PERFORMANCE ACTIVITY 408 TREE REMOVAL

WORK DESCRIPTION 1 WORK DESCRIPTION 2 Fallen Tree Standing Tree

408 TREE REMOVAL

ACTIVITY DESCRIPTION

Cut and remove tree as necessary.

WORK DESCRIPTION 1 Fallen Tree WORK DESCRIPTION 2 Standing Tree

DURING EMERGENCY SITUATIONS, COMPLETE CLOSURE OF THE ROADWAY MAY BE NECESSARY.

DURING EMERGENCY SITUATIONS, HOURLY AND DISTANCE REQUIREMENTS FOR FLAGGING OPERATIONS, LANE CLOSURES AND SHOULDER CLOSURES MAY BE DISREGARDED PROVIDED THE WORK CREW INCLUDES NO LESS THAN TWO PERSONS AND A WORK VEHICLE FULLY EQUIPPED WITH THE REQUIRED HIGH INTENSITY ROTATING, FLASHING, OSCILLATING OR STROBE AUXILIARY WARNING LIGHTS.

TRAFFIC CONTROL

TWO-LANE TWO-WAY ROADWAYS

Flagging operations are required for planned work activities that require equipment, personnel, materials, or any vehicles to encroach upon a travel lane or within 1 foot of a travel lane. When the work may be performed without the necessity for equipment, personnel, materials, or vehicles to encroach within 1 foot of an adjacent travel or without creating a hazard to passing motorists, utilize right shoulder closures.

TYPICAL DRAWING APPLICATIONS

FLAGGING OPERATIONS

DRAWING 405-01-A - FLAGGING OPERATIONS

MULTIPLE FLAGGERS

TWO-LANE TWO-WAY ROADWAYS PRIMARY & SECONDARY ROUTES

DRAWING 405-01-B(1) - FLAGGING OPERATIONS

MULTIPLE FLAGGERS

TWO-LANE TWO-WAY ROADWAYS PRIMARY & SECONDARY ROUTES STOP SIGN CONTROLLED SIDE ROADS

DRAWING 405-01-B(2) - FLAGGING OPERATIONS

MULTIPLE FLAGGERS

TWO-LANE TWO-WAY ROADWAYS PRIMARY & SECONDARY ROUTES

4-WAY STOP CONTROLLED INTERSECTION

DRAWING 405-01-C(1) - FLAGGING OPERATIONS

MULTIPLE FLAGGERS

TWO-LANE TWO-WAY ROADWAYS PRIMARY & SECONDARY ROUTES

TRAFFIC SIGNAL CONTROLLED INTERSECTION

LAW ENFORCEMENT OFFICER(S)

DRAWING 405-01-C(2) - FLAGGING OPERATIONS

MULTIPLE FLAGGERS

TWO-LANE TWO-WAY ROADWAYS PRIMARY & SECONDARY ROUTES

TRAFFIC SIGNAL CONTROLLED INTERSECTION

FLAGGERS

DRAWING 405-01-D(1) - FLAGGING OPERATIONS

MULTIPLE FLAGGERS

TWO-LANE TWO-WAY ROADWAYS PRIMARY & SECONDARY ROUTES

WORK ACTIVITY AREA BEGINNING at an INTERSECTION with a

TWO-LANE TWO-WAY ROADWAY

DEPARTURE LANE

DRAWING 405-01-D(2) - FLAGGING OPERATIONS

MULTIPLE FLAGGERS

TWO-LANE TWO-WAY ROADWAYS PRIMARY & SECONDARY ROUTES

WORK ACTIVITY AREA TERMINATING at an INTERSECTION with a

TWO-LANE TWO-WAY ROADWAY

APPROACH LANE

DRAWING 405-01-E(1)

DRAWING 405-01-E(2) - FLAGGING OPERATIONS

MULTIPLE FLAGGERS

TWO-LANE TWO-WAY ROADWAYS PRIMARY & SECONDARY ROUTES

WORK ACTIVITY AREA INTERSECTIONS with

LOW SPEED </ = 35 MPH

MULTILANE ROADWAYS

DRAWING 405-01-F(1)

DRAWING 405-01-F(2) - FLAGGING OPERATIONS

MULTIPLE FLAGGERS

TWO-LANE TWO-WAY ROADWAYS PRIMARY & SECONDARY ROUTES

WORK ACTIVITY AREA INTERSECTIONS with

INTERMEDIATE SPEED to HIGH SPEED

40 MPH - 60 MPH MULTILANE ROADWAYS

DRAWING 405-02 - FLAGGING OPERATIONS

SINGLE FLAGGER OPERATION

LOW VOLUME

LOW SPEED TO INTERMEDIATE SPEED TWO-LANE TWO-WAY ROADWAYS PRIMARY & SECONDARY ROUTES

SHOULDER CLOSURES

DRAWING 515-01-A - RIGHT SHOULDER CLOSURE

CASE I / CASE II

TWO-LANE TWO-WAY ROADWAYS PRIMARY & SECONDARY ROUTES

MULTILANE SECONDARY AND PRIMARY ROADWAYS

Lane closures are required for planned work activities that require equipment, personnel, materials, or any vehicles to encroach upon a travel lane or within 1 foot of a travel lane. When the work may be performed without the necessity for equipment, personnel, materials, or vehicles to encroach within 1 foot of an adjacent travel or without creating a hazard to passing motorists, utilize shoulder closures.

TYPICAL DRAWING APPLICATIONS

LANE CLOSURES

DRAWING 505-01 - LANE CLOSURE

LOW SPEED MULTILANE

</ = 35 MPH

PRIMARY & SECONDARY ROUTES

DRAWING 505-03-A - LANE CLOSURE

INTERMEDIATE SPEED TO HIGH SPEED

40 MPH - 60 MPH

MULTILANE

PRIMARY & SECONDARY ROUTES

SHOULDER CLOSURES

DRAWING 515-01-B - RIGHT SHOULDER CLOSURE

CASE I / CASE II MULTILANE

PRIMARY & SECONDARY ROUTES

DRAWING 515-02 - LEFT SHOULDER CLOSURE

CASE I / CASE I MULTILANE

PRIMARY & SECONDARY ROUTES

DRAWING 515-03 - LEFT SHOULDER CLOSURE

CASE I / CASE II

MULTILANE

PRIMARY & SECONDARY ROUTES

INTERSTATE ROADWAYS

Utilize intermittent mobile operations for these work activities under the following conditions:

Condition 2 - The maximum time duration of a stop is 30 minutes if the vehicles remain in the shoulder areas in their entirety with no encroachment upon an adjacent travel lane.

During intermittent mobile operations, utilize a shadow vehicle when the stopping sight distance interval between the work vehicle or road machinery and an approaching motorist is unavailable based upon the posted regulatory speed limit of the work location.

Standard shoulder closures may be used for work activities that cannot be conducted under the conditions required for intermittent mobile operations.

Lane closures are required for planned work activities that require equipment, personnel, materials, or any vehicles to encroach upon a travel lane or within 10 feet of a travel lane. When the work may be performed without the necessity for equipment, personnel, materials, or vehicles to encroach within 10 feet of an adjacent travel or without creating a hazard to passing motorists, utilize shoulder closures.

Lane closures are required for planned work activities that cannot be conducted under the conditions required for intermittent mobile operations or standard shoulder closures.

TYPICAL DRAWING APPLICATIONS

LANE CLOSURES

DRAWING 510-01-A - LANE CLOSURE

INTERSTATE ROUTES

DRAWING 510-01-B - LANE CLOSURE

EXIT / ENTRANCE RAMPS INTERSTATE ROUTES

SHOULDER CLOSURES

DRAWING 520-01 - RIGHT SHOULDER CLOSURE

CASE I / CASE II INTERSTATE ROUTES

DRAWING 520-02 - LEFT SHOULDER CLOSURE

CASE I / CASE I NARROW MEDIAN INTERSTATE ROUTES

DRAWING 520-03 - LEFT SHOULDER CLOSURE

CASE I / CASE I WIDE MEDIAN

INTERSTATE ROUTES

DRAWING 520-04 - LEFT SHOULDER CLOSURE

CASE I / CASE II WIDE MEDIAN

INTERSTATE ROUTES

DRAWING 520-05 - LEFT SHOULDER CLOSURE

CASE II / CASE II WIDE MEDIAN

INTERSTATE ROUTES

MOBILE OPERATIONS - INTERMITTENT

DRAWING 535-01-A - MOBILE OPERATIONS – INTERMITTENT

STOPPING SIGHT DISTANCE
VEHICLE TRAIN REQUIREMENTS

VERTICAL CURVE (HILL)

DRAWING 535-01-B - MOBILE OPERATIONS – INTERMITTENT

STOPPING SIGHT DISTANCE VEHICLE TRAIN REQUIREMENTS HORIZONTAL CURVE (CURVE)

DRAWING 535-04-D(1) - MOBILE OPERATIONS – INTERMITTENT

HIGH VOLUME HIGH SPEED

INTERSTATE ROUTES

DRAWING 535-04-E - MOBILE OPERATIONS – INTERMITTENT

HIGH VOLUME HIGH SPEED

INTERIOR TRAVEL LANE OPERATIONS

INTERSTATE ROUTES