# **PERFORMANCE ACTIVITY 403**

GRASSING

### ACTIVITY DESCRIPTION

Prepare seed beds and plant grass seed or place sod.

### **TRAFFIC CONTROL**

#### TWO-LANE TWO-WAY ROADWAYS

Mobilized shoulder operations may be used for work activities requiring only one (1) single equipment unit that progress along the roadway at a slow pace and require road machinery operating on the shoulder to encroach upon the roadway.

On low speed roadways with speeds of 35 mph or less, shoulder closures designed for minor encroachment are acceptable for work activities conducted within 30 feet of the near edge of an adjacent travel lane that may require encroachment upon the roadway by personnel, tools, equipment, materials, vehicles, etc. to the extent that may require a reduction of the lane width of an adjacent travel lane to no less than 10 feet.

On low speed roadways with speeds of 35 mph or less, standard shoulder closures are required for work activities that require the presence of personnel, tools, equipment, materials, vehicles, etc. beyond 1 foot but within 30 feet of the near edge of an adjacent travel lane.

On intermediate to high speed roadways, standard shoulder closures are required for work activities that require the presence of personnel, tools, equipment, materials, vehicles, etc. beyond 1 foot but within 30 feet of the near edge of an adjacent travel lane.

On intermediate to high speed roadways, flagging operations are required when the work activities require the presence of personnel, tools, equipment, materials, vehicles, etc. to encroach upon the roadway or to within 1 foot of the near edge of an adjacent travel lane.

Flagging operations are required for work activities that cannot be conducted under the conditions required for mobilized shoulder operations, standard shoulder closures or shoulder closures with minor encroachment.

### 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

TWO-LANE TWO-WAY ROADWAYS PRIMARY & SECONDARY ROUTES

#### SHOULDER CLOSURES

**DRAWING 525-03** 

DRAWING 515-01-A	-	RIGHT SHOULDER CLOSURE CASE I / CASE II TWO-LANE TWO-WAY ROADWAYS PRIMARY & SECONDARY ROUTES
DRAWING 515-01-C	-	RIGHT SHOULDER CLOSURE LOW SPEED < / = 35 MPH PRIMARY & SECONDARY ROUTES (MINOR ENCROACHMENT)
MOBILIZED SHOULDER OPERATIONS		
DRAWING 525-01	-	MOBILIZED SHOULDER OPERATIONS ROAD MACHINERY – MINOR ENCROACHMENT PRIMARY & SECONDARY ROUTES
DRAWING 525-02	-	MOBILIZED SHOULDER OPERATIONS PEDESTRIAN WORKERS – NO ENCROACHMENT ROAD MACHINERY – MINOR ENCROACHMENT PRIMARY & SECONDARY ROUTES

#### MULTILANE SECONDARY AND PRIMARY ROADWAYS

Mobilized shoulder operations may be implemented for work activities requiring only one (1) single equipment unit that progress along the roadway at a slow pace and may require equipment or vehicles to encroach upon a travel lane beyond 2 feet and at times may occupy the entire travel lane adjacent to the shoulder in which the work is being conducted.

MOBILIZED SHOULDER OPERATIONS

PRIMARY & SECONDARY ROUTES

ROAD MACHINERY - MAJOR ENCROACHMENT

On low speed roadways with speeds of 35 mph or less, shoulder closures designed for minor encroachment are acceptable for work activities conducted within 30 feet of the near edge of an adjacent travel lane that may require encroachment upon the roadway by personnel, tools, equipment, materials, vehicles, etc. to the extent that may require a reduction of the lane width of an adjacent travel lane to no less than 10 feet.

On low speed roadways with speeds of 35 mph or less, standard shoulder closures are required for work activities that require the presence of personnel, tools, equipment, materials, vehicles, etc. beyond 1 foot but within 30 feet of the near edge of an adjacent travel lane.

On low speed roadways, lane closures are required when encroachment of the work activities onto the roadway will reduce the lane width of the adjacent travel lane to less than 10 feet.

On intermediate to high speed roadways, standard shoulder closures are required for work activities that require the presence of personnel, tools, equipment, materials, vehicles, etc. beyond 1 foot but within 30 feet of the near edge of an adjacent travel lane.

On intermediate to high speed roadways, lane closures are required when the work activities require the presence of personnel, tools, equipment, materials, vehicles, etc. to encroach upon the roadway or to within 1 foot of the near edge of an adjacent travel lane.

Lane closures are required for work activities that cannot be conducted under the conditions required for mobilized shoulder operations, standard shoulder closures or shoulder closures with minor encroachment.

# **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 515-01-C	-	RIGHT SHOULDER CLOSURE LOW SPEED < /  = 35 MPH PRIMARY & SECONDARY ROUTES (MINOR ENCROACHMENT)
DRAWING 515-01-D	-	LEFT SHOULDER CLOSURE LOW SPEED < / = 35 MPH MULTILANE DIVIDED HIGHWAY w/ GRASSED EARTH MEDIAN PRIMARY & SECONDARY ROUTES (MINOR ENCROACHMENT)
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
MOBILIZED SHOULDER OPERATIONS		
DRAWING 525-01	-	MOBILIZED SHOULDER OPERATIONS

DRAWING 525-01	-	MOBILIZED SHOULDER OPERATIONS ROAD MACHINERY – MINOR ENCROACHMENT PRIMARY & SECONDARY ROUTES
DRAWING 525-02	-	MOBILIZED SHOULDER OPERATIONS PEDESTRIAN WORKERS – NO ENCROACHMENT ROAD MACHINERY – MINOR ENCROACHMENT PRIMARY & SECONDARY ROUTES
DRAWING 525-03	-	MOBILIZED SHOULDER OPERATIONS ROAD MACHINERY – MAJOR ENCROACHMENT PRIMARY & SECONDARY ROUTES

### **INTERSTATE ROADWAYS**

Standard shoulder closures may be used for short term stationary and longer term work zones with work activities that require the presence of equipment, personnel, materials, or any vehicles to beyond 10 feet but within 30 feet of an adjacent travel lane.

Lane closures are required for 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 the adjacent travel, utilize 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