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## ORIGINATION FORM

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Proposed Revisions to a Standard Plans Index  
(Please provide all information — Incomplete forms will be returned)

**Contact Information:**

Date: May 26, 2020  
Originator: Derwood Sheppard  
Phone: (850) 414-4334  
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**Standard Plans:**

Index Number: 102-602  
Sheet Number (s): 1  
Index Title: Two-Lane, Two-Way, Work on Shoulder

**Summary of the changes:**

Sheet 1: Revised Detail; Deleted 'Distance Between Signs', 'Table I Device Spacing Table', and 'Table II Taper Length - Shoulder' Tables (Moved to 102-600); Deleted Duration Notes and Conditions; Revised 'General Notes'; Changed Index Title

Sheet 2: Added Index 102-612 as New Sheet 2; Revised Detail; Deleted 'Distance Between Signs', 'Table I Device Spacing Table', and 'Table II Taper Length - Shoulder' Tables (Moved to 102-600); Deleted Duration Notes and Conditions; Revised 'General Notes'; Changed Index Title.

**Commentary / Background:**

**Other Affected Offices / Documents:** (Provide name of person contacted)

- | Yes                      | No                       |                             |
|--------------------------|--------------------------|-----------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | Other Standard Plans –      |
| <input type="checkbox"/> | <input type="checkbox"/> | FDOT Design Manual –        |
| <input type="checkbox"/> | <input type="checkbox"/> | Basis of Estimates Manual – |
| <input type="checkbox"/> | <input type="checkbox"/> | Standard Specifications –   |
| <input type="checkbox"/> | <input type="checkbox"/> | Approved Product List –     |
| <input type="checkbox"/> | <input type="checkbox"/> | Construction –              |
| <input type="checkbox"/> | <input type="checkbox"/> | Maintenance –               |

**Origination Package Includes:**

(Email or hand deliver package to Rick Jenkins)

- | Yes                                 | N/A                      |  |
|-------------------------------------|--------------------------|--|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Redline Mark-ups                         |
| <input type="checkbox"/>            | <input type="checkbox"/> | Proposed Standard Plan Instruction (SPI) |
| <input type="checkbox"/>            | <input type="checkbox"/> | Revised SPI                              |
| <input type="checkbox"/>            | <input type="checkbox"/> | Other Support Documents                  |

**Implementation:**

- |                                     |                                  |
|-------------------------------------|----------------------------------|
| <input type="checkbox"/>            | Design Bulletin (Interim)        |
| <input type="checkbox"/>            | DCE Memo                         |
| <input type="checkbox"/>            | Program Mgmt. Bulletin           |
| <input checked="" type="checkbox"/> | FY-Standard Plans (Next Release) |

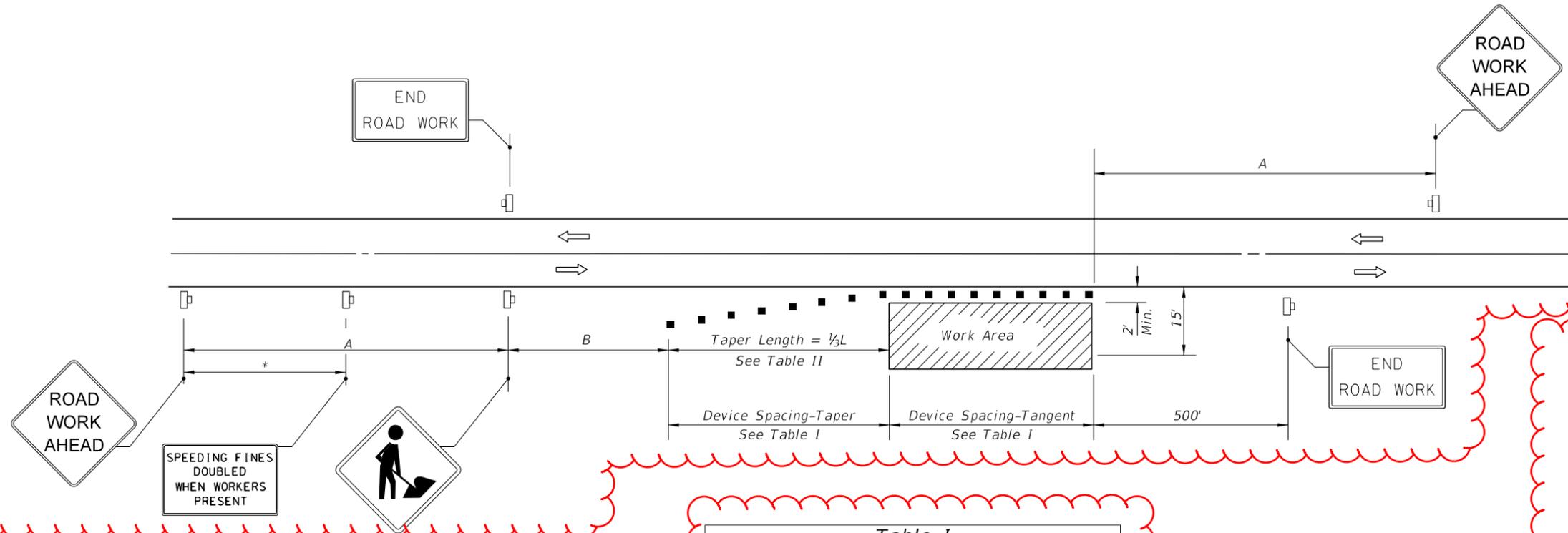
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Contact the Roadway Design Office for assistance in completing this form

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REVISED DETAIL

DELETED - MOVED TO INDEX 102-600



**DISTANCE BETWEEN SIGNS**

Speed	Spacing (ft.)	
	A	B
40 mph or less	200	200
45 mph	350	350
50 mph or greater	500	500

\*Midway between signs.

DELETED - MOVED TO INDEX 102-600

**Table I  
Device Spacing**

Speed (mph)	Max. Distance Between Devices (ft.)			
	Cones or Tubular Markers		Type I or Type II Barricades or Vertical Panels or Drums	
	Taper	Tangent	Taper	Tangent
25	25	50	25	50
30 to 45	25	50	30	50
50 to 70	25	50	50	100

DELETED - MOVED TO INDEX 102-600

**Table II  
Taper Length - Shoulder**

Speed (mph)	1/3L (ft)			Notes
	8' Shldr.	10' Shldr.	12' Shldr.	
25	28	35	42	$L = \frac{WS^2}{60}$
30	40	50	60	
35	55	68	82	
40	72	90	107	L=WS
45	120	150	180	
50	133	167	200	
55	147	183	220	
60	160	200	240	
65	173	217	260	
70	187	233	280	

8' minimum shoulder width  
 1/3L = Length of shoulder taper in feet  
 W = Width of total shoulder in feet (combined paved and unpaved width)  
 S = Posted speed limit (mph)

**SYMBOLS**

- Work Area
- Channelizing Device (See Index 102-600)
- Work Zone Sign
- Lane Identification + Direction of Traffic

**GENERAL NOTES**

1. When four or more work vehicles enter the through traffic lanes in a one hour period or less (excluding establishing and terminating the work area), the advanced FLAGGER sign shall be substituted for the WORKERS sign. For location of flaggers and FLAGGER signs, see Index 102-603.
2. SHOULDER WORK sign may be used as an alternate to the WORKER symbol sign only on the side where the shoulder work is being performed.
3. When a side road intersects the highway within the TTC zone, additional TTC devices shall be placed in accordance with other applicable TCZ Indexes.
4. For general TCZ requirements and additional information, refer to Index 102-600.

**DURATION NOTES**

1. Signs and channelizing devices may be omitted if all of the following conditions are met:
  - a. Work operations are 60 minutes or less.
  - b. Vehicles in the work area have high-intensity, rotating, flashing, oscillating, or strobe lights operating.

**CONDITIONS**

WHERE ANY VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCROACH THE AREA CLOSER THAN 15' BUT NOT CLOSER THAN 2' TO THE EDGE OF TRAVEL WAY.

REVISED NOTES - CONSOLIDATED WITH INDEX 102-612

CHANGED TO "TWO-LANE AND MULTILANE, WORK ON THE SHOULDER"

11/01/20

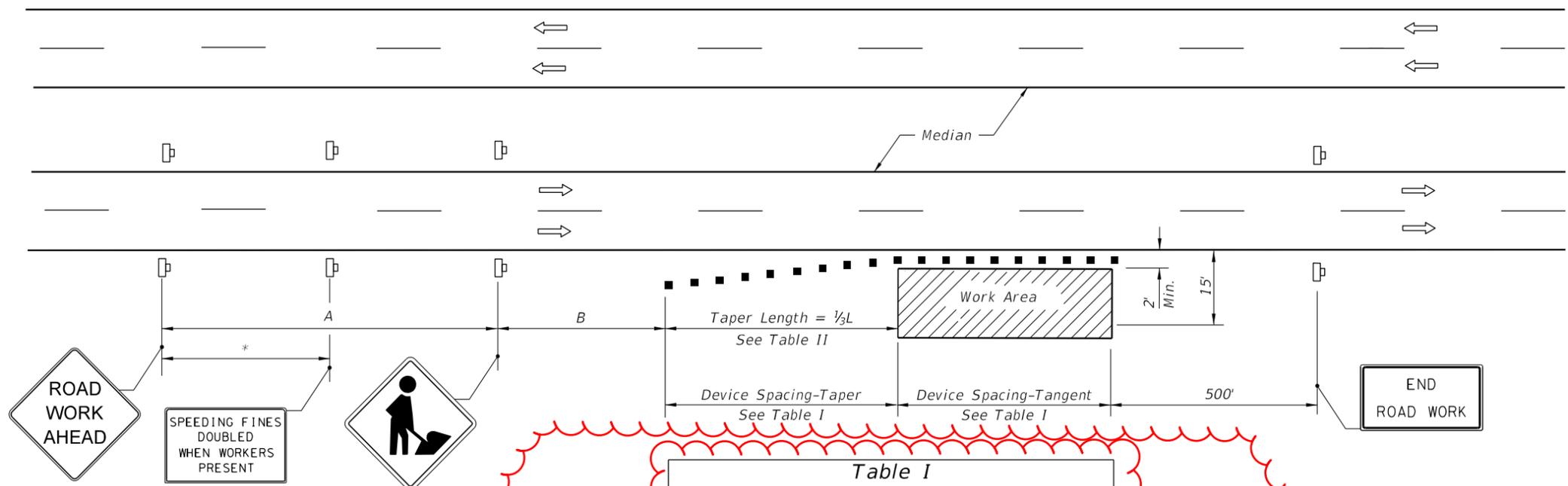
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REVISED DETAIL

DELETED - MOVED TO INDEX 102-600



**DISTANCE BETWEEN SIGNS**

Speed	Spacing (ft.)	
	A	B
40 mph or less	200	200
45 mph	350	350
50 mph or greater	500	500

\* 250' beyond the ROAD WORK AHEAD sign or midway between signs whichever is less.

DELETED - MOVED TO INDEX 102-600

**Table I  
Device Spacing**

Speed (mph)	Max. Distance Between Devices (ft.)			
	Cones or Tubular Markers		Type I or Type II Barricades or Vertical Panels or Drums	
	Taper	Tangent	Taper	Tangent
25	25	50	25	50
30 to 45	25	50	30	50
50 to 70	25	50	50	100

DELETED - MOVED TO INDEX 102-600

**Table II  
Taper Length - Shoulder**

Speed (mph)	1/3 L (ft.)			Notes
	8' Shldr.	10' Shldr.	12' Shldr.	
25	28	35	42	$L = \frac{WS^2}{60}$
30	40	50	60	
35	55	68	82	
40	72	90	107	L=WS
45	120	150	180	
50	133	167	200	
55	147	183	220	
60	160	200	240	
65	173	217	260	
70	187	233	280	

8' minimum shoulder width.

1/3 L = Length of shoulder taper in feet

W = Width of total shoulder in feet (combined paved and unpaved width)

S = Posted speed limit (mph)

**SYMBOLS**

- Work Area
- Channelizing Device (See Index 102-600)
- Work Zone Sign
- Lane Identification + Direction of Traffic

**GENERAL NOTES**

- When a high volume of work vehicles are entering and leaving the Work Area at speeds slower than 10 MPH below the posted speed, place an M07-5-06 sign in the ROAD WORK AHEAD sign location and shift the ROAD WORK AHEAD sign upstream 500 ft.
- This TCZ plan also applies to work performed in the median more than 2' but less than 15' from the edge of travelway.
- When work is being performed on a multilane undivided roadway the signs normally mounted in the median (as shown) shall be omitted.
- WORKERS signs to be removed or fully covered when no work is being performed.
- SHOULDER WORK sign may be used as an alternate to the WORKER symbol sign.
- When a side road intersects the highway within the TTC zone, additional TTC devices shall be placed in accordance with other applicable TCZ Indexes.
- For general TCZ requirements and additional information, refer to Index 102-600.

**DURATION NOTES**

- Signs and channelizing devices may be omitted if all of the following conditions are met:
  - Work operations are 60 minutes or less.
  - Vehicles in the work area have high-intensity, rotating, flashing, oscillating, or strobe lights operating.

REVISED NOTES - CONSOLIDATED WITH INDEX 102-602 & MOVED TO SHEET 1

**CONDITIONS**

WHERE ANY VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCROACH THE AREA CLOSER THAN 15' BUT NOT CLOSER THAN 2' TO THE EDGE OF TRAVEL WAY.

CHANGED TO "TWO-LANE AND MULTILANE, WORK ON THE SHOULDER"

~~MULTILANE, WORK ON SHOULDER~~

602

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2

11/01/20

2021-22

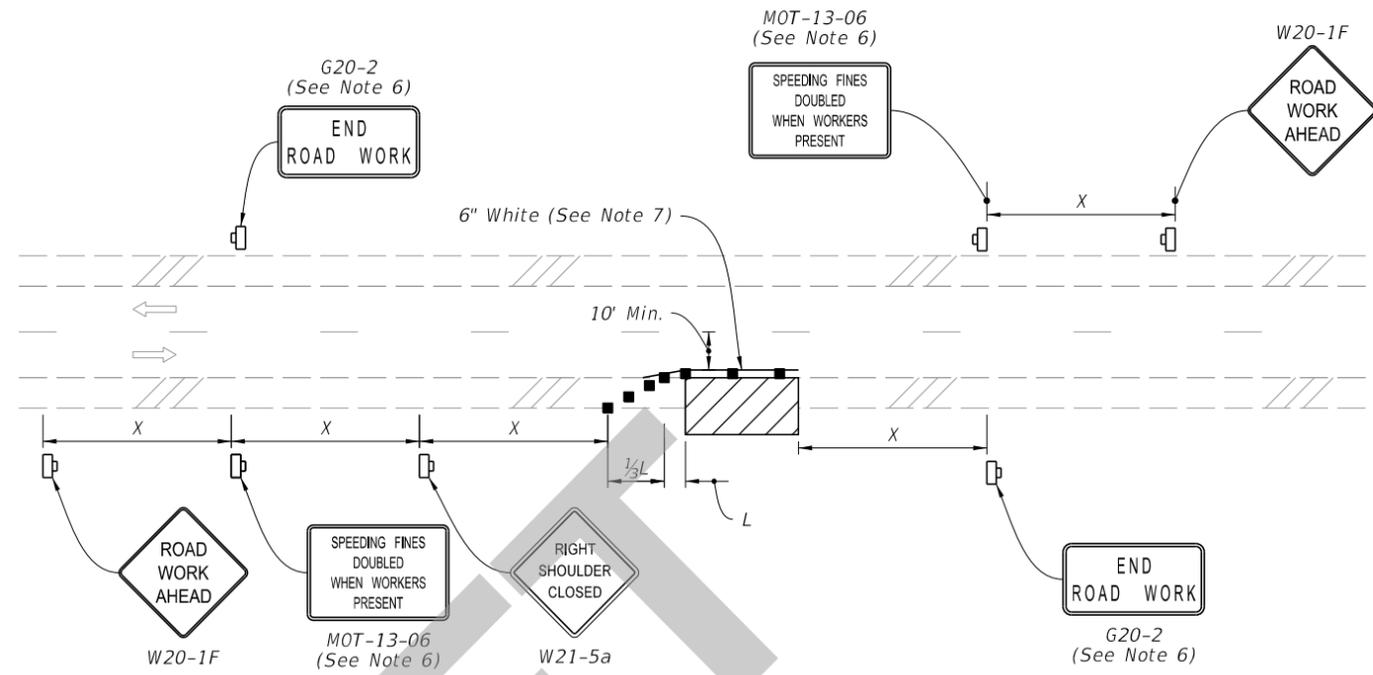
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**NOTES:**

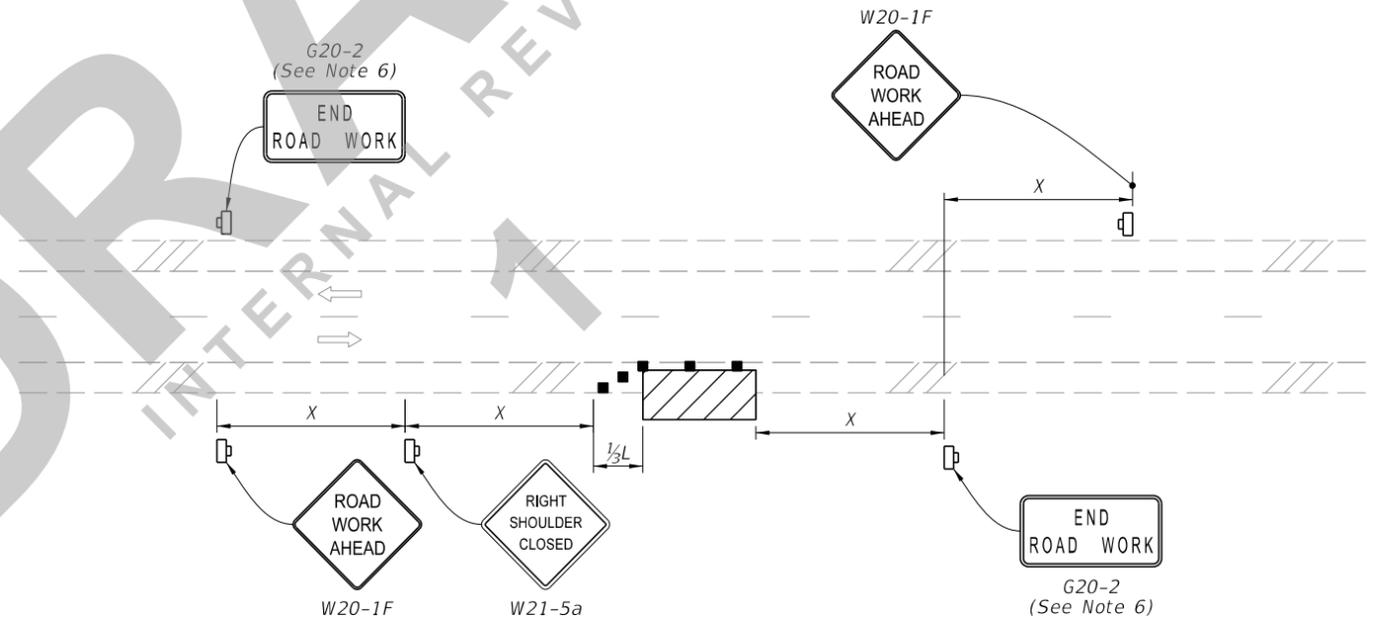
1. This Index applies to Two-Lane, Two-Way and Multilane Roadways, including Medians of divided roadways, with work on the shoulder.
2. L = Taper Length  
X = Work Zone Sign Spacing  
See Index 102-600 for "L" and "X" values.
3. For incidental work (e.g. mowing or litter removal), only the Road Work Ahead sign is required.
4. When four or more work vehicles enter the through traffic lanes in a one hour period (excluding establishing and terminating the work area), use a flagger or lane closure to accommodate work vehicle ingress and egress.
5. For work less than two feet from the traveled way and work zone speed is greater than 45 MPH, use a lane closure.
6. The "Speeding Fines Doubled When Workers Present" signs (MOT-13-06) and "End Road Work" Signs (G20-2) along with the associated work zone sign spacing distances may be omitted when the temporary condition is in place for 24 hours or less.
7. The 6" white edgeline stripe may be omitted when the temporary condition is in place for 24 hours or less.
8. If the work encroaches on a marked bicycle lane or rideable shoulder, close the lane or shoulder in accordance with the Plans.
9. Omit "Shoulder Closed" signs (W21-5a) along with associated work zone sign spacing distances for work on the median

**SYMBOLS:**

-  Work Area
-  Channelizing Device (See Index 102-600)
-  Work Zone Sign
-  Lane Identification and Direction of Traffic



**TWO-LANE ROADWAY  
SHOULDER WORK LESS THAN 2' FROM THE TRAVELED WAY  
WITH WORK ZONE SPEED OF 45 MPH OR LESS**



**TWO-LANE ROADWAY  
SHOULDER WORK BETWEEN 2' AND 15' FROM THE TRAVELED WAY**

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LAST REVISION 11/01/20	REVISION	DESCRIPTION:
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FY 2021-22  
STANDARD PLANS

TWO-LANE AND MULTILANE, WORK ON SHOULDER

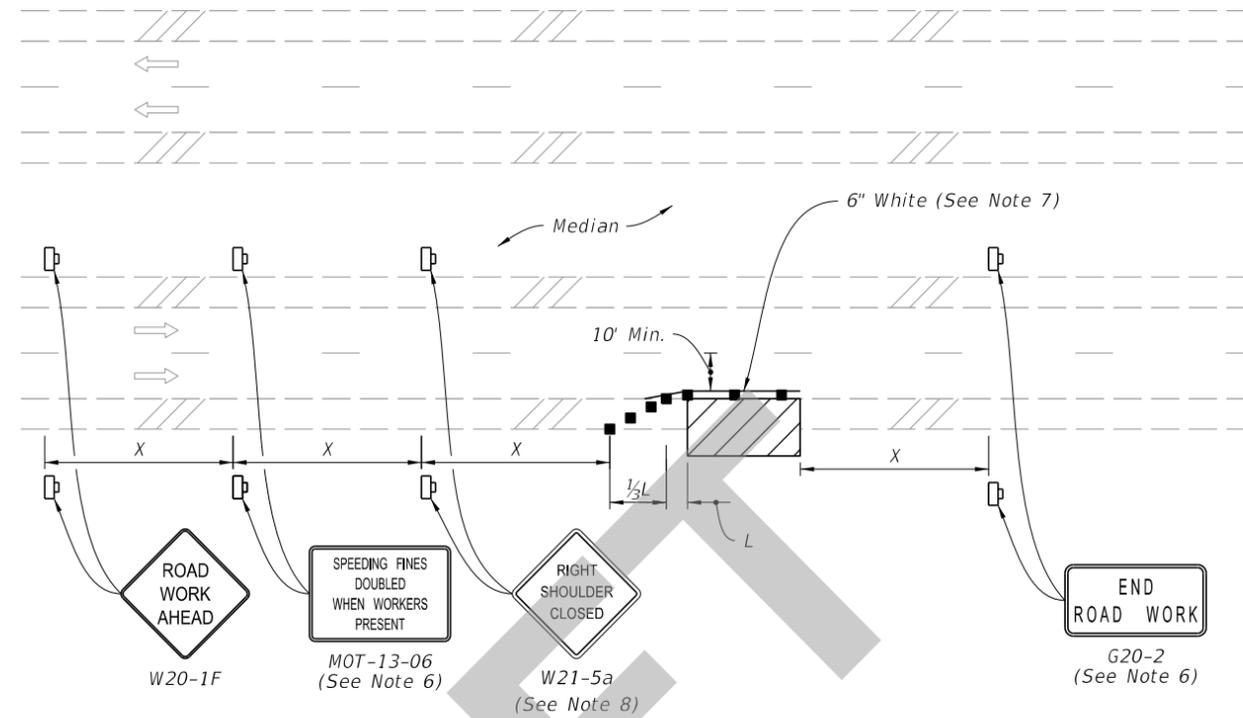
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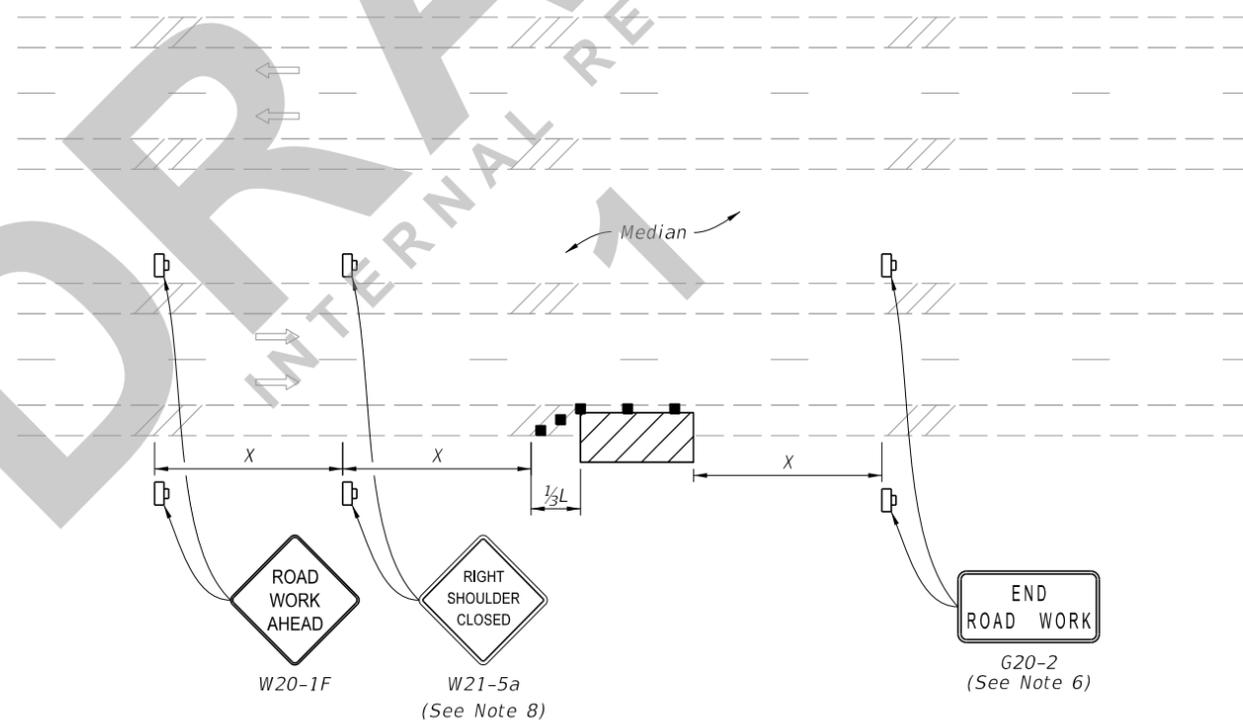
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**SYMBOLS:**

-  Work Area
-  Channelizing Device (See Index 102-600)
-  Work Zone Sign
-  Lane Identification and Direction of Traffic



MULTILANE ROADWAY  
 SHOULDER WORK LESS THAN 2' FROM THE TRAVELED WAY  
 WITH WORK ZONE SPEED OF 45 MPH OR LESS



MULTILANE ROADWAY  
 SHOULDER WORK BETWEEN 2' AND 15' FROM THE TRAVELED WAY

LAST REVISION 11/01/20	REVISION	DESCRIPTION:
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FY 2021-22  
 STANDARD PLANS

TWO-LANE AND MULTILANE, WORK ON SHOULDER

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