MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
PLANS FOR PROPOSED
STATE HIGHWAY
VARIOUS COUNTIES
SOUTHEAST DISTRICT

NOT TO SCALE

GUARDRAIL/GUARD CABLE REPAIR
JOB ORDER CONTRACTING

CONVENTIONAL SYMBOLS
(USED ON PLANS)

EXISTING NEW
BUILDINGS AND STRUCUTURES
GUARD RAIL
CONCRETE RIGHT-OF-WAY MARKER
STEEL RIGHT-OF-WAY MARKER
BARRIERS
UTILITY
FIRE hydrant
OVERHEAD TELEPHONE
UNDERGROUND TELEPHONE
OVERHEAD POWER
UNDERGROUND POWER
GAS
WATER
IRRIGATION
FIRE hydrant
WATER VALVE
WATER METER
DROP INLET
DITCH BLOCK
GROUND MOUNTED SIGN
LIGHT POLE
H-PANE POWER POLE
TELEPHONE POLE
FENCING
CHAIN LINK
WIRE FENCE
CABLE POST
STANCHION

NOTE: DASHED OR OPEN SYMBOLS INDICATE EXISTING FEATURES

THE EXISTING AND APPROXIMATE LOCATION OF UTILITY FACILITIES SHOWN ON THE PLANS ARE BASED ON THE BEST INFORMATION AVAILABLE. THE EXISTING UTILITY FACILITIES SHOWN ON THE PLANS ARE NOT GUARANTEED OR WARRANTED TO BE CORRECT OR CURRENT. THE COMMISSION IS NOT RESPONSIBLE FOR ANY REPRESENTATION OR WARRANTY CONCERNING THE EXISTENCE, LOCATION, OR SATISFACTORY CONDITION OF ANY UTILITY FACILITY SHOWN ON THE PLANS. THE RESPONSIBILITY FOR THE CONTRACTOR TO VERIFY THE EXISTENCE, LOCATION AND STATUS OF ANY UTILITY, SUCH VERIFICATION INCLUDES DIRECT CONTACT WITH THE LISTED UTILITIES.
### Sign Spacing, Device Spacing and Channelizing Taper Lengths

<table>
<thead>
<tr>
<th>SPEED MPH</th>
<th>MINIMUM TAPER LENGTHS (L) FOR LANE WIDTHS (W)</th>
<th>MAXIMUM CHANNELIZER SPACING (CT)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10 FT</td>
<td>11 FT</td>
</tr>
<tr>
<td>0-35</td>
<td>205</td>
<td>225</td>
</tr>
<tr>
<td>40-45</td>
<td>430</td>
<td>455</td>
</tr>
<tr>
<td>50-55</td>
<td>530</td>
<td>560</td>
</tr>
<tr>
<td>60-70</td>
<td>700</td>
<td>710</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>SPEED MPH</th>
<th>LONGITUDINAL BUFFER SPACE (B)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>BUFFER SPACE (FEET)</td>
</tr>
<tr>
<td>0-35</td>
<td>200</td>
</tr>
<tr>
<td>40-45</td>
<td>400</td>
</tr>
<tr>
<td>50-55</td>
<td>500</td>
</tr>
<tr>
<td>60-70</td>
<td>840</td>
</tr>
</tbody>
</table>

### Sign Spacing (S) for Advance Sign Series [1] [2]

<table>
<thead>
<tr>
<th>SPEED MPH</th>
<th>UNDIVIDED HIGHWAYS (FT)</th>
<th>DIVIDED HIGHWAYS (FT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.35</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>40-45</td>
<td>350</td>
<td>300</td>
</tr>
<tr>
<td>50-55</td>
<td>500</td>
<td>1000</td>
</tr>
<tr>
<td>60-70</td>
<td>1000</td>
<td>50-2000, 5B, 5B-2500, 5C-2640</td>
</tr>
</tbody>
</table>

### Taper Length (L):

L = W/3 for 40 MPH or more
L = W/4 for 35 MPH or less
L = TAPER LENGTH IN FEET
L = LATERAL SHIFT IN FEET
S = POSTED SPEED IN MPH

### Traffic Control Devices

**General Notes:**

1. See standard plan $18.10 for details and items not shown.
2. Existing signs shall be covered during working hours only if in conflict with traffic control plans.
3. No direct payment will be made for relocating, covering, uncovering or removing signs.
4. Cones allowable for daytime operations only.
5. Locate flashing arrow panels at beginning of taper when feasible. Arrow panels are always located behind channelizers or cones.

### Traffic Control Legend

- **A** Sign (single sided)
- **B** Sign (double sided)
- **C** Flagger
- **D** Directional Indicator Barricade
- **E** Channelizer
- **F** Barricade
- **G** Changeable Message Board
- **H** Track Mounted Attenuator
- **I** Flashing Arrow

**Notes:**

Dimensions in feet unless otherwise noted.

[1] Spacing between signs and spacing between last sign and flagger, beginning of taper, or signed condition.

[2] Spacing may be adjusted as necessary to meet field conditions.
WORK BEYOND RIGHT SHOULDER - UNDIVIDED OR DIVIDED ROADWAYS

NOTES:

USED FOR WORK THAT OCCURS OFF THE ROADWAY SHOULDER BUT WITHIN THE CLEAR ZONE.
NOT TO BE USED WHEN WORK VEHICLES ARE PARKED ALONG THE SHOULDER EVEN WHEN
THE WORK IS BEING PERFORMED OFF THE SHOULDER.

SEE TCP SHEET 1 FOR SIGN SPACING AND TAPER LENGTHS.

FOR DIVIDED ROADWAYS, SIGNS SHALL BE PROVIDED ON LEFT
AND RIGHT SIDE OF ROADWAY WITH DOWNSTREAM SIGN BEING
OMITTED.

SHOULDER WORK - UNDIVIDED ROADWAYS

NOTES:

USED FOR WORK ON SHOULDER OR FOR WORK OFF SHOULDER
WITH WORK VEHICLES PARKED ON THE SHOULDER.

SEE TCP SHEET 1 FOR SIGN SPACING AND TAPER LENGTHS.
RIGHT SHOULDER WORK - HIGH SPEED DIVIDED ROADWAYS

NOTES:
SEE TCP SHEET I FOR SIGN SPACING AND TAPER LENGTHS.

USED FOR WORK ON SHOULDER OR FOR WORK OFF SHOULDER WITH WORK VEHICLES PARKED ON THE SHOULDER OF A HIGH SPEED ROADWAY.

RIGHT SHOULDER WORK - MULTI-LANE FREEWAYS WITH MEDIAN BARRIER

NOTES:
SEE TCP SHEET I FOR SIGN SPACING AND TAPER LENGTHS.
LEFT SHOULDER WORK - HIGH SPEED DIVIDED ROADWAYS

NOTES:
SEE TCP SHEET 1 FOR SIGN SPACING AND TAPER LENGTHS.

ONE-LANE TWO-WAY OPERATION WITH FLAGGERS

NOTES:
SEE TCP SHEET 1 FOR SIGN SPACING AND TAPER LENGTHS.
NOTES:
SEE TCP SHEET 1 FOR SIGN SPACING AND TAPER LENGTHS.

SINGLE LANE CLOSURE

PARTIAL RAMP CLOSURE

NOTES:
SEE TCP SHEET 1 FOR SIGN SPACING AND TAPER LENGTHS.
NOTES:
SEE TCP SHEET 1 FOR SIGN SPACING AND TAPER LENGTHS.
(1) SIGN ONLY REQUIRED WHEN RAMP WIDTH IS REDUCED.
(2) THE LOCATION OF THE SIGN SEQUENCE AND MERGE TAPER
SHOULD BE ADJUSTED SO THAT THE ARROW PANEL LOCATION
IS NOT CONFUSING TO MOTORIST ON THE RAMP.

ENTRANCE RAMP AREA
MAINLINE WORK

NOTES:
SEE TCP SHEET 1 FOR SIGN SPACING AND TAPER LENGTHS.
(1) SIGN ONLY REQUIRED WHEN RAMP WIDTH IS REDUCED.
(2) SIGN SHOULD BE PLACED ON THE RAMP TO PROVIDE
ADEQUATE VISIBILITY OF MAINLINE TRAFFIC.
(3) THE LOCATION OF THE SIGN SEQUENCE AND MERGE TAPER
SHOULD BE ADJUSTED SO THAT THE ARROW PANEL LOCATION
IS NOT CONFUSING TO MOTORIST ON THE RAMP.
(4) CHANNELIZER SPACING AT 30'.

ENTRANCE RAMP AREA
ACCELERATION LANE WORK
NOTES:
SEE TCP SHEET 1 FOR SIGN SPACING AND TAPER LENGTHS.
(1) SIGN ONLY REQUIRED WHEN RAMP WIDTH IS REDUCED.
(2) CHANNELIZER SPACING AT 50'.
NOTES:
SEE TCP SHEET 1 FOR SIGN SPACING AND TAPER LENGTHS.
(1) CHANNELIZER SPACING AT 50'.

RAMP CLOSURE
**NOTES:**

SEE TCP SHEET I FOR SIGN SPACING AND TAPER LENGTHS.

**DOUBLE LANE CLOSURE**

**NOTES:**

SEE TCP SHEET I FOR SIGN SPACING AND TAPER LENGTHS.

**INTERIOR LANE CLOSURE**