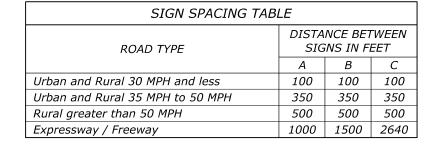
**PROJECT** 



ADVANCE WARNING AREA ALLYMNUE WAKNING Table)
(See Sign Spacing Table)

**ROAD** 

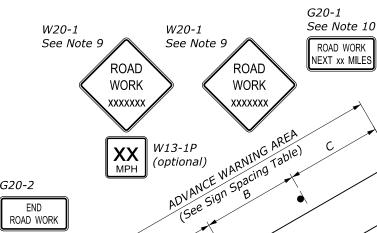
WORK

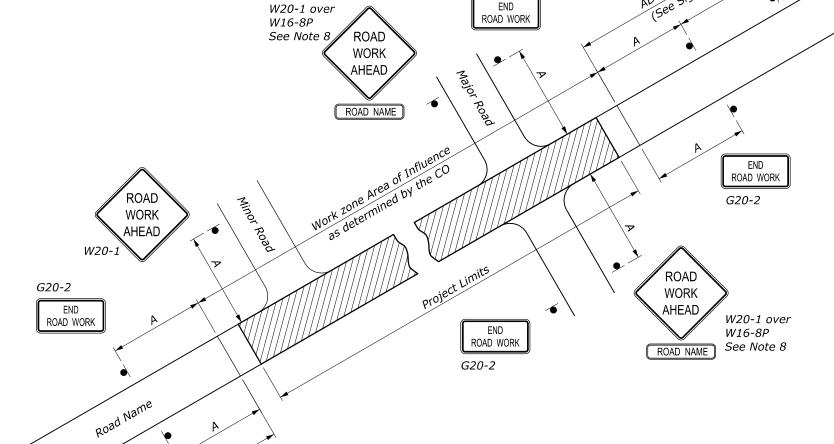
XXXXXX

ROAD WORK NEXT xx MILES

See Note 10

G20-1





W20-1 See Note 9

W13-1P

(optional)

**ROAD** WORK XXXXX

See Note 9

G20-2

#### NOTE:

ROAD WORK

NEXT xx MILES

- 1. Erect all project advance warning signs before starting construction work.
- 2. Not all details shown on the temporary traffic control sheets may be applicable to this project. The Contractor may add or delete information and details in this traffic control plan as necessary to accommodate actual operations.
- 3. Where advance warning signs, placed as shown, interfere with permanent signs, locate the warning signs to fit field conditions as approved by the CO. Vary messages as required.
- 4. Install advisory speed plates under the W20 series warning signs as needed to indicate a maximum recommended speed through the construction area.
- 5. Ensure all sign supports exposed to impact by traffic meet the requirements of NCHRP-350 or MASH for crashworthiness.
- 6. Maintain two-way traffic during all non-work hours except as approved by
- 7. Do not store traffic control devices along the roadway when not in use. Cover post-mounted signs when not applicable.
- 8. If W20-1 is placed on a roadway other than that on which the actual construction work occurs, include a supplementary plaque indicating the name of the road on which the construction does occur (applies to major roads only).
- 9. The message on the W20-1 signs may be ROAD WORK AHEAD or may specify the distance to the work area in feet or in miles. Install an additional W20-1 sign when approach speeds exceed 50 MPH. When used, place the two W20-1 signs "B" feet apart according to the Sign Spacing Table.
- 10. For work zones that are 2 miles or more in length, install G20-1 signs at each end of the project. Show the distance on the G20-1 sign to the nearest whole mile.
- 11. If signing on a roadway under a jurisdiction other than the client agency, verify that an encroachment permit has been obtained.
- 12. State standards may be used as an alternative if approved by the CO.
- 13. Refer to Section 635 of the Special Contract Requirements for allowable retroreflective sheeting types.

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION OFFICE OF FEDERAL LANDS HIGHWAY

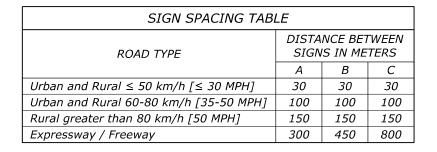
**FLH STANDARD** 

**TEMPORARY TRAFFIC CONTROL ADVANCE SIGNING** 

STANDARD APPROVED FOR USE 6/2005 REVISED: 7/2022

NO SCALE

STANDARD 635-1

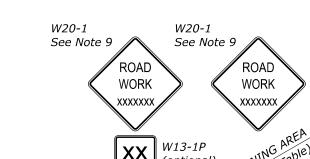


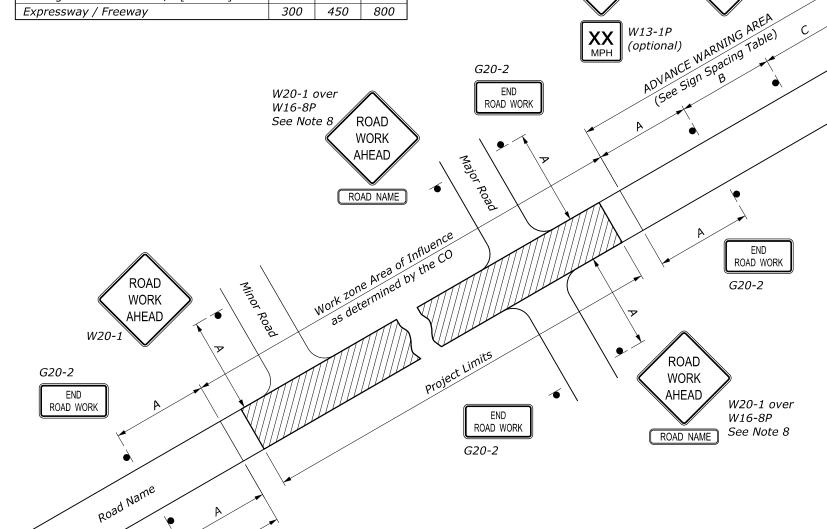
ADVANCE WARNING AREA AUVANUE WAKINING Table)
(See Sign Spacing Table)

ROAD

WORK

XXXXXX





W20-1 See Note 9

W13-1P

(optional)

**ROAD** WORK XXXXX

See Note 9

#### NOTE:

G20-1 See Note 10

ROAD WORK

NEXT xx MILES

- 1. Erect all project advance warning signs before starting construction work.
- 2. Not all details shown on the temporary traffic control sheets may be applicable to this project. The Contractor may add or delete information and details in this traffic control plan as necessary to accommodate actual operations.
- 3. Where advance warning signs, placed as shown, interfere with permanent signs, locate the warning signs to fit field conditions as approved by the CO. Vary messages as required.
- 4. Install advisory speed plates under the W20 series warning signs as needed to indicate a maximum recommended speed through the construction area.
- 5. Ensure all sign supports exposed to impact by traffic meet the requirements of NCHRP-350 or MASH for crashworthiness.
- 6. Maintain two-way traffic during all non-work hours except as approved by
- 7. Do not store traffic control devices along the roadway when not in use. Cover post-mounted signs when not applicable.
- 8. If W20-1 is placed on a roadway other than that on which the actual construction work occurs, include a supplementary plaque indicating the name of the road on which the construction does occur (applies to major roads only).
- 9. The message on the W20-1 signs may be ROAD WORK AHEAD or may specify the distance to the work area in feet or in miles. Install an additional W20-1 sign when approach speeds exceed 80 km/h [50 MPH]. When used, place the two W20-1 signs "B" meters apart according to the Sign Spacing Table.
- 10. For work zones that are greater than 3 km in length, install G20-1 signs at each end of the project. Show the distance on the G20-1 sign to the nearest whole mile.
- 11. If signing on a roadway under a jurisdiction other than the client agency, verify that an encroachment permit has been obtained.
- 12. State standards may be used as an alternative if approved by the CO.
- 13. Refer to Section 635 of the Special Contract Requirements for allowable retroreflective sheeting types.

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION OFFICE OF FEDERAL LANDS HIGHWAY

METRIC FLH STANDARD

## TEMPORARY TRAFFIC CONTROL **ADVANCE SIGNING**

STANDARD APPROVED FOR USE 6/2005 EVISED: 7/2022

ROAD WORK

NEXT xx MILES

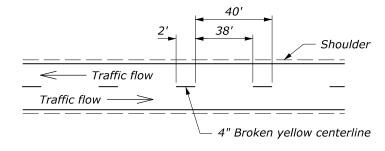
See Note 10

G20-1

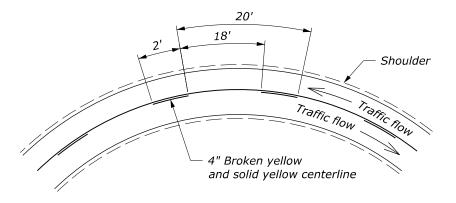
NO SCALE

STANDARD M635-1

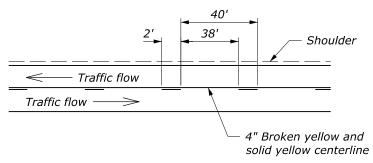
DETAIL A1
Passing zone both directions
Two-way traffic



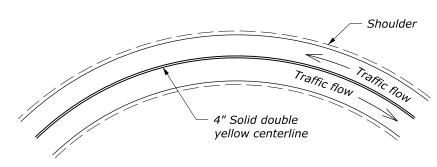
DETAIL B1
Passing zone both directions
Two-way traffic



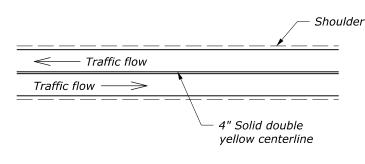
DETAIL A2 No passing zone one direction Two-way traffic



DETAIL B2 No Passing zone one direction Two-way traffic



DETAIL A3 No passing zone both directions Two-way traffic



DETAIL B3 No Passing zone both directions Two-way traffic

## **DETAIL A**Curves < 500' Radius

**DETAIL B**Tangents or Curves ≥ 500' Radius

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION OFFICE OF FEDERAL LANDS HIGHWAY

FLH STANDARD

# TEMPORARY PAVEMENT MARKINGS

STANDARD APPROVED FOR USE 6/2005 REVISED: 7/2022

NO SCALE

NOTE:

patterns:

10' centers.

1. To substitute raised pavement markers for lines, use the following

2' broken line: two pavement markers spaced 2' apart

Single solid line: pavement markers spaced on 10' centers.

2. On two- or three-lane roads, signs may be used instead of temporary

Double solid line: two pavement markers, side by side, spaced on

allowed by the gap shown based on curvature.

pavement markings as shown on Standard 635-3.

gust 2022 1:19 PM

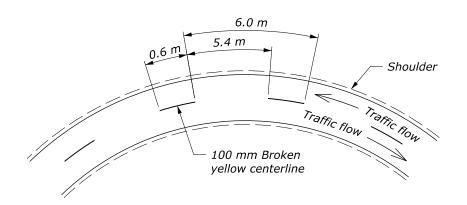
standard 635-2

0.6 m broken line: two pavement markers spaced 0.6 m apart allowed by the gap shown based on curvature.

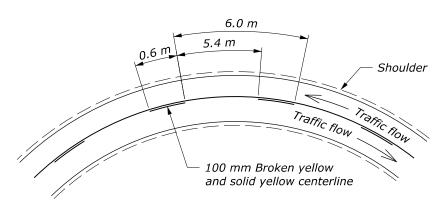
Single solid line: pavement markers spaced on 3 m centers.

Double solid line: two pavement markers, side by side, spaced on 3 m centers

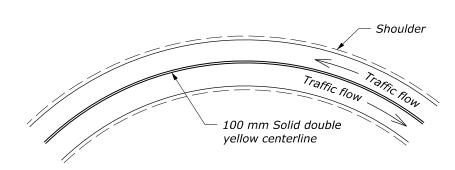
2. On two- or three-lane roads, signs may be used instead of temporary pavement markings as shown on Standard M635-3.



DETAIL A1
Passing zone both directions
Two-way traffic

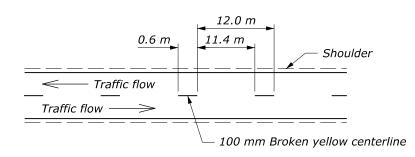


DETAIL A2 No passing zone one direction Two-way traffic

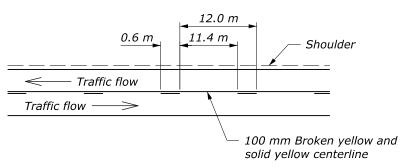


DETAIL A3 No passing zone both directions Two-way traffic

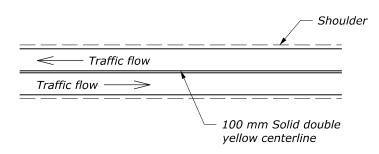
**DETAIL A**Curves < 150 m Radius



DETAIL B1
Passing zone both directions
Two-way traffic



DETAIL B2 No Passing zone one direction Two-way traffic



DETAIL B3 No Passing zone both directions Two-way traffic

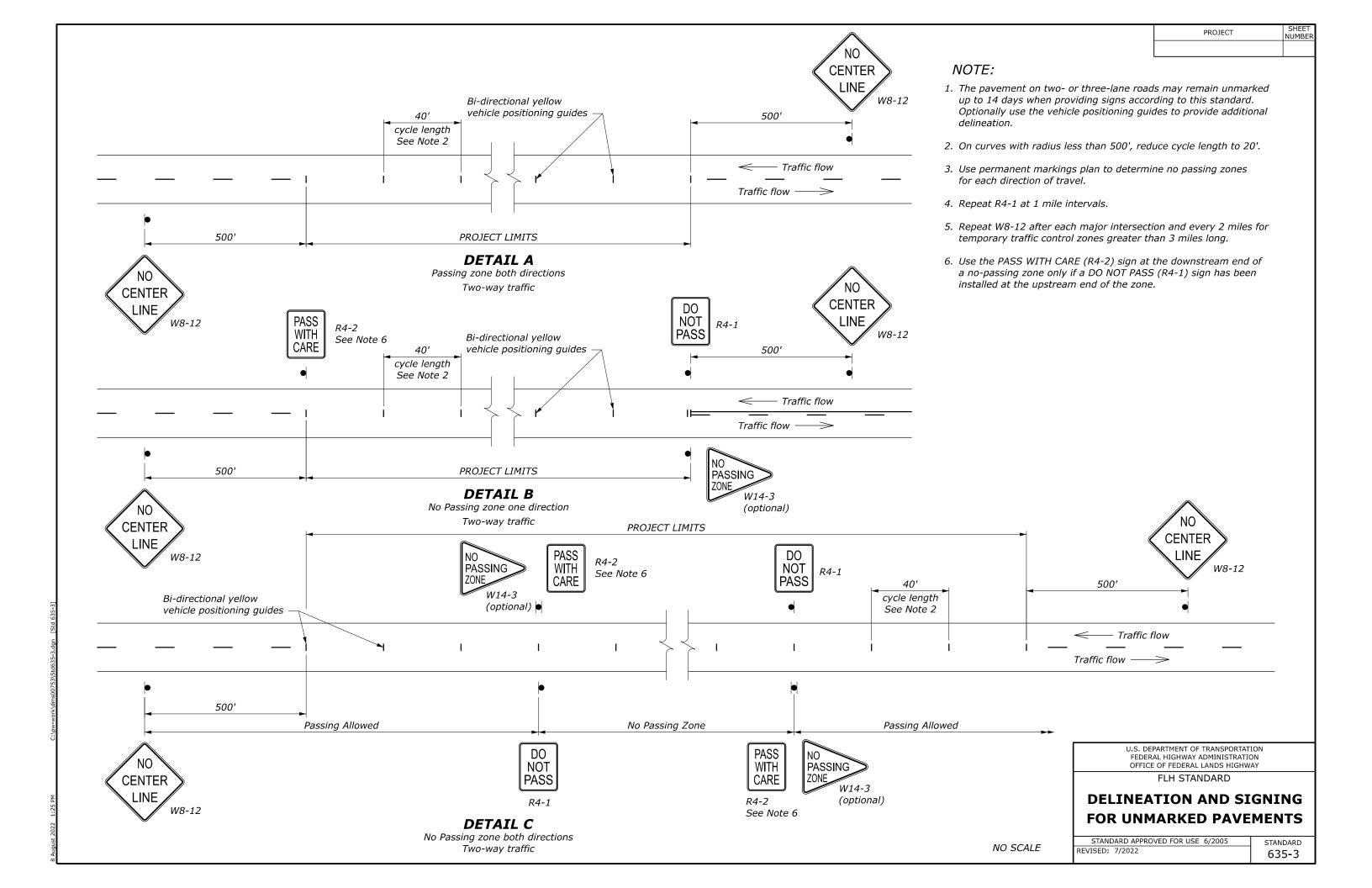
**DETAIL B**Tangents or Curves  $\geq$  150 m Radius

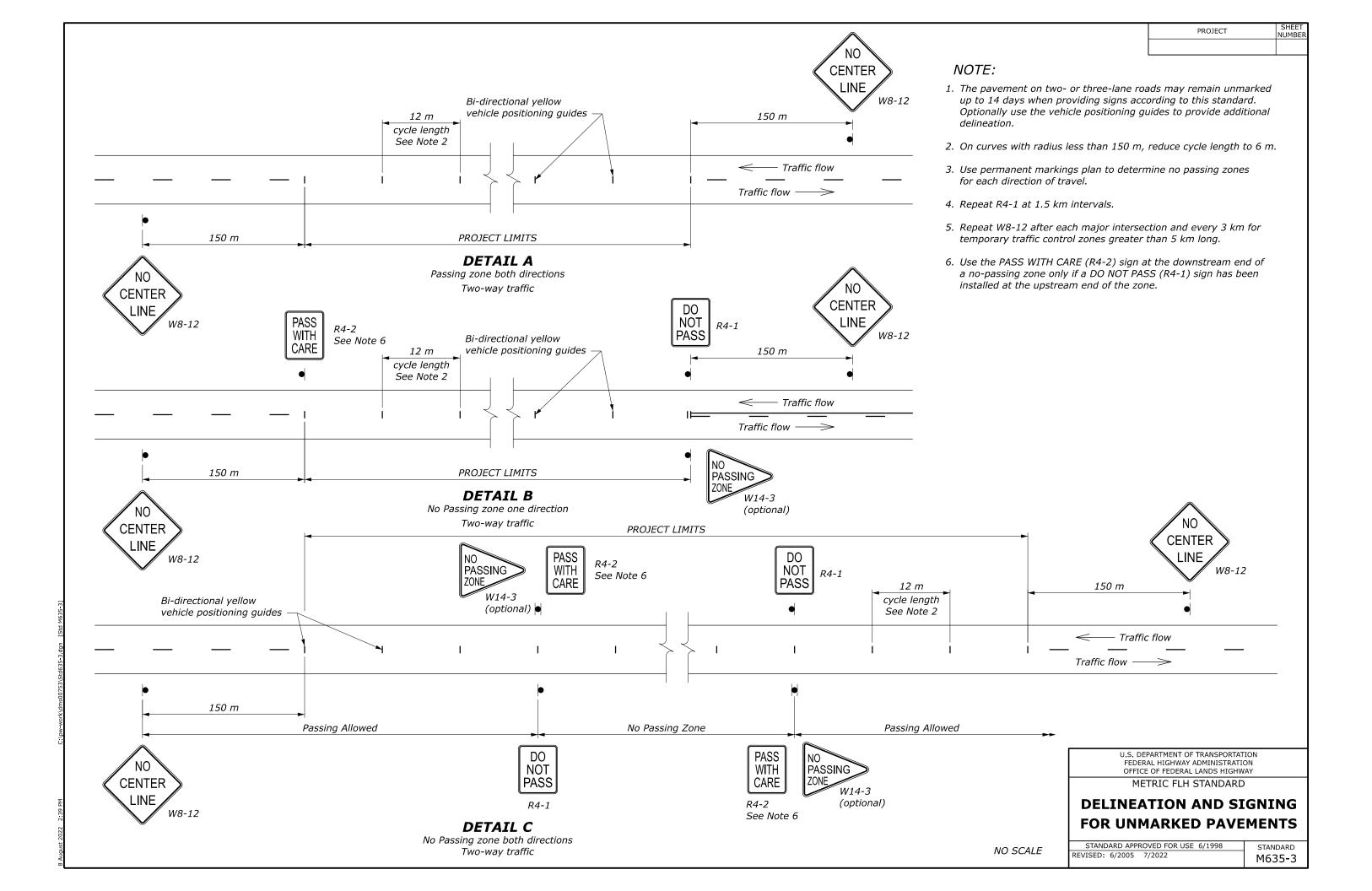
U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION OFFICE OF FEDERAL LANDS HIGHWAY

METRIC FLH STANDARD

TEMPORARY PAVEMENT MARKINGS

STANDARD APPROVED FOR USE 6/2005
REVISED: 7/2022





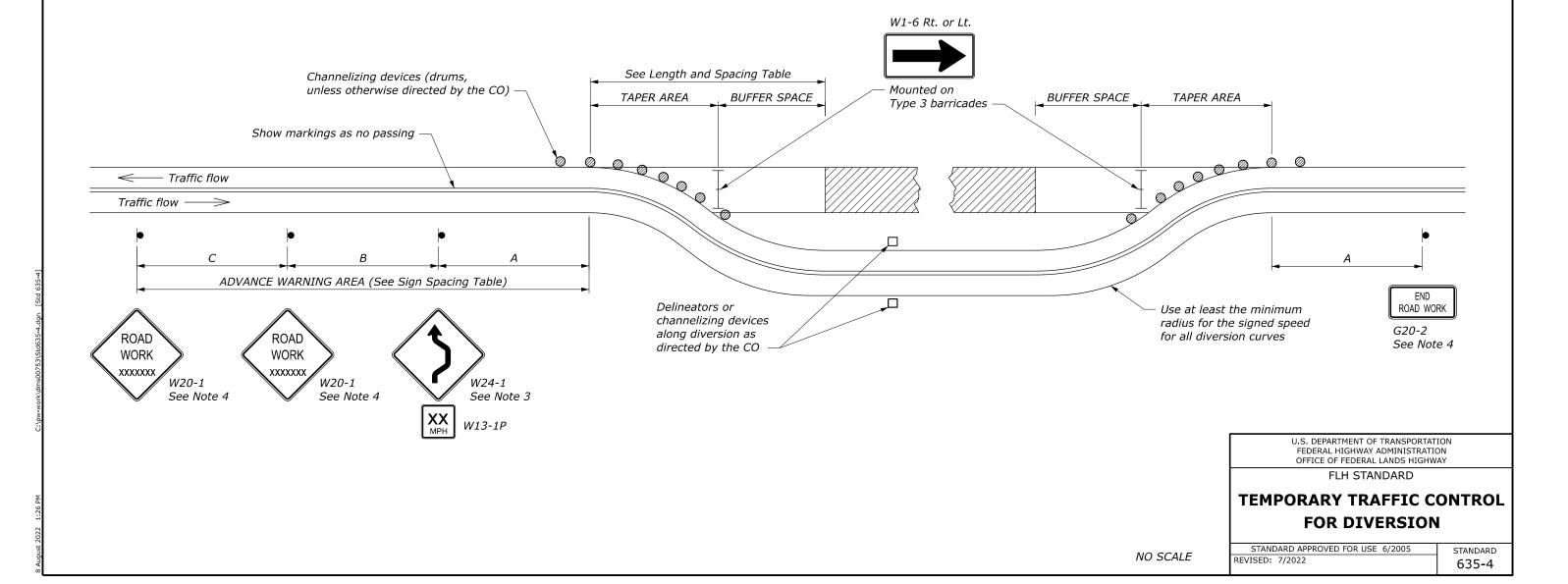
| PROJECT | SHEET<br>NUMBER |  |
|---------|-----------------|--|
|         |                 |  |

| LENGTH AND SPACING TABLE |                 |                     |                 |               |  |
|--------------------------|-----------------|---------------------|-----------------|---------------|--|
| 4.DDD.O.4.CU             | BUFFER          | CHANNELIZING DEVICE |                 |               |  |
| APPROACH<br>SPEED*       | SPACE<br>LENGTH | TAPER<br>AREA       | BUFFER<br>SPACE | WORK<br>SPACE |  |
| MPH                      | FEET            | SPA                 | CING IN F       | EET           |  |
| 20                       | 115             | 20                  | 40              | 40            |  |
| 25                       | 155             | 20-25               | 50              | 50            |  |
| 30                       | 200             | 20-30               | 60              | 60            |  |
| 35                       | 250             | 20-35               | 70              | 70            |  |
| 40                       | 305             | 20-40               | 80              | 80            |  |
| 45                       | 360             | 20-45               | 90              | 90            |  |
| 50                       | 425             | 20-50               | 100             | 100           |  |
| 55                       | 495             | 20-55               | 110             | 110           |  |
| 60                       | 570             | 20-60               | 120             | 120           |  |
| 65                       | 645             | 20-65               | 130             | 130           |  |
| 70                       | 730             | 20-70               | 140             | 140           |  |

| * | Approach speed based on the regulatory posted speed, |
|---|--|
|   | not the advisory speed.                              |

| SIGN SPACING TABLE               |      |                                   |      |  |
|----------------------------------|------|-----------------------------------|------|--|
| ROAD TYPE                        |      | DISTANCE BETWEEN<br>SIGNS IN FEET |      |  |
|                                  | Α    | В                                 | С    |  |
| Urban and Rural 30 MPH and less  | 100  | 100                               | 100  |  |
| Urban and Rural 35 MPH to 50 MPH | 350  | 350                               | 350  |  |
| Rural greater than 50 MPH        | 500  | 500                               | 500  |  |
| Expressway / Freeway             | 1000 | 1500                              | 2640 |  |

- 1. Signs are shown for one direction of travel only. Place signs similar to those depicted for the opposite direction of travel.
- If the area approaching diversion is not already signed and marked as a no passing zone, add signing and/or marking as appropriate. Remove conflicting pavement markings.
- 3. If the tangent distance along the temporary diversion is more than 600', use an appropriate Reverse Curve sign (W1-4) instead of the Double Reverse Curve sign (W24-1). Install a second, appropriate Reverse Curve sign (W1-4) in advance of the second reverse curve back to the original alignment. Use Reverse Turn signs (W1-3) instead when the diversion has sharp curves with recommended speeds of 30 mph or less.
- 4. If the diversion is completely within the project limits, eliminate the ROAD WORK AHEAD (W20-1) and END ROAD WORK (G20-2) signs.
- 5. Place channelizing devices outside temporary roadway.
- 6. Do not allow equipment, materials, or vehicles to be parked or stored in the buffer space.



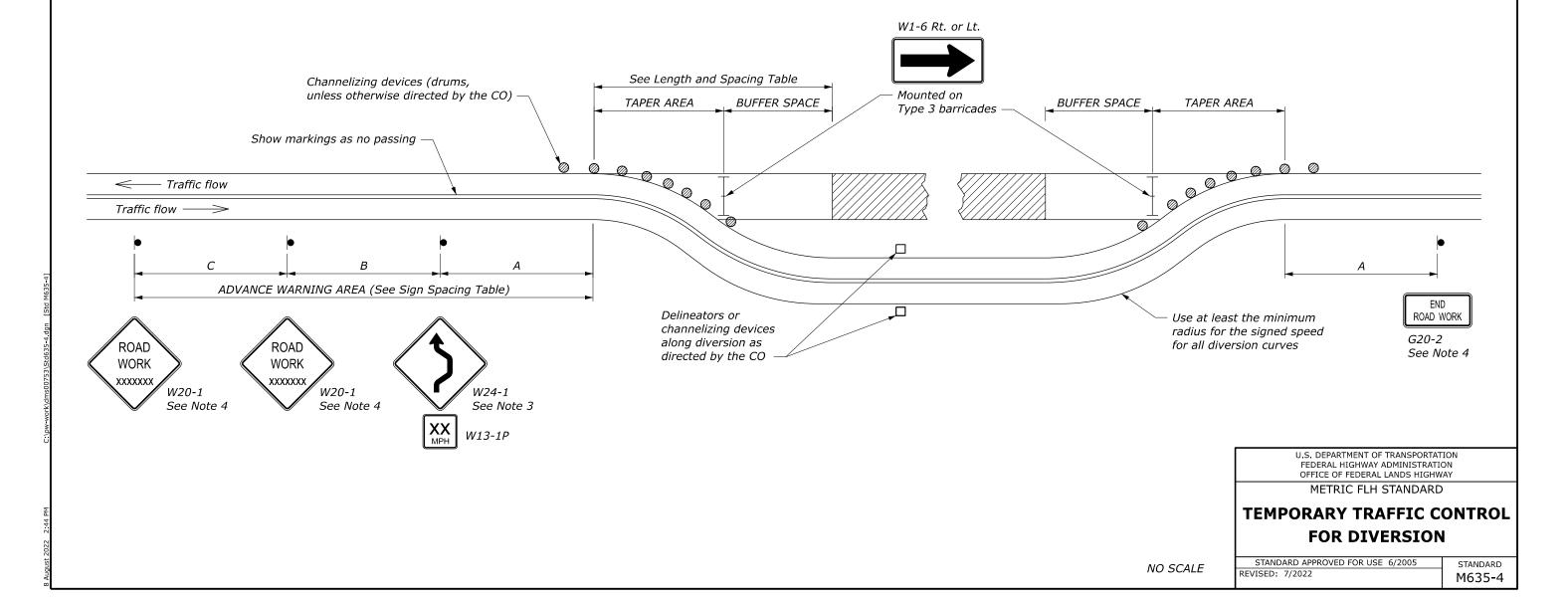
| PROJECT | SHEET<br>NUMBER |
|---------|-----------------|
|         |                 |

|      | LENGTH AND SPACING TABLE |                 |                            |           |               |  |
|------|--------------------------|-----------------|----------------------------|-----------|---------------|--|
| 4000 | 0.4.61.1                 | BUFFER          | CHANNELIZING DEVIC         |           | DEVICE        |  |
| 1    | OACH<br>ED*              | SPACE<br>LENGTH | TAPER BUFFER<br>AREA SPACE |           | WORK<br>SPACE |  |
| MPH  | km/h                     | METER           | SPACING IN METERS          |           |               |  |
| 20   | 30                       | 35              | 6                          | 6 12      |               |  |
| 25   | 40                       | 45              | 6-7.5                      | 15        | 15            |  |
| 30   | 50                       | 60              | 6-9                        | 18        | 18            |  |
| 35   | 55                       | <i>75</i>       | 6-10.5                     | 21        | 21            |  |
| 40   | 65                       | 95              | 6-12                       | 24        | 24            |  |
| 45   | 70                       | 110             | 6-13.5                     | 27        | 27            |  |
| 50   | 80                       | 130             | 6-15                       | 30        | 30            |  |
| 55   | 90                       | 150             | 6-16.5                     | 34        | 34            |  |
| 60   | 95                       | 175             | 6-18                       | <i>37</i> | <i>37</i>     |  |
| 65   | 105                      | 195             | 6-19.5                     | 40        | 40            |  |
| 70   | 115                      | 225             | 6-21                       | 43        | 43            |  |

| * | Approach speed based on the regulatory posted speed, |
|---|--|
|   | not the advisory speed.                              |

| SIGN SPACING TABLE                     |  |     |     |  |
|--|--|-----|-----|--|
| ROAD TYPE                              | DISTANCE BETWO<br>ROAD TYPE SIGNS IN METER |     |     |  |
|  | Α  | В   | С   |  |
| Urban and Rural ≤ 50 km/h [≤ 30 MPH]   | 30   | 30  | 30  |  |
| Urban and Rural 60-80 km/h [35-50 MPH] | 100  | 100 | 100 |  |
| Rural greater than 80 km/h [50 MPH]    | 150  | 150 | 150 |  |
| Expressway / Freeway                   | 300  | 450 | 800 |  |

- 1. Signs are shown for one direction of travel only. Place signs similar to those depicted for the opposite direction of travel.
- If the area approaching diversion is not already signed and marked as a no passing zone, add signing and/or marking as appropriate. Remove conflicting pavement markings.
- 3. If the tangent distance along the temporary diversion is more than 180 m, use an appropriate Reverse Curve sign (W1-4) instead of the Double Reverse Curve sign (W24-1). Install a second, appropriate Reverse Curve sign (W1-4) in advance of the second reverse curve back to the original alignment. Use Reverse Turn signs (W1-3) instead when the diversion has sharp curves with recommended speeds of 48 km/h [30 mph] or less.
- 4. If the diversion is completely within the project limits, eliminate the ROAD WORK AHEAD (W20-1) and END ROAD WORK (G20-2) signs.
- 5. Place channelizing devices outside temporary roadway.
- 6. Do not allow equipment, materials, or vehicles to be parked or stored in the buffer space.



| PROJECT | SHEET<br>NUMBER |  |
|---------|-----------------|--|
|         |                 |  |

| LENGTH AND SPACING TABLE |                        |  |  |
|--------------------------|------------------------|--|--|
| APPROACH<br>SPEED*       | BUFFER SPACE<br>LENGTH |  |  |
| MPH                      | FEET                   |  |  |
| 20                       | 115                    |  |  |
| 25                       | 155                    |  |  |
| 30                       | 200                    |  |  |
| 35                       | 250                    |  |  |
| 40                       | 305                    |  |  |
| 45                       | 360                    |  |  |
| 50                       | 425                    |  |  |
| 55                       | 495                    |  |  |
| 60                       | 570                    |  |  |
| 65                       | 645                    |  |  |
| 70                       | 730                    |  |  |

<sup>\*</sup> Approach speed based on the regulatory posted speed, not the advisory speed.

| SIGN SPACING TABLE               |      |                                   |      |  |
|----------------------------------|------|-----------------------------------|------|--|
| ROAD TYPE                        |      | DISTANCE BETWEEN<br>SIGNS IN FEET |      |  |
|                                  | Α    | В                                 | С    |  |
| Urban and Rural 30 MPH and less  | 100  | 100                               | 100  |  |
| Urban and Rural 35 MPH to 50 MPH | 350  | 350                               | 350  |  |
| Rural greater than 50 MPH        | 500  | 500                               | 500  |  |
| Expressway / Freeway             | 1000 | 1500                              | 2640 |  |

- 1. Signs are shown for one direction of travel only. Place signs similar to those depicted for the opposite direction of travel.
- 2. Final location and spacing of devices may be changed to fit field conditions as approved by the CO.
- 3. For pilot car operation, mount the PILOT CAR FOLLOW ME (G20-4) sign at a conspicuous location on the rear of vehicle. Prominently display the name of the Contractor on the pilot car.
- 4. If closure is completely within the project limits, eliminate the ROAD WORK AHEAD (W20-1) and END ROAD WORK (G20-2) signs.
- 5. For night time flagging operation, provide floodlighting at flagger stations.
- 6. Do not allow equipment, materials, or vehicles to be parked or stored in the buffer space.

(WITH FLAGGERS)

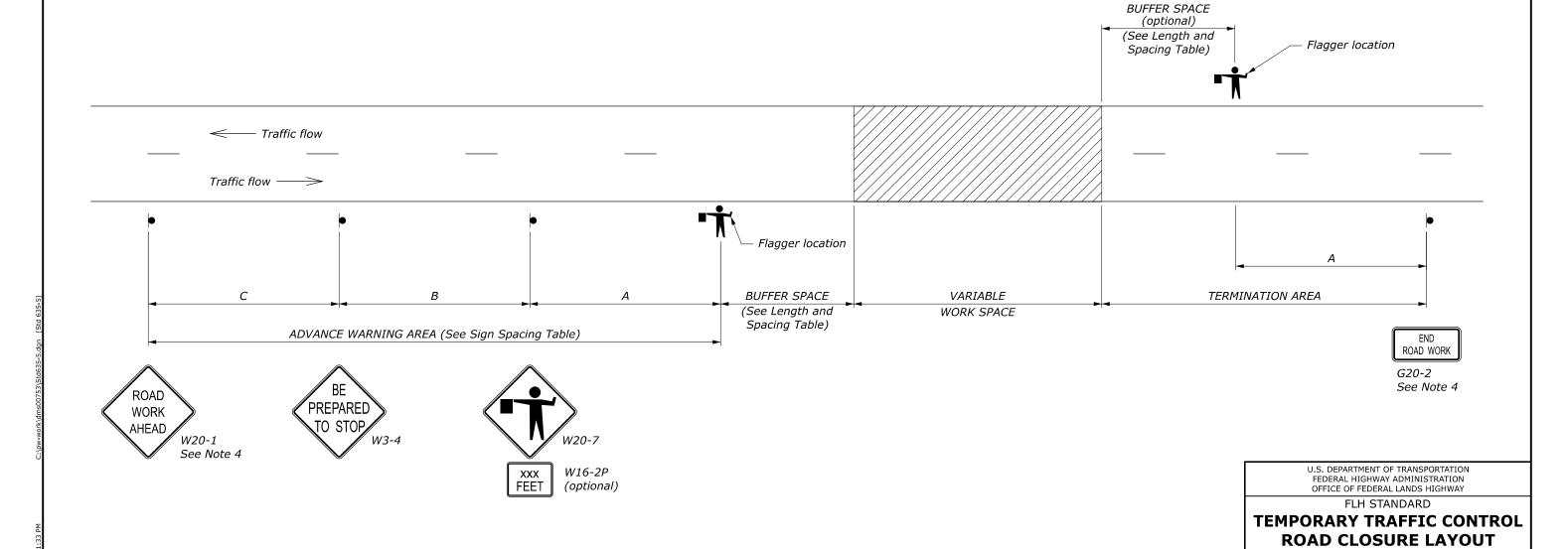
STANDARD

635-5

STANDARD APPROVED FOR USE 6/2005

REVISED: 7/2022

NO SCALE



| PROJECT | SHEET<br>NUMBER |  |
|---------|-----------------|--|
|         |                 |  |

| LENGTH AND SPACING TABLE |      |                        |  |  |
|--------------------------|------|------------------------|--|--|
| APPROACH<br>SPEED*       |      | BUFFER SPACE<br>LENGTH |  |  |
| MPH                      | km/h | METER                  |  |  |
| 20                       | 30   | 35                     |  |  |
| 25                       | 40   | 45                     |  |  |
| 30                       | 50   | 60                     |  |  |
| 35                       | 55   | <i>75</i>              |  |  |
| 40                       | 65   | 95                     |  |  |
| 45                       | 70   | 110                    |  |  |
| 50                       | 80   | 130                    |  |  |
| 55                       | 90   | 150                    |  |  |
| 60                       | 95   | 175                    |  |  |
| 65                       | 105  | 195                    |  |  |
| 70                       | 115  | 225                    |  |  |

<sup>\*</sup> Approach speed based on the regulatory posted speed, not the advisory speed.

| SIGN SPACING TABLE                     |     |                                     |     |  |
|--|-----|-------------------------------------|-----|--|
| ROAD TYPE                              |     | DISTANCE BETWEEN<br>SIGNS IN METERS |     |  |
|  |     | В                                   | С   |  |
| Urban and Rural ≤ 50 km/h [≤ 30 MPH]   | 30  | 30                                  | 30  |  |
| Urban and Rural 60-80 km/h [35-50 MPH] | 100 | 100                                 | 100 |  |
| Rural greater than 80 km/h [50 MPH]    | 150 | 150                                 | 150 |  |
| Expressway / Freeway                   | 300 | 450                                 | 800 |  |

- 1. Signs are shown for one direction of travel only. Place signs similar to those depicted for the opposite direction of travel.
- 2. Final location and spacing of devices may be changed to fit field conditions as approved by the CO.
- 3. For pilot car operation, mount the PILOT CAR FOLLOW ME (G20-4) sign at a conspicuous location on the rear of vehicle. Prominently display the name of the Contractor on the pilot car.
- 4. If closure is completely within the project limits, eliminate the ROAD WORK AHEAD (W20-1) and END ROAD WORK (G20-2) signs.
- 5. For night time flagging operation, provide floodlighting at flagger stations.
- 6. Do not allow equipment, materials, or vehicles to be parked or stored in the buffer space.

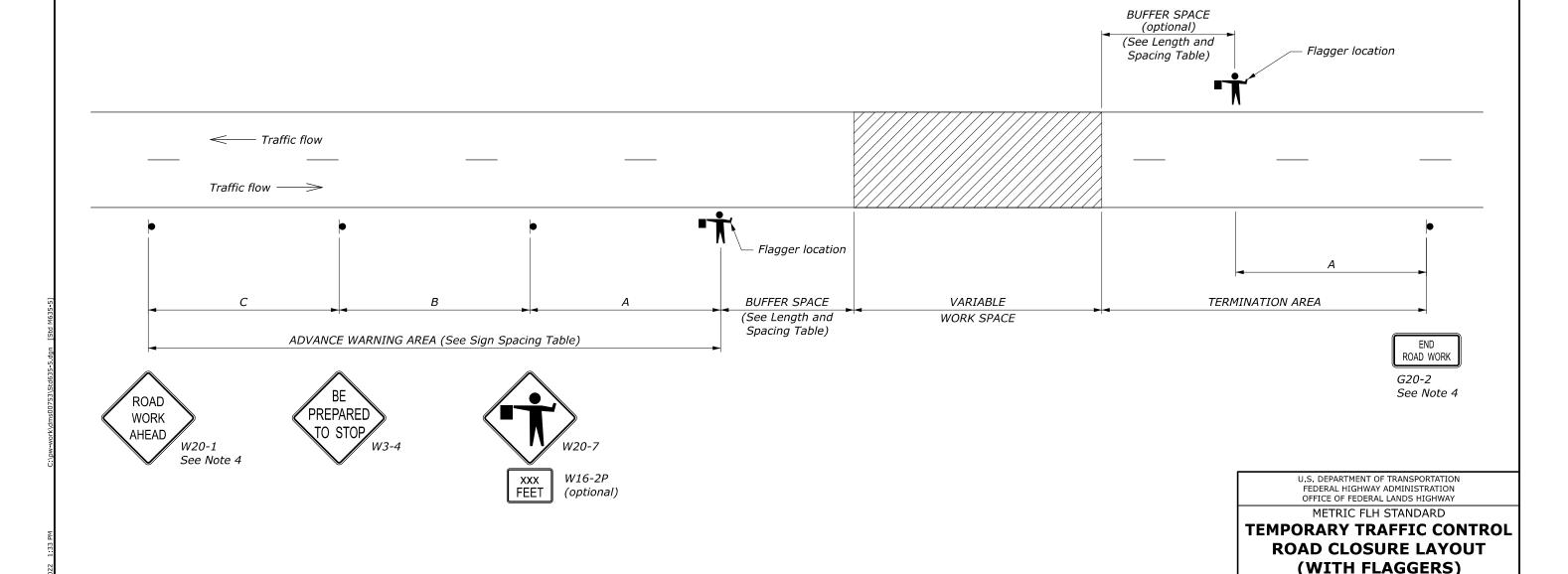
STANDARD APPROVED FOR USE 6/2005

REVISED: 7/2022

NO SCALE

STANDARD

M635-5



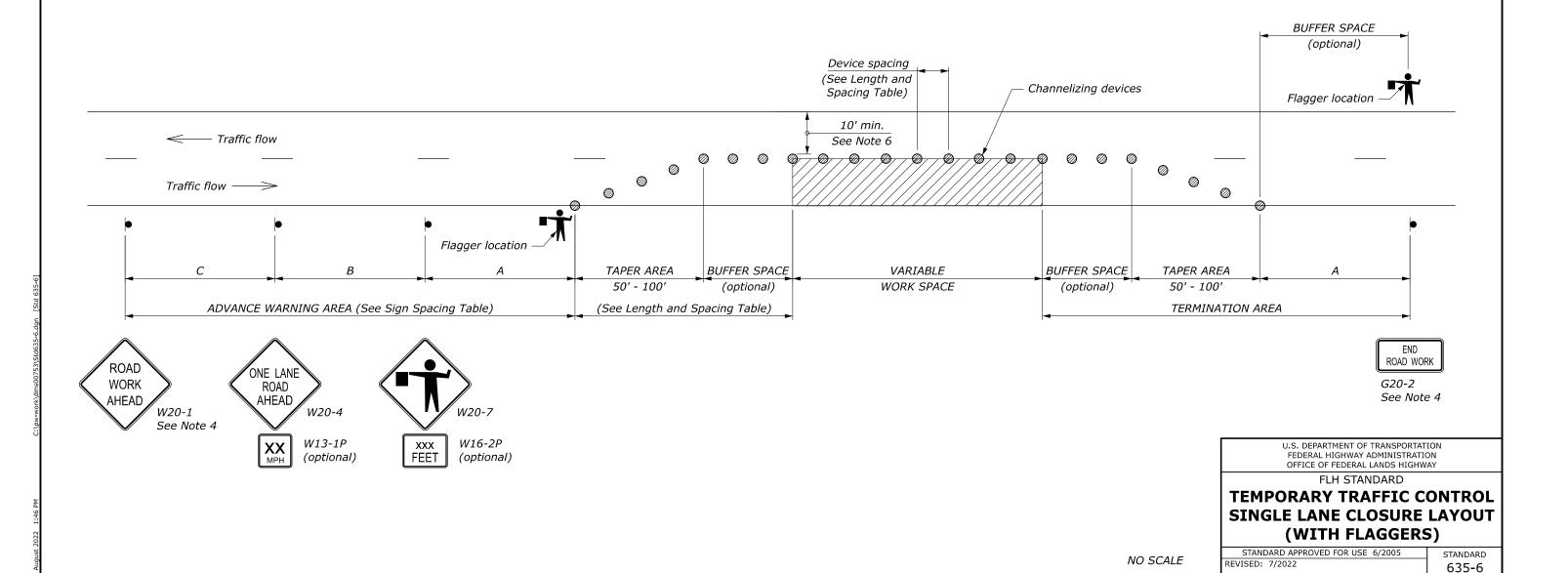
| PROJECT | SHEET<br>NUMBER |
|---------|-----------------|
|         |                 |

| LENGTH AND SPACING TABLE |        |                     |           |       |  |
|--------------------------|--------|---------------------|-----------|-------|--|
| 4.DDD.O.4.CU             | BUFFER | CHANNELIZING DEVICE |           |       |  |
| APPROACH<br>SPFFD*       | SPACE  | TAPER               | BUFFER    | WORK  |  |
| 0,225                    | LENGTH | AREA                | SPACE     | SPACE |  |
| MPH                      | FEET   | SPA                 | CING IN F | EET   |  |
| 20                       | 115    | 20                  | 40        | 40    |  |
| 25                       | 155    | 20                  | 50        | 50    |  |
| 30                       | 200    | 20                  | 60        | 60    |  |
| 35                       | 250    | 20                  | 70        | 70    |  |
| 40                       | 305    | 20                  | 80        | 80    |  |
| 45                       | 360    | 20                  | 90        | 90    |  |
| 50                       | 425    | 20                  | 100       | 100   |  |
| 55                       | 495    | 20                  | 110       | 110   |  |
| 60                       | 570    | 20                  | 120       | 120   |  |
| 65                       | 645    | 20                  | 130       | 130   |  |
| 70                       | 730    | 20                  | 140       | 140   |  |
|                          |        |                     |           |       |  |

| * | Approach speed based on the regulatory posted speed, |
|---|--|
|   | not the advisory speed.                              |

| SIGN SPACING TABLE               |      |                                   |      |  |
|----------------------------------|------|-----------------------------------|------|--|
| ROAD TYPE                        |      | DISTANCE BETWEEN<br>SIGNS IN FEET |      |  |
|                                  | Α    | В                                 | С    |  |
| Urban and Rural 30 MPH and less  | 100  | 100                               | 100  |  |
| Urban and Rural 35 MPH to 50 MPH | 350  | 350                               | 350  |  |
| Rural greater than 50 MPH        | 500  | 500                               | 500  |  |
| Expressway / Freeway             | 1000 | 1500                              | 2640 |  |

- 1. Signs are shown for one direction of travel only. Place signs similar to those depicted for the opposite direction of travel.
- 2. Final location and spacing of devices may be changed to fit field conditions as approved by the CO.
- 3. For pilot car operation, mount the PILOT CAR FOLLOW ME (G20-4) sign at a conspicuous location on the rear of vehicle. Prominently display the name of the Contractor on the pilot car.
- 4. If closure is completely within the project limits, eliminate the ROAD WORK AHEAD (W20-1) and END ROAD WORK (G20-2) signs.
- 5. For night time flagging operation, provide floodlighting at flagger stations.
- 6. For project specific minimum width, refer to the Special Contract Requirements, Section 156.
- 7. Do not allow equipment, materials, or vehicles to be parked or stored in the buffer space.



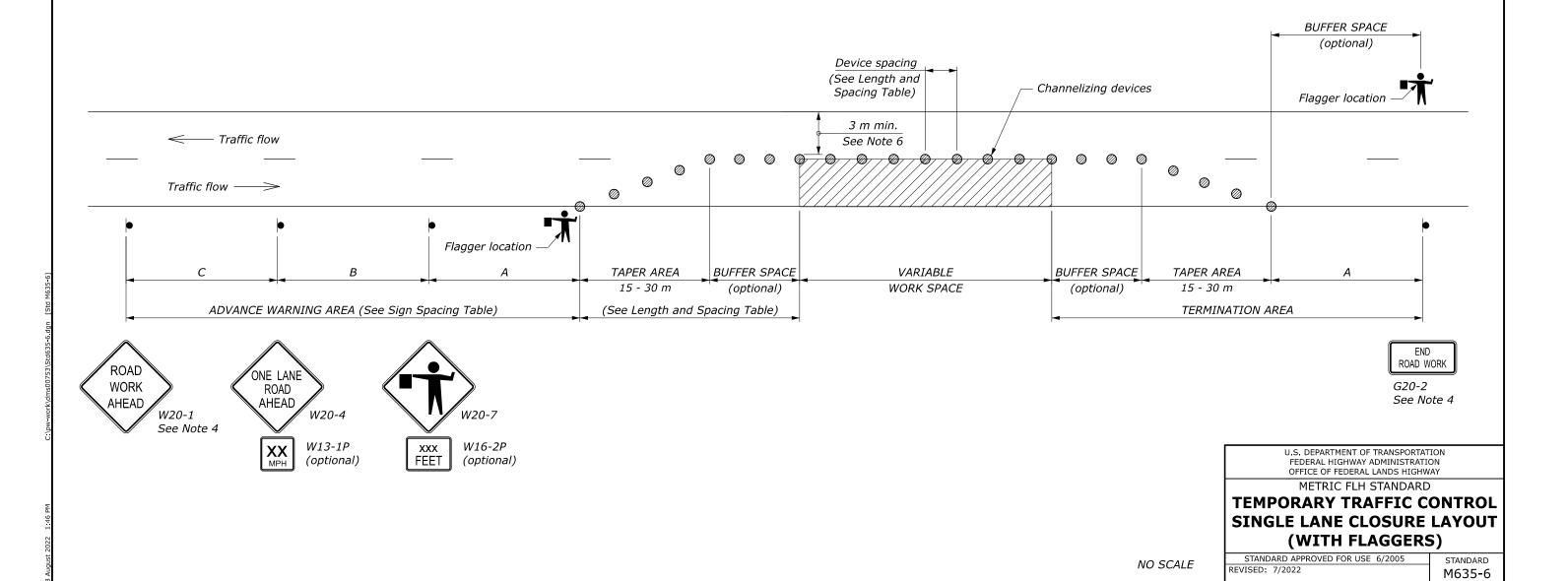
| PROJECT | SHEET<br>NUMBER |  |
|---------|-----------------|--|
|         |                 |  |

|      | LEI         | VGTH AND S      | PACING        | TABLE           |               |
|------|-------------|-----------------|---------------|-----------------|---------------|
| 4000 | OACH        | BUFFER          | CHANN         | IELIZING I      | DEVICE        |
|      | OACH<br>ED* | SPACE<br>LENGTH | TAPER<br>AREA | BUFFER<br>SPACE | WORK<br>SPACE |
| MPH  | km/h        | METER           | SPAC          | ING IN ME       | TERS          |
| 20   | 30          | 35              | 6             | 12              | 12            |
| 25   | 40          | 45              | 6             | 15              | 15            |
| 30   | 50          | 60              | 6             | 18              | 18            |
| 35   | 55          | <i>75</i>       | 6             | 21              | 21            |
| 40   | 65          | 95              | 6             | 24              | 24            |
| 45   | 70          | 110             | 6             | 27              | 27            |
| 50   | 80          | 130             | 6             | 30              | 30            |
| 55   | 90          | 150             | 6             | 34              | 34            |
| 60   | 95          | 175             | 6             | <i>37</i>       | <i>37</i>     |
| 65   | 105         | 195             | 6             | 40              | 40            |
| 70   | 115         | 225             | 6             | 43              | 43            |

| * | Approach speed based on the regulatory posted speed, |
|---|--|
|   | not the advisory speed.                              |

| SIGN SPACING TABLE                     |                                     |     |     |  |
|--|-------------------------------------|-----|-----|--|
| ROAD TYPE                              | DISTANCE BETWEEN<br>SIGNS IN METERS |     |     |  |
|  |                                     | В   | С   |  |
| Urban and Rural ≤ 50 km/h [≤ 30 MPH]   | 30                                  | 30  | 30  |  |
| Urban and Rural 60-80 km/h [35-50 MPH] | 100                                 | 100 | 100 |  |
| Rural greater than 80 km/h [50 MPH]    | 150                                 | 150 | 150 |  |
| Expressway / Freeway                   | 300                                 | 450 | 800 |  |

- 1. Signs are shown for one direction of travel only. Place signs similar to those depicted for the opposite direction of travel.
- 2. Final location and spacing of devices may be changed to fit field conditions as approved by the CO.
- 3. For pilot car operation, mount the PILOT CAR FOLLOW ME (G20-4) sign at a conspicuous location on the rear of vehicle. Prominently display the name of the Contractor on the pilot car.
- 4. If closure is completely within the project limits, eliminate the ROAD WORK AHEAD (W20-1) and END ROAD WORK (G20-2) signs.
- 5. For night time flagging operation, provide floodlighting at flagger stations.
- 6. For project specific minimum width, refer to the Special Contract Requirements, Section 156.
- 7. Do not allow equipment, materials, or vehicles to be parked or stored in the buffer space.



| PROJECT | SHEET<br>NUMBER |  |
|---------|-----------------|--|
|         |                 |  |

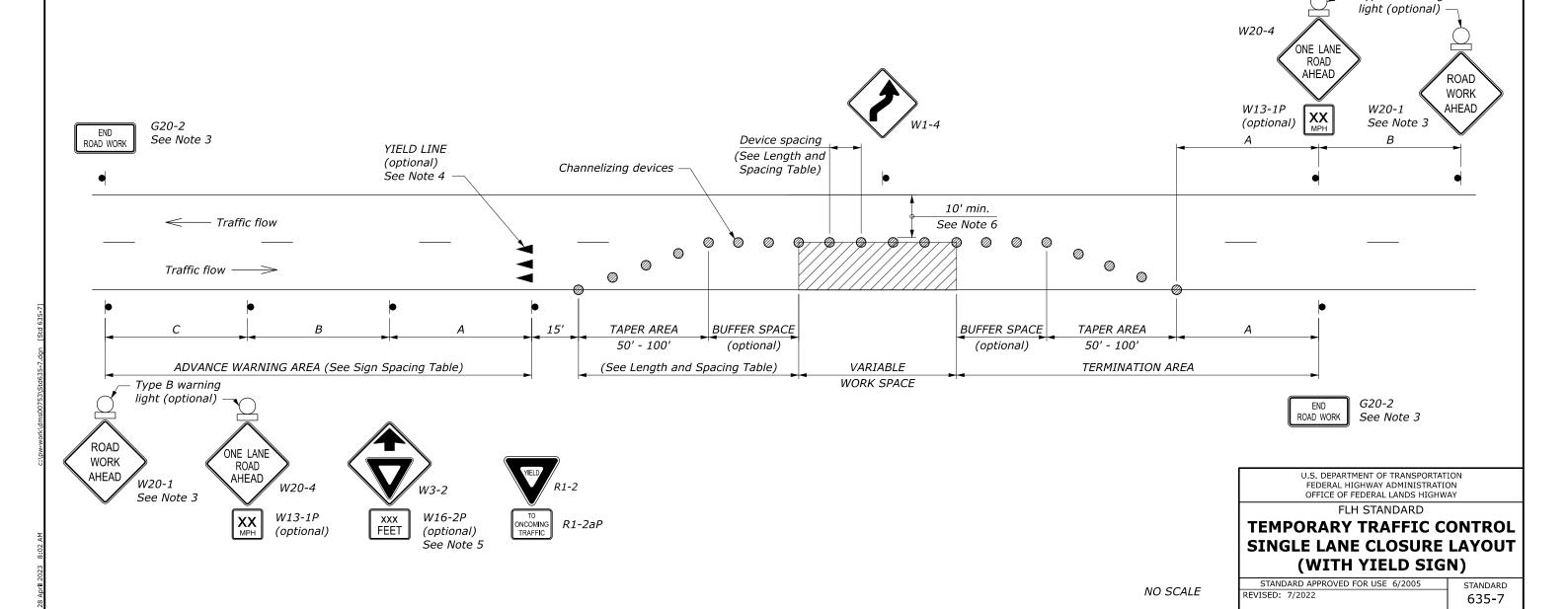
Type B warning

| LENGTH AND SPACING TABLE |                 |               |                     |               |  |  |
|--------------------------|-----------------|---------------|---------------------|---------------|--|--|
| ADDDOACH                 | BUFFER          | CHANN         | CHANNELIZING DEVICE |               |  |  |
| APPROACH<br>SPEED*       | SPACE<br>LENGTH | TAPER<br>AREA | BUFFER<br>SPACE     | WORK<br>SPACE |  |  |
| MPH                      | FEET            | SPA           | CING IN F           | EET           |  |  |
| 20                       | 115             | 20            | 40                  | 40            |  |  |
| 25                       | 155             | 20            | 50                  | 50            |  |  |
| 30                       | 200             | 20            | 60                  | 60            |  |  |
| 35                       | 250             | 20            | 70                  | 70            |  |  |
| 40                       | 305             | 20            | 20 80               |               |  |  |
| 45                       | 360             | 20            | 90                  | 90            |  |  |
| 50                       | 425             | 20            | 100                 | 100           |  |  |
| 55                       | 495             | 20            | 110                 | 110           |  |  |
| 60                       | 570             | 20            | 120                 | 120           |  |  |
| 65                       | 645             | 20            | 130                 | 130           |  |  |
| 70                       | 730             | 20            | 140                 | 140           |  |  |

| * | Approach speed based on the regulatory posted speed, |
|---|--|
|   | not the advisory speed.                              |

| SIGN SPACING TABLE               |      |                                   |      |  |
|----------------------------------|------|-----------------------------------|------|--|
| ROAD TYPE                        |      | DISTANCE BETWEEN<br>SIGNS IN FEET |      |  |
|                                  | Α    | В                                 | С    |  |
| Urban and Rural 30 MPH and less  | 100  | 100                               | 100  |  |
| Urban and Rural 35 MPH to 50 MPH | 350  | 350                               | 350  |  |
| Rural greater than 50 MPH        | 500  | 500                               | 500  |  |
| Expressway / Freeway             | 1000 | 1500                              | 2640 |  |

- 1. Use this layout only if sufficient gaps in oncoming traffic exist for traffic that must yield, and if drivers from both directions are able to see approaching traffic through and beyond the work site.
- 2. Final location and spacing of devices may be changed to fit field conditions as approved by the CO.
- 3. If closure is completely within the project limits, eliminate the ROAD WORK AHEAD (W20-1) and END ROAD WORK (G20-2) signs.
- 4. If the surface is paved, install yield lines that comply with Section 3B.16 of the MUTCD.
- 5. Use the YIELD AHEAD (W3-2) sign when approach speeds exceed 50 MPH.
- 6. For project specific minimum width, refer to Special Contract Requirements, Section 156.
- 7. Do not allow equipment, materials, or vehicles to be parked or stored in the buffer space.



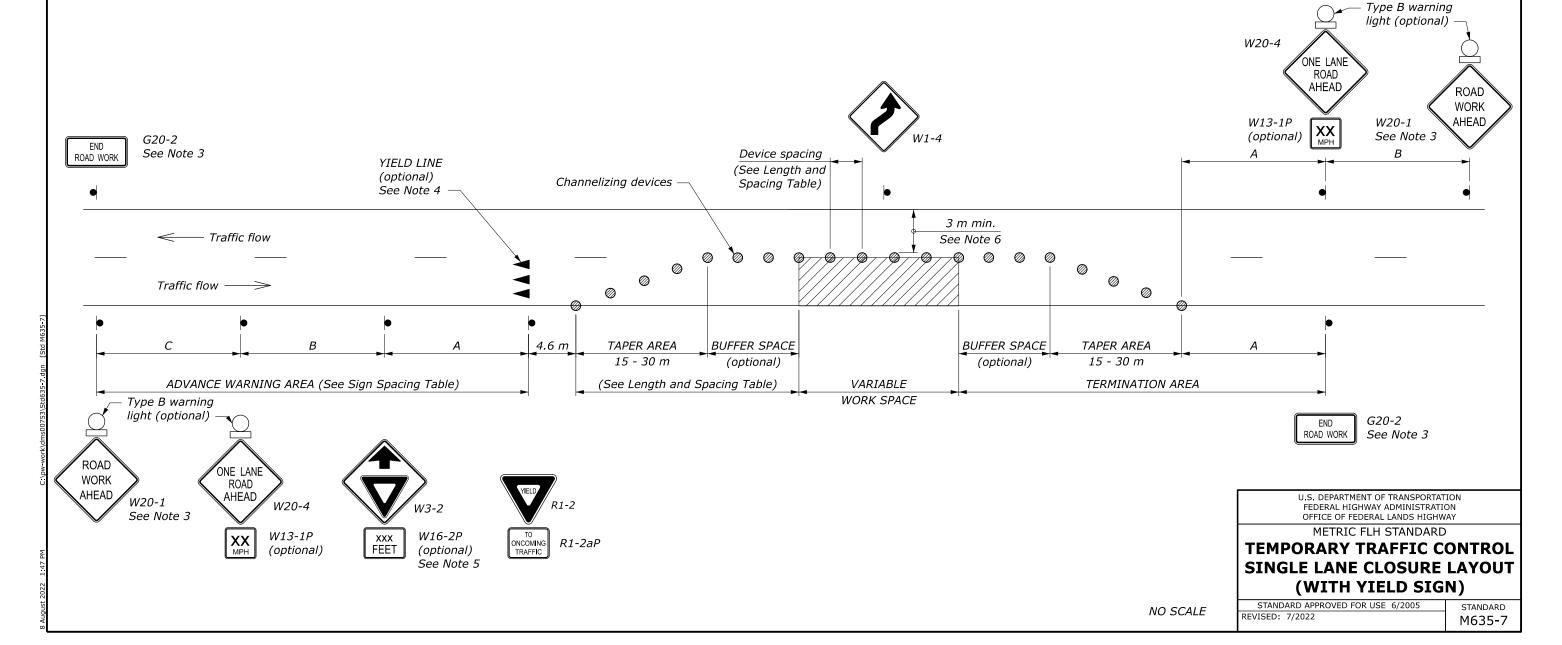
| PROJECT | SHEET<br>NUMBER |
|---------|-----------------|
|         |                 |

| LENGTH AND SPACING TABLE |             |                 |                     |                 |               |  |
|--------------------------|-------------|-----------------|---------------------|-----------------|---------------|--|
| 40000464                 |             | BUFFER          | CHANNELIZING DEVICE |                 |               |  |
|                          | OACH<br>ED* | SPACE<br>LENGTH | TAPER<br>AREA       | BUFFER<br>SPACE | WORK<br>SPACE |  |
| MPH                      | km/h        | METER           | SPAC                | ING IN ME       | TERS          |  |
| 20                       | 30          | 35              | 6                   | 12              | 12            |  |
| 25                       | 40          | 45              | 6                   | 15              | 15            |  |
| 30                       | 50          | 60              | 6                   | 18              | 18            |  |
| 35                       | 55          | <i>75</i>       | 6                   | 21              | 21            |  |
| 40                       | 65          | 95              | 6                   | 24              | 24            |  |
| 45                       | 70          | 110             | 6                   | 27              | 27            |  |
| 50                       | 80          | 130             | 6                   | 30              | 30            |  |
| 55                       | 90          | 150             | 6                   | 34              | 34            |  |
| 60                       | 95          | 1 <i>75</i>     | 6                   | <i>37</i>       | <i>37</i>     |  |
| 65                       | 105         | 195             | 6                   | 40              | 40            |  |
| 70                       | 115         | 225             | 6                   | 43              | 43            |  |

| * | Approach speed based on the regulatory posted speed, |
|---|--|
|   | not the advisory speed.                              |

| SIGN SPACING TABLE                     |                                |     |     |
|--|--------------------------------|-----|-----|
| ROAD TYPE                              | DISTANCE BETW<br>SIGNS IN METE |     |     |
|  | Α                              | В   | С   |
| Urban and Rural ≤ 50 km/h [≤ 30 MPH]   | 30                             | 30  | 30  |
| Urban and Rural 60-80 km/h [35-50 MPH] | 100                            | 100 | 100 |
| Rural greater than 80 km/h [50 MPH]    | 150                            | 150 | 150 |
| Expressway / Freeway                   | 300                            | 450 | 800 |

- 1. Use this layout only if sufficient gaps in oncoming traffic exist for traffic that must yield, and if drivers from both directions are able to see approaching traffic through and beyond the work site.
- 2. Final location and spacing of devices may be changed to fit field conditions as approved by the CO.
- 3. If closure is completely within the project limits, eliminate the ROAD WORK AHEAD (W20-1) and END ROAD WORK (G20-2) signs.
- 4. If the surface is paved, install yield lines that comply with Section 3B.16 of the MUTCD.
- 5. Use the YIELD AHEAD (W3-2) sign when approach speeds exceed 80 km/h [50 MPH].
- 6. For project specific minimum width, refer to Special Contract Requirements, Section 156.
- 7. Do not allow equipment, materials, or vehicles to be parked or stored in the buffer space.

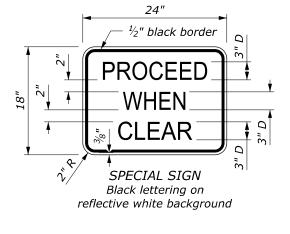


| PROJECT | SHEET<br>NUMBER |  |
|---------|-----------------|--|
|         |                 |  |

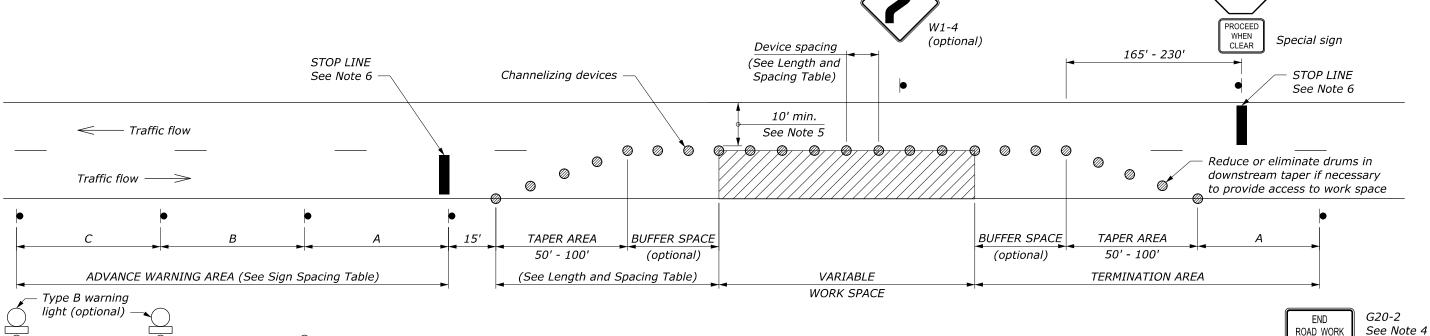
| LENGTH AND SPACING TABLE |                           |                     |           |     |  |  |
|--------------------------|---------------------------|---------------------|-----------|-----|--|--|
| ADDDOACH                 | BUFFER<br>SPACE<br>LENGTH | CHANNELIZING DEVICE |           |     |  |  |
| APPROACH<br>SPEED*       |                           | WORK<br>SPACE       |           |     |  |  |
| MPH                      | FEET                      | SPA                 | CING IN F | EET |  |  |
| 20                       | 115                       | 20                  | 40        | 40  |  |  |
| 25                       | 155                       | 20                  | 50        | 50  |  |  |
| 30                       | 200                       | 20                  | 60        | 60  |  |  |
| 35                       | 250                       | 20                  | 70        | 70  |  |  |
| 40                       | 305                       | 20                  | 80        | 80  |  |  |
| 45                       | 360                       | 20                  | 90        | 90  |  |  |
| 50                       | 425                       | 20                  | 100       | 100 |  |  |
| 55                       | 495                       | 20                  | 110       | 110 |  |  |
| 60                       | 570                       | 20                  | 120       | 120 |  |  |
| 65                       | 645                       | 20                  | 130       | 130 |  |  |
| 70                       | 730                       | 20 140 140          |           |     |  |  |

<sup>\*</sup> Approach speed based on the regulatory posted speed, not the advisory speed.

| SIGN SPACING TABLE               |      |                                   |      |  |
|----------------------------------|------|-----------------------------------|------|--|
| ROAD TYPE                        |      | DISTANCE BETWEEN<br>SIGNS IN FEET |      |  |
|                                  | Α    | В                                 | С    |  |
| Urban and Rural 30 MPH and less  | 100  | 100                               | 100  |  |
| Urban and Rural 35 MPH to 50 MPH | 350  | 350                               | 350  |  |
| Rural greater than 50 MPH        | 500  | 500                               | 500  |  |
| Expressway / Freeway             | 1000 | 1500                              | 2640 |  |



- 1. Use this layout only if road users from both directions are able to see approaching vehicular traffic through and beyond the work site and have sufficient visibility of approaching vehicles.
- 2. Signs are shown for one direction of travel only. Place signs similar to those depicted for the opposite direction of travel.
- 3. Final location and spacing of devices may be changed to fit field conditions as approved by the CO.
- 4. If closure is completely within the project limits, eliminate the ROAD WORK AHEAD (W20-1) and END ROAD WORK (G20-2) signs.
- 5. For project specific minimum width, refer to Special Contract Requirements, Section 156.
- 6. If the roadway surface is paved, install stop lines that comply with Section 3B.16 of the MUTCD.
- 7. Use the STOP AHEAD (W3-1) sign when approach speeds exceed 50 MPH.
- 8. Do not allow equipment, materials, or vehicles to be parked or stored in the buffer space.



1:51 PM C:\pw-work\

ROAD

WORK

**AHEAD** 

W20-1

See Note 4

one lane

ROAD

**AHEAD** 

W20-4

W13-1P

(optional)

PROCEED

W16-2P

FEET

(optional)

See Note 7

Special sign

FLH STANDARD

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION OFFICE OF FEDERAL LANDS HIGHWAY

R1-1

TEMPORARY TRAFFIC CONTROL SINGLE LANE CLOSURE LAYOUT (WITH STOP SIGNS)

NO SCALE

STANDARD APPROVED FOR USE 6/2005
REVISED: 7/2022

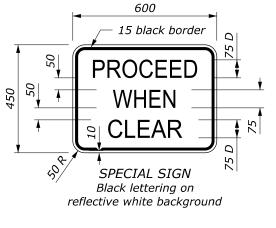
\_\_\_\_standard 635-8

| PROJECT | SHEET<br>NUMBER |  |
|---------|-----------------|--|
|         |                 |  |

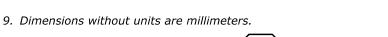
| CE         |
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| CE         |
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| ORK        |
| PACE       |
| S          |
| 12         |
| 15         |
| 18         |
| 21         |
| 24         |
| 27         |
| 30         |
| 34         |
| 3 <i>7</i> |
| 40         |
| 43         |
|            |

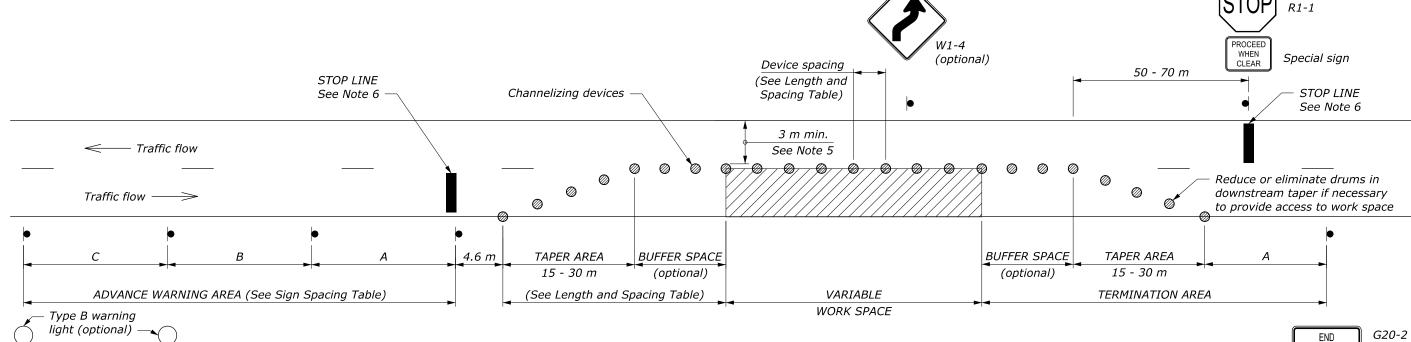
<sup>\*</sup> Approach speed based on the regulatory posted speed, not the advisory speed.

| SIGN SPACING TABLE                     |                                |     |     |  |
|--|--------------------------------|-----|-----|--|
| ROAD TYPE                              | DISTANCE BETW<br>SIGNS IN METE |     |     |  |
|  | Α                              | В   | С   |  |
| Urban and Rural ≤ 50 km/h [≤ 30 MPH]   | 30                             | 30  | 30  |  |
| Urban and Rural 60-80 km/h [35-50 MPH] | 100                            | 100 | 100 |  |
| Rural greater than 80 km/h [50 MPH]    | 150                            | 150 | 150 |  |
| Expressway / Freeway                   | 300                            | 450 | 800 |  |



- 1. Use this layout only if road users from both directions are able to see approaching vehicular traffic through and beyond the work site and have sufficient visibility of approaching vehicles.
- 2. Signs are shown for one direction of travel only. Place signs similar to those depicted for the opposite direction of travel.
- 3. Final location and spacing of devices may be changed to fit field conditions as approved by the CO.
- 4. If closure is completely within the project limits, eliminate the ROAD WORK AHEAD (W20-1) and END ROAD WORK (G20-2) signs.
- 5. For project specific minimum width, refer to Special Contract Requirements, Section 156.
- 6. If the roadway surface is paved, install stop lines that comply with Section 3B.16 of the MUTCD.
- 7. Use the STOP AHEAD (W3-1) sign when approach speeds exceed 80 km/h [50 MPH].
- 8. Do not allow equipment, materials, or vehicles to be parked or stored in the buffer space.





2022 1:51 PM

ROAD

WORK

**AHEAD** 

W20-1

See Note 4

one lane

ROAD

**AHEAD** 

W20-4

W13-1P

(optional)

PROCEED

W16-2P

FEET

(optional)

See Note 7

Special sign

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION OFFICE OF FEDERAL LANDS HIGHWAY

ROAD WORK

METRIC FLH STANDARD

TEMPORARY TRAFFIC CONTROL SINGLE LANE CLOSURE LAYOUT (WITH STOP SIGNS)

NO SCALE STANDARD APPRO

STANDARD APPROVED FOR USE 6/2005 REVISED: 7/2022

standard M635-8

See Note 4

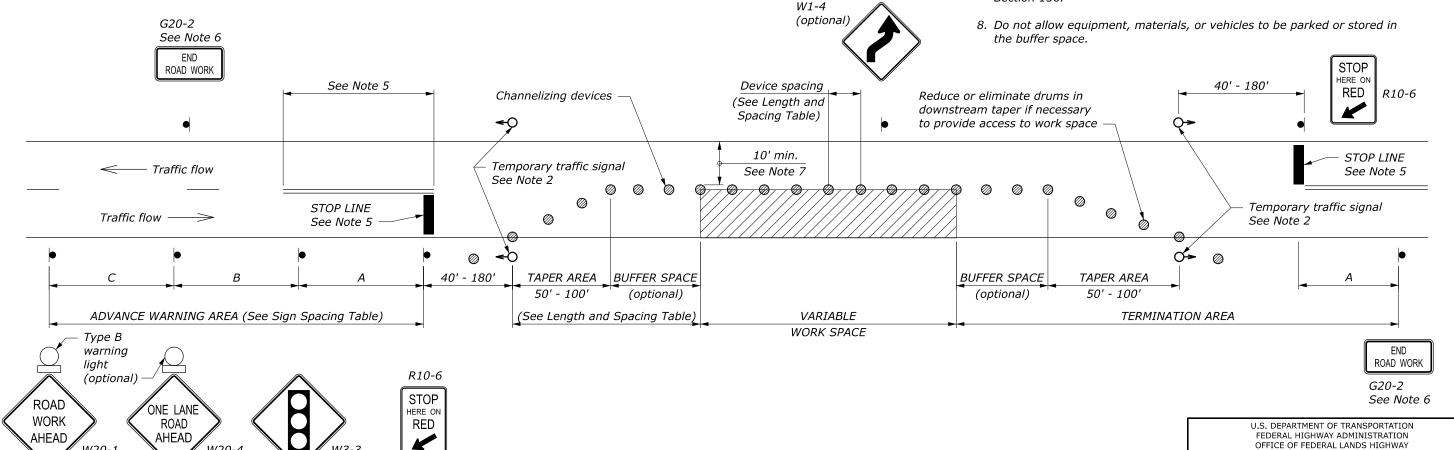
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| LENGTH AND SPACING TABLE |                 |                     |                 |               |  |
|--------------------------|-----------------|---------------------|-----------------|---------------|--|
| ADDDOACH                 | BUFFER          | CHANNELIZING DEVICE |                 |               |  |
| APPROACH<br>SPEED*       | SPACE<br>LENGTH | TAPER<br>AREA       | BUFFER<br>SPACE | WORK<br>SPACE |  |
| MPH                      | FEET            | SPA                 | CING IN F       | EET           |  |
| 20                       | 115             | 20                  | 40              | 40            |  |
| 25                       | 155             | 20                  | 50              | 50            |  |
| 30                       | 200             | 20                  | 60              | 60            |  |
| 35                       | 250             | 20                  | 70              | 70            |  |
| 40                       | 305             | 20                  | 80              | 80            |  |
| 45                       | 360             | 20                  | 90              | 90            |  |
| 50                       | 425             | 20                  | 100             | 100           |  |
| 55                       | 495             | 20                  | 110             | 110           |  |
| 60                       | 570             | 20                  | 120             | 120           |  |
| 65                       | 645             | 20                  | 130             | 130           |  |
| 70                       | 730             | 20                  | 140             | 140           |  |

| * | Approach speed based on the regulatory posted speed, |
|---|--|
|   | not the advisory speed.                              |

| SIGN SPACING TABLE               |      |                                   |      |  |  |
|----------------------------------|------|-----------------------------------|------|--|--|
| ROAD TYPE                        |      | DISTANCE BETWEEN<br>SIGNS IN FEET |      |  |  |
|                                  | Α    | В                                 | С    |  |  |
| Urban and Rural 30 MPH and less  | 100  | 100                               | 100  |  |  |
| Urban and Rural 35 MPH to 50 MPH | 350  | 350                               | 350  |  |  |
| Rural greater than 50 MPH        | 500  | 500                               | 500  |  |  |
| Expressway / Freeway             | 1000 | 1500                              | 2640 |  |  |

- 1. Signs are shown for one direction of travel only. Place signs similar to those depicted for the opposite direction of travel.
- 2. A single signal installation is acceptable, on the right-hand side of the road, if it has two signal faces that are at least 8 feet apart and meets the other requirements of Part 4 of the MUTCD.
- 3. Install and operate temporary traffic control signals in accordance with the requirements of Part 4 of the MUTCD. Establish signal timing using a qualified engineer. When the signal is changed to the flashing mode either manually or automatically, ensure red signal indications are flashed to both approaches.
- 4. Final location and spacing of devices may be changed to fit field conditions as approved by the CO. If signals are moved, determine revised signal timing using a qualified engineer.
- 5. For paved roadway surfaces, install stop lines complying with MUTCD Section 3B.16. Remove existing conflicting pavement markings and raised markers between the work space and the stop line. Add no-passing lines in advance of the stop line that comply with MUTCD Section 3B.02. Removeable pavement markings may be used for stop lines and no-passing pavement markings.
- 6. If closure is completely within the project limits, eliminate the ROAD WORK AHEAD (W20-1) and END ROAD WORK (G20-2) signs.
- 7. For project specific minimum width, refer to Special Contract Requirements, Section 156.



W20-1

See Note 6

W20-4

W13-1P

(optional)

NO SCALE

STANDARD APPROVED FOR USE 6/2005 REVISED: 7/2022

FLH STANDARD

**TEMPORARY TRAFFIC CONTROL** 

SINGLE LANE CLOSURE LAYOUT

(WITH SIGNALS)

STANDARD 635-9

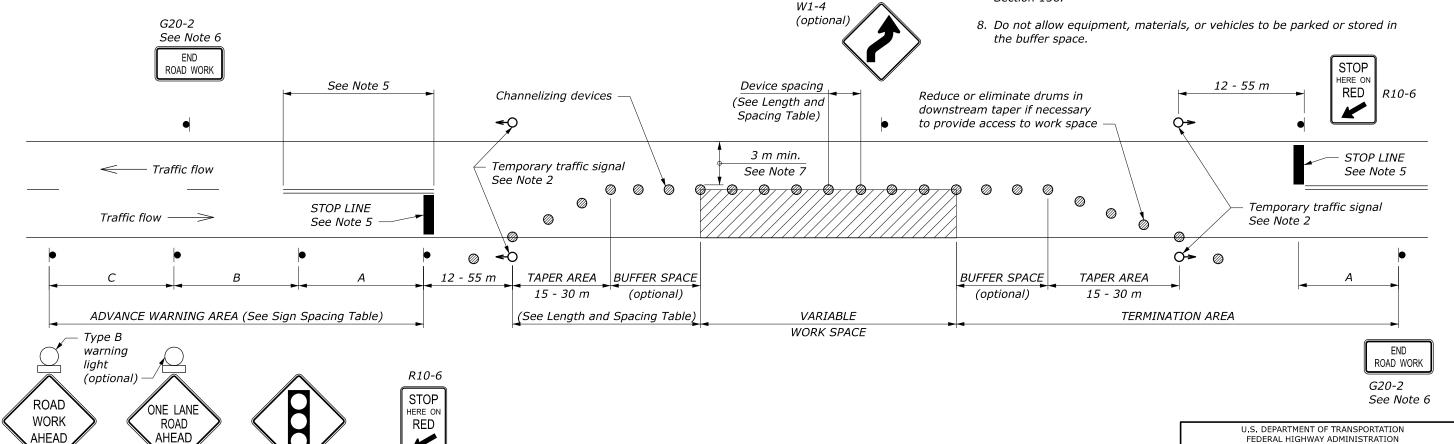
| PROJECT | SHEET<br>NUMBER |
|---------|-----------------|
|         |                 |

|          | LENGTH AND SPACING TABLE |                 |                     |                 |               |  |
|----------|--------------------------|-----------------|---------------------|-----------------|---------------|--|
| 40000464 |                          | BUFFER          | CHANNELIZING DEVICE |                 |               |  |
|          | OACH<br>ED*              | SPACE<br>LENGTH | TAPER<br>AREA       | BUFFER<br>SPACE | WORK<br>SPACE |  |
| MPH      | km/h                     | METER           | SPAC                | ING IN ME       | TERS          |  |
| 20       | 30                       | 35              | 6                   | 12              | 12            |  |
| 25       | 40                       | 45              | 6                   | 15              | 15            |  |
| 30       | 50                       | 60              | 6                   | 18              | 18            |  |
| 35       | 55                       | <i>75</i>       | 6                   | 21              | 21            |  |
| 40       | 65                       | 95              | 6                   | 24              | 24            |  |
| 45       | 70                       | 110             | 6                   | 27              | 27            |  |
| 50       | 80                       | 130             | 6                   | 30              | 30            |  |
| 55       | 90                       | 150             | 6                   | 34              | 34            |  |
| 60       | 95                       | 1 <i>75</i>     | 6                   | <i>37</i>       | <i>37</i>     |  |
| 65       | 105                      | 195             | 6                   | 40              | 40            |  |
| 70       | 115                      | 225             | 6                   | 43              | 43            |  |

| * | Approach speed based on the regulatory posted speed, |
|---|--|
|   | not the advisory speed.                              |

| SIGN SPACING TABLE                     |     |                                     |     |  |
|--|-----|-------------------------------------|-----|--|
| ROAD TYPE                              |     | DISTANCE BETWEEN<br>SIGNS IN METERS |     |  |
|  | Α   | В                                   | С   |  |
| Urban and Rural ≤ 50 km/h [≤ 30 MPH]   | 30  | 30                                  | 30  |  |
| Urban and Rural 60-80 km/h [35-50 MPH] | 100 | 100                                 | 100 |  |
| Rural greater than 80 km/h [50 MPH]    | 150 | 150                                 | 150 |  |
| Expressway / Freeway                   | 300 | 450                                 | 800 |  |

- 1. Signs are shown for one direction of travel only. Place signs similar to those depicted for the opposite direction of travel.
- 2. A single signal installation is acceptable, on the right-hand side of the road, if it has two signal faces that are at least 2.4 m apart and meets the other requirements of Part 4 of the MUTCD.
- 3. Install and operate temporary traffic control signals in accordance with the requirements of Part 4 of the MUTCD. Establish signal timing using a qualified engineer. When the signal is changed to the flashing mode either manually or automatically, ensure red signal indications are flashed to both approaches.
- 4. Final location and spacing of devices may be changed to fit field conditions as approved by the CO. If signals are moved, determine revised signal timing using a qualified engineer.
- 5. For paved roadway surfaces, install stop lines complying with MUTCD Section 3B.16. Remove existing conflicting pavement markings and raised markers between the work space and the stop line. Add no-passing lines in advance of the stop line that comply with MUTCD Section 3B.02. Removeable pavement markings may be used for stop lines and no-passing pavement markings.
- 6. If closure is completely within the project limits, eliminate the ROAD WORK AHEAD (W20-1) and END ROAD WORK (G20-2) signs.
- 7. For project specific minimum width, refer to Special Contract Requirements, Section 156.



3:22 PM C:\pw-work\dms007

W20-1

See Note 6

W20-4

W13-1P (optional)

(WITH SIGNALS)

NO SCALE

STANDARD APPROVED FOR USE 6/2005 REVISED: 7/2022

OFFICE OF FEDERAL LANDS HIGHWAY

METRIC FLH STANDARD
TEMPORARY TRAFFIC CONTROL

SINGLE LANE CLOSURE LAYOUT

standard M635-9

| PROJECT | SHEET<br>NUMBER |
|---------|-----------------|
|         |                 |

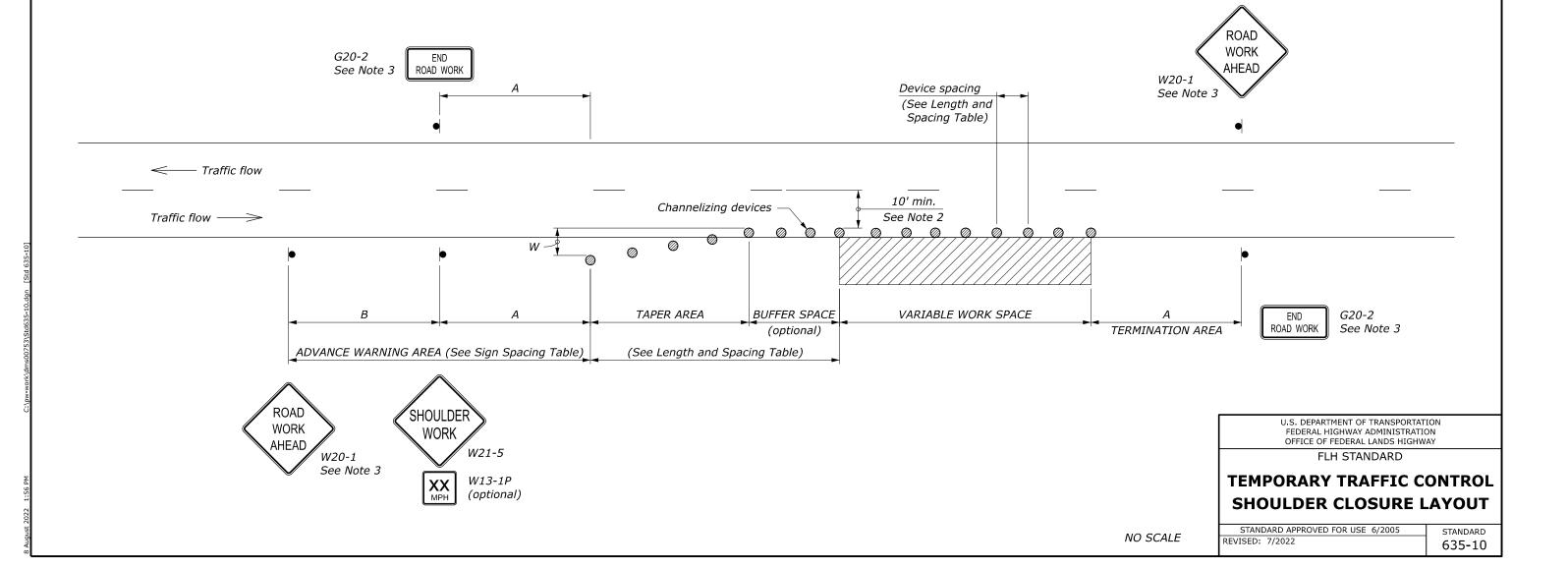
|          | LENGTH AND SPACING TABLE                                 |                 |               |                 |               |  |
|----------|--|-----------------|---------------|-----------------|---------------|--|
| APPROACH | MINIMUM TARER LENGTHY                                    | BUFFER<br>SPACE |               | ELIZING         | _             |  |
| SPEED*   | MINIMUM TAPER LENGTH**                                   | LENGTH          | TAPER<br>AREA | BUFFER<br>SPACE | WORK<br>SPACE |  |
| MPH      | FEET   | FEET            | SPA           | CING IN         | FEET          |  |
| 20       | Shoulder taper formula:                                  | 115             | 20            | 40              | 40            |  |
| 25       | $L = \frac{WS^2}{}$ for $S \le 40$ MPH                   | 155             | 25            | 50              | 50            |  |
| 30       | $L = \frac{180}{180}  \text{101.3 } \leq 40 \text{ MPH}$ | 200             | 30            | 60              | 60            |  |
| 35       | $L = \frac{WS}{3}  \text{for } S \ge 45 \text{ MPH}$     | 250             | 35            | 70              | 70            |  |
| 40       | 3 101 3 2 43 11111                                       | 305             | 40            | 80              | 80            |  |
| 45       | Where:   | 360             | 45            | 90              | 90            |  |
| 50       | L = Minimum length of taper                              | 425             | 50            | 100             | 100           |  |
| 55       | W = Width of offset in feet                              | 495             | 55            | 110             | 110           |  |
| 60       | S = Numerical value of posted speed                      | 570             | 60            | 120             | 120           |  |
| 65       | limit or 85 percentile speed prior                       | 645             | 65            | 130             | 130           |  |
| 70       | to work in miles per hour                                | 730             | 70            | 140             | 140           |  |

\* Approach speed based on the regulatory posted speed, not the advisory speed.
\*\*Lengthen taper as needed to provide minimum of three channelizing devices in taper

at required spacing.

| SIGN SPACING TABLE               |      |                                   |      |  |
|----------------------------------|------|-----------------------------------|------|--|
| ROAD TYPE                        |      | DISTANCE BETWEEN<br>SIGNS IN FEET |      |  |
|                                  |      | В                                 | С    |  |
| Urban and Rural 30 MPH and less  | 100  | 100                               | 100  |  |
| Urban and Rural 35 MPH to 50 MPH | 350  | 350                               | 350  |  |
| Rural greater than 50 MPH        | 500  | 500                               | 500  |  |
| Expressway / Freeway             | 1000 | 1500                              | 2640 |  |

- 1. Final location and spacing of devices may be changed to fit field conditions as approved by the CO.
- 2. For project specific minimum width, refer to Special Contract Requirements, Section 156.
- 3. If shoulder closure is completely within the project limits, eliminate the ROAD WORK AHEAD (W20-1) and END ROAD WORK (G20-2) signs.
- 4. Do not allow equipment, materials, or vehicles to be parked or stored in the buffer space.



| PROJECT | SHEET<br>NUMBER |
|---------|-----------------|
|         |                 |

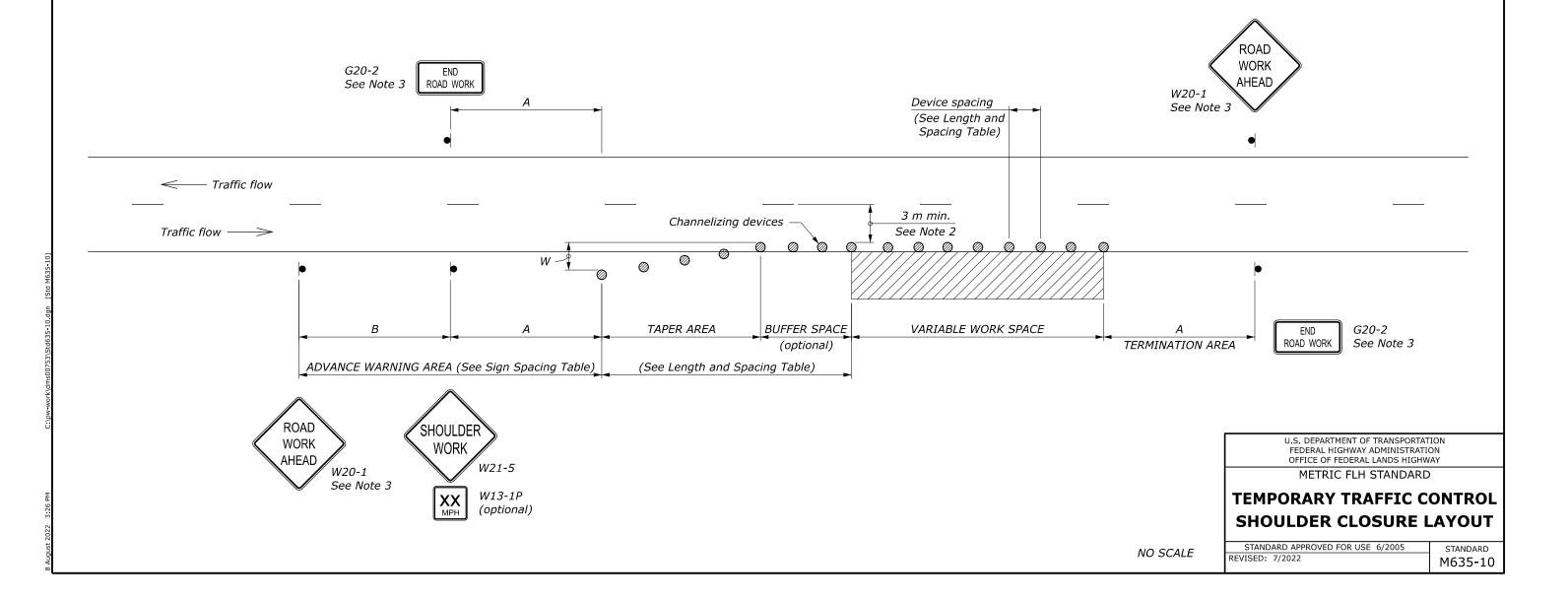
|      | LENGTH AND SPACING TABLE |   |           |       |                  |           |  |  |
|------|--------------------------|---|-----------|-------|------------------|-----------|--|--|
| 4000 | 04611                    |   | BUFFER    | CHANN | ELIZING          | DEVICE    |  |  |
| 1    | OACH<br>ED*              | MINIMUM TAPER LENGTH**                                    | SPACE     | TAPER | TAPER BUFFER WOR |           |  |  |
|      |                          |   | LENGTH    | AREA  |                  |           |  |  |
| MPH  | km/h                     | METER   | METER     | SPAC1 | NG IN M          | ETERS     |  |  |
| 20   | 30                       | Shoulder taper formula:                                   | <i>35</i> | 6     | 12               | 12        |  |  |
| 25   | 40                       | $L = \frac{WS^2}{465}  \text{for } S \le 70 \text{ km/h}$ | 45        | 8     | 15               | 15        |  |  |
| 30   | 50                       | 465 101 3 \(\frac{1}{2}\) 70 KHIJH                        | 60        | 9     | 18               | 18        |  |  |
| 35   | 55                       | $L = \frac{WS}{4.8}  \text{for } S \ge 70 \text{ km/h}$   | <i>75</i> | 11    | 21               | 21        |  |  |
| 40   | 65                       | 4.8 101 3 2 70 KIII/II                                    | 95        | 12    | 24               | 24        |  |  |
| 45   | 70                       | Where:  | 110       | 14    | 27               | 27        |  |  |
| 50   | 80                       | L = Minimum length of taper                               | 130       | 15    | 30               | 30        |  |  |
| 55   | 90                       | W = Width of offset in meters                             | 150       | 17    | 34               | 34        |  |  |
| 60   | 95                       | S = Metric equivalent of posted speed                     | 175       | 18    | 37               | <i>37</i> |  |  |
| 65   | 105                      | limit or 85 percentile speed prior                        | 195       | 20    | 40               | 40        |  |  |
| 70   | 115                      | to work in kilometers per hour                            | 225       | 21    | 43               | 43        |  |  |

\* Approach speed based on the regulatory posted speed, not the advisory speed. \*\*Lengthen taper as needed to provide minimum of three channelizing devices in taper

at required spacing.

| SIGN SPACING TABLE                      |     |     |     |  |  |  |
|---|-----|-----|-----|--|--|--|
| DISTANCE BETWE ROAD TYPE SIGNS IN METER |     |     |     |  |  |  |
|   | Α   | В   | С   |  |  |  |
| Urban and Rural ≤ 50 km/h [≤ 30 MPH]    | 30  | 30  | 30  |  |  |  |
| Urban and Rural 60-80 km/h [35-50 MPH]  | 100 | 100 | 100 |  |  |  |
| Rural greater than 80 km/h [50 MPH]     | 150 | 150 | 150 |  |  |  |
| Expressway / Freeway                    | 300 | 450 | 800 |  |  |  |

- 1. Final location and spacing of devices may be changed to fit field conditions as approved by the CO.
- 2. For project specific minimum width, refer to Special Contract Requirements, Section 156.
- 3. If shoulder closure is completely within the project limits, eliminate the ROAD WORK AHEAD (W20-1) and END ROAD WORK (G20-2) signs.
- 4. Do not allow equipment, materials, or vehicles to be parked or stored in the buffer space.



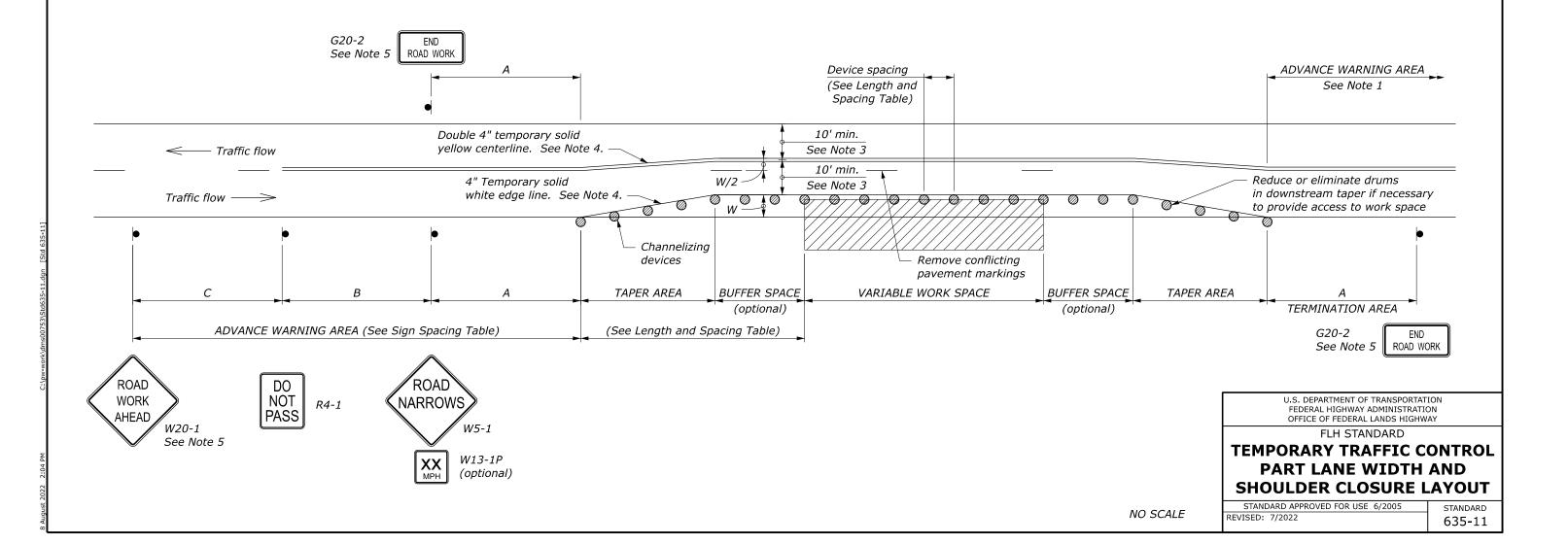
| PROJECT | SHEET<br>NUMBER |
|---------|-----------------|
|         |                 |

|          | LENGTH AND SPACING TABLE                                 |                 |       |                  |               |  |  |  |  |
|----------|--|-----------------|-------|------------------|---------------|--|--|--|--|
| APPROACH |  | BUFFER          | CHANN | CHANNELIZING DEV |               |  |  |  |  |
| SPEED*   | MINIMUM TAPER LENGTH                                     | SPACE<br>LENGTH | - •   |                  | WORK<br>SPACE |  |  |  |  |
| MPH      | FEET   | FEET            | SPA   | CING IN          | FEET          |  |  |  |  |
| 20       | Shifting taper formula:                                  | 115             | 20    | 40               | 40            |  |  |  |  |
| 25       | $L = \frac{WS^2}{120}  \text{for } S \le 40 \text{ MPH}$ | 155             | 25    | 50               | 50            |  |  |  |  |
| 30       | $L = \frac{1}{120}$ 101 3 \(\frac{1}{2}\) 40 MPH         | 200             | 30    | 60               | 60            |  |  |  |  |
| 35       | $L = \frac{WS}{s}$ for $S \ge 45$ MPH                    | 250             | 35    | 70               | 70            |  |  |  |  |
| 40       | 2 101 3 2 43 1411  | 305             | 40    | 80               | 80            |  |  |  |  |
| 45       | Where:   | 360             | 45    | 90               | 90            |  |  |  |  |
| 50       | L = Minimum length of taper                              | 425             | 50    | 100              | 100           |  |  |  |  |
| 55       | W = Width of offset in feet                              | 495             | 55    | 110              | 110           |  |  |  |  |
| 60       | S = Numerical value of posted speed                      | 570             | 60    | 120              | 120           |  |  |  |  |
| 65       | limit or 85 percentile speed prior                       | 645             | 65    | 130              | 130           |  |  |  |  |
| 70       | to work in miles per hour                                | 730             | 70    | 140              | 140           |  |  |  |  |

| * | Approach speed I | based on the | regulatory | posted speed, | not the advisory speed. |  |
|---|------------------|--------------|------------|---------------|-------------------------|--|
|---|------------------|--------------|------------|---------------|-------------------------|--|

| SIGN SPACING TABLE                      |      |      |      |  |  |  |
|---|------|------|------|--|--|--|
| ROAD TYPE DISTANCE BETWEE SIGNS IN FEET |      |      |      |  |  |  |
|   | Α    | В    | С    |  |  |  |
| Urban and Rural 30 MPH and less         | 100  | 100  | 100  |  |  |  |
| Urban and Rural 35 MPH to 50 MPH        | 350  | 350  | 350  |  |  |  |
| Rural greater than 50 MPH               | 500  | 500  | 500  |  |  |  |
| Expressway / Freeway                    | 1000 | 1500 | 2640 |  |  |  |

- 1. Signs are shown for one direction of travel only. Place signs similar to those depicted for the opposite direction of travel.
- 2. Final location and spacing of devices may be changed to fit field conditions as approved by the CO.
- 3. For project specific minimum width, refer to Special Contract Requirements, Section 156.
- 4. If the roadway surface is paved, install temporary pavement markings. If nearest no-passing zone is within 400', extend markings to connect zones.
- 5. If closure is completely within the project limits, eliminate the ROAD WORK AHEAD (W20-1) and END ROAD WORK (G20-2) signs.
- 6. Install PASS WITH CARE sign (R4-2) at ends of no-passing zone if directed by the CO.
- 7. Do not allow equipment, materials, or vehicles to be parked or stored in the buffer space.



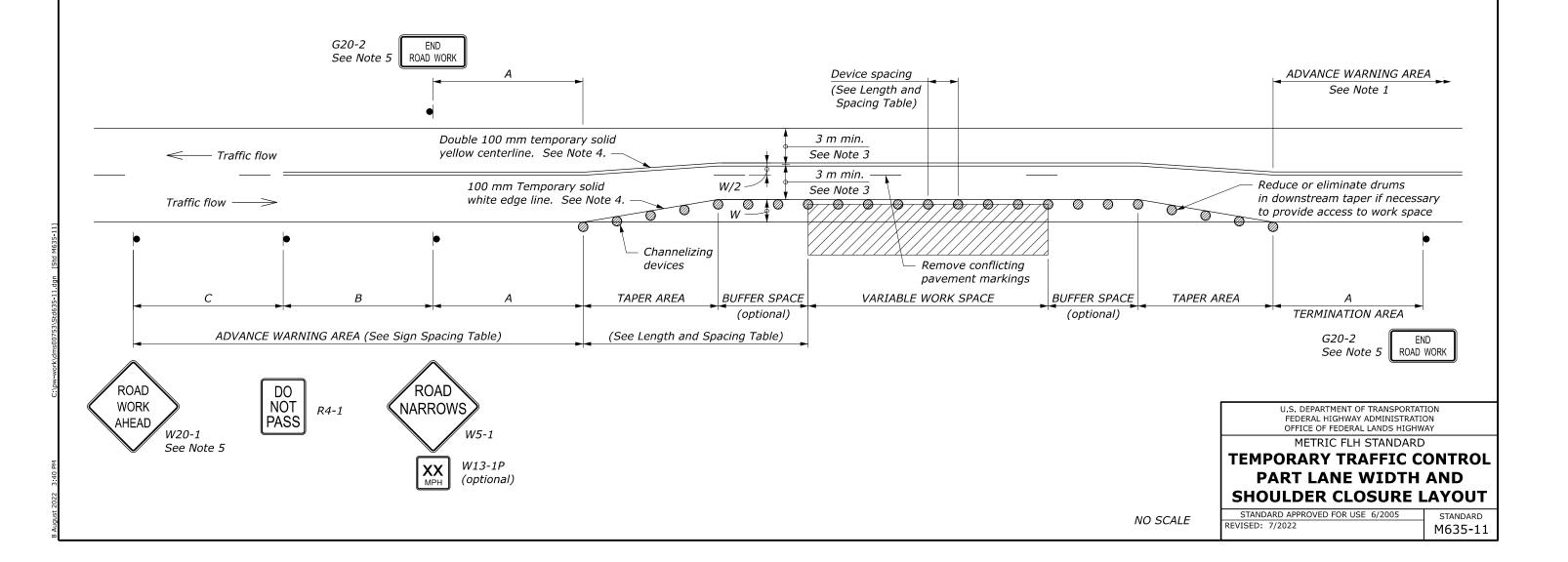
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|                    | LENGTH AND SPACING TABLE |   |  |       |         |       |  |  |
|--------------------|--------------------------|---|--|-------|---------|-------|--|--|
| APPROACH<br>SPEED* |                          | MINIMUM TAPER LENGTH                                    | BUFFER CHANNELIZING DEVICE SPACE TAPER BUFFER WOFF LENGTH AREA SPACE SPACE |       |         |       |  |  |
| MPH                | km/h                     | METER   | METER  | SPACI | NG IN M | ETERS |  |  |
| 20                 | 30                       | Shifting taper formula:                                 | 35   | 6     | 12      | 12    |  |  |
| 25                 | 40                       | $L = \frac{WS^2}{m}$ for $S \le 70$ km/h                | 45   | 8     | 15      | 15    |  |  |
| 30                 | 50                       | $L = \frac{10}{310}  \text{for } S \le 70 \text{ km/h}$ | 60   | 9     | 18      | 18    |  |  |
| 35                 | 55                       | $L = \frac{WS}{3.2}  \text{for } S \ge 70 \text{ km/h}$ | <i>75</i>  | 11    | 21      | 21    |  |  |
| 40                 | 65                       | 3.2 101 3 2 70 KHIJH                                    | 95   | 12    | 24      | 24    |  |  |
| 45                 | 70                       | Where:  | 110  | 14    | 27      | 27    |  |  |
| 50                 | 80                       | L = Minimum length of taper                             | 130  | 15    | 30      | 30    |  |  |
| 55                 | 90                       | W = Width of offset in meters                           | 150  | 17    | 34      | 34    |  |  |
| 60                 | 95                       | S = Metric equivalent of posted speed                   | 175  | 18    | 37      | 37    |  |  |
| 65                 | 105                      | limit or 85 percentile speed prior                      | 195  | 20    | 40      | 40    |  |  |
| 70                 | 115                      | to work in kilometers per hour                          | 225  | 21    | 43      | 43    |  |  |

| * | Approach speed base | d on the regulatory | posted speed, | not the advisory speed. |
|---|---------------------|---------------------|---------------|-------------------------|
|---|---------------------|---------------------|---------------|-------------------------|

| SIGN SPACING TABLE |  |  |  |  |  |  |
|--------------------|--|--|--|--|--|--|
|                    |  |  |  |  |  |  |
| Α                  | В                                      | С  |  |  |  |  |
| 30                 | 30                                     | 30   |  |  |  |  |
| 100                | 100                                    | 100  |  |  |  |  |
| 150                | 150                                    | 150  |  |  |  |  |
| 300                | 450                                    | 800  |  |  |  |  |
|                    | DISTA<br>SIGN<br>A<br>30<br>100<br>150 | DISTANCE BET SIGNS IN ME  A B  30 30  100 100  150 150 |  |  |  |  |

- 1. Signs are shown for one direction of travel only. Place signs similar to those depicted for the opposite direction of travel.
- 2. Final location and spacing of devices may be changed to fit field conditions as approved by the CO.
- 3. For project specific minimum width, refer to Special Contract Requirements, Section 156.
- 4. If the roadway surface is paved, install temporary pavement markings. If nearest no-passing zone is within 120 m, extend markings to connect zones.
- 5. If closure is completely within the project limits, eliminate the ROAD WORK AHEAD (W20-1) and END ROAD WORK (G20-2) signs.
- 6. Install PASS WITH CARE sign (R4-2) at ends of no-passing zone if directed by the CO.
- 7. Do not allow equipment, materials, or vehicles to be parked or stored in the buffer space.



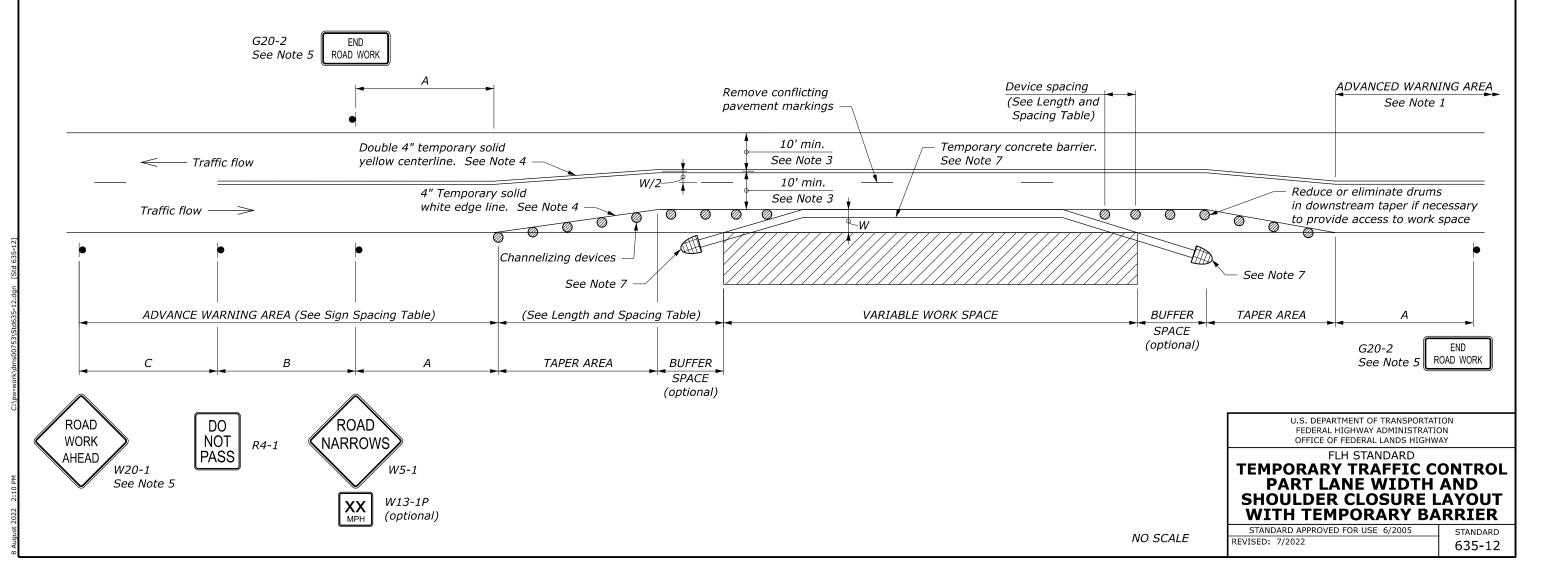
| PROJECT | SHEET<br>NUMBER |
|---------|-----------------|
|         |                 |

| LENGTH AND SPACING TABLE |  |                 |               |                 |               |                     |  |  |
|--------------------------|--|-----------------|---------------|-----------------|---------------|---------------------|--|--|
| APPROACH                 |  | BUFFER          | CHANN         | ELIZING         | DEVICE        | WORK ZONE           |  |  |
| SPEED*                   | MINIMUM TAPER LENGTH                                 | SPACE<br>LENGTH | TAPER<br>AREA | BUFFER<br>SPACE | WORK<br>SPACE | CLEAR ZONE<br>WIDTH |  |  |
| MPH                      | FEET   | FEET            | SPA           | CING IN I       | FEET          | FEET                |  |  |
| 20                       | Shifting taper formula:                              | 115             | 20            | 40              | 40            | 10                  |  |  |
| 25                       | $L = \frac{WS^2}{}$ for $S \le 40 \text{ MPH}$       | 155             | 25            | 50              | 50            | 10                  |  |  |
| 30                       | $L = \frac{120}{120}  101.3 \le 40 \text{ MPH}$      | 200             | 30            | 60              | 60            | 10                  |  |  |
| 35                       | $L = \frac{WS}{2}  \text{for } S \ge 45 \text{ MPH}$ | 250             | 35            | 70              | 70            | 10                  |  |  |
| 40                       | $L = \frac{1}{2}$ for $S \ge 45$ MPH                 | 305             | 40            | 80              | 80            | 15                  |  |  |
| 45                       | Where:   | 360             | 45            | 90              | 90            | 20                  |  |  |
| 50                       | L = Minimum length of taper                          | 425             | 50            | 100             | 100           | 20                  |  |  |
| 55                       | W = Width of offset in feet                          | 495             | 55            | 110             | 110           | 20                  |  |  |
| 60                       | S = Numerical value of posted speed                  | 570             | 60            | 120             | 120           | 30                  |  |  |
| 65                       | limit or 85 percentile speed prior                   | 645             | 65            | 130             | 130           | 30                  |  |  |
| 70                       | to work in miles per hour                            | 730             | 70            | 140             | 140           | 30                  |  |  |

| 05              | limit or 85 percentile speed prior         | 043         | 03        | 13  |
|-----------------|--|-------------|-----------|-----|
| 70              | to work in miles per hour                  | 730         | 70        | 14  |
| * Approach spee | ed based on the regulatory posted speed, n | ot the advi | isory spe | ed. |

| SIGN SPACING TABLE               |      |                                   |      |  |  |  |
|----------------------------------|------|-----------------------------------|------|--|--|--|
| ROAD TYPE                        |      | DISTANCE BETWEEN<br>SIGNS IN FEET |      |  |  |  |
|                                  | Α    | В                                 | С    |  |  |  |
| Urban and Rural 30 MPH and less  | 100  | 100                               | 100  |  |  |  |
| Urban and Rural 35 MPH to 50 MPH | 350  | 350                               | 350  |  |  |  |
| Rural greater than 50 MPH        | 500  | 500                               | 500  |  |  |  |
| Expressway / Freeway             | 1000 | 1500                              | 2640 |  |  |  |

- 1. Signs are shown for one direction of travel only. Place signs similar to those depicted for the opposite direction of travel.
- 2. Final location and spacing of devices may be changed to fit field conditions as approved by the CO.
- 3. For project specific minimum width, refer to Special Contract Requirements, Section 156.
- 4. If the roadway surface is paved, install temporary pavement markings. If nearest no-passing zone is within 400', extend markings to connect zones.
- 5. If closure is completely within the project limits, eliminate the ROAD WORK AHEAD (W20-1) and END ROAD WORK (G20-2)
- 6. Install PASS WITH CARE sign (R4-2) at ends of no-passing zone if directed by the CO.
- 7. Place the barrier according to the AASHTO Roadside Design Guide. Terminate barrier ends outside the work zone clear zone or protect the barrier ends with a crash cushion. Include reflectors on barrier at 25' intervals.
- 8. Do not allow equipment, materials, or vehicles to be parked or stored in the buffer space.



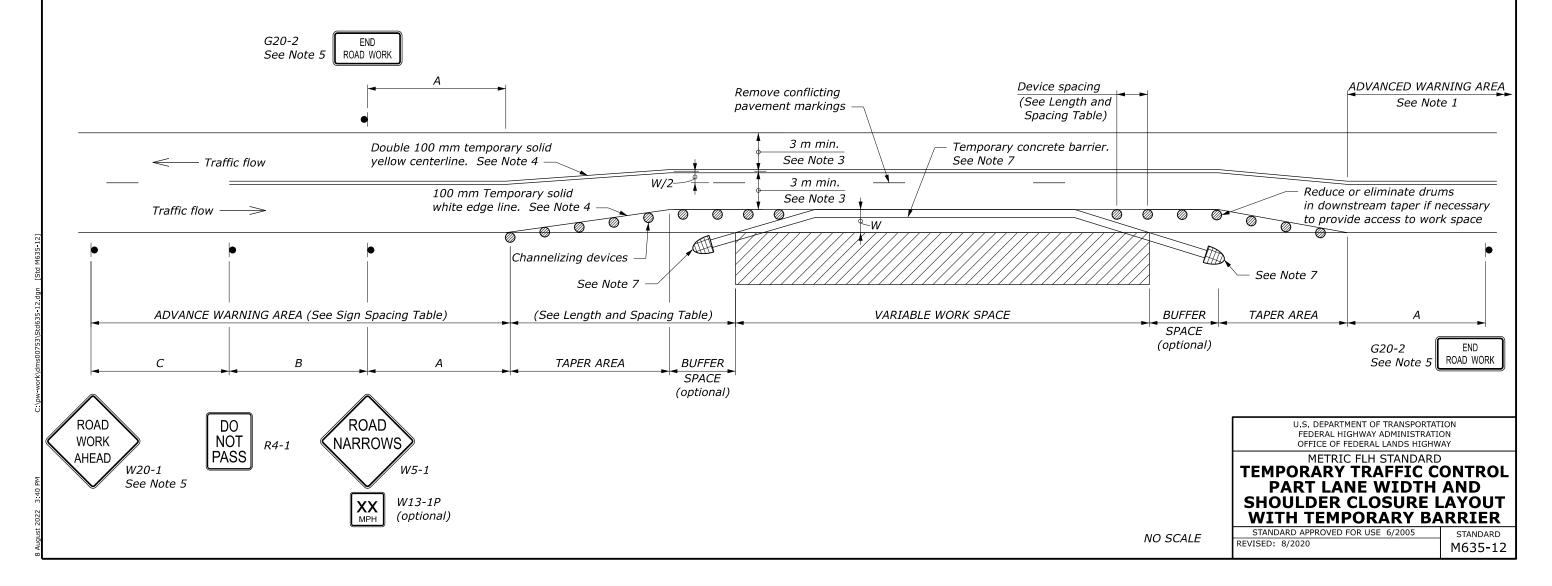
| PROJECT | SHEET<br>NUMBER |
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|      | LENGTH AND SPACING TABLE |   |                 |               |                 |               |                     |  |  |
|------|--------------------------|---|-----------------|---------------|-----------------|---------------|---------------------|--|--|
| APPR | OACH                     | CH  |                 |               | ELIZING         |               | WORK ZONE           |  |  |
| SPE  | ED*                      | MINIMUM TAPER LENGTH                                    | SPACE<br>LENGTH | TAPER<br>AREA | BUFFER<br>SPACE | WORK<br>SPACE | CLEAR ZONE<br>WIDTH |  |  |
| MPH  | km/h                     | METER   | METER           | SPACI         | NG IN M         | ETERS         | METER               |  |  |
| 20   | 30                       | Shifting taper formula:                                 | 35              | 6             | 12              | 12            | 3.0                 |  |  |
| 25   | 40                       | $L = \frac{WS^2}{1-2}$ for $S \le 70$ km/h              | 45              | 8             | 15              | 15            | 3.0                 |  |  |
| 30   | 50                       | 210 101 3 \$ 70 KHIJH                                   | 60              | 9             | 18              | 18            | 3.0                 |  |  |
| 35   | 55                       | $L = \frac{WS}{3.2}  \text{for } S \ge 70 \text{ km/h}$ | <i>75</i>       | 11            | 21              | 21            | 3.0                 |  |  |
| 40   | 65                       | 3.2 10/ 3 ½ 70 KM/M                                     | 95              | 12            | 24              | 24            | 4.6                 |  |  |
| 45   | 70                       | Where:  | 110             | 14            | 27              | 27            | 6.1                 |  |  |
| 50   | 80                       | L = Minimum length of taper                             | 130             | 15            | 30              | 30            | 6.1                 |  |  |
| 55   | 90                       | W = Width of offset in meters                           | 150             | 17            | 34              | 34            | 6.1                 |  |  |
| 60   | 95                       | S = Metric equivalent of posted speed                   | 1 <i>7</i> 5    | 18            | 37              | <i>37</i>     | 9.0                 |  |  |
| 65   | 105                      | limit or 85 percentile speed prior                      | 195             | 20            | 40              | 40            | 9.0                 |  |  |
| 70   | 115                      | to work in kilometers per hour                          | 225             | 21            | 43              | 43            | 9.0                 |  |  |

| ж | Approach speed based ( | n the regulatory po | sted speed, not the advisory speed. |  |
|---|------------------------|---------------------|-------------------------------------|--|
|   | pp. cac op cca cacca . | c og alaco., po     | orea epeca, mer am aansee, , epeca  |  |

| SIGN SPACING TABLE                     |                                     |     |     |  |  |  |  |
|--|-------------------------------------|-----|-----|--|--|--|--|
| ROAD TYPE                              | DISTANCE BETWEEN<br>SIGNS IN METERS |     |     |  |  |  |  |
|  | Α                                   | В   | С   |  |  |  |  |
| Urban and Rural ≤ 50 km/h [≤ 30 MPH]   | 30                                  | 30  | 30  |  |  |  |  |
| Urban and Rural 60-80 km/h [35-50 MPH] | 100                                 | 100 | 100 |  |  |  |  |
| Rural greater than 80 km/h [50 MPH]    | 150                                 | 150 | 150 |  |  |  |  |
| Expressway / Freeway                   | 300                                 | 450 | 800 |  |  |  |  |

- 1. Signs are shown for one direction of travel only. Place signs similar to those depicted for the opposite direction of travel.
- 2. Final location and spacing of devices may be changed to fit field conditions as approved by the CO.
- 3. For project specific minimum width, refer to Special Contract Requirements, Section 156.
- 4. If the roadway surface is paved, install temporary pavement markings. If nearest no-passing zone is within 120 m, extend markings to connect zones.
- 5. If closure is completely within the project limits, eliminate the ROAD WORK AHEAD (W20-1) and END ROAD WORK (G20-2) signs.
- 6. Install PASS WITH CARE sign (R4-2) at ends of no-passing zone if directed by the CO.
- 7. Place the barrier according to the AASHTO Roadside Design Guide. Terminate barrier ends outside the work zone clear zone or protect the barrier ends with a crash cushion. Include reflectors on barrier at 7.6 m intervals.
- 8. Do not allow equipment, materials, or vehicles to be parked or stored in the buffer space.

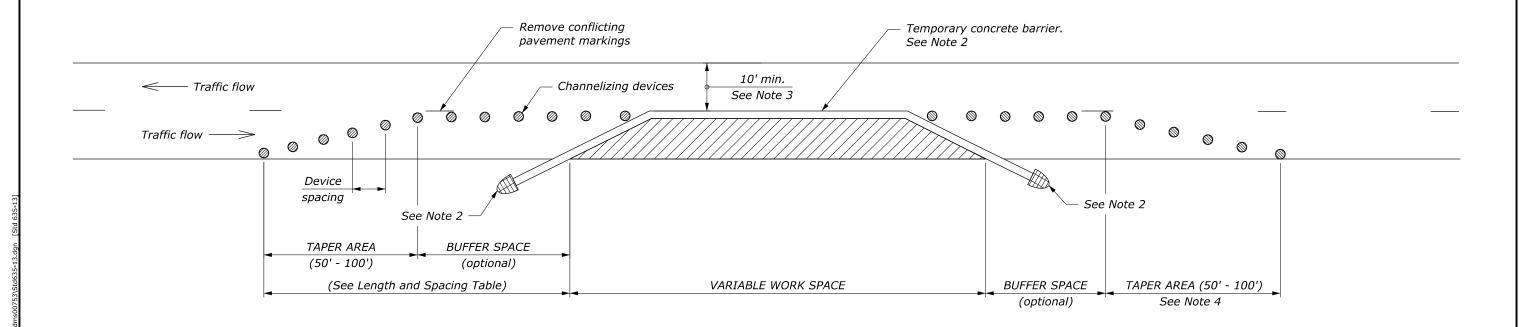


| PROJECT | SHEET<br>NUMBER |  |
|---------|-----------------|--|
|         |                 |  |

| LENGTH AND SPACING TABLE |                           |  |     |                 |      |                                  |  |  |
|--------------------------|---------------------------|--|-----|-----------------|------|----------------------------------|--|--|
| APPROACH<br>SPEED*       | BUFFER<br>SPACE<br>LENGTH | CHANNELIZING DEVICE   TAPER   BUFFER   WORK   AREA   SPACE   SPACE |     | ER WORK BARRIER |      | WORK ZONE<br>CLEAR ZONE<br>WIDTH |  |  |
| MPH                      | FEET                      | SPACING IN FEET  |     |                 | RATE | FEET                             |  |  |
| 20                       | 115                       | 20   | 40  | 40              | 1:8  | 10                               |  |  |
| 25                       | 155                       | 20 50 50   |     |                 | 1:8  | 10                               |  |  |
| 30                       | 200                       | 20   | 60  | 60              | 1:8  | 10                               |  |  |
| 35                       | 250                       | 20   | 70  | 70              | 1:9  | 10                               |  |  |
| 40                       | 305                       | 20   | 80  | 80              | 1:10 | 15                               |  |  |
| 45                       | 360                       | 20   | 90  | 90              | 1:12 | 20                               |  |  |
| 50                       | 425                       | 20   | 100 | 100             | 1:14 | 20                               |  |  |
| 55                       | 495                       | 20   | 110 | 110             | 1:16 | 20                               |  |  |
| 60                       | 570                       | 20   | 120 | 120             | 1:16 | 30                               |  |  |
| 65                       | 645                       | 20   | 130 | 130             | 1:16 | 30                               |  |  |
| 70                       | 730                       | 20   | 140 | 140             | 1:16 | 30                               |  |  |

<sup>\*</sup> Approach speed based on the regulatory posted speed, not the advisory speed.

- 1. Install signs and other devices for single lane closure according to Standard 635-6, 7, 8, or 9. Final location and spacing of devices may be changed to fit field conditions as approved by the CO.
- 2. Place barrier according to the AASHTO Roadside Design Guide. Terminate barrier ends outside the work zone clear zone or protect the barrier ends with a crash cushion. Include reflectors on barrier at 25' intervals.
- 3. For project specific minimum width, refer to Special Contract Requirements, Section 156.
- 4. Place channelizing devices at downstream taper during non-work hours or when access is not needed.
- 5. Do not allow equipment, materials, or vehicles to be parked or stored in the buffer space.
- 6. Reduce or eliminate drums and barrier in downstream taper if necessary to provide access to work space.



U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION OFFICE OF FEDERAL LANDS HIGHWAY

FLH STANDARD

**TEMPORARY TRAFFIC CONTROL SINGLE LANE CLOSURE LAYOUT** WITH TEMPORARY BARRIER

STANDARD APPROVED FOR USE 6/2005 REVISED: 7/2022

NO SCALE

STANDARD

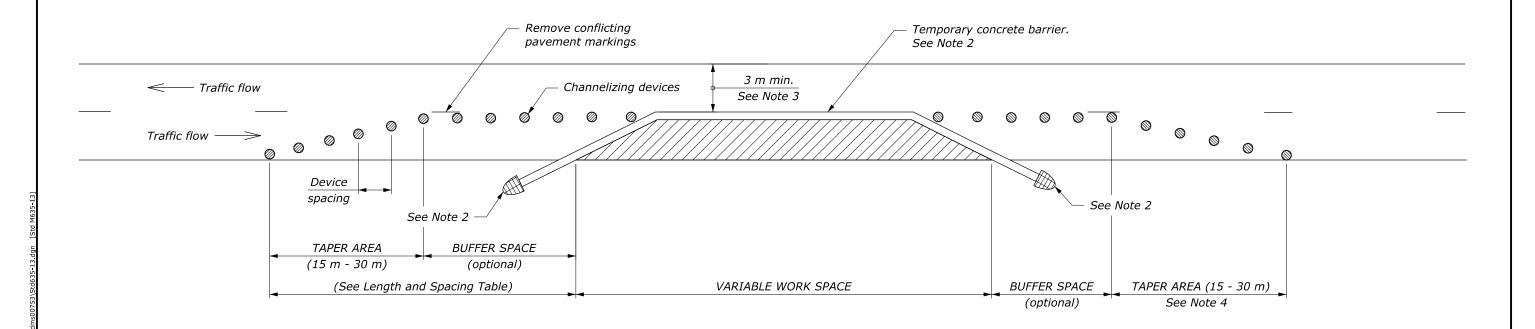
635-13

| PROJECT | SHEET  | ı |
|---------|--------|---|
| PROJECT | NUMBER | ı |
|         |        |   |

| LENGTH AND SPACING TABLE |                                      |           |                         |                            |                         |                              |                                  |  |  |
|--------------------------|--------------------------------------|-----------|-------------------------|----------------------------|-------------------------|------------------------------|----------------------------------|--|--|
| 1                        | APPROACH SPEED*  BUFFER SPACE LENGTH |           | CHANNI<br>TAPER<br>AREA | ELIZING<br>BUFFER<br>SPACE | DEVICE<br>WORK<br>SPACE | CONCRETE<br>BARRIER<br>FLARE | WORK ZONE<br>CLEAR ZONE<br>WIDTH |  |  |
| MPH                      | km/h                                 | METER     | SPACI                   | NG IN M                    | ETERS                   | RATE                         | METER                            |  |  |
| 20                       | 30                                   | 35        | 6                       | 12                         | 12                      | 1:8                          | 3.0                              |  |  |
| 25                       | 40                                   | 45        | 6                       | 15                         | 15                      | 1:8                          | 3.0                              |  |  |
| 30                       | 50                                   | 60        | 6                       | 18                         | 18                      | 1:8                          | 3.0                              |  |  |
| 35                       | 55                                   | <i>75</i> | 6                       | 21                         | 21                      | 1:9                          | 3.0                              |  |  |
| 40                       | 65                                   | 95        | 6                       | 24                         | 24                      | 1:10                         | 4.6                              |  |  |
| 45                       | 70                                   | 110       | 6                       | 27                         | <i>27</i>               | 1:12                         | 6.1                              |  |  |
| 50                       | 80                                   | 130       | 6                       | 30                         | 30                      | 1:14                         | 6.1                              |  |  |
| 55                       | 90                                   | 150       | 6                       | 34                         | 34                      | 1:16                         | 6.1                              |  |  |
| 60                       | 95                                   | 175       | 6                       | <i>37</i>                  | <i>37</i>               | 1:16                         | 9.0                              |  |  |
| 65                       | 105                                  | 195       | 6                       | 40                         | 40                      | 1:16                         | 9.0                              |  |  |
| 70                       | 115                                  | 225       | 6                       | 43                         | 43                      | 1:16                         | 9.0                              |  |  |

<sup>\*</sup> Approach speed based on the regulatory posted speed, not the advisory speed.

- 1. Install signs and other devices for single lane closure according to Standard M635-6, 7, 8, or 9. Final location and spacing of devices may be changed to fit field conditions as approved by the CO.
- 2. Place barrier according to the AASHTO Roadside Design Guide. Terminate barrier ends outside the work zone clear zone or protect the barrier ends with a crash cushion. Include reflectors on barrier at 7.6 m intervals.
- 3. For project specific minimum width, refer to Special Contract Requirements, Section 156.
- 4. Place channelizing devices at downstream taper during non-work hours or when access is not needed.
- 5. Do not allow equipment, materials, or vehicles to be parked or stored in the buffer space.
- 6. Reduce or eliminate drums and barrier in downstream taper if necessary to provide access to work space.



U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION OFFICE OF FEDERAL LANDS HIGHWAY

METRIC FLH STANDARD

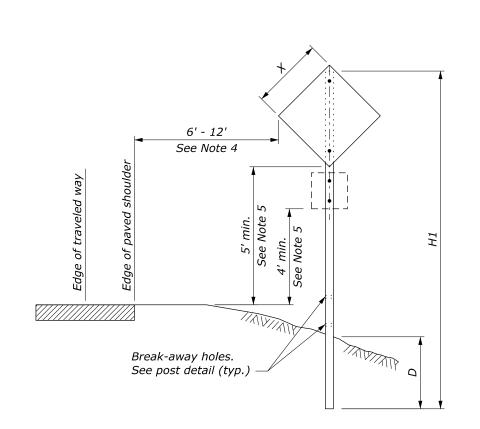
**TEMPORARY TRAFFIC CONTROL** SINGLE LANE CLOSURE LAYOUT WITH TEMPORARY BARRIER

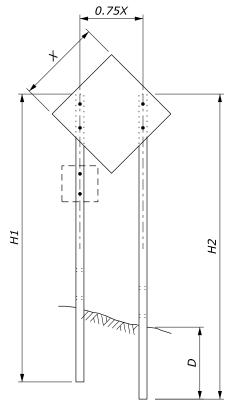
STANDARD

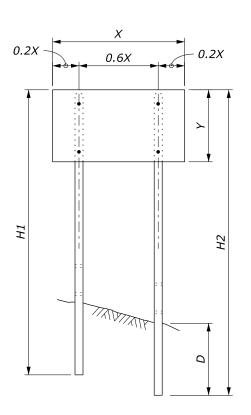
STANDARD APPROVED FOR USE 6/2005

NO SCALE

PROJECT SHEET NUMBER







**POST DETAIL** 

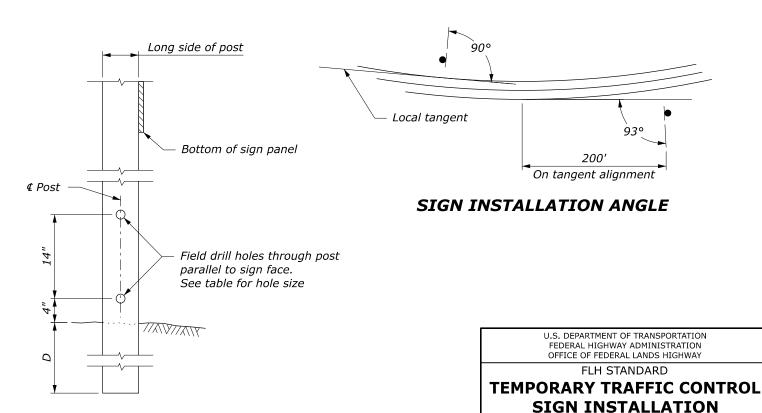
#### NOTE:

- 1. Attach sign panels with a minimum of 2  $\frac{1}{4}$ " dia. bolts per post.
- 2. H1 and H2 = Overall post length. Select post lengths to fit field conditions.
- 3. D = Post embedment depth for average soil conditions.
- 4. In areas where lateral distance is limited, a minimum lateral offset of 2' may be used. In areas with curbs, a minimum lateral distance of 1' behind the face of the curb may be used.
- 5. In pedestrian locations, or in areas with obstructed views, use 7' minimum mounting height for main sign and 6' minimum mounting height for secondary sign.
- 6. Use 7' minimum spacing between posts for sign posts 6" x 6" or larger.
- 7. State standards may be used as an alternative if approved by the CO.

#### SINGLE POST SIGN

## TWO POST SIGN

| WOOD POST SELECTION TABLE |                |                    |                     |             |                     |  |  |  |  |
|---------------------------|----------------|--------------------|---------------------|-------------|---------------------|--|--|--|--|
| WIDTH<br>"X"              | AREA<br>(SQFT) | NUMBER<br>OF POSTS | POST SIZE<br>(INCH) | D<br>(INCH) | HOLE SIZE<br>(INCH) |  |  |  |  |
| Diamond ≤ 36"             | < 10           | 1                  | 4 x 4               | 36          | 0                   |  |  |  |  |
| Other Shapes ≤ 48"        | \ 10           | 1                  | 4 x 6               | 48          | 1.5                 |  |  |  |  |
| Diamond ≤ 48"             | 10 - 20        | 1                  | 6 x 6               | 48          | 2                   |  |  |  |  |
| Diamond ≤ 48"             | 10 - 20        | 2                  | 4 x 4               | 36          | 0                   |  |  |  |  |
| Other Shapes ≤ 12'        | 20 - 50        | 2                  | 4 x 6               | 48          | 1.5                 |  |  |  |  |
| > 13'                     | 50 - 65        | 2                  | 6 x 6               | 48          | 2                   |  |  |  |  |
| 12' - 16'                 | 50 - 65        | 3                  | 4 x 6               | 48          | 1.5                 |  |  |  |  |
| > 17'                     | 65 - 95        | 4                  | 4 x 6               | 48          | 1.5                 |  |  |  |  |
| > 30'                     | 65 - 95        | 3                  | 6 x 6               | 48          | 2                   |  |  |  |  |



28 April 2023 9:57 AM

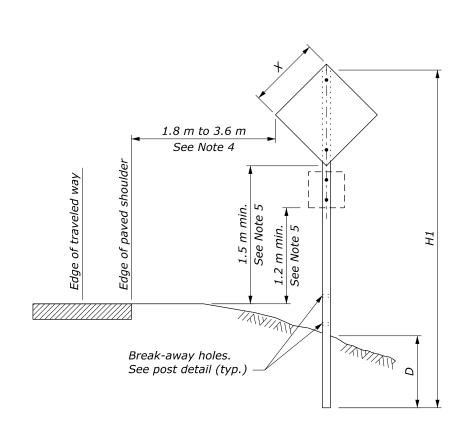
NO SCALE

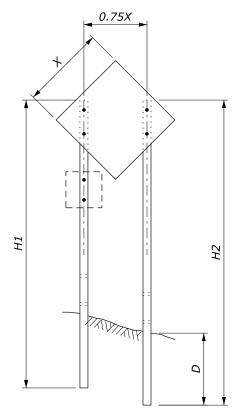
WOOD POSTS

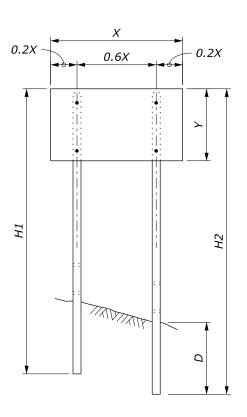
STANDARD APPROVED FOR USE 6/2005
REVISED: 7/2022

standard **635-14** 

PROJECT SHEET NUMBER







#### NOTE:

- 1. Attach sign panels with a minimum of 2 6.25 mm Ø bolts per post.
- 2. H1 and H2 = Overall post length. Select post lengths to fit field conditions.
- 3. D = Post embedment depth for average soil conditions.
- 4. In areas where lateral distance is limited, a minimum lateral offset of 600 mm may be used. In areas with curbs, a minimum lateral distance of 300 mm behind the face of the curb may be used.
- 5. In pedestrian locations, or in areas with obstructed views, use 2.1 m minimum mounting height for main sign and 1.8 m minimum mounting height for secondary sign.
- 6. Use 2.1 m minimum spacing between posts for sign posts 150 mm x 150 mm or larger.
- 7. State standards may be used as an alternative if approved by the CO.

STANDARD APPROVED FOR USE 6/2005

REVISED: 7/2022

STANDARD

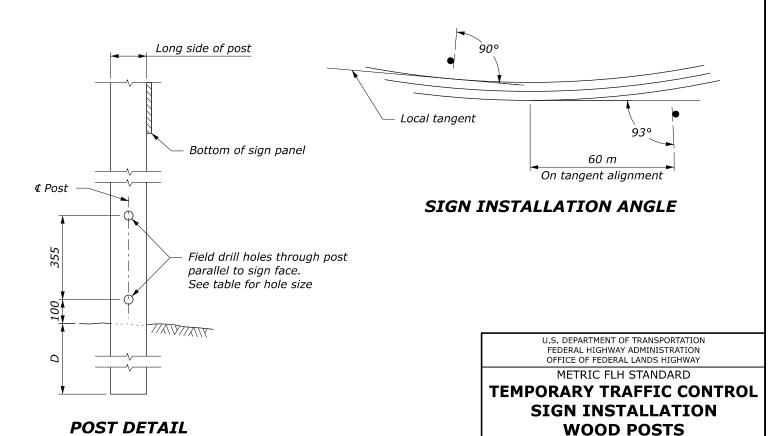
M635-14

8. Dimensions without units are millimeters.

### SINGLE POST SIGN

## TWO POST SIGN

| WOOD POST SELECTION TABLE |              |                    |                   |           |                   |  |  |  |
|---------------------------|--------------|--------------------|-------------------|-----------|-------------------|--|--|--|
| WIDTH<br>"X"              | AREA<br>(m2) | NUMBER<br>OF POSTS | POST SIZE<br>(mm) | D<br>(mm) | HOLE SIZE<br>(mm) |  |  |  |
| Diamond ≤ 915 mm          | - 0.0        | 1                  | 100 x 100         | 900       | 0                 |  |  |  |
| Other Shapes ≤ 1220 mm    | < 0.9        | 1                  | 100 x 150         | 1200      | 40                |  |  |  |
| Diamond ≤ 1220 mm         | 0.9 - 1.9    | 1                  | 150 x 150         | 1200      | 50                |  |  |  |
| Diamond ≤ 1220 mm         | 0.9 - 1.9    | 2                  | 100 x 100         | 900       | 0                 |  |  |  |
| Other Shapes ≤ 3.7 m      | 1.9 - 4.6    | 2                  | 100 x 150         | 1200      | 40                |  |  |  |
| > 4 m                     | 4.6 - 6.0    | 2                  | 150 x 150         | 1200      | 50                |  |  |  |
| 3.7 m - 4.9 m             | 4.6 - 6.0    | 3                  | 100 x 150         | 1200      | 40                |  |  |  |
| > 5 m                     | 6.0 - 8.9    | 4                  | 100 x 150         | 1200      | 40                |  |  |  |
| > 9 m                     | 6.0 - 8.9    | 3                  | 150 x 150         | 1200      | 50                |  |  |  |



NO SCALE