

**PERFORMANCE ACTIVITY 401**

**MOWING**

|                           |                                   |
|---------------------------|-----------------------------------|
| <b>WORK DESCRIPTION 1</b> | <b>Brush Management</b>           |
| <b>WORK DESCRIPTION 2</b> | <b>Hand Trimming</b>              |
| <b>WORK DESCRIPTION 3</b> | <b>Outdoor Advertising Window</b> |
| <b>WORK DESCRIPTION 4</b> | <b>Routine</b>                    |
| <b>WORK DESCRIPTION 5</b> | <b>Safety</b>                     |

## 401 MOWING

### ACTIVITY DESCRIPTION

Mow vegetation by hand and machine as necessary.

**WORK DESCRIPTION 1** Brush Management  
**WORK DESCRIPTION 2** Hand Trimming  
**WORK DESCRIPTION 3** Outdoor Advertising Window  
**WORK DESCRIPTION 5** Safety

### TRAFFIC CONTROL

#### TWO-LANE TWO-WAY 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.

**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.**

Shoulder closures may be installed for work activities that require pedestrian workers to perform work activities beyond 1 foot but within 15 feet of a travel lane.

Flagging operations may be installed for work activities that require pedestrian workers to encroach upon the travel lane or perform work activities within 1 foot of the adjacent travel lane.

Flagging operations may be installed for work activities that require equipment or any 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.

**( 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

##### FLAGGING OPERATIONS

|                            |   |   |
|----------------------------|---|---|
| <b>DRAWING 405-01-A</b>    | - | FLAGGING OPERATIONS<br>MULTIPLE FLAGGERS<br>TWO-LANE TWO-WAY ROADWAYS<br>PRIMARY & SECONDARY ROUTES   |
| <b>DRAWING 405-01-B(1)</b> | - | FLAGGING OPERATIONS<br>MULTIPLE FLAGGERS<br>TWO-LANE TWO-WAY ROADWAYS<br>PRIMARY & SECONDARY ROUTES<br>STOP SIGN CONTROLLED SIDE ROADS                                      |
| <b>DRAWING 405-01-B(2)</b> | - | FLAGGING OPERATIONS<br>MULTIPLE FLAGGERS<br>TWO-LANE TWO-WAY ROADWAYS<br>PRIMARY & SECONDARY ROUTES<br>4-WAY STOP CONTROLLED INTERSECTION                                   |
| <b>DRAWING 405-01-C(1)</b> | - | FLAGGING OPERATIONS<br>MULTIPLE FLAGGERS<br>TWO-LANE TWO-WAY ROADWAYS<br>PRIMARY & SECONDARY ROUTES<br>TRAFFIC SIGNAL CONTROLLED INTERSECTION<br>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

**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 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.

**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.**

Shoulder closures may be installed for work activities that require pedestrian workers to perform work activities beyond 1 foot but within 15 feet of a travel lane.

Lane closures may be installed for work activities that require pedestrian workers to encroach upon the travel lane or perform work activities within 1 foot of the adjacent travel lane.

Lane closures may be installed for work activities that require equipment or any 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.

**( 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 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

**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 should be implemented for work activities that progress along the roadway at a slow pace and may require equipment or 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 work activities that progress along the roadway at a slow pace and cannot be conducted under the conditions required for mobilized shoulder operations.

**( 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**

#### **SHOULDER CLOSURES**

- |                       |   |  |
|-----------------------|---|--|
| <b>DRAWING 520-01</b> | - | RIGHT SHOULDER CLOSURE<br>CASE I / CASE II<br>INTERSTATE ROUTES                |
| <b>DRAWING 520-02</b> | - | LEFT SHOULDER CLOSURE<br>CASE I / CASE I<br>NARROW MEDIAN<br>INTERSTATE ROUTES |
| <b>DRAWING 520-03</b> | - | LEFT SHOULDER CLOSURE<br>CASE I / CASE I<br>WIDE MEDIAN<br>INTERSTATE ROUTES   |
| <b>DRAWING 520-04</b> | - | LEFT SHOULDER CLOSURE<br>CASE I / CASE II<br>WIDE MEDIAN<br>INTERSTATE ROUTES  |
| <b>DRAWING 520-05</b> | - | LEFT SHOULDER CLOSURE<br>CASE II / CASE II<br>WIDE MEDIAN<br>INTERSTATE ROUTES |

#### **MOBILIZED SHOULDER OPERATIONS**

- |                       |   |  |
|-----------------------|---|--|
| <b>DRAWING 530-01</b> | - | MOBILIZED SHOULDER OPERATIONS<br>ROAD MACHINERY – MAJOR ENCROACHMENT<br>INTERSTATE ROUTES                            |
| <b>DRAWING 530-02</b> | - | MOBILIZED SHOULDER OPERATIONS<br>PEDESTRIAN WORKERS – MINOR ENCROACHMENT<br>UPON PAVED SHOULDER<br>INTERSTATE ROUTES |

**WORK DESCRIPTION 4 Routine**

**TRAFFIC CONTROL**

**TWO-LANE TWO-WAY ROADWAYS**

Mobilized shoulder operations may be implemented for work activities requiring only one (1) single equipment unit conducted within the roadway shoulders that move continuously while performing the work. Equipment for these operations occupies the shoulder while continuously moving. The equipment may encroach upon the adjacent travel lane up to 2 feet and possibly more than 2 feet for short durations.

**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.**

**( 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**

**MOBILIZED SHOULDER OPERATIONS**

- |                       |   |  |
|-----------------------|---|--|
| <b>DRAWING 525-01</b> | - | MOBILIZED SHOULDER OPERATIONS<br>ROAD MACHINERY – MINOR ENCROACHMENT<br>PRIMARY & SECONDARY ROUTES   |
| <b>DRAWING 525-02</b> | - | MOBILIZED SHOULDER OPERATIONS<br>PEDESTRIAN WORKERS – NO ENCROACHMENT<br>ROAD MACHINERY – MINOR ENCROACHMENT<br>PRIMARY & SECONDARY ROUTES |
| <b>DRAWING 525-03</b> | - | MOBILIZED SHOULDER OPERATIONS<br>ROAD MACHINERY – MAJOR ENCROACHMENT<br>PRIMARY & SECONDARY ROUTES   |

**MULTILANE SECONDARY AND PRIMARY ROADWAYS**

Mobilized shoulder operations may be implemented for work activities requiring only one (1) single equipment unit conducted within the roadway shoulders that move continuously while performing the work. Equipment for these operations occupies the shoulder while continuously moving. The equipment may encroach upon the adjacent travel lane up to 2 feet and possibly more than 2 feet for short durations.

**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.**

**( 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**

**MOBILIZED SHOULDER OPERATIONS**

- |                       |   |  |
|-----------------------|---|--|
| <b>DRAWING 525-01</b> | - | MOBILIZED SHOULDER OPERATIONS<br>ROAD MACHINERY – MINOR ENCROACHMENT<br>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 should be implemented for work activities that 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 work activities that progress along the roadway at a slow pace and cannot be conducted under the conditions required for mobilized shoulder operations.

**( 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**

**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