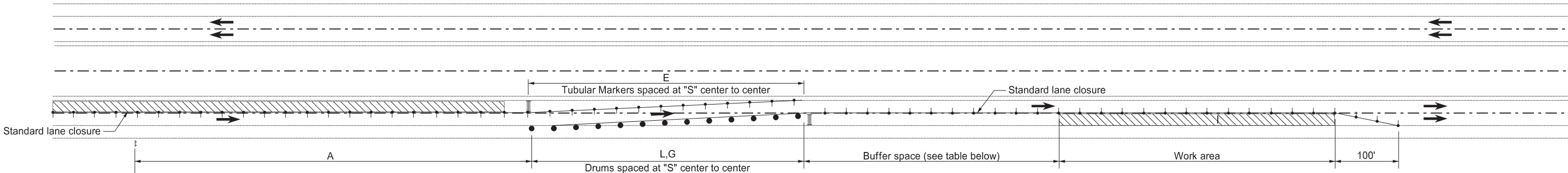


TRAFFIC CONTROL SYSTEM
LANE SHIFT BETWEEN A LANE CLOSURE AND AN OPPOSITE LANE CLOSURE

D-704-34A



| QUANTITIES | |
|----------------------------------|---------|
| TYPE III BARRICADES | 2 Each |
| DELINEATOR DRUMS | 13 Each |
| TUBULAR MARKERS | 13 Each |
| RAISED PAVEMENT MARKERS (White) | Varies |
| OBLITERATION OF PAVEMENT MARKING | Varies |

| KEY | |
|--------------------|-----------------|
| Work area | Delineator drum |
| Type III barricade | Tubular markers |
| Traffic Direction | Sign |

| LEGEND | |
|--------|--|
| E | Obliteration of pavement marking (10' line, 30' skip centerline) |
| G | Raised pavement markers (white) 5' ctrs. |

- Notes
- Variables
 - S = Numerical value of posted speed limit, off-peak 85th percentile speed prior to work starting, or the anticipated operating speed in mph.
 - W = Width of offset in feet.
 - L = Taper length in feet. Speeds 40 mph or less $L=WS^2/60$. Speeds 45 mph or greater $L= WS$.
 - Place signs and barricade on roadway on moveable assemblies.
 - Cover existing speed limit signs within reduced speed zones.
 - Upon approval, the Engineer will measure obliterated or covered pavement marking as Obliteration of Pavement Marking.
 - As an option, use portable sign supports in lieu of post mounted sign in accordance with NDDOT Standard Drawing D-704-14.
 - Place "Minimum Fee \$150" signs below speed limit signs when placing traffic control devices to reduce speed.
 - When duration of work is 14 days or less, obliteration of pavement marking (10' line, 30' skip, centerline) and raised pavement markers are not required.

| Longitudinal Buffer Space | |
|---------------------------|-------------------|
| *Speed (mph) | Length Min (feet) |
| 20 | 115 |
| 25 | 155 |
| 30 | 200 |
| 35 | 250 |
| 40 | 305 |
| 45 | 360 |
| 50 | 425 |
| 55 | 495 |
| 60 | 570 |
| 65 | 645 |
| 70 | 730 |
| 75 | 820 |
| 80 | 910 |

* Posted speed, off-peak 85th percentile speed prior to work starting, or the anticipated operating speed in mph.

| ADVANCE WARNING SIGN SPACING | | | |
|---|----------------------------------|------|------|
| Road Type | Distance Between Signs Min. (ft) | | |
| | A | B | C |
| Urban - Low Speed (30 mph or less) | 150 | 150 | 150 |
| Urban - Low Speed (over 30 to 40 mph) | 280 | 280 | 280 |
| Urban - High Speed (over 40 mph to 50 mph) | 360 | 360 | 360 |
| Rural - High Speed (over 50 mph to 65 mph) | 720 | 720 | 720 |
| Urban Expressway and Freeway (55 mph to 60 mph) | 850 | 1350 | 2200 |
| Rural Expressway and Freeway (70 mph to 80 mph) | 1000 | 1500 | 2640 |
| Interstate/4-Lane Divided (Maintenance and Surveying) | 750 | 1000 | 1500 |

| NORTH DAKOTA DEPARTMENT OF TRANSPORTATION | |
|--|----------------------------|
| 10-26-2012 | |
| REVISIONS | |
| DATE | CHANGE |
| 09-27-17 | Updated to active voice |
| 11-01-19 | Clarified work zone |
| 08-02-24 | Electronic Stamp/Signature |
| 06-30-25 | Legislative Changes |

