Traffic Control
## Traffic Control

<table>
<thead>
<tr>
<th>NO.</th>
<th>DATE</th>
<th>TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>TC-1</td>
<td>10-15-19</td>
<td>Work Not Affecting Traffic (Two-Lane or Multi-Lane)</td>
</tr>
<tr>
<td>TC-61</td>
<td>04-21-20</td>
<td>Two-Lane, Two-way Operation</td>
</tr>
<tr>
<td>TC-62</td>
<td>10-20-20</td>
<td>Permanent Two-Lane to Four-Lane Divided Transition</td>
</tr>
<tr>
<td>TC-63</td>
<td>10-16-18</td>
<td>Lane Closure at Two-Lane to Four-Lane Transition.</td>
</tr>
<tr>
<td>TC-64</td>
<td>10-16-18</td>
<td>Lane Closure at Two-Lane to Four-Lane Transition with Flagger</td>
</tr>
<tr>
<td>TC-81</td>
<td>10-15-19</td>
<td>Restricted Width Signing (Less Than 14.5 Feet)</td>
</tr>
<tr>
<td>TC-202</td>
<td>04-21-15</td>
<td>Work Within 15 ft of Traveled Way</td>
</tr>
<tr>
<td>TC-203</td>
<td>10-15-19</td>
<td>Aerial Seeding Operations</td>
</tr>
<tr>
<td>TC-211</td>
<td>10-15-19</td>
<td>Lane Closure on Low Volume Roadway</td>
</tr>
<tr>
<td>TC-212</td>
<td>04-21-20</td>
<td>Spot Location Lane Closure with Flaggers</td>
</tr>
<tr>
<td>TC-213</td>
<td>10-15-19</td>
<td>Lane Closure with Flaggers</td>
</tr>
<tr>
<td>TC-214</td>
<td>04-21-20</td>
<td>Lane Closure with Flaggers for use with Pilot Car</td>
</tr>
<tr>
<td>TC-215</td>
<td>10-15-19</td>
<td>Lane Closure with Signals (Up to Three Days)</td>
</tr>
<tr>
<td>TC-216</td>
<td>10-18-16</td>
<td>Lane Closure with Signals</td>
</tr>
<tr>
<td>TC-217</td>
<td>10-18-16</td>
<td>Lane Closure with Signals and TBR</td>
</tr>
<tr>
<td>TC-218</td>
<td>04-21-20</td>
<td>Lane Closure with Pilot Car and Flagger Operated Signals</td>
</tr>
<tr>
<td>TC-228</td>
<td>10-16-18</td>
<td>Lane Closure Involving TWLTL</td>
</tr>
<tr>
<td>TC-231</td>
<td>10-15-19</td>
<td>Slow Moving Vehicle Operating in the Traffic Lane</td>
</tr>
<tr>
<td>TC-232</td>
<td>10-21-14</td>
<td>Shoulder Rumble Strip Operations</td>
</tr>
<tr>
<td>TC-233</td>
<td>10-17-17</td>
<td>Pavement Marking Operations Two-Lane</td>
</tr>
<tr>
<td>TC-234</td>
<td>10-17-17</td>
<td>Strip Sealing Operations</td>
</tr>
<tr>
<td>TC-235</td>
<td>10-15-19</td>
<td>Edge Rut Repair</td>
</tr>
<tr>
<td>TC-251</td>
<td>10-15-19</td>
<td>Temporary Road Closure</td>
</tr>
<tr>
<td>TC-252</td>
<td>04-21-20</td>
<td>Routes Closed to Traffic</td>
</tr>
</tbody>
</table>

## Two-Lane and Multi-Lane Roadways

TC-1 10-15-19 Work Not Affecting Traffic (Two-Lane or Multi-Lane)
TC-61 04-21-20 Two-Lane, Two-way Operation
TC-62 10-20-20 Permanent Two-Lane to Four-Lane Divided Transition
TC-63 10-16-18 Lane Closure at Two-Lane to Four-Lane Transition.
TC-64 10-16-18 Lane Closure at Two-Lane to Four-Lane Transition with Flagger
TC-81 10-15-19 Restricted Width Signing (Less Than 14.5 Feet)

## Two-Lane Roadways

TC-202 04-21-15 Work Within 15 ft of Traveled Way
TC-203 10-15-19 Aerial Seeding Operations
TC-211 10-15-19 Lane Closure on Low Volume Roadway
TC-212 04-21-20 Spot Location Lane Closure with Flaggers
TC-213 10-15-19 Lane Closure with Flaggers
TC-214 04-21-20 Lane Closure with Flaggers for use with Pilot Car
TC-215 10-15-19 Lane Closure with Signals (Up to Three Days)
TC-216 10-18-16 Lane Closure with Signals
TC-217 10-18-16 Lane Closure with Signals and TBR
TC-218 04-21-20 Lane Closure with Pilot Car and Flagger Operated Signals
TC-228 10-16-18 Lane Closure Involving TWLTL
TC-231 10-15-19 Slow Moving Vehicle Operating in the Traffic Lane
TC-232 10-21-14 Shoulder Rumble Strip Operations
TC-233 10-17-17 Pavement Marking Operations Two-Lane
TC-234 10-17-17 Strip Sealing Operations
TC-235 10-15-19 Edge Rut Repair
TC-251 10-15-19 Temporary Road Closure
TC-252 04-21-20 Routes Closed to Traffic
### Traffic Control

<table>
<thead>
<tr>
<th>NO.</th>
<th>DATE</th>
<th>TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>TC-253</td>
<td>10-18-16</td>
<td>Paved On-Site Detour</td>
</tr>
<tr>
<td>TC-271</td>
<td>10-18-16</td>
<td>Signalized Equipment Crossing</td>
</tr>
<tr>
<td>TC-272</td>
<td>10-18-16</td>
<td>Unsignalized Equipment Crossing</td>
</tr>
<tr>
<td>TC-273</td>
<td>10-15-19</td>
<td>Construction Site Entrance</td>
</tr>
<tr>
<td>TC-282</td>
<td>10-15-19</td>
<td>Uneven Lanes</td>
</tr>
<tr>
<td>TC-283</td>
<td>10-15-19</td>
<td>Surveying Operations</td>
</tr>
<tr>
<td>TC-284</td>
<td>10-15-19</td>
<td>No Centerline Markings on Non-Primary Roadways</td>
</tr>
</tbody>
</table>

#### Multi-Lane Roadways

<table>
<thead>
<tr>
<th>NO.</th>
<th>DATE</th>
<th>TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>TC-402</td>
<td>04-21-15</td>
<td>Work Within 15 ft of Traveled Way</td>
</tr>
<tr>
<td>TC-403</td>
<td>10-15-19</td>
<td>Aerial Seeding Operations</td>
</tr>
<tr>
<td>TC-415</td>
<td>04-21-20</td>
<td>Short Term Lane Closure with TMA</td>
</tr>
<tr>
<td>TC-416</td>
<td>10-15-19</td>
<td>Partial Lane Closure on Ramps</td>
</tr>
<tr>
<td>TC-417</td>
<td>04-21-20</td>
<td>Ramp Closure</td>
</tr>
<tr>
<td>TC-418</td>
<td>04-21-20</td>
<td>Lane Closure on Divided Highway</td>
</tr>
<tr>
<td>TC-419</td>
<td>10-16-18</td>
<td>Lane Closure on Undivided Highway</td>
</tr>
<tr>
<td>TC-420</td>
<td>10-16-18</td>
<td>Lane Closure at Ramps</td>
</tr>
<tr>
<td>TC-421</td>
<td>04-21-20</td>
<td>Lane Closure with TBR</td>
</tr>
<tr>
<td>TC-422</td>
<td>04-21-20</td>
<td>Closure of Two Adjacent Lanes on Divided Highway</td>
</tr>
<tr>
<td>TC-423</td>
<td>10-20-20</td>
<td>Closure of Two Adjacent Lanes on Undivided Highway</td>
</tr>
<tr>
<td>TC-429</td>
<td>10-16-18</td>
<td>Closure of Continuous Two-Way Left Turn Lane and Adjacent Lane</td>
</tr>
<tr>
<td>TC-431</td>
<td>10-17-17</td>
<td>Slow Moving Vehicle Operating in the Traffic Lane</td>
</tr>
<tr>
<td>TC-432</td>
<td>10-17-17</td>
<td>Shoulder Rumble Strip Operations</td>
</tr>
<tr>
<td>TC-433</td>
<td>10-17-17</td>
<td>Pavement Marking Operations</td>
</tr>
<tr>
<td>TC-451</td>
<td>04-21-15</td>
<td>Temporary Road Closure on Divided Highway</td>
</tr>
<tr>
<td>TC-454</td>
<td>10-17-17</td>
<td>Temporary Detour Using Ramps on Divided Highway</td>
</tr>
<tr>
<td>TC-482</td>
<td>10-15-19</td>
<td>Uneven Lanes</td>
</tr>
</tbody>
</table>
## Traffic Control

<table>
<thead>
<tr>
<th>NO.</th>
<th>DATE</th>
<th>TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>TC-601</td>
<td>10-15-19</td>
<td>Pedestrian Detour</td>
</tr>
<tr>
<td>TC-602</td>
<td>10-15-19</td>
<td>Sidewalk Diversion</td>
</tr>
</tbody>
</table>
SLOW-MOVING OPERATION

Do not allow work to interfere with the flow of traffic.

When parked, locate vehicles as far from the open traffic lane as possible. Entrances and driveways should be used whenever appropriate.

Equip all vehicles with an amber revolving light or amber strobe light.

For work lasting longer than one hour, refer to TC-202 or TC-402.

LEGEND

Traffic Sign

Direction of Traffic

WORK NOT AFFECTING TRAFFIC
(TWO-LANE OR MULTI-LANE)
OVERVIEW OF CROSSOVER

Place Two-Way Traffic symbol and DO NOT PASS signs alternately on both sides of the roadway at a maximum of one half mile intervals for both directions of travel. Always have signs in sight of motorists.

When the Average Daily Traffic (ADT) exceeds 20,000 vehicles per day or when a traffic queue extends beyond the advanced signing, place RIGHT/LEFT LANE CLOSED 4 MILES and RIGHT/LEFT LANE CLOSED 2 MILES signs (W20-S) on both sides of the roadway 4 miles and 2 miles in advance of the lane closure, respectively, as appropriate.

Possible Contract Items:
- Painted Symbols and Legends
- Pavement Marking Items
- Pavement Marking Removed
- Safety Closures
- Temporary Barrier Rail
- Temporary Crash Cushions
- Temporary Floodlighting
- Temporary Lane Separator System
- Traffic Control

Possible Tabulations:

See Sheets 2 and 4 for Details
See Sheets 3 and 4 for Details
Traffic Sign of two-lane traffic. Round X to the nearest whole-mile increment. Install an additional supplemental plaque with the message NEXT MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motors...
SUPPLEMENTAL CROSSOVER DRAWINGS

- Temporary Crash Cushion. Refer to BA-500 for approved sand barrel layouts.
- Number of TBR sections varies based on dimensions of Detour Pavement. Refer to BA-401 and 108-33 for TBR information.
- Details shown hereon are intended to provide additional information to the requirements shown on sheets 2 and 3.
Refer to SI-881 for sign details.
Add below R11-2 already included in Safety Closure.
Place T.I.S.S from start of ramp gore to end of temporary ramp crossover.
Place T.I.S.S from start of full width decel lane to end of ramp gore.

(Refer to TC-252)
Place yellow warning signs with black legend and symbols.

Place Type III barricades complying with Section 28B.67 of the MUTCD.

Possible Contract Items:
- Pavement Marking Items
- Permanent Road Closure
- Delineators

Possible Tabulations: 102-4, 108-22
**LEGEND**

- Traffic Sign
- 42" Channelizer
- Drum
- Work Area
- Direction of Traffic

### SPEED LIMIT

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 or less</td>
<td>100</td>
<td>40</td>
<td>20</td>
<td>0 - 200</td>
<td>120</td>
</tr>
<tr>
<td>30 - 35</td>
<td>250</td>
<td>40</td>
<td>30</td>
<td>0 - 200</td>
<td>120</td>
</tr>
<tr>
<td>40 - 45</td>
<td>350</td>
<td>50</td>
<td>40</td>
<td>0 - 400</td>
<td>282</td>
</tr>
<tr>
<td>50 - 56</td>
<td>600</td>
<td>100</td>
<td>50</td>
<td>200 - 400</td>
<td>350</td>
</tr>
</tbody>
</table>

1. Refer to TC-419 for lane closure details.
2. For lanes closed to traffic, place two drums every 1000 feet. For full depth excavations in a closed lane, place two drums in front of each location. Additional drums need not be placed for full depth excavations spaced closer than 150 feet.

**Possible Contract Items:**
Traffic Control

References:
- TC-419
- TC-63

**REVISIONS:**
- Added circle note 2 and drums in work area.
- Updated DOT logo.

**APPROVED BY:**
Design Methods Engineer

**DATE OF APPROVAL:**
10-16-18

**TC-63**
STANDARD ROAD PLAN
SHEET 1 of 1

**LANE CLOSURE AT**
TWO-LANE TO FOUR-LANE TRANSITION
For lanes closed to traffic, place two drums every 1000 feet. For full depth excavations in a closed lane, place two drums in front of each location. Additional drums need not be placed for full depth excavations spaced closer than 150 feet.
Possible Contract Item:
Traffic Control

WHERE AN INTERCHANGE IS LOCATED AT THE LAST PUBLIC ROAD
PRIOR TO AREA OF RESTRICTED WIDTH

WHERE AN AT-GRADE INTERSECTION IS LOCATED AT THE LAST PUBLIC ROAD
PRIOR TO AREA OF RESTRICTED WIDTH

LEGEND

<table>
<thead>
<tr>
<th>Area of Restricted Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traffic Sign</td>
</tr>
</tbody>
</table>

Coordinate signing in conjunction with other traffic control in the area.

Exact sign locations will be as approved by the Engineer.

For multi-lane divided roadways, use larger sign sizes. For two-lane highways, use small sign sizes.

See SI-882 for sign details.

1. Place after ROAD WORK AHEAD sign.
2. For divided highways, install two signs at each location: One each on right and left shoulders.
3. When this paved road intersection has an interchange, measure the distance from the beginning of the exit ramp taper.
4. Dimension on G20-58/58A panel equals 1 foot less than narrowest measurement.

Required by Design Methods Engineer

REVISIONS:
New logo.
When a pavement edge drop-off exists, install a SHOULDER DROP-OFF sign.

No pavement edge drop-offs greater than pavement depth will be allowed during non-working hours.

Shoulder edge drop-offs shall be mitigated according to Article 1107.08.L2 of the Standard Specifications.

For work lasting less than one hour, refer to TC-1.

When the length of a pavement edge drop-off is 1000 feet or less, the temporary fill requirement of Article 1107.08 of the Standard Specifications does not apply. Reduce channelizer spacing to 40 feet.

For work areas less than 200 feet long, use channelizers spaced at 20 foot centers or use a vehicle with an amber revolving light or amber strobe light.

Possible Contract Item:
Traffic Control

LEGEND

Traffic Sign
• 42" Channelizer
Work Area
← Direction of Traffic

<table>
<thead>
<tr>
<th>SPEED LIMIT (mph)</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>35 or less</td>
<td>50'</td>
<td>25'</td>
<td>40'</td>
<td>100'</td>
</tr>
<tr>
<td>40 - 45</td>
<td>70'</td>
<td>35'</td>
<td>40' (1)</td>
<td>200'</td>
</tr>
<tr>
<td>50 or greater</td>
<td>100'</td>
<td>50'</td>
<td>100' (1)</td>
<td>200'</td>
</tr>
</tbody>
</table>
**Traffic Control**

Possible Contract Item:

Traffic Control

Legend:

- Traffic Sign
- Work Area
- Direction of Traffic

<table>
<thead>
<tr>
<th>Speed Limit (mph)</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>35 or less</td>
<td>200</td>
</tr>
<tr>
<td>40 - 45</td>
<td>300</td>
</tr>
<tr>
<td>50 or greater</td>
<td>500</td>
</tr>
</tbody>
</table>

**AERIAL SEEDING OPERATIONS**

1. Place AERIAL SEEDING signs along the mainline at a maximum spacing of 3 miles.
2. Refer to SI-881 for sign details.
Do not use this layout when ADT exceeds 2000 vehicles.

Locate this layout at least 2,500 feet from any other work site layout.

Full-depth openings during non-working hours will not be allowed. Temporary plating, paving or filling may be necessary. Vehicles, unattended equipment, materials or stock-piled waste are not permitted between the shoulder lines during non-working hours.

For bridge deck overlay projects: The night before overlay operations begin, a bridge deck finishing machine and necessary materials may be placed on the roadway.

Do not use this layout if a No Passing Zone for the closed lane is located within this area.
Use only during daylight hours. Typical applications include:

- Pavement repair
- Bridge repair when signals are not required
- Guardrail connections at bridge
- Secondary road intersections with Primary road
- Sawing for full depth patch
- Joint sealing
- PR joints
- Surface patching
- Crack sealing

No parking on opposite shoulder within 500 feet of work area.

Ensure traffic in the open lane flows freely. Stop the first vehicle in the closed lane from the position shown, then cross the traffic lane to stop other vehicles.

A vehicle with an amber revolving light or amber strobe light may be substituted for the Type III barricade.

Provide a second flagger if:

- The flagger's view of approaching traffic in the open lane is less than ¼ mile or the work site is in an area of restricted sight distance, such as a No Passing zone, or
- Excessive traffic delays are encountered.

F and G distances are to remain as near minimum values as work permits. However, to be able to move the work area without moving the advance signing, F and G distances may be varied within the limits of the table. Maximum movement can be achieved by setting one F or G value at the minimum and the other value at its maximum.

Possible Contract Items:

Flaggers
Traffic Control

### SPEED LIMIT (mph) | A | F and G | F + G
--- | --- | --- | ---
35 or less | 250' | 250'-3250' | 3500'
40 - 45 | 350' | 350'-3350' | 3700'
50 or greater | 500' | 500'-3500' | 4000'

END ROAD WORK
G20-2A
48' x 24'

ROAD WORK AHEAD
W20-1
48' x 48'

ONE LANE ROAD AHEAD
W20-4
48' x 48'

ONE LANE ROAD AHEAD
W20-7A
48' x 48'

Roads available

TC-212
REVISION
04-21-20
STANDARD ROAD PLAN
SHEET 1 of 1
APPROVED BY DESIGN METHODS ENGINEER

Spot Location Lane Closures
With Flaggers

DO NOT USE ON PRIMARY ROADWAYS
Possible Contract Items:

- Flaggers
- Traffic Control

- Keep F and G distances as near to minimum values as work permits. However, to allow advancement of the work area without moving signs, F and G distances may be varied within the limits of the table. Maximum movement can be achieved by setting one F or G value at the minimum and the other value at its maximum.

- If length of work area exceeds 1/4 mile, use TC-214.

### Legend
- Traffic Sign
- Flagger
- 42" Channelizer
- Work Area
- Direction of Traffic

### Table: Speed Limit

<table>
<thead>
<tr>
<th>Speed Limit</th>
<th>A</th>
<th>C</th>
<th>F</th>
<th>F + G Range</th>
<th>F + G Max.</th>
<th>H Max.</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>35 or less</td>
<td>250</td>
<td>40'</td>
<td>0'-200'</td>
<td>350' - 3000'</td>
<td>500'</td>
<td>2000'</td>
<td>50'</td>
</tr>
<tr>
<td>45 - 45</td>
<td>300</td>
<td>60'</td>
<td>0'-200'</td>
<td>300' - 3000'</td>
<td>400'</td>
<td>2000'</td>
<td>50'</td>
</tr>
<tr>
<td>50 or greater</td>
<td>500</td>
<td>100'</td>
<td>200'-300'</td>
<td>1000' - 3000'</td>
<td>400'</td>
<td>2000'</td>
<td>120'</td>
</tr>
</tbody>
</table>
This layout is for conditions lasting up to three calendar days. For situations lasting longer than three days refer to TC-216.

1. For Temporary Traffic Signals, meet the requirements of Section 2528.03 of the Standard Specifications except for the following:
   - In lieu of a trailer or span-wire mounted system, signal heads may be located on the shoulders, one on each side of the roadway. Mount shoulder signal heads a minimum of 8 feet from the bottom of the signal head to the top of the ground surface.

2. 24-inch stop lines required during nighttime operation.

**Legend**
- Vehicle Detection Area
- Temporary Traffic Signal
- Traffic Sign
- 42" Channelizer
- Work Area
- Direction of Traffic

**Timing for Actuated Signals**
- Recommended Settings (inches)
  - Initial: 12.0
  - Extension: 2.5
  - Max. Green: 45.0
  - Yellow: 4.0
  - All Red: (less table)

**Possible Contract Items:**
- Pavement Marking Items
- Pavement Markings Removed
- Temporary Traffic Signals
- Traffic Control

**Possible Tabulations:**
- 108-22
- 108-28

**Speed Limit**
- Table

<table>
<thead>
<tr>
<th>Speed Limit (mph)</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>35 or less</td>
<td>250'</td>
</tr>
<tr>
<td>40-45</td>
<td>300'</td>
</tr>
<tr>
<td>50 or greater</td>
<td>500'</td>
</tr>
</tbody>
</table>

**Possible Tabulations:**
- Traffic Control
- Traffic Signals
- Pavement Markings
- Pavement Markings Removed
- Temporary Traffic Signals
- Work Area
- Shoulder Work Area

**Additional Information:**
- 24" Channelizer
- Work Area
- Direction of Traffic

**Table:**

<table>
<thead>
<tr>
<th>Distance between stop lines</th>
<th>All Red* (sec)</th>
<th>Distance between stop lines</th>
<th>All Red* (sec)</th>
</tr>
</thead>
<tbody>
<tr>
<td>450'</td>
<td>9 - 15</td>
<td>950'</td>
<td>19 - 33</td>
</tr>
<tr>
<td>500'</td>
<td>11 - 19</td>
<td>1050'</td>
<td>21 - 38</td>
</tr>
<tr>
<td>600'</td>
<td>13 - 22</td>
<td>1150'</td>
<td>23 - 39</td>
</tr>
<tr>
<td>750'</td>
<td>15 - 26</td>
<td>1250'</td>
<td>25 - 43</td>
</tr>
<tr>
<td>850'</td>
<td>17 - 29</td>
<td>1350'</td>
<td>27 - 45</td>
</tr>
</tbody>
</table>

* All Red values based on operating speeds between 20 mph and 30 mph
**Temporary Traffic Signal**

- **Direction of Traffic**
- **Vehicle Detection Area**

- **Flashing Warning Light**
  - Type 'B' High-Intensity

- **Pavement Marking Removal Limits**
  - 600'
  - 1050'

- **Recommended Settings, secs.**
  - 0'-50'
  - 0'-100'

- **Yellow**
  - 5.0

- **All**
  - (see table)

- **Distance Between Stop Lines**
  - 850'
  - 750'
  - 650'

- **50 or greater**
  - All Red = (see table)

- **TIMING FOR ACTUATED SIGNALS**

<table>
<thead>
<tr>
<th>Initial</th>
<th>Extension</th>
<th>Maximum Green</th>
<th>Yellow</th>
<th>All Red</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.0</td>
<td>2.5</td>
<td>45.0</td>
<td>5.0</td>
<td>(see table)</td>
</tr>
<tr>
<td>1050'</td>
<td>350'</td>
<td>250'</td>
<td>150'</td>
<td>120'</td>
</tr>
</tbody>
</table>

- **Limit (mph)**
  - 35 or less
  - 40 - 45
  - 50 or greater

- **SPEED LIMIT**
  - A
  - E

- **Do Not Pass**
  - ROAD WORK AHEAD

- **Possible Contract Items:**
  - Pavement Marking Items
  - Pavement Marking Removed
  - Temporary Traffic Signals
  - Traffic Control

- **Possible Tabulations:**
  - 108-22
  - 108-28

- **No drop-offs greater than pavement depth will be allowed during non-working hours.**

- **No vehicles, unattended equipment, materials or stock-piled waste are permitted between the shoulder lines during non-working hours.**

- **Locate signal heads 70 to 100 feet beyond stop bar. Adjust location of signal heads as field conditions warrant.**

- **Temporary No Passing Zone sign size from 48" x 60" x 60" to 48" x 64" x 64".

- **REVISION 10-18-16 SHEET 1 of 1**

- **STANDARD ROAD PLAN**

- **LANE CLOSURE WITH SIGNALS**
LEGEND

Flagger
Temporary Traffic Signal
Traffic Sign
42" Channelizer
Work Area
Direction of Traffic
Portable Rumble Strip Panel

SPEED LIMIT (mph) | ADT | A | H
---|---|---|---
50 or greater | up to 2,500 | 500 | 2.5 mi
| 2,500 - 5,000 | 500 | 2.0 mi
| more than 5,000 | 1000 | 1.5 mi

No detection area required.

Timing for Push-button Actuated Signals
- Initial Green = 15 sec.
- Green Ext. = 2.5 sec.
- Yellow = 4.0 sec.

Install push-button actuated traffic signals.
Program signals to rest in RED.
GREEN and GREEN EXTENSION only are initiated by flagger.

For Temporary Traffic Signals, meet the requirements of Section 2528.03 of the Standard Specifications except for the following:
In lieu of a trailer or span-wire mounted system, signal heads may be located on the shoulders, one on each side of the roadway. Mount shoulder signal heads a minimum of 8 feet from the bottom of the signal head to the top of the ground surface.

For traffic control zones lasting more than 2 hours, place temporary Portable Rumble Strip Panel.
Possible Contract Item:

Traffic Control

<table>
<thead>
<tr>
<th>SPEED LIMIT (mph)</th>
<th>A</th>
<th>C</th>
<th>D</th>
<th>S</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 or less</td>
<td>100</td>
<td>40'</td>
<td>25'</td>
<td>100</td>
<td>50'</td>
</tr>
<tr>
<td>30 - 36</td>
<td>250'</td>
<td>40'</td>
<td>30'</td>
<td>120'</td>
<td>50'</td>
</tr>
<tr>
<td>40 - 46</td>
<td>350'</td>
<td>80'</td>
<td>40'</td>
<td>260'</td>
<td>100</td>
</tr>
<tr>
<td>50 or greater</td>
<td>500'</td>
<td>100'</td>
<td>50'</td>
<td>350'</td>
<td>100'</td>
</tr>
</tbody>
</table>

1. Spacing = D for drums placed in tapers.
2. For lanes closed to traffic, place two drums every 1000 feet. For full depth excavations in a closed lane, place two drums in front of each location. Additional drums need not be placed for full depth excavations spaced closer than 150 feet.
Areas of Restricted Sight
(Typically a "No-Passing" Zone)

- Shoulder Line
- No Passing Zone Line

Areas of Unrestricted Sight

- Shoulder Line

LEGEND

- Direction of Traffic
- Flagger
- Traffic Sign
- Work Area
- Work Vehicle

<table>
<thead>
<tr>
<th>Speed Limit (mph)</th>
<th>A (ft)</th>
<th>min</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 or less</td>
<td>250</td>
<td></td>
</tr>
<tr>
<td>30-35</td>
<td>300</td>
<td></td>
</tr>
<tr>
<td>40-45</td>
<td>500</td>
<td></td>
</tr>
<tr>
<td>50 or greater</td>
<td>1000</td>
<td></td>
</tr>
</tbody>
</table>

This layout is intended for use with slow-moving operations or with operations involving stops not to exceed 15 minutes. For stops exceeding 15 minutes or in heavy traffic situations, use TC-213.

Equipment vehicles with an amber revolving light or an amber strobe light.

1. When a stop is made in an area of restricted sight distance, use a flagger to hold traffic in the closed lane and allow traffic to pass when conditions are safe.
2. When a stop is made or work proceeds in an area where sight distance is restricted from either direction and is anticipated to be more than 5 minutes, a second flagger and ONE LANE ROAD AHEAD sign is required.
3. This vehicle and sign may be used in lieu of a flagger for Falling Weight Deflectometer tests.
4. Refer to SI-881 for sign details.

Possible Contract Items:
- Flaggers
- Traffic Control

REVISION
10-15-19
SHEET 1 of 1

APPROVED BY DESIGN METHODS ENGINEER
When fog sealing the milled rumble strips, place a 48" X 48" FRESH OIL sign (W21-2) at the beginning of the work area. Place additional FRESH OIL signs after each intersection and periodically through the work area so that signs are no more than 2 miles apart.

Operators should adjust their spacing, as necessary, to keep adjacent vehicles within view.

Equip all vehicles with an amber revolving light or amber strobe light.

Possible Contract Item:
Traffic Control

LEGEND

Traffic Sign

Truck Mounted Attenuator (TMA)

Direction of Traffic
This layout may be used when painting edgeline or centerline markings. Equip all vehicles with an amber revolving light or amber strobe light.

1. Use this sign when painting centerline markings.
2. Optional Fluorescent Yellow Green (FYG) sign background may be used.
3. This arrow board may be operated in a four-corner caution mode.
4. Move this vehicle to the shoulder to accommodate passing traffic.
5. A vehicle mounted Portable Dynamic Message Sign (PDMS) may be used in lieu of this sign.
6. Refer to SI-881 for sign details.
7. TMA required for speed limits of 55 mph or greater and ADT greater than 3,000.

Possible Contract Item:
Traffic Control
SIGN FACING OPPOSING TRAFFIC

1. Use this sign when painting centerline markings.
2. Optional Fluorescent Yellow Green (FYG) sign background may be used.
3. This arrow board may be operated in a four-corner caution mode.
4. Move this vehicle to the shoulder to accommodate passing traffic.
5. A vehicle mounted Portable Dynamic Message Sign (PDMS) may be used in lieu of this sign.
6. Refer to SI-881 for sign details.
7. TMA required for speed limits of 55 mph or greater and ADT greater than 3,000.

LEGEND
- Direction of Traffic
- Truck-Mounted Attenuator (TMA)
**Traffic Control**

**Possible Contract Item:**
- **48" x 24" W1-6**
- **100'-300'**
- **200'-500'**

**Shoulder line**
- **Strobes**
- **Flashers or Yellow**

**Direction of Traffic**
- **Truck-Mounted Attenuator (TMA)**

**LEGEND**
- **VEHICLES NOT STRADDLING CENTERLINE**
  - Equip all vehicles with an amber revolving light or amber strobe light.
  - **Optional Fluorescent Yellow Green (FYG) sign background may be used.**
  - **This arrow display may be operated in a four-corner caution mode.**
  - **Move this vehicle to the shoulder to accommodate passing traffic.**
  - **A vehicle mounted Portable Dynamic Message Sign (PDMS) may be used in lieu of this sign.**
  - **Refer to SI-881 for sign details.**
  - **TMA required for speed limits of 55 mph or greater and ADT greater than 3,000.**

**SPEED LIMIT (mph) | A (min)**
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>25 or less</td>
<td>200</td>
</tr>
<tr>
<td>30 - 35</td>
<td>300</td>
</tr>
<tr>
<td>40 - 45</td>
<td>600</td>
</tr>
<tr>
<td>50 or greater</td>
<td>1000</td>
</tr>
</tbody>
</table>

**REVISION**

APPROVED BY DESIGN METHODS ENGINEER

STANDARD ROAD PLAN

3-17-17

SHEET 1 of 2

STRIP SEALING OPERATIONS
**LEGEND**

- **Direction of Traffic**
- **Truck-Mounted Attenuator (TMA)**

<table>
<thead>
<tr>
<th>SPEED LIMIT (mph)</th>
<th>A (min)</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 or less</td>
<td>200'</td>
</tr>
<tr>
<td>30 - 35</td>
<td>300'</td>
</tr>
<tr>
<td>40 - 45</td>
<td>600'</td>
</tr>
<tr>
<td>50 or greater</td>
<td>1000'</td>
</tr>
</tbody>
</table>

**VEHICLES STRADDLING CENTERLINE**

1. Optional Fluorescent Yellow Green (FYG) sign background may be used.
2. This arrow display may be operated in a four-corner caution mode.
3. Move this vehicle to the shoulder to accommodate passing traffic.
4. A vehicle mounted Portable Dynamic Message Sign (PDMS) may be used in lieu of this sign.
5. Refer to SI-881 for sign details.
6. TMA required for speed limits of 65 mph or greater and ADT greater than 3,000.
**AREAS OF RESTRICTED SIGHT**  
(Typically a "No-Passing" Zone)

**AREAS OF UNRESTRICTED SIGHT**

---

**LEGEND**
- Direction of Traffic
- Flagger
- Traffic Sign
- Work Area
- Work Vehicle

<table>
<thead>
<tr>
<th>Speed Limit (mph)</th>
<th>A (min.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 or less</td>
<td>200</td>
</tr>
<tr>
<td>30-35</td>
<td>300</td>
</tr>
<tr>
<td>40-45</td>
<td>500</td>
</tr>
<tr>
<td>50 or greater</td>
<td>1000</td>
</tr>
</tbody>
</table>

For stops exceeding 15 minutes or in heavy traffic situations, use TC-213.

Equip all vehicles with an amber revolving light or an amber strobe light.

1. When a stop is made in an area of restricted sight distance, use a flagger to hold traffic in the closed lane and allow to pass when conditions are safe.
2. This vehicle and sign may be used in lieu of a flagger.
3. Refer to SI-881 for sign details.
This layout is intended for a preplanned closure of 20 minutes or less.

The Engineer will determine the storage length, B, necessary to accommodate stopped traffic during the closure.

<table>
<thead>
<tr>
<th>SPEED LIMIT (mph)</th>
<th>A (minimum)</th>
<th>B (minimum)</th>
</tr>
</thead>
<tbody>
<tr>
<td>35 or less</td>
<td>250</td>
<td>250</td>
</tr>
<tr>
<td>40-45</td>
<td>350</td>
<td>350</td>
</tr>
<tr>
<td>50 or greater</td>
<td>500'</td>
<td>500'</td>
</tr>
</tbody>
</table>
SIGN PLACEMENT ON
TYPE III BARRICADES

Typical Sign Placement

Sign Placement with
Supplemental Sign

Possible Contract Items:
Traffic Control
Safety Closures
Portable Dynamic Message Sign

Possible Tabulation:
108-13A
In situation 1, if the intersection is the point of detour these signs and barricade will become the responsibility of the contracting authority and may be modified by the contracting authority to fit detour signing.

When possible, a 100' buffer is desirable.

When L is less than 300 feet, omit the ROAD CLOSED AHEAD sign.

Place for 7 calendar days prior to closure. The Engineer will determine the message to display. Remove when road is closed. Use of Portable Dynamic Message Sign is optional on non-primary roadways.
During suspension of work, (such as over winter):

- Use Situation 2 on two-lane to four-lane projects.
- Situation 5 is preferred where cross-traffic is maintained.

When the distance between the last public road intersection and the ROAD CLOSED or ROAD CLOSED TO THRU TRAFFIC barricade is less than 1,000 feet, omit the ROAD CLOSED 500 FT sign.
The Engineer may change the advisory speed. If reduced below 35 mph, the Reverse Curve signs (W1-4L and W1-4R) change to Reverse Turn signs (W1-3L and W1-3R).

Add below ROAD CLOSED (R11-2) sign already included in Safety Closure.
No detection area required.

Set signal timing as follows: For traffic from all directions, set the yellow indication at approximately 5 seconds and the all-red clearance interval at approximately 2 seconds. Set the minimum green interval on the main road at 20 seconds. Set the green interval for haul road traffic at 12 seconds but may be extended up to a maximum of 30 seconds.

1. Locate the stop bars 70 feet in advance of each lane’s nearest signal head.
2. Required only if haul road is used during nighttime hours.
3. When the equipment crossing is not in use, place Type III Barricades as shown, and cover SIGNAL AHEAD and STOP HERE ON RED signs.

Possible Tabulations:
- Pavement Marking Items
- Pavement Markings Removed
- Traffic Control
- Temporary Floodlighting
- Temporary Traffic Signals

Possible Contract Items:
- 108-22
- 108-27
- 108-28
During nighttime hours or when the haul road is not in use, Type III Barricades shall be placed as shown and DO NOT PASS, NO PASSING ZONE and Flagger Symbol signs shall be covered or removed.
Construction traffic shall yield the right-of-way to mainline traffic.

Refer to SI-881 for details.

Possible Contract Item:
Traffic Control
BEGINNING OF UNEVEN LANES

DESIGN LIFT THICKNESSES 2" OR LESS

- Possible Granular Shoulder Fillet
- Existing Shoulder
- 2" or Less

DESIGN LIFT THICKNESSES GREATER THAN 2" (WITH C FILLET)

- Possible Granular Shoulder Fillet
- Existing Shoulder
- Greater Than 2"

PUBLIC ROAD

LEGEND

- Direction of Traffic
- Traffic Sign

 Possible Contract Items:
- Pavement Marking Items
- Traffic Control

Possible Tabulation:
108-22

Shoulder Fillet: Refer to Section 1107 of the Standard Specifications and Safety Edge specifications.

Centerline fillet may be notched wedge, Safety Edge, or a temporary 3:1 HMA file.
Possible Granular Shoulder Fillet
Existing Shoulder
Tubular Marker
Roadway
Greater than 2" lift

Uneven lanes
Beginning of 1000'
500'
200' - 300'
200' - 300'
100'
100'
200' - 300'

Do Not Pass
Pass with care
Do Not Pass
Uneven Lanes
Do Not Pass
Uneven Lanes
Do Not Pass
Uneven Lanes
Do Not Pass

48" x 48" W8-11
36" x 48" R4-1
36" x 48" R4-2
48" x 48" W4-1
48" x 48" W4-2
48" x 48" W4-1
48" x 48" W4-2

Double Center Line
50' C/C (W-3)

Public Road

LEGEND

- Direction of Traffic
- Traffic Sign
- Tubular Marker

**DESIGN LIFT THICKNESSES GREATER THAN 2" (WITHOUT θ FILLET)**

"No-Passing" zones shall not exceed 2.5 miles for ADT less than 2500 vpd or 2.0 miles for ADT from 2500 to 5000 vpd.

1. Shoulder Fillet. Refer to Section 1107 of the Standard Specifications and Safety Edge specifications.
2. Typical 1:1 taper.
3. Spacing = 40 feet where horizontal curve radius is less than 1000 feet.
Existing Pavement

Possible Granular Shoulder Fillet

Pavement Markings

LEGEND

Surface Course

Intermediate Course

PAVEMENT MARKING SEQUENCE


2. Centerline fillet may be notched wedge, Safety Edge, or a temporary 3:1 HMA fillet.

UNEVEN LANES
Possible Contract Items:

- Accommodate traffic.
- Necessary unless the traffic lane can be vacated to (e.g., for a survey target), a separate signing setup may be necessary unless the traffic lane can be vacated to accommodate traffic.

When another person is required outside of the signing setup (e.g., for a survey target), a separate signing setup may be necessary unless the traffic lane can be vacated to accommodate traffic.

- Keep F and G distances as near to minimum values as work permits. However, to be able to move the work area without moving the advance signing, F and G values may be varied within the limits of the table. Maximum movement can be achieved by setting one F or G value at the minimum and the other value at its maximum.

- Use a second flagger if:
  - Excessive traffic delays are encountered.
  - The flagger's view of approaching traffic in the open lane is less than a quarter mile or the work site is in an area of restricted sight distance (such as a "No-Passing" zone); or

**Legend**

- Traffic Sign
- Instrument Person
- Cone
- Work Area
- Flagger
- Direction of Traffic

**Table**

<table>
<thead>
<tr>
<th>Speed Limit (mph)</th>
<th>A</th>
<th>With Lane Closure</th>
<th>Without Lane Closure</th>
<th>F + G Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 or less</td>
<td>250</td>
<td>250 - 325'</td>
<td>500 - 3000'</td>
<td>3500'</td>
</tr>
<tr>
<td>40 - 45</td>
<td>350</td>
<td>350 - 335'</td>
<td>700 - 3000'</td>
<td>3700'</td>
</tr>
<tr>
<td>50 or greater</td>
<td>500</td>
<td>500 - 350'</td>
<td>1000 - 3000'</td>
<td>4000'</td>
</tr>
</tbody>
</table>
Possible Contract Item: Traffic Control

1. Place "NO CENTERLINE" (W9-12) signs at intersections where the speed limit is 35 mph or greater.
2. Place additional "PASS WITH CARE" (R4-2) signs at the downstream end of No Passing Zones.
3. Place additional "NO CENTERLINE" (W8-12) signs at 2 mile intervals.

**LEGEND**
- Traffic Sign
- Direction of Traffic

**Public Road**

**NO CENTER LINE**

W8-12 48" x 48"

W4-2 36" x 48"

W20-1 48" x 24"
When a pavement edge drop-off exists, install a SHOULDER DROP-OFF sign.

No pavement edge drop-offs greater than pavement depth will be allowed during non-working hours.

Shoulder edge drop-offs shall be mitigated according to Article 1107.08.L2 of the Standard Specifications.

For work lasting less than one hour, refer to TC-1.

1. When the length of a pavement edge drop-off is 1000 feet or less, the temporary fill requirement of Article 1107.08 of the Standard Specifications does not apply. Reduce channelizer spacing to 40 feet.

2. For work areas less than 200 feet long, use channelizers spaced at 20 foot centers or use a vehicle with an amber revolving light or amber strobe light.

Possible Contract Item:
Traffic Control

LEGEND

- Traffic Sign
- 42" Channelizer
- Work Area
- Direction of Traffic

SPEED LIMIT (MPH) | A | B | C | T
--- | --- | --- | --- | ---
40 or less | 50' | 20' | 42' | 100'
45 - 50 | 70' | 35' | 60' | 200'
55 - 60 | 150' | 60' | 100' | 200'
65 - 70 | 150' | 60' | 100' | 230'
Place AERIAL SEEDING signs along the mainline at a maximum spacing of 3 miles.

Refer to SI-881 for sign details.

Possible Contract Item:
Traffic Control

### AERIAL SEEDING OPERATIONS

#### SPEED LIMIT (mph)  A
- 35 or less  250'
- 40 - 45  500'
- 50 or greater  500'

### LEGEND
- Traffic Sign
- Work Area
- Direction of Traffic
When the Average Daily Traffic (ADT) exceeds 20,000 vehicles per day or when a traffic queue extends beyond the advanced signing, place RIGHT/LIGHT LANE CLOSED 4 MILES and RIGHT/LIGHT LANE CLOSED 2 MILES signs (W20-5) on both sides of the roadway 4 miles place RIGHT/LIGHT LANE CLOSED 4 MILES and RIGHT/LIGHT LANE CLOSED 2 MILES signs (W20-5) on both sides of the roadway 4 miles in advance of the lane closure, respectively, as appropriate.

When the Average Daily Traffic (ADT) exceeds 20,000 vehicles per day or when a traffic queue extends beyond the advanced signing, place RIGHT/LIGHT LANE CLOSED 4 MILES and RIGHT/LIGHT LANE CLOSED 2 MILES signs (W20-5) on both sides of the roadway 4 miles in advance of the lane closure, respectively, as appropriate.

When the Average Daily Traffic (ADT) exceeds 20,000 vehicles per day or when a traffic queue extends beyond the advanced signing, place RIGHT/LIGHT LANE CLOSED 4 MILES and RIGHT/LIGHT LANE CLOSED 2 MILES signs (W20-5) on both sides of the roadway 4 miles in advance of the lane closure, respectively, as appropriate.

When the Average Daily Traffic (ADT) exceeds 20,000 vehicles per day or when a traffic queue extends beyond the advanced signing, place RIGHT/LIGHT LANE CLOSED 4 MILES and RIGHT/LIGHT LANE CLOSED 2 MILES signs (W20-5) on both sides of the roadway 4 miles in advance of the lane closure, respectively, as appropriate.

When the Average Daily Traffic (ADT) exceeds 20,000 vehicles per day or when a traffic queue extends beyond the advanced signing, place RIGHT/LIGHT LANE CLOSED 4 MILES and RIGHT/LIGHT LANE CLOSED 2 MILES signs (W20-5) on both sides of the roadway 4 miles in advance of the lane closure, respectively, as appropriate.

When the Average Daily Traffic (ADT) exceeds 20,000 vehicles per day or when a traffic queue extends beyond the advanced signing, place RIGHT/LIGHT LANE CLOSED 4 MILES and RIGHT/LIGHT LANE CLOSED 2 MILES signs (W20-5) on both sides of the roadway 4 miles in advance of the lane closure, respectively, as appropriate.

When the Average Daily Traffic (ADT) exceeds 20,000 vehicles per day or when a traffic queue extends beyond the advanced signing, place RIGHT/LIGHT LANE CLOSED 4 MILES and RIGHT/LIGHT LANE CLOSED 2 MILES signs (W20-5) on both sides of the roadway 4 miles in advance of the lane closure, respectively, as appropriate.
Legend:

- Traffic Sign
- 42" Channelizer
- Direction of Traffic
- Work Area

Possible Contract Item:
Traffic Control

Refer to SI-881 for sign details.
Partial lane closure on ramps

**Legend**
- Drum
- Traffic Sign
- 42" Channelizer
- Direction of Traffic
- Work Area

**Sign Details**
- Refer to SI-881 for sign details.
- SI-881 for sign details.
- Refer to SI-881 for sign details.

**Signs**
- W29-1A: 48" x 48"
- W29-1: 48" x 48"
- W13-4: 36" x 36"

**Equipment**
- 20' or more
- 40' Device Spacing
- 50' or more
- 100' Device Spacing

**Specifications**
- 200' or more
- 300' or more
- 500' or more
- 10' or more
- Shoulder line
Refer to SI-881 for sign details.

**LEGEND**
- Drum
- Traffic Sign
- 42" Channelizer

**Direction of Traffic**

**Work Area**
Refer to SI-881 for sign details.

Temporary EXIT sign, mounted so that bottom of sign is a minimum of 3 feet above pavement surface. If in place for more than one day, mount an Exit Number Panel with the proper exit number above the temporary EXIT sign.
Possible Contract Items:
- Safety Closure
- Traffic Control
- Portable Dynamic Message Sign

Possible Tabulation:
108-13A

LEGEND
- Type III Barricade
- Traffic Sign
- 42" Channelizer
- Direction of Traffic
- Work Area
- Portable Dynamic Message Sign

1. A vehicle with an amber revolving light or amber strobe light may be substituted for the Type III barricade.
2. Place Portable Dynamic Message Sign 3 calendar days prior to ramp closure. Leave in place until ramp is re-opened. The Engineer will determine the message to display.

TC-417
STANDARD ROAD PLAN
SHEET 1 of 3


APPROVED BY: ROBERT ROYAL - DEPUTY DIRECTOR

EXIT RAMP CLOSURE
1. A vehicle with an amber revolving light or amber strobe light may be substituted for the Type III barricade.

2. Place Portable Dynamic Message Sign 3 calendar days prior to ramp closure. Leave in place until ramp is re-opened. The Engineer will determine the message to display.

LEGEND

- Type III Barricade
- Traffic Sign
- Drum
- 42" Channelizer
- Direction of Traffic
- Work Area
- Portable Dynamic Message Sign

PRECEEDING RAMP

EXIT RAMP CLOSURE

RAMP CLOSURE

REVISIONS:
- Added Portable Dynamic Message Signs and new note 2.
- Retitled standard.

APPROVED BY DESIGN METHODS ENGINEER
Place Portable Dynamic Message Sign 3 calendar days prior to ramp closure. Leave in place until ramp is re-opened. The Engineer will determine the message to display.
When the Average Daily Traffic (ADT) exceeds 20,000 vehicles per day or when a traffic queue extends beyond the advanced signing, place RIGHT/LEFT LANE CLOSED 4 MILES signs (W20-5) on both sides of the roadway 4 miles and 2 miles in advance of the lane closure, respectively, as appropriate.

Where there is a lane line drop-off or rise, do not allow traffic to cross over the drop-off or rise, except for ramp locations where a BUMP (WS-1) sign is placed.

Lane line drop-offs greater than a nominal 4 inches are not allowed during non-working hours.

Refer to SI-881 for sign details.

Where side road speed limit is 40 mph or less, a distance of 200 feet is allowed.

Place a ROAD WORK AHEAD sign on the opposite side of the intersection in a similar location.

For roadways with a posted speed limit of 60 mph or greater before road work.

Place SPEED LIMIT 55 signs prior to the lane closure as shown.

When the length of closure is greater than 1 mile, install SPEED LIMIT 55 signs in the closed lane at 1-mile intervals.

Remove or cover all existing signs that conflict with 55 mph speed limit while 55 mph speed limit is in effect.

For traffic control zones lasting more than 4 hours, place a Speed Feedback Sign at the end of the merge taper.

For lanes closed to traffic, place two drums every 1000 feet. For full depth excavations in a closed lane, place two drums in front of each location. Additional drums need not be placed for full depth excavations spaced closer than 150 feet.
Where there is a lane line drop-off or rise, do not allow traffic to cross over the drop-off or rise, except for ramp locations where a BUMP (W8-1) sign is placed.

Lane line drop-offs greater than a nominal 4 inches are not allowed during non-working hours.

Where side road speed limit is 40 mph or less, a distance of 200 feet is allowed.

Lane line drop-offs or rises greater than a nominal 4 inches are not allowed during non-working hours.

When there is a lane line drop-off or rise, do not allow traffic to cross over the drop-off or rise, except for ramp locations where a BUMP (W8-1) sign is placed.

For lanes closed to traffic, place two drums every 1000 feet. For full depth excavations, in a closed lane, place two drums in front of each location. Additional drums need not be placed for full depth excavations spaced closer than 150 feet.

### Table: Lane Line Drop-Offs

<table>
<thead>
<tr>
<th>Speed Limit (mph)</th>
<th>A</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>M</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>35 or less</td>
<td>250</td>
<td>40</td>
<td>35</td>
<td>0.200</td>
<td>245</td>
<td>50</td>
</tr>
<tr>
<td>40</td>
<td>190</td>
<td>60</td>
<td>40</td>
<td>0.300</td>
<td>320</td>
<td>50</td>
</tr>
<tr>
<td>50</td>
<td>190</td>
<td>702</td>
<td>67</td>
<td>45</td>
<td>0.400</td>
<td>637</td>
</tr>
<tr>
<td>60 - 65</td>
<td>1000</td>
<td>103</td>
<td>59</td>
<td>607</td>
<td>770</td>
<td>100</td>
</tr>
</tbody>
</table>

**Legend**
- Traffic Sign
- Drum
- 42" Channelizer
- Arrow Board
- Work Area
- Direction of Traffic

**Possible Contract Item:**
Traffic Control
LEFT LANE CLOSURE THROUGH ENTRANCE RAMP

RIGHT LANE CLOSURE THROUGH ENTRANCE RAMP

STAGING THROUGH ENTRANCE RAMP

For lanes closed to traffic, place two drums every 1000 feet. For full depth excavations in a closed lane, place two drums in front of each location. Additional drums need not be placed for full depth excavations spaced closer than 150 feet.
For lanes closed to traffic, place two drums every 1000 feet. For full depth excavations in a closed lane, place two drums in front of each location. Additional drums need not be placed for full depth excavations spaced closer than 150 feet.

Temporary EXIT sign, mounted so that bottom of sign is a minimum of 3 feet above pavement surface. If in place for more than one day, mount an Exit Number Panel with the proper exit number above the temporary EXIT sign. See SI-881 for details.
LEFT LANE CLOSURE THROUGH AUXILIARY LANES

For lanes closed to traffic, place two drums every 1000 feet. For full depth excavations in a closed lane, place two drums in front of each location. Additional drums need not be placed for full depth excavations spaced closer than 150 feet.
For lanes closed to traffic, place two drums every 1000 feet. For full depth excavations in a closed lane, place two drums in front of each location. Additional drums need not be placed for full depth excavations spaced closer than 150 feet.
For lanes closed to traffic, place two drums every 1000 feet. For full depth excavations in a closed lane, place two drums in front of each location. Additional drums need not be placed for full depth excavations spaced closer than 150 feet.
When the Average Daily Traffic (ADT) exceeds 20,000 vehicles per day or when a traffic queue extends beyond the advanced signing, place RIGHT LANE CLOSED 4 MILES and RIGHT LANE CLOSED 2 MILES signs (W20-6) on both sides of the roadway 4 miles and 2 miles in advance of the lane closure, respectively.

Place Concrete Barrier Markers at 10 ft C/C on bridge rail.

For roadways with a posted speed limit of 60 mph or greater before road work:

Place SPEED LIMIT AHEAD sign and SPEED LIMIT 55 sign prior to the lane closure as shown. Place SPEED LIMIT 65 or 70 beyond the work area as shown.

For traffic control zones lasting more than 4 hours, place a Speed Feedback Sign at the end of the merge taper.

Refer to SI-881 for sign details.

For lanes closed to traffic, place two drums every 1000 feet. For full depth excavations in a closed lane, place two drums in front of each location. Additional drums need not be placed for full depth excavations spaced closer than 100 feet.
For roadways with a posted speed limit of 60 mph or greater before road work:

Place SPEED LIMIT AHEAD sign and SPEED LIMIT 55 sign prior to the lane closure as shown. Place SPEED LIMIT 65 or 70 beyond the work area as shown.

For traffic control zones lasting more than 4 hours, place a Speed Feedback Sign at the end of the merge taper.

Refer to SI-881 for sign details.

For lanes closed to traffic, place two drums every 1000 feet. For full depth excavations in a closed lane, place two drums in front of each location. Additional drums need not be placed for full depth excavations spaced closer than 100 feet.
When the Average Daily Traffic (ADT) exceeds 20,000 vehicles per day or when a traffic queue extends beyond the advanced signing, place RIGHT/LEFT LANE CLOSED 4 MILES and RIGHT/LEFT LANE CLOSED 2 MILES signs (W20-0) on both sides of the roadway 4 miles and 2 miles in advance of the lane closure, respectively, as appropriate.

Where there is a lane line drop-off or rise, do not allow traffic to cross over the drop-off or rise, except for ramp locations where a BUMP (W8-1) sign is placed.

Lane line drop-offs greater than a nominal 4 inches are not allowed during non-working hours.

1. Refer to SI-881 for sign details.
2. For roadways with a posted speed limit of 60 mph or greater before road work:
   - Place SPEED LIMIT 55 signs prior to the lane closure as shown.
   - When the length of closure is greater than 1 mile, install SPEED LIMIT 55 signs in the closed lane at 1-mile intervals.
   - Remove or cover all existing signs that conflict with 55 mph speed limit while 55 mph speed limit is in effect.
   - For traffic control zones lasting more than 4 hours, place a Speed Feedback Sign at the end of the merge taper.
3. For lanes closed to traffic, place two drums every 1000 feet. For full depth excavations in a closed lane, place two drums in front of each location. Additional drums need not be placed for full depth excavations spaced closer than 150 feet.
For traffic control zones in place for 3 calendar days or less, place arrow boards, devices and signs as shown. For traffic control zones in place for 4 calendar days or more, also remove permanent pavement markings and place temporary pavement markings as shown.

When this layout is used during nighttime hours and the width of existing traffic lanes is 11 feet or less, use tubular markers to separate two-way two-lane traffic.

Possible Contract Items:
- Pavement Marking Items
- Pavement Markings Removed
- Traffic Control
- Temporary Lane Separator System

Possible Tabulation:

| Possible Tabulation: | 108-22 |

**LEGEND**
- Traffic Sign
- Drum
- 42" Channelizer
- Arrow Board
- Work Area
- Direction of Traffic
- Temporary Lane Separator System

<table>
<thead>
<tr>
<th>SPEED LIMIT (mph)</th>
<th>A</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>M</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>35 or less</td>
<td>250</td>
<td>40</td>
<td>35</td>
<td>0-200</td>
<td>240</td>
<td>140</td>
</tr>
<tr>
<td>40</td>
<td>500</td>
<td>80</td>
<td>40</td>
<td>0-200</td>
<td>320</td>
<td>160</td>
</tr>
<tr>
<td>45</td>
<td>700</td>
<td>80</td>
<td>45</td>
<td>0-400</td>
<td>630</td>
<td>316</td>
</tr>
<tr>
<td>50</td>
<td>700</td>
<td>80</td>
<td>45</td>
<td>0-400</td>
<td>630</td>
<td>316</td>
</tr>
<tr>
<td>55 - 60</td>
<td>1000</td>
<td>100</td>
<td>60</td>
<td>600</td>
<td>710</td>
<td>366</td>
</tr>
</tbody>
</table>

1. Spacing = D for drums placed in tapers.
2. For lanes closed to traffic, place two drums every 1000 feet. For full depth excavations in a closed lane, place two drums in front of each location. Additional drums need not be placed for full depth excavations spaced closer than 150 feet.
3. For work zones in place more than 3 calendar days, use TLSS. For work zones in place for 3 calendar days or less, 42" channelizers spaced at 40" c/c may be substituted for TLSS.
For lanes closed to traffic, place two drums every 1000 feet. For full depth excavations in a closed lane, place two drums in front of each location. Additional drums need not be placed for full depth excavations spaced closer than 150 feet.

<table>
<thead>
<tr>
<th>SPEED LIMIT (mph)</th>
<th>A</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>M</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>35 or less</td>
<td>250</td>
<td>45</td>
<td>36</td>
<td>0 - 250'</td>
<td>240</td>
<td>50</td>
</tr>
<tr>
<td>40</td>
<td>500</td>
<td>80</td>
<td>40</td>
<td>0 - 300'</td>
<td>320</td>
<td>50</td>
</tr>
<tr>
<td>45</td>
<td>700</td>
<td>80</td>
<td>45</td>
<td>0 - 400'</td>
<td>630</td>
<td>100</td>
</tr>
<tr>
<td>50</td>
<td>700</td>
<td>80</td>
<td>45</td>
<td>0 - 400'</td>
<td>630</td>
<td>100</td>
</tr>
<tr>
<td>60 - 90</td>
<td>1000</td>
<td>100</td>
<td>50</td>
<td>600'</td>
<td>770</td>
<td>100</td>
</tr>
</tbody>
</table>

Possible Contract Item:
Traffic Control

Additional information is shown in the diagram, including lane closures and the placement of traffic control elements.
**Legend**

- Traffic Sign
- Work Area
- Arrow Board
- Direction of Traffic
- Truck-Mounted Attenuator (TMA)

<table>
<thead>
<tr>
<th>Speed Limit (mph)</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>35 or less</td>
<td>300'</td>
</tr>
<tr>
<td>40 - 45</td>
<td>500'</td>
</tr>
<tr>
<td>50 - 55</td>
<td>500'</td>
</tr>
<tr>
<td>60 or greater</td>
<td>1000'</td>
</tr>
</tbody>
</table>

**Possible Contract Item:**
Traffic Control

**EQIP all vehicles with an amber revolving light or amber strobe light.**

This layout is intended for use with slow-moving operations involving stops not to exceed 30 minutes. For stops exceeding 30 minutes, use TC-418 or TC-419.

- **TMA required for speed limits of 55 mph or greater.**

**Possible Contract Item:**
Traffic Control
LEGEND

Traffic Sign  
Arrow Board  
Truck Mounted Attenuator (TMA)  
Direction of Traffic

LEFT LANE CLOSURE

W20-5  
48" x 48"

TMA (Optional)

RIGHT LANE CLOSURE

W20-5  
48" x 48"

TMA (Optional)

Equip all vehicles with an amber revolving light or amber strobe light.

Operators should adjust their spacing, as necessary, to keep adjacent vehicles within view.

1 TMA required for speed limits of 55 mph or greater.

When fog sealing the milled rumble strips, place a 48" X 48" FRESH OIL sign (W21-2) at the beginning of the work area. Place additional FRESH OIL signs after each intersection and periodically through the work area so that signs are no more than 2 miles apart.

SHOULDER RUMBLE STRIP OPERATIONS
OUTSIDE EDGELINE OR LANELINE - DIVIDED OR UNDIVIDED

Equip all vehicles with an amber revolving light or amber strobe light.

1. Optional Fluorescent Yellow Green (FYG) sign background may be used.
2. This arrow board may be operated in a four-corner caution mode.
3. A vehicle mounted Portable Dynamic Message Sign (POMS) may be used in lieu of this sign.
4. Refer to SI-881 for sign details.
5. TMA required for speed limits of 55 mph or greater.

Possible Contract Item:
Traffic Control

- Possible Shoulder
- Shoulder Line
- Varies - depends on dry line
- 50'-1500'
- 150'-250'
- Strobes
- Flashers or
- Yellow

THE REAR APPROACHING FROM SIGNS FACING TRAFFIC

Possible Shoulder

- Shoulder Line
- Varies - depends on dry line
- 50'-1500'
- 150'-250'
- Strobes
- Flashers or
- Yellow

THE REAR APPROACHING FROM SIGNS FACING TRAFFIC

Possible Shoulder

- Shoulder Line
- Varies - depends on dry line
- 50'-1500'
- 150'-250'
- Strobes
- Flashers or
- Yellow

THE REAR APPROACHING FROM SIGNS FACING TRAFFIC

Possible Shoulder

- Shoulder Line
- Varies - depends on dry line
- 50'-1500'
- 150'-250'
- Strobes
- Flashers or
- Yellow

THE REAR APPROACHING FROM SIGNS FACING TRAFFIC

Possible Shoulder

- Shoulder Line
- Varies - depends on dry line
- 50'-1500'
- 150'-250'
- Strobes
- Flashers or
- Yellow
Possible Shoulder

Shoulder Line

Variety - depends on dry time

50'-150'

150'-250'

Signs Facing Traffic Approaching From the Rear

WET YELLOW PAINT

G40-1 60" x 48"

Or

WET WHITE PAINT

G40 2 60" x 48"

Paint Truck

Broom Truck

Strobes

Flashers or

Yellow

Or

WET PAINT

G40-3 60" x 18"

TMA

For sign details.

Optional Fluorescent Yellow Green (FYG) sign background may be used.

Refer to SI-881 for sign details.

Additional Circle Note 5.

TMA - Truck-Mounted Attenuator

PAVEMENT MARKING OPERATIONS

Standard Road Plan SI-881

Revised: Added Circle Note 5

TC-433

Sheet 2 of 3

TMA required for speed limits of 55 mph or greater.
LEGEND

- Direction of Traffic
- Truck-Mounted Attenuator (TMA)

**STANDARD ROAD PLAN**

**TC-433**

**SHEET 3 of 3**

**PAVEMENT MARKING OPERATIONS**

---

1. Optional Fluorescent Yellow Green (FYG) sign background may be used.
2. This arrow board may be operated in a four-corner caution mode.
3. Refer to SI-881 for sign details.
4. TMA required for speed limits of 55 mph or greater.

---

**NOTES:**

- Shoulder Line
- Pick-up
- Variance depends on dry time
- TMA required for speed limits of 55 mph or greater.

---

**REVISIONS:**

- Added SI-881 for sign details.
- TMA required for speed limits of 55 mph or greater.

---

**APPROVED BY DESIGN METHODS ENGINEER**

**7-10-17**

**STANDARD ROAD PLAN**

**TC-433**

**SHEET 3 of 3**

**PAVEMENT MARKING OPERATIONS**
1. **ROAD CLOSED AHEAD**
2. **XX MINUTE DELAY**

### Speed Limits (mph)

<table>
<thead>
<tr>
<th>Speed Limit</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>35 or less</td>
<td>250'</td>
<td>250'</td>
</tr>
<tr>
<td>40 - 45</td>
<td>350'</td>
<td>350'</td>
</tr>
<tr>
<td>50 or greater</td>
<td>1000'</td>
<td>2500'</td>
</tr>
</tbody>
</table>

### Possible Contract Items:
- **Flaggers**
- **Portable Dynamic Message Sign**
- **Traffic Control**

---

**Legend**

- **Traffic Sign**
- **Law Enforcement Vehicle**
- **Flagger**
- **Portable Dynamic Message Sign**
- **Work Area**
- **Direction of Traffic**

---

**Optional for speed limits less than 55 mph.**

**This layout is intended for a preplanned closure of 20 minutes or less.**

1. A vehicle with an amber revolving light or amber strobe light may be substituted for leading law enforcement vehicle.
2. This distance may be increased to provide adequate storage for stopped vehicles.
3. Optional for speed limits less than 55 mph.
Traffic Control
Flaggers
Possible Contract Items:

<table>
<thead>
<tr>
<th>Matchline 'A'</th>
</tr>
</thead>
<tbody>
<tr>
<td>Matchline 'A'</td>
</tr>
</tbody>
</table>

1. Give priority to mainline traffic on the ramp.
2. Stop side road traffic before mainline traffic is rerouted onto ramp.
3. For ADT less than 2000, a Contractor vehicle may be substituted for the Enforcement vehicle.
4. Refer to SI-881 for sign details.

Possible Contract Items:
Flaggers
Traffic Control

SPEED LIMIT (mph)

<table>
<thead>
<tr>
<th>M</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>55 - 60</td>
<td>75</td>
</tr>
<tr>
<td>65 - 70</td>
<td>90</td>
</tr>
</tbody>
</table>

LEGEND
- Drum
- Traffic Sign
- Law Enforcement Vehicle
- 42" Channelizer
- Arrow Board
- Flagger
- Work Area
- Direction of Traffic

Temporary Detour Using
Ramps on Divided Highway

REVISIONS: Added Designer info button and updated DOT logo.
UNEVEN LANES

Possible Contract Items:
- Pavement Marking Items
- Traffic Control

Possible Tabulation:
108-22

Refer to SI-881 for sign details.
**LEGEND**

- Surface Course
- Intermediate Course

**PAVEMENT MARKING SEQUENCE**

1. **Initial Pavement Markings**
   - Possible Granular Shoulder Fillet
   - Existing Pavement
   - Pavement Markings

2. **Second Pavement Marking**
   - Possible Granular Shoulder Fillet
   - Existing Pavement
   - Pavement Marking

3. **Third Pavement Markings**
   - Possible Granular Shoulder Fillet
   - Existing Pavement
   - Pavement Marking

4. **Fourth Pavement Marking**
   - Shoulder Material
   - Existing Pavement
   - Pavement Marking

**NOTES:**

1. Shoulder Fillet: Refer to Section 1107 of the Standard Specifications and Safety Edge specifications.
2. Centerline fillet may be notched wedge, Safety Edge, or a temporary 3:1 HMA fillet.
MID-BLOCK CLOSURE

- Omit "SIDEWALK CLOSED AHEAD CROSS HERE" (R9-11) sign when closure is at sidewalk intersection as shown in layout 1.

Possible Contract Item:
Traffic Control
Possible Tabulation:
113-2

Possible Contract Item:
Traffic Control
Possible Tabulation:
113-2
Acceptable materials and construction method for Pedestrian Channelizer will be defined in the contract documents. When Temporary Barrier Rail is specified as the Pedestrian Channelizer, Section 2528 of the Standard Specifications applies. For other types of Pedestrian Channelizers, the length of Pedestrian Channelizer installed will be measured in feet. Payment will be at the contract price per linear foot.

Possible Contract Items:
- Pedestrian Channelizer
- Temporary Barrier Rail
- Maintenance of Pedestrian Traffic

Possible Tabulation:

113-3