICAL PANEL CHANNELIZATION DEVICES SHALL NOT BE USED.

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

N. TAPER LENGTHS ARE BASED ON MUTCD TABLES 6C.1 AND 4A.4; TAPER LENGTHS SHALL MEET OR EXCEED THIS SPECIFIED RATE WITHOUT EXCEPTION. THE TAPER DISTANCES PROVIDED ON THIS TYPICAL TRAFFIC CONTROL PLAN WERE BASED ON THE ASSUMPTION OF 12' LANES, BECAUSE SHOULDER WIDTHS VARY, A SHOULDER CLOSURE 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, RAMPS, OR SHIFTS, OR ON ON-RAMP MERGES.

P. PER MUTCD FIGURE 6H-33, LONGITUDINAL BUFFER SPACES ARE OPTIONAL. THEIR USE IS RECOMMENDED WHEN FEASIBLE, IF THE DESIGN BUFFER IS NOT AVAILABLE, THE DESIGN BUFFER SHOULD BE MAXIMIZED. THE BUFFER CAN EXCEED THE DESIGN BUFFER DISTANCE (THUS "MIN" IS USED).

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

R. 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 AND OPEN TEMPORARY ON-RAMPS. EITHER PROTECTIVE VEHICLES OR TRANSPORTABLE ATTENUATORS CAN BE PLACED IN THE ADDITIONAL CLOSED LANES EXCEPT THE CLOSED LANE ADJACENT TO TRAFFIC.

S. PLACING CHANNELIZATION DEVICES TRANSVERSELY (AT 45°AND 5-FOOT SPACING) IS AN EFFECTIVE TECHNIQUE TO MOVE ERRANT DRIVERS BACK OUT OF CLOSED LANES AND SHOULDERS.

T. PER MUTCD FIGURE 6H-33, THE REOPENING TAPER IS OPTIONAL.

U. A TAPERED TEMPORARY EXIT-RAMP IS TYPICALLY USED WITH A TYPICAL 20' TAPER RATE.

V. THE ON-RAMP SHIFT CAN OCCUR THROUGH THE PAVED CORE INSTEAD AT THE END OF THE CORE PAVEMENT MARKINGS BUT VERIFY CROSS-SLOPE IS TRAVERSABLE, PAVEMENT THICKNESS IS ADEQUATE, CATCH BINS/BOXES ARE TRAFFIC SEARING TYPES.

W. A PARALLEL TEMPORARY ON-RAMP IS TYPICALLY USED. THE PARALLEL TEMPORARY ON-RAMP IS BASED ON WSDOT DESIGN MANUAL EXHIBIT 1360-13B. THE ON-RAMP IS SHIFTED ACROSS EACH CLOSED LANES AT 1/2 PER CLOSED LANE SHIFT RATE THEN AN ADDITIONAL 3' SHIFT 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 FROM THE "EXIT CLOSED" SIGN AND THE END OF THE EXIT-RAMP'S PAVED CORE.

Y. ACTUAL WORK AREA LIMITS CAN BE MODIFIED.

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

AA. 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 48"X48" SIGN.

BB. THIS TRAFFIC CONTROL PLAN IS NOT APPLICABLE WHEN HOV-RESTRICTED LANES ARE PRESENT. FOR FREEWAYS WITH LEFT LANE HOV RESTRICTIONS, SEPARATE TYPICAL TRAFFIC CONTROL PLANS ARE REQUIRED. IF THE PLAN INCLUDES THE SPECIFIC LOCATION OF THE 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.

CC. 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.