

**PERFORMANCE ACTIVITY 202**

**SLOPES**

**WORK DESCRIPTION 1**  
**WORK DESCRIPTION 2**

**Repair**  
**Install / Maintain**

**ACTIVITY DESCRIPTION**

Repair washouts and slides on slopes and shoulders. Haul necessary materials and place silt fence, ditch checks, erosion control measures and grass seed to prevent erosion.

**WORK DESCRIPTION 1 Repair**

**WORK DESCRIPTION 2 Install / Maintain**

**TRAFFIC CONTROL**

**TWO-LANE TWO-WAY ROADWAYS**

Mobilized shoulder operations may be used for work activities 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 standard shoulder closures, shoulder closures with minor encroachment or mobilized shoulder operations.

**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

- 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
- DRAWING 525-03** - MOBILIZED SHOULDER OPERATIONS  
ROAD MACHINERY – MAJOR ENCROACHMENT  
PRIMARY & SECONDARY ROUTES

**MULTILANE SECONDARY AND PRIMARY ROADWAYS**

Mobilized shoulder operations may be used for work activities 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 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 standard shoulder closures, standard shoulder closures with minor encroachment or mobilized shoulder operations.

**TYPICAL DRAWING APPLICATIONS**

**LANE CLOSURES**

- DRAWING 505-01** - LANE CLOSURE  
LOW SPEED MULTILANE  
< / = 35 MPH  
PRIMARY & SECONDARY ROUTES
- DRAWING 505-02** - DUAL 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
- DRAWING 505-04-A** - DUAL LANE CLOSURE  
TRANSITION / ACTIVITY AREAS  
INTERMEDIATE SPEED TO HIGH SPEED  
40 MPH - 60 MPH  
MULTILANE  
PRIMARY & SECONDARY ROUTES
- DRAWING 505-04-B** - DUAL LANE CLOSURE  
ADVANCE WARNING AREA  
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  
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

Mobilized shoulder operations may be used for work activities that progress along the roadway at a slow pace and require equipment, personnel, materials, or any vehicles to encroach upon the adjacent paved shoulder within the limits specified by the typical drawing applications for interstate mobilized shoulder operations.

Standard shoulder closures are required for stationary work activities that require the presence of personnel, tools, equipment, materials, vehicles, etc. beyond 10 feet but within 30 feet 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 or standard shoulder closures.

**( Brief periodic encroachments upon the adjacent travel lane for the equipment to relocate or bypass structures such as guardrail locations or bridge structures are acceptable. )**

### 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

**MOBILIZED SHOULDER OPERATIONS**

- DRAWING 530-01** - MOBILIZED SHOULDER OPERATIONS  
ROAD MACHINERY – MAJOR ENCROACHMENT  
INTERSTATE ROUTES
  
- DRAWING 530-02** - MOBILIZED SHOULDER OPERATIONS  
PEDESTRIAN WORKERS – MINOR ENCROACHMENT  
UPON PAVED SHOULDER  
INTERSTATE ROUTES
  
- DRAWING 530-03** - MOBILIZED SHOULDER OPERATIONS  
PEDESTRIAN WORKERS – MAJOR ENCROACHMENT  
UPON PAVED SHOULDER  
ROAD MACHINERY – MAJOR ENCROACHMENT  
UPON TRAVEL LANE  
INTERSTATE ROUTES