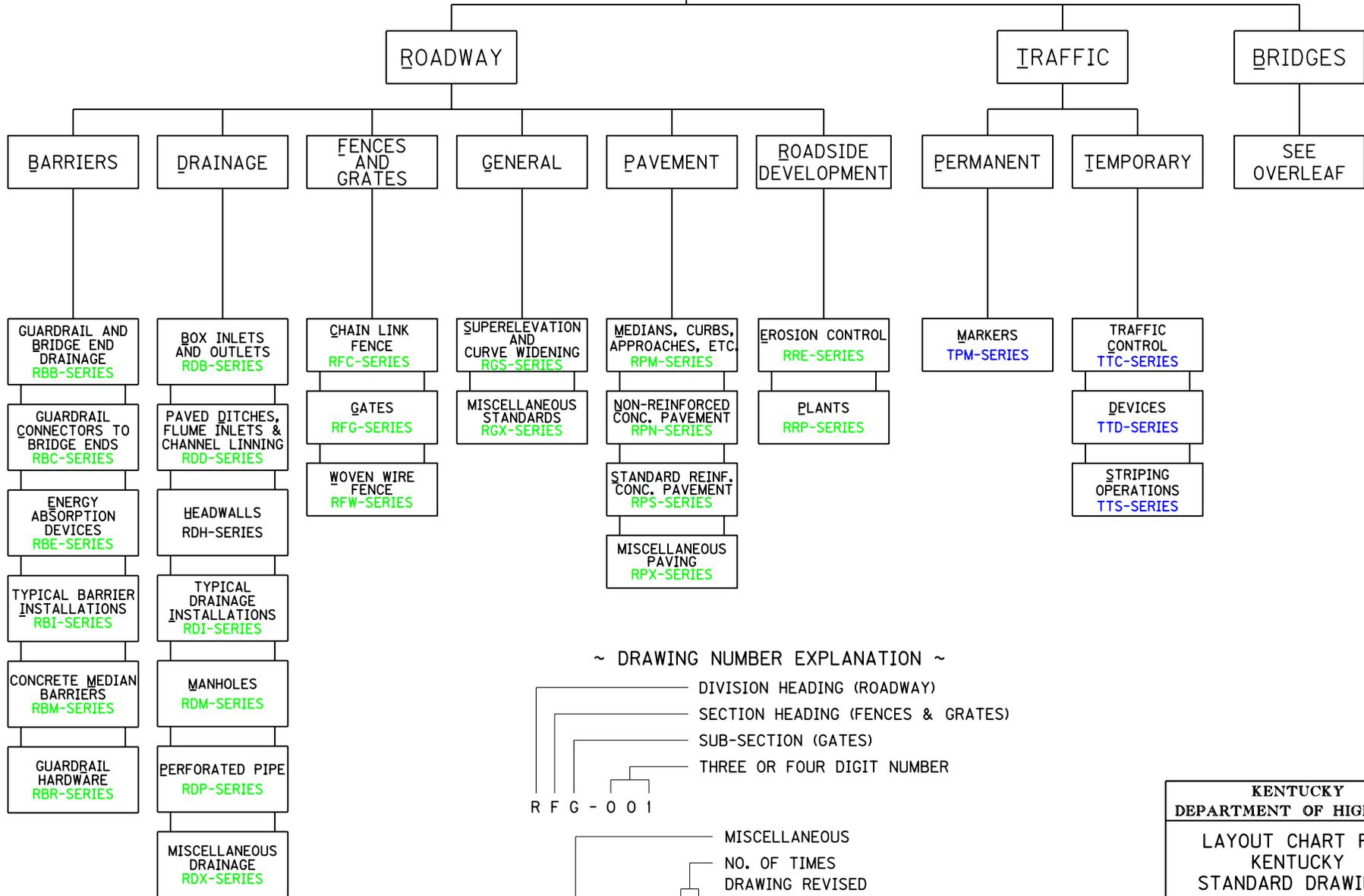
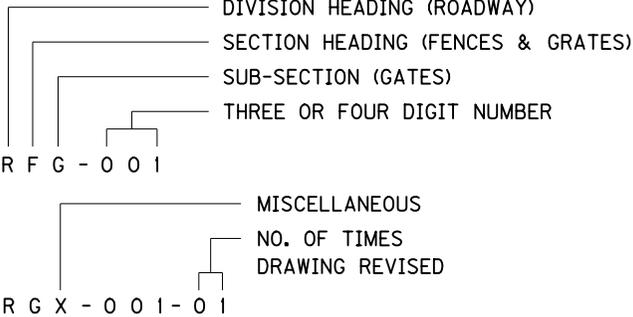


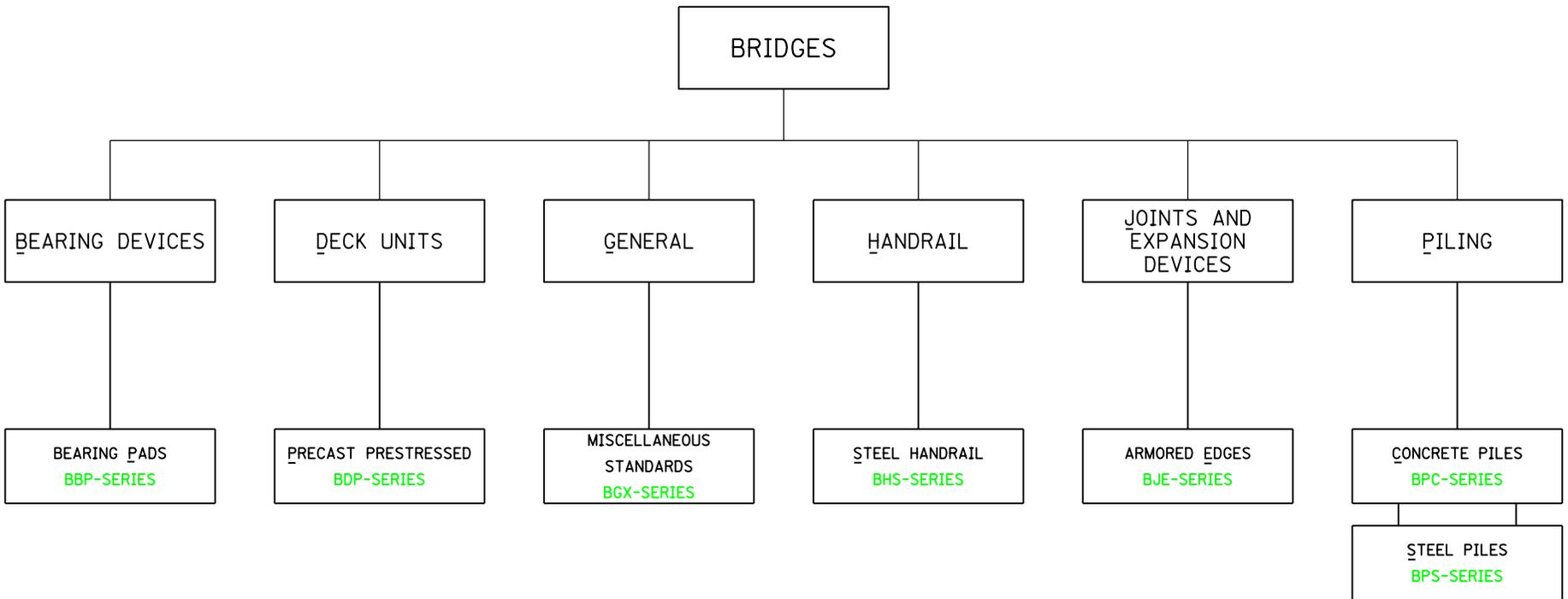
# KENTUCKY STANDARD DRAWINGS



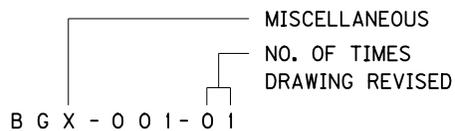
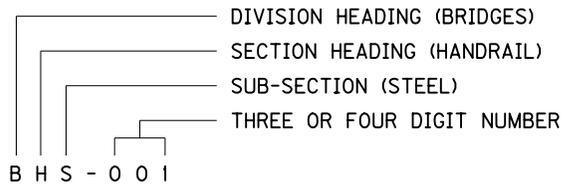
~ DRAWING NUMBER EXPLANATION ~



**KENTUCKY**  
**DEPARTMENT OF HIGHWAYS**  
 LAYOUT CHART FOR  
 KENTUCKY  
 STANDARD DRAWINGS



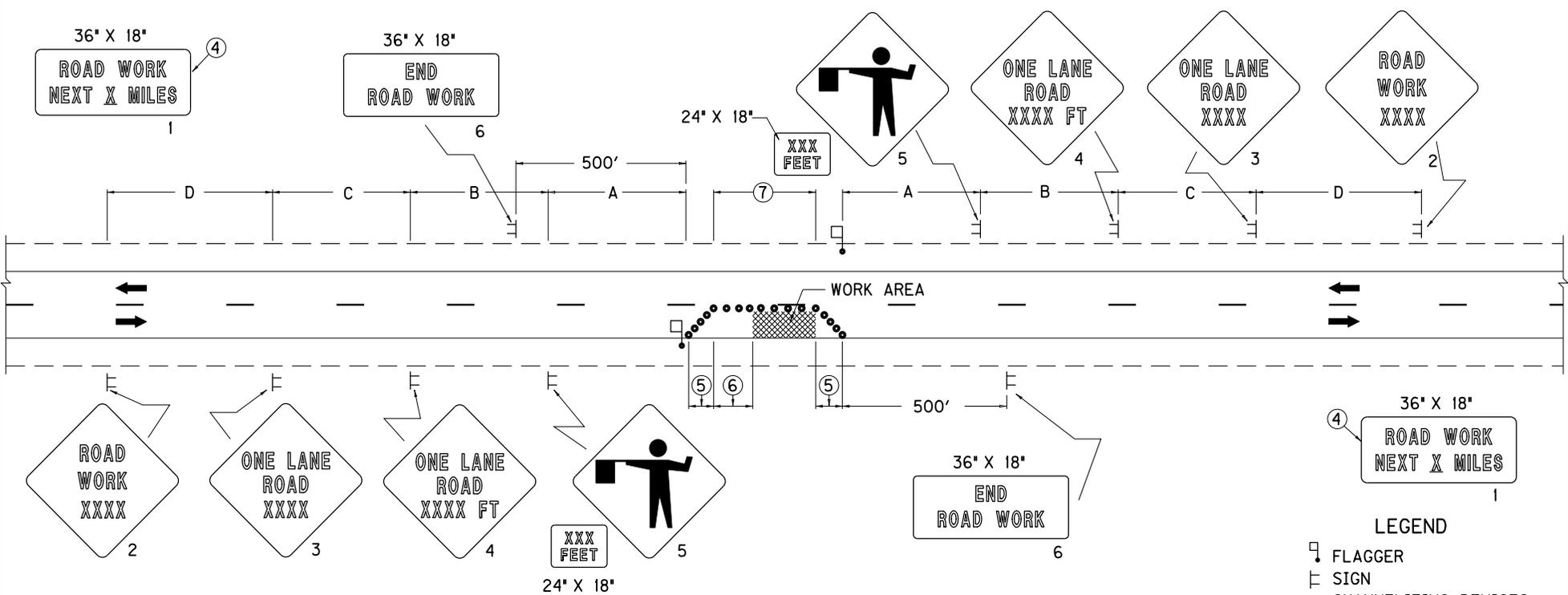
~ DRAWING NUMBER EXPLANATION ~



KENTUCKY  
DEPARTMENT OF HIGHWAYS

LAYOUT CHART FOR  
KENTUCKY  
STANDARD DRAWINGS

2003



1. THE SIZE OF SIGNS 2 THRU 5 SHALL BE 48" X 48" IF THE NORMAL POSTED SPEED LIMIT IS 45 MPH OR GREATER. OTHERWISE, 36" X 36" SIGNS MAY BE USED.
2. THE FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. FLAGGER STATIONS SHALL BE LOCATED FAR ENOUGH IN ADVANCE OF THE WORK AREA SO THAT APPROACHING ROAD USERS WILL HAVE SUFFICIENT DISTANCE TO STOP BEFORE ENTERING THE WORK SPACE (REFER TO TABLE 6E-1 OF THE MUTCD). ILLUMINATION SHALL BE PROVIDED TO MARK FLAGGER STATIONS AT NIGHT.
3. DRUMS OR TYPE II BARRICADES SHALL BE USED IN LIEU OF CONES OR TUBULAR MARKERS IF CLOSURE EXTENDS INTO NIGHTTIME HOURS.
- ④ SIGN NO. 1 SHALL BE INSTALLED AT THE LIMITS OF THE PROJECT WHEN THE CONSTRUCTION ZONE IS LONGER THAN TWO MILES IN LENGTH. THE DISTANCE SHOWN SHALL BE STATED TO THE NEAREST WHOLE MILE.
- ⑤ TAPERS SHALL HAVE A MAXIMUM LENGTH OF 100'. SPACING OF CHANNELIZING DEVICES SHOULD BE 20' THRU THE TAPER AREAS.
- ⑥ BUFFER SPACE (OPTIONAL). IF USED, THE BUFFER SPACE SHOULD BE EXTENDED SO THAT THE TWO-WAY TRAFFIC TAPER IS PLACED BEFORE A HORIZONTAL (OR CREST VERTICAL) CURVE TO PROVIDE ADEQUATE SIGHT DISTANCE FOR THE FLAGGER AND A QUEUE OF STOPPED VEHICLES.
- ⑦ SPACING OF CHANNELIZING DEVICES THRU THE ACTIVITY AREA SHOULD BE 80'.

- LEGEND**
- Ⓜ FLAGGER
  - Ⓜ SIGN
  - CHANNELIZING DEVICES  
CONES  
DRUMS  
TYPE II BARRICADES  
TUBULAR MARKERS

**APPLICATION**

THIS DRAWING APPLIES TO LANE CLOSURES ON TWO-LANE, TWO DIRECTION HIGHWAYS.

SIGNING AND SPACING TABLE					
ROAD TYPE	A	B	C	D	SIGNS REQUIRED
EXPRESSWAY/ FREEWAY	1000'	500'	1100'	2600'	1 THRU 5
SP. LT. ≥ 45 MPH*	500'	500'	500'	1100'	1 THRU 5
SP. LT. ≤ 40 MPH*	250'	250'	250'	250'	1, 3 THRU 5

\*NOTE: USE NORMAL POSTED SPEED LIMIT

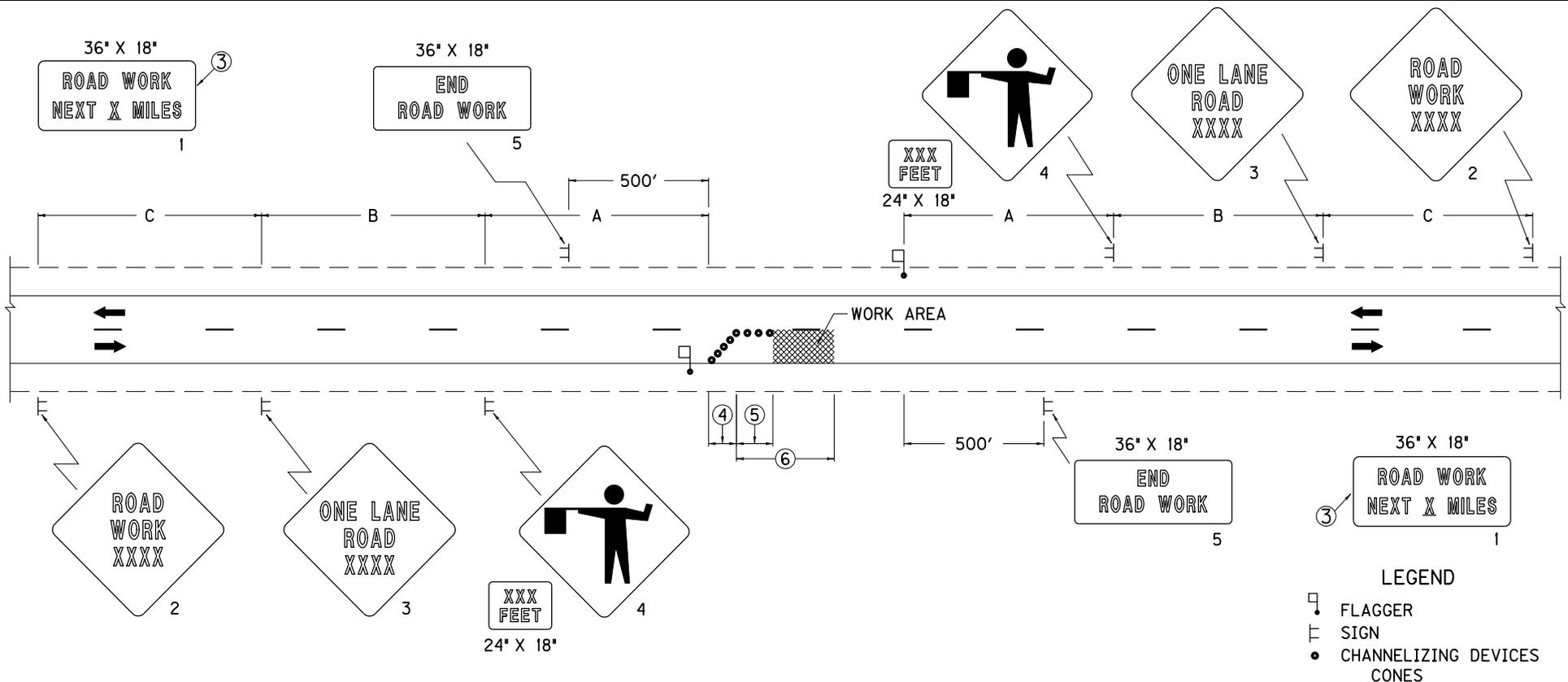
DRAWING NOT TO SCALE  
USE WITH CURRENT STD. DWG  
TTD-110

**KENTUCKY  
DEPARTMENT OF HIGHWAYS**

**LANE CLOSURE  
TWO-LANE HIGHWAY  
CASE I**

**STANDARD DRAWING NO. TTC-100-01**

SUBMITTED <i>Dennis H. Johnson</i>	11-21-07 DATE
APPROVED <i>Matthew A. Anderson</i>	11-21-07 DATE
<small>DIRECTOR, DIVISION OF TRAFFIC OPERATIONS</small>	<small>STATE HIGHWAY ENGINEER</small>



1. THE SIZE OF SIGNS 2 THRU 4 SHALL BE 48" X 48" IF THE NORMAL POSTED SPEED LIMIT IS 45 MPH OR GREATER. OTHERWISE, 36" X 36" SIGNS MAY BE USED.
2. THE FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. FLAGGER STATIONS SHALL BE LOCATED FAR ENOUGH IN ADVANCE OF THE WORK AREA SO THAT APPROACHING ROAD USERS WILL HAVE SUFFICIENT DISTANCE TO STOP BEFORE ENTERING THE WORK SPACE (REFER TO TABLE 6E-1 OF THE MUTCD).
- ③ SIGN NO. 1 SHALL BE INSTALLED AT THE LIMITS OF THE PROJECT WHEN THE CONSTRUCTION ZONE IS LONGER THAN TWO MILES IN LENGTH. THE DISTANCE SHOWN SHALL BE STATED TO THE NEAREST WHOLE MILE.
- ④ TAPER SHALL HAVE A MAXIMUM LENGTH OF 100'. SPACING OF CONES SHOULD BE 20' THRU THE TAPER AREA.
- ⑤ BUFFER SPACE (OPTIONAL). IF USED, THE BUFFER SPACE SHOULD BE EXTENDED SO THAT THE TWO-WAY TRAFFIC TAPER IS PLACED BEFORE A HORIZONTAL (OR CREST VERTICAL) CURVE TO PROVIDE ADEQUATE SIGHT DISTANCE FOR THE FLAGGER AND A QUEUE OF STOPPED VEHICLES.
- ⑥ CONES SHALL BE PLACED THRU THE ACTIVITY AREA WHERE ROADWAY WIDTH PERMITS. SPACING OF CONES SHOULD BE 80' THRU THE ACTIVITY AREA.

**APPLICATION**

THIS DRAWING APPLIES TO LANE CLOSURES DURING DAYLIGHT HOURS ON TWO-LANE, TWO-DIRECTION HIGHWAYS WITH ROADWAY WIDTHS FROM 16 TO 20 FEET. ROADS WITH WIDTHS LESS THAN 16 FEET SHOULD BE CLOSED TO THROUGH TRAFFIC. LOCAL TRAFFIC SHALL BE MAINTAINED.

SIGNING AND SPACING TABLE			
ROAD TYPE	A	B	C
EXPRESSWAY/ FREEWAY	1000'	1600'	2600'
SP. LT. ≥ 45 MPH*	500'	500'	500'
SP. LT. ≤ 40 MPH*	250'	250'	500'

\*NOTE: USE NORMAL POSTED SPEED LIMIT

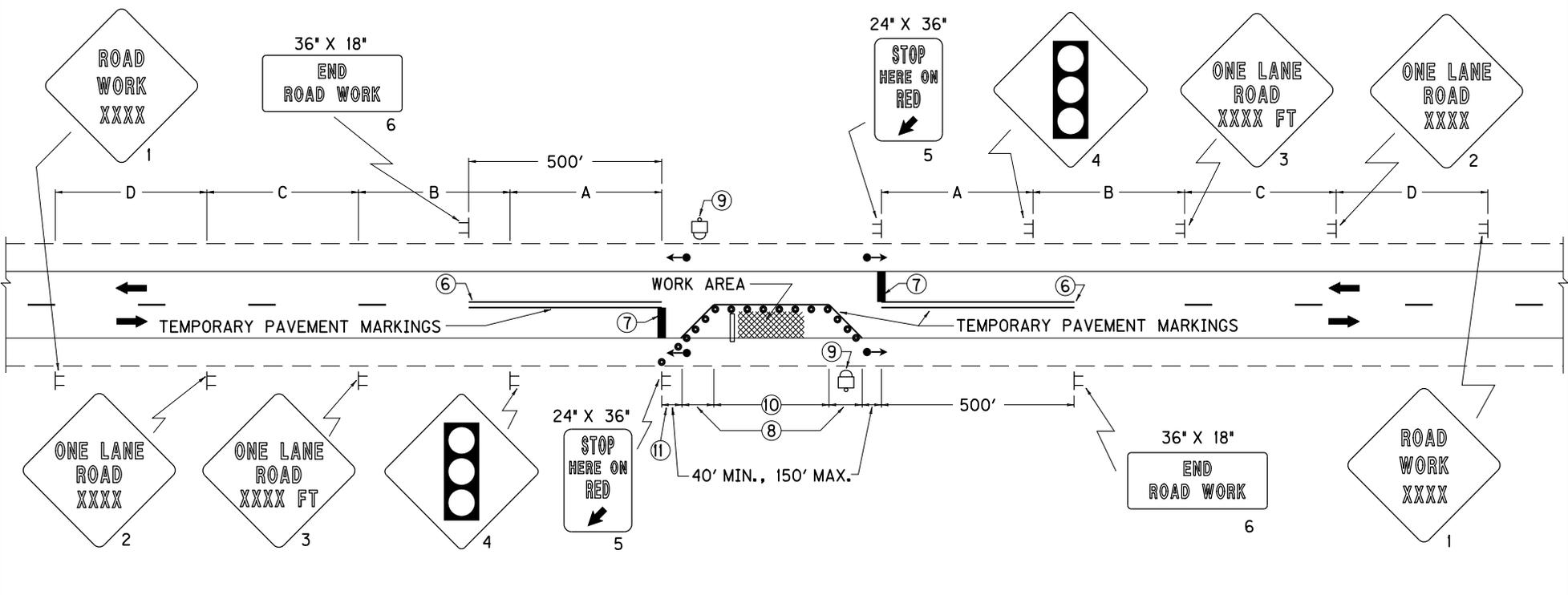
DRAWING NOT TO SCALE  
USE WITH CURRENT STD. DWG.  
TTD-110

**KENTUCKY  
DEPARTMENT OF HIGHWAYS**

**LANE CLOSURE  
TWO-LANE HIGHWAY  
CASE II**

**STANDARD DRAWING NO. TTC-105-01**

SUBMITTED <i>Dennis H. Shuman</i>	11-21-07
DIRECTOR, DIVISION OF TRAFFIC OPERATIONS	DATE
APPROVED <i>Matthew A. Anderson</i>	11-21-07
STATE HIGHWAY ENGINEER	DATE



1. THE SIZE OF SIGNS 1 THRU 4 SHALL BE 48" X 48" IF THE NORMAL POSTED SPEED LIMIT IS 45 MPH OR GREATER. OTHERWISE, 36" X 36" SIGNS MAY BE USED.
2. TEMPORARY TRAFFIC SIGNALS SHALL BE INSTALLED AND OPERATED IN ACCORDANCE WITH THE PROVISIONS OF PART 4 OF THE MUTCD.
3. ALL SHOULDER MOUNTED SIGNAL HEADS SHALL BE A MINIMUM HEIGHT OF 12 FEET. ANY SIGNAL HEADS OR OTHER DEVICES MOUNTED OVER THE ROADWAY SHALL HAVE A MINIMUM UNDERCLEARANCE OF 17 FEET.
4. ALL CONFLICTING PAVEMENT MARKINGS BETWEEN THE STOP BARS SHALL BE OBLITERATED BY AN APPROVED METHOD.
5. ONE LUMINAIRE SHALL BE INSTALLED AT EACH END OF THE WORK AREA.
- ⑥ "NO PASSING" ZONES (500' MIN.) SHALL BE INSTALLED ON THE APPROACHES TO THE CLOSURE.
- ⑦ STOP BARS SHALL HAVE A WIDTH OF 24".
- ⑧ TAPERS SHALL HAVE A MAXIMUM LENGTH OF 100'. SPACING OF CHANNELIZING DEVICES SHOULD BE 20' THRU THE TAPER AREAS.
- ⑨ INSTALL OFFSET TYPE LUMINAIRE ON 45' WOOD POLE (ANCHOR AS NECESSARY). LUMINAIRE SHALL BE 240 V, 250 WATT HIGH PRESSURE SODIUM TYPE II DISTRIBUTION. LUMINAIRE SHALL BE HOLOPHANE HL2A250HP24YBZPR OR AMERICAN ELECTRIC 285 SERIES.
- ⑩ SPACING OF CHANNELIZING DEVICES THROUGH THE ACTIVITY AREA SHOULD BE 80'.
- ⑪ SPACING OF CHANNELIZING DEVICES THROUGH SHOULDER TAPER SHOULD BE 20'.

**APPLICATION**

THIS DRAWING APPLIES TO LANE CLOSURES USING TRAFFIC SIGNALS ON TWO-LANE, TWO-DIRECTION HIGHWAYS.

SIGNING AND SPACING TABLE				
ROAD TYPE	A	B	C	D
EXPRESSWAY/ FREEWAY	1000'	500'	1100'	2600'
SP. LT. ≥ 45 MPH*	500'	500'	500'	1100'
SP. LT. ≤ 40 MPH*	250'	250'	500'	500'

\*NOTE: USE NORMAL POSTED SPEED LIMIT

- LEGEND**
- TYPE III BARRICADE
  - ⊥ SIGN
  - ☐ LUMINAIRE
  - TRAFFIC SIGNAL
  - CHANNELIZING DEVICES
  - DRUMS
  - TYPE II BARRICADES

DRAWING NOT TO SCALE  
USE WITH CURRENT STD. DWG.  
TTD-110

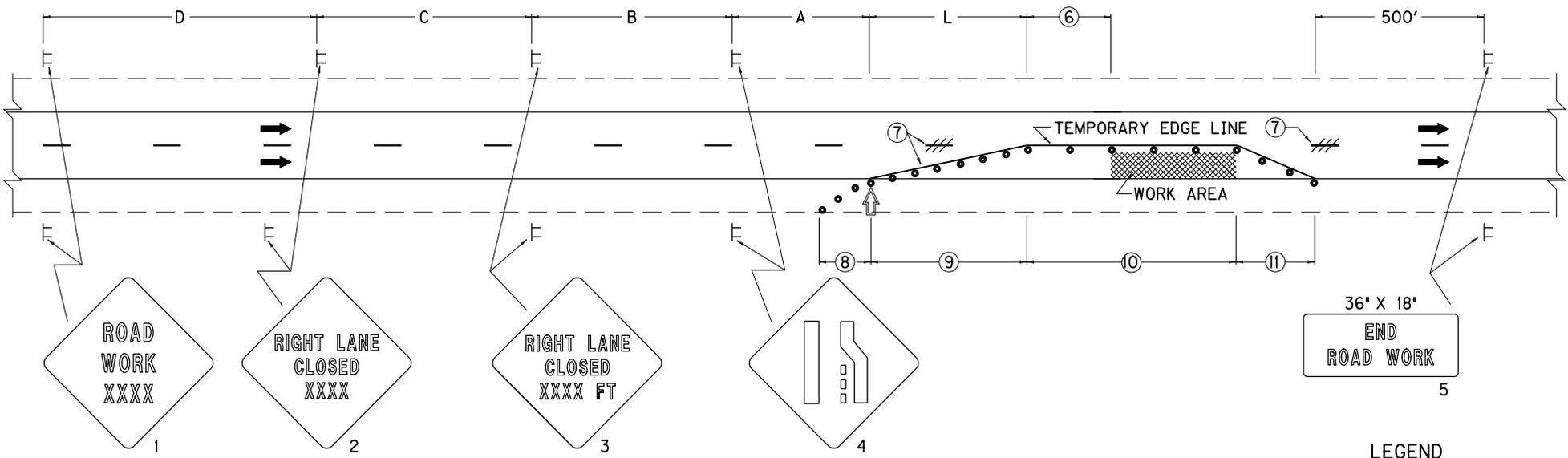
**KENTUCKY  
DEPARTMENT OF HIGHWAYS**

**LANE CLOSURE  
USING TRAFFIC SIGNALS**

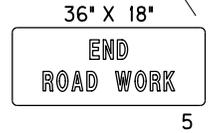
STANDARD DRAWING NO. TTC-110-01

SUBMITTED *Dennis H. Johnson* 11-21-07  
DIRECTOR, DIVISION OF TRAFFIC OPERATIONS DATE

APPROVED *Matthew W. Anderson* 11-21-07  
STATE HIGHWAY ENGINEER DATE



1. IF MEDIAN IS NOT WIDE ENOUGH TO MAINTAIN LATERAL CLEARANCES SHOWN IN MUTCD, SIGNS 1 THRU 5 SHALL NOT BE DUAL MOUNTED.
2. THE SIZE OF SIGNS 1 THRU 4 SHALL BE 48" X 48" IF THE NORMAL POSTED SPEED LIMIT IS 45 MPH OR GREATER. OTHERWISE, 36" X 36" SIGNS MAY BE USED.
3. AN ARROW PANEL SHALL BE LOCATED ON THE SHOULDER AT THE BEGINNING OF THE MERGING TAPER OR LOCATED IN THE CLOSED LANE WHEN THE SHOULDER IS NARROW.
4. ALL VEHICLES, EQUIPMENT, WORKERS, AND THEIR ACTIVITIES SHALL BE RESTRICTED TO ONE SIDE OF THE PAVEMENT UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER.
5. DRUMS OR TYPE II BARRICADES SHALL BE USED IN LIEU OF CONES OR TUBULAR MARKERS IF CLOSURE EXTENDS INTO NIGHTTIME HOURS.
- ⑥ BUFFER SPACE (OPTIONAL).
- ⑦ IF DURATION OF LANE CLOSURE EXCEEDS THREE DAYS, TEMPORARY EDGE LINE SHALL BE REQUIRED AND SKIP LINES SHALL BE OBLITERATED BY APPROVED METHOD THRU LENGTH OF TAPER. ANY OTHER CONFLICTING PAVEMENT MARKINGS SHALL BE OBLITERATED.
- ⑧ IF AN ARROW PANEL IS INSTALLED ON THE SHOULDER OR WITHIN THE CLEAR ZONE, A SHOULDER TAPER SHALL BE REQUIRED. WHEN PAVED SHOULDERS HAVING A WIDTH OF 8' OR MORE ARE CLOSED, A SHOULDER TAPER SHALL BE REQUIRED. TAPER LENGTH SHALL BE 0.33 L. SPACING OF CHANNELIZING DEVICES THRU THE SHOULDER TAPER SHOULD BE 40'.
- ⑨ SPACING OF CHANNELIZING DEVICES THRU THE MERGING TAPER SHOULD BE 40'.
- ⑩ SPACING OF CHANNELIZING DEVICES THRU THE ACTIVITY AREA SHOULD BE 80'.
- ⑪ DOWNSTREAM TAPER SHALL HAVE A MAXIMUM LENGTH OF 100'. SPACING OF CHANNELIZING DEVICES THRU THE DOWNSTREAM TAPER SHOULD BE 20'.



**LEGEND**

- ➡ ARROW PANEL
- ⌊ SIGN
- CHANNELIZING DEVICES
  - CONES
  - DRUMS
  - TYPE II BARRICADES
  - TUBULAR MARKERS

**APPLICATION**

THIS DRAWING APPLIES TO LANE CLOSURES OF LEFT OR RIGHT LANES ON TWO-DIRECTION, MULTI-LANE HIGHWAYS. IF TEMPORARY TRAFFIC BARRIER IS USED, REFER TO CURRENT STANDARD DRAWING TTC-120.

SIGNING AND SPACING TABLE					
ROAD TYPE	A	B	C	D	L
EXPRESSWAY/ FREEWAY	1000'	500'	1100'	2600'	840'
SP. LT. ≥ 45 MPH*	500'	500'	500'	1100'	680'
SP. LT. ≤ 40 MPH*	250'	250'	500'	500'	320'

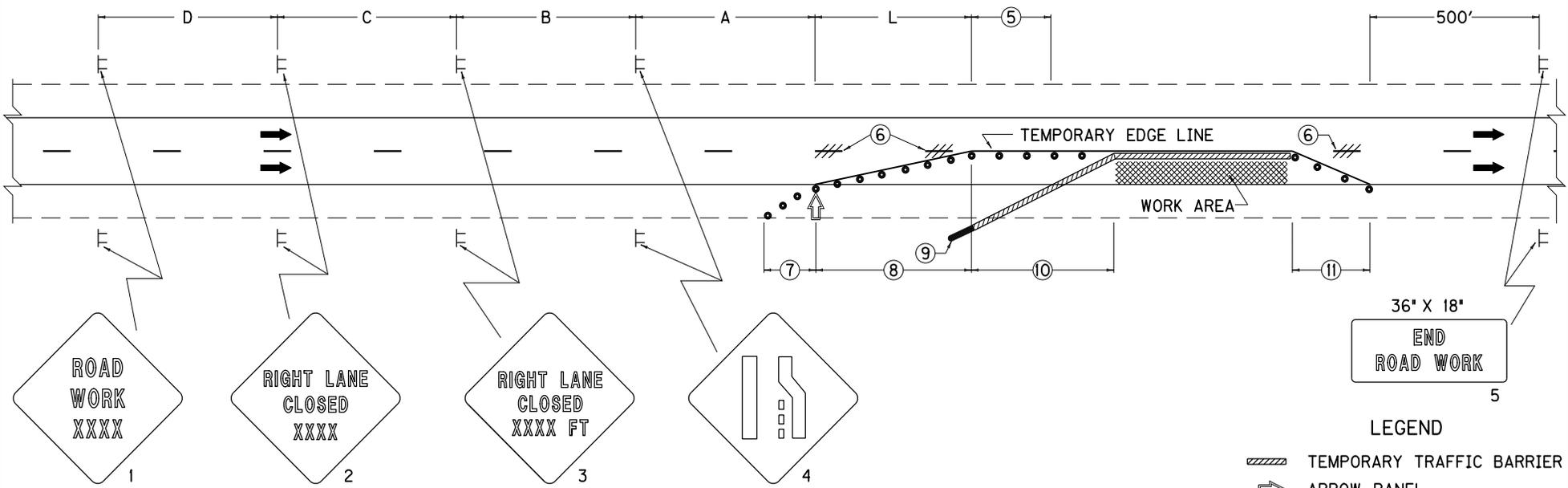
\*NOTE: USE NORMAL POSTED SPEED LIMIT

DRAWING NOT TO SCALE  
 USE WITH CURRENT STD. DWGS.  
 TTD-110 AND TTC-160

**KENTUCKY  
 DEPARTMENT OF HIGHWAYS**

**LANE CLOSURE  
 MULTI-LANE HIGHWAY  
 CASE I**

STANDARD DRAWING NO. TTC-115-01  
 SUBMITTED *Dennis H. Johnson* 11-21-07  
DIRECTOR, DIVISION OF TRAFFIC OPERATIONS DATE  
 APPROVED *Matthew A. [Signature]* 11-21-07  
STATE HIGHWAY ENGINEER DATE



36" X 18"  
END  
ROAD WORK

LEGEND

- TEMPORARY TRAFFIC BARRIER
- ARROW PANEL
- SIGN
- CRASH CUSHION
- CHANNELIZING DEVICES  
DRUMS  
TYPE II BARRICADES

1. IF MEDIAN IS NOT WIDE ENOUGH TO MAINTAIN LATERAL CLEARANCES SHOWN IN THE MUTCD, SIGNS 1 THRU 5 SHALL NOT BE DUAL MOUNTED.
2. THE SIZE OF SIGNS 1 THRU 4 SHALL BE 48" X 48" IF THE NORMAL POSTED SPEED LIMIT IS 45 MPH OR GREATER. OTHERWISE, 36" X 36" SIGNS MAY BE USED.
3. AN ARROW PANEL SHALL BE REQUIRED. IT SHALL BE LOCATED ON THE SHOULDER AT THE BEGINNING OF THE MERGING TAPER OR LOCATED IN THE CLOSED LANE WHEN THE SHOULDER IS NARROW.
4. THE BARRIER SHALL NOT BE PLACED ALONG THE MERGING TAPER. THE LANE SHALL FIRST BE CLOSED USING CHANNELIZING DEVICES AND PAVEMENT MARKINGS.
- ⑤ BUFFER SPACE (OPTIONAL).
- ⑥ SKIP LINES SHALL BE OBLITERATED BY AN APPROVED METHOD THRU LENGTH OF TAPERS. OTHER CONFLICTING PAVEMENT MARKINGS SHALL BE OBLITERATED.
- ⑦ IF AN ARROW PANEL IS INSTALLED ON THE SHOULDER OR WITHIN THE CLEAR ZONE, A SHOULDER TAPER SHALL BE REQUIRED. WHEN PAVED SHOULDERS HAVING A WIDTH OF 8' OR MORE ARE CLOSED, A SHOULDER TAPER SHALL BE REQUIRED. TAPER LENGTH SHALL BE 0.33 L. SPACING OF CHANNELIZING DEVICES THRU THE SHOULDER TAPER SHOULD BE 40'.
- ⑧ SPACING OF CHANNELIZING DEVICES THRU THE MERGING TAPER SHOULD BE 40'.
- ⑨ IN ORDER TO MITIGATE THE EFFECT OF STRIKING THE END OF A TEMPORARY TRAFFIC BARRIER, THE END SHALL BE INSTALLED IN ACCORDANCE WITH THE ROADSIDE DESIGN GUIDE BY FLARING (SEE TABLE) UNTIL THE END IS OUTSIDE THE ACCEPTABLE CLEAR ZONE OR BY PROVIDING CRASHWORTHY END TREATMENTS. FLATTER FLARE RATES MAY BE USED.
- ⑩ SPACING OF CHANNELIZING DEVICES THRU THIS AREA SHOULD BE 80'.
- ⑪ DOWNSTREAM TAPER SHALL HAVE A MAXIMUM LENGTH OF 100'. SPACING OF CHANNELIZING DEVICES THRU THE DOWNSTREAM TAPER SHOULD BE 20'.

MAXIMUM FLARE RATES FOR TEMPORARY TRAFFIC BARRIER			
DESIGN SPEED	70 MPH	60 MPH	50 MPH
FLARE RATE	15:1	14:1	11:1

SIGNING AND SPACING TABLE					
ROAD TYPE	A	B	C	D	L
EXPRESSWAY/ FREEWAY	1000'	500'	1100'	2600'	840'
SP. LT. ≥ 45 MPH*	500'	500'	500'	1100'	680'
SP. LT. ≤ 40 MPH*	250'	250'	500'	500'	320'

\*NOTE: USE NORMAL POSTED SPEED LIMIT

APPLICATION

THIS DRAWING APPLIES TO LANE CLOSURES OF LEFT OR RIGHT LANES USING TEMPORARY TRAFFIC BARRIER ON TWO-DIRECTION, MULTI-LANE HIGHWAYS. IF TEMPORARY TRAFFIC BARRIER IS NOT USED, REFER TO CURRENT STANDARD DRAWING TTC-115.

DRAWING NOT TO SCALE

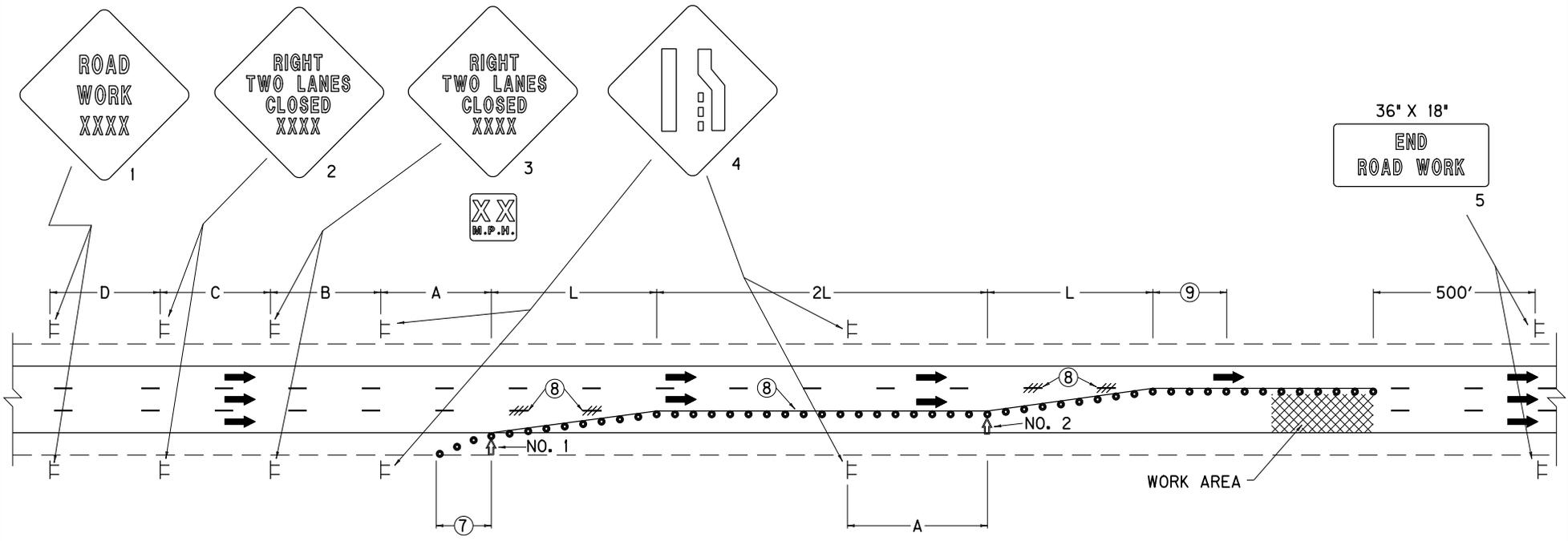
USE WITH CURRENT STD. DWGS. TTD-110 AND TTC-160

KENTUCKY  
DEPARTMENT OF HIGHWAYS

LANE CLOSURE  
MULTI-LANE HIGHWAY  
CASE II

STANDARD DRAWING NO. TTC-120-01

SUBMITTED *Dennis H. Johnson* 11-21-07  
DIRECTOR, DIVISION OF TRAFFIC OPERATIONS DATE  
APPROVED *Matthew A. Anderson* 11-21-07  
STATE HIGHWAY ENGINEER DATE



1. THE SIZE OF SIGNS 1 THRU 4 SHALL BE 48" X 48" IF THE NORMAL POSTED SPEED LIMIT IS 45 MPH OR GREATER. OTHERWISE, 36" X 36" SIGNS MAY BE USED.
2. WHEN MORE THAN TWO LANES ARE TO BE CLOSED, SIGNS 2 AND 3 SHALL AGREE WITH THE NUMBER OF LANES CLOSED. ADDITIONAL TRANSITION SIGNS AND ACCOMPANYING ARROW PANELS SHALL BE USED ACCORDINGLY. ADDITIONAL TAPERS AND TANGENTS FOR CHANNELIZING DEVICES SHALL BE THE SAME AS THOSE SHOWN.
3. THE ADVISORY SPEED LIMIT ON SIGN 3 SHALL BE 10 MPH LESS THAN THE NORMAL POSTED SPEED LIMIT UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
4. DRUMS OR TYPE II BARRICADES SHALL BE USED IN LIEU OF CONES OR TUBULAR MARKERS IF CLOSURE EXTENDS INTO NIGHTTIME HOURS.
5. SPACING OF THE CHANNELIZING DEVICES THRU THE MERGING TAPERS SHOULD BE 40'. SPACING OF THE CHANNELIZING DEVICES THRU THE REMAINDER OF THE CLOSURE SHOULD BE 80'.
6. ARROW PANEL NO. 1 SHALL BE LOCATED ON THE SHOULDER AT THE BEGINNING OF THE FIRST MERGING TAPER. IF THE SHOULDER IS NARROW, ARROW PANEL NO. 1 SHALL BE LOCATED IN THE FIRST CLOSED LANE. ARROW PANEL NO. 2 SHALL BE PLACED IN THE FIRST CLOSED LANE AT THE BEGINNING OF THE SECOND MERGING TAPER. IF ARROW PANEL NO. 1 IS INSTALLED IN THE FIRST CLOSED LANE, ARROW PANEL NO. 2 SHALL BE PLACED IN THE SECOND CLOSED LANE AT THE DOWNSTREAM END OF THE SECOND MERGING TAPER.
- ⑦ IF ARROW PANEL NO. 1 IS INSTALLED ON THE SHOULDER OR WITHIN THE CLEAR ZONE, A SHOULDER TAPER SHALL BE REQUIRED. TAPER LENGTH SHALL BE 0.33 L. SPACING OF CHANNELIZING DEVICES THRU THE SHOULDER TAPER SHOULD BE 40'.
- ⑧ IF DURATION OF LANE CLOSURE EXCEEDS THREE DAYS, TEMPORARY EDGE LINE SHALL BE REQUIRED AND SKIP LINES SHALL BE OBLITERATED BY APPROVED METHOD THRU THE LENGTH OF TAPERS. OTHER CONFLICTING PAVEMENT MARKINGS SHALL BE OBLITERATED.
- ⑨ BUFFER SPACE (OPTIONAL).

**APPLICATION**

THIS DRAWING DEPICTS THE MIDDLE AND OUTSIDE LANES CLOSED ON A MULTI-LANE HIGHWAY. THE SAME PRINCIPLES APPLY WHEN THE MIDDLE AND INSIDE LANES ARE CLOSED. WHEN MORE THAN TWO LANES ARE CLOSED, REFER TO NOTE 2.

SIGNING AND SPACING TABLE					
ROAD TYPE	A	B	C	D	L
EXPRESSWAY/ FREEWAY	1000'	500'	1100'	2600'	840'
SP. LT. ≥ 45 MPH*	500'	500'	500'	1100'	680'
SP. LT. ≤ 40 MPH*	250'	250'	500'	500'	320'

\*NOTE: USE NORMAL POSTED SPEED LIMIT

36" X 18"  
**END  
ROAD WORK**

**LEGEND**

- ➡ ARROW PANEL
- ⊢ SIGN
- CHANNELIZING DEVICES
- CONES
- DRUMS
- ▣ TYPE II BARRICADES
- ▣ TUBULAR MARKERS

DRAWING NOT TO SCALE

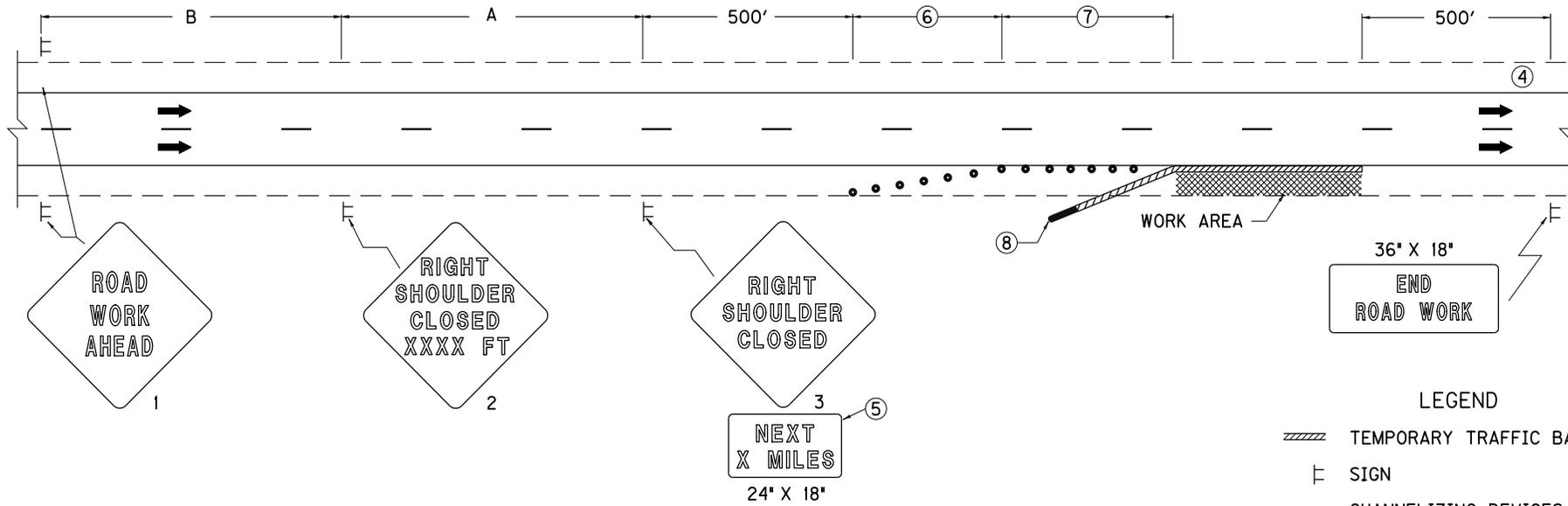
USE WITH CURRENT STD. DWGS.  
TTD-110 AND TTC-160

**KENTUCKY  
DEPARTMENT OF HIGHWAYS**

**DOUBLE  
LANE CLOSURE**

STANDARD DRAWING NO. TTC-125-01

SUBMITTED *Dennis H. Johnson* 11-21-07  
DIRECTOR, DIVISION OF TRAFFIC OPERATIONS DATE  
APPROVED *Matthew M. Anderson* 11-21-07  
STATE HIGHWAY ENGINEER DATE



1. THE SIZE OF SIGNS 1 THRU 3 SHALL BE 48" X 48" IF THE NORMAL POSTED SPEED LIMIT IS 45 MPH OR GREATER. OTHERWISE, 36" X 36" SIGNS MAY BE USED.
2. SIGN 1 SHALL NOT BE DUAL-MOUNTED ON TWO-LANE, TWO-DIRECTION HIGHWAYS OR ON MULTI-LANE HIGHWAYS WHERE MEDIAN IS NOT WIDE ENOUGH TO MAINTAIN LATERAL CLEARANCES SHOWN IN THE MUTCD. SIGNS 2 AND 3 SHALL BE INSTALLED ONLY ON THE SIDE OF THE AFFECTED SHOULDER.
3. DRUMS OR TYPE II BARRICADES SHALL BE USED IN LIEU OF CONES OR TUBULAR MARKERS IF CLOSURE EXTENDS INTO NIGHTTIME HOURS.
- ④ ON TWO-LANE TWO-DIRECTION HIGHWAYS, SIGNS 1 THRU 3 SHALL BE INSTALLED ON THE APPROACH WITH THE RIGHT SHOULDER CLOSED. A "ROAD WORK AHEAD" AND "SHOULDER WORK" SIGN SHALL BE INSTALLED ON THE OPPOSITE APPROACH. THE "SHOULDER WORK" SIGN SHALL BE MOUNTED IN ADVANCE OF THE CLOSURE AT A SPACING OF "A" (SEE SIGNING AND SPACING TABLE). AN ADDITIONAL "ROAD WORK AHEAD" SIGN SHALL BE INSTALLED IN ADVANCE OF THE "SHOULDER WORK" SIGN AT A SPACING OF "B".
- ⑤ WHEN THE END OF THE CLOSURE CANNOT BE SEEN BY ROAD USERS, A "NEXT X MILES" PLAQUE SHALL BE INSTALLED BELOW THE "SHOULDER CLOSED" SIGN.
- ⑥ TAPER LENGTH SHALL BE 0.33 L. SPACING OF CHANNELIZING DEVICES THROUGH THE SHOULDER TAPER SHOULD BE 40'.
- ⑦ SPACING OF CHANNELIZING DEVICES THROUGH THE REMAINDER OF THE CLOSURE SHOULD BE 80'.
- ⑧ TEMPORARY TRAFFIC BARRIER SHALL BE REQUIRED ONLY IF DESIGNATED ELSEWHERE IN THE PLANS. IN ORDER TO MITIGATE THE EFFECT OF STRIKING THE END OF A TEMPORARY TRAFFIC BARRIER, THE END SHALL BE INSTALLED IN ACCORDANCE WITH THE ROADSIDE DESIGN GUIDE BY FLARING (SEE TABLE) UNTIL THE END IS OUTSIDE THE ACCEPTABLE CLEAR ZONE OR BY PROVIDING CRASHWORTHY END TREATMENTS. FLATTER FLARE RATES MAY BE USED.

- LEGEND
- TEMPORARY TRAFFIC BARRIER
  - SIGN
  - CHANNELIZING DEVICES
  - CONES
  - DRUMS
  - TYPE II BARRICADES
  - TUBULAR MARKERS
  - CRASH CUSHION

MAXIMUM FLARE RATES FOR TEMPORARY TRAFFIC BARRIER			
DESIGN SPEED	70 MPH	60 MPH	50 MPH
FLARE RATE	15:1	14:1	11:1

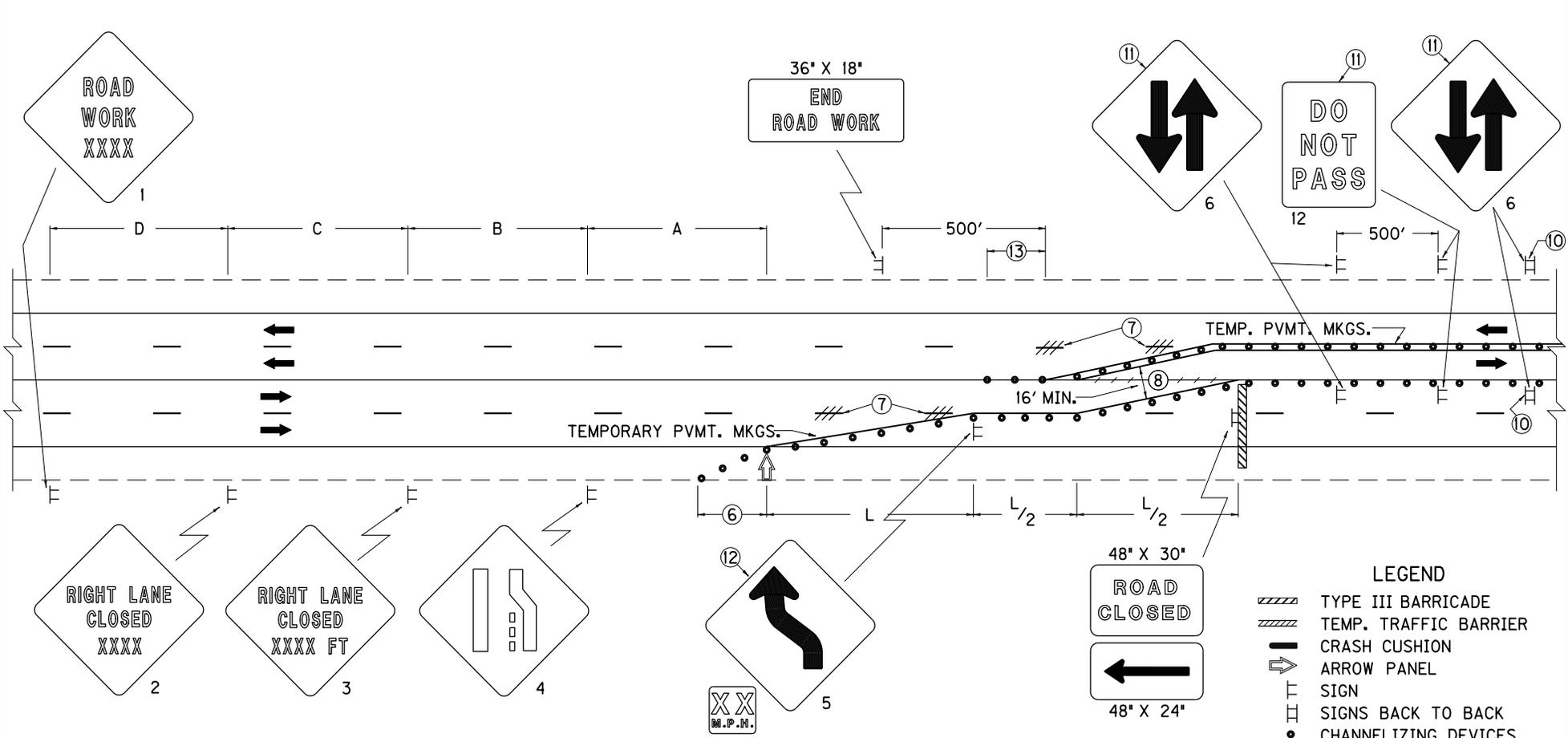
SIGNING AND SPACING TABLE			
ROAD TYPE	A	B	L
EXPRESSWAY/FREEWAY	1000'	1600'	840'
SP. LT. ≥ 45 MPH*	500'	500'	680'
SP. LT. ≤ 40 MPH*	500'	500'	320'

\*NOTE: USE NORMAL POSTED SPEED LIMIT

DRAWING NOT TO SCALE  
 USE WITH CURRENT STD. DWG.  
 TTD-110

KENTUCKY DEPARTMENT OF HIGHWAYS	
SHOULDER CLOSURE	
STANDARD DRAWING NO. TTC-135-01	
SUBMITTED <i>Dennis H. Johnson</i>	11-21-07
DIRECTOR, DIVISION OF TRAFFIC OPERATIONS	DATE
APPROVED <i>Matthew A. Matthews</i>	11-21-07
STATE HIGHWAY ENGINEER	DATE

**APPLICATION**  
 THIS DRAWING APPLIES TO SHOULDER CLOSURES ON MULTI-LANE HIGHWAYS, TWO-LANE TWO-DIRECTION HIGHWAYS, AND ONE-WAY HIGHWAYS.



1. THE SIZE OF SIGNS I THRU II SHALL BE 48" X 48" IF THE NORMAL POSTED SPEED LIMIT IS 45 MPH OR GREATER. OTHERWISE, 36" X 36" SIGNS MAY BE USED. THE SIZE OF SIGNS 12 AND 13 SHALL BE 36" X 48" IF THE NORMAL POSTED SPEED LIMIT IS 45 MPH OR GREATER. OTHERWISE, 24" X 30" SIGNS MAY BE USED.
2. THE ADVISORY SPEED LIMIT ON SIGNS 5 AND 7 SHALL BE DETERMINED BY THE ENGINEER.
3. SPACING OF CHANNELIZING DEVICES THRU THE TAPER AREAS SHOULD BE 40'. SPACING OF DEVICES THRU THE REMAINDER OF THE CLOSURE SHOULD BE 80'.
4. ARROW PANELS SHALL BE LOCATED ON SHOULDERS AT THE BEGINNING OF MERGING TAPERS OR LOCATED IN CLOSED LANES BEHIND CHANNELIZING DEVICES WHEN THE SHOULDER IS NARROW.
5. TEMPORARY PAVEMENT MARKINGS SHALL BE APPLIED AND MAINTAINED ON THE ROADWAY THROUGHOUT THE LIMITS OF THE CROSSOVER.

**APPLICATION**

THIS DRAWING APPLIES TO A MEDIAN CROSSOVER ON MULTI-LANE HIGHWAYS WITH A MEDIAN WIDTH OF 10' OR LESS.

(CONTINUED ON CURRENT STD. DWG. **TTC-141**)

SIGNING AND SPACING TABLE					
ROAD TYPE	A	B	C	D	L
EXPRESSWAY/ FREEWAY	1000'	500'	1100'	2600'	840'
SP. LT. ≥ 45 MPH*	500'	500'	500'	1100'	680'
SP. LT. ≤ 40 MPH*	250'	250'	500'	500'	320'

\*NOTE: USE NORMAL POSTED SPEED LIMIT

- LEGEND**
- TYPE III BARRICADE
  - TEMP. TRAFFIC BARRIER
  - CRASH CUSHION
  - ARROW PANEL
  - SIGN
  - SIGNS BACK TO BACK
  - CHANNELIZING DEVICES
  - TEMP. TRAFFIC BARRIER DRUMS
  - VERTICAL PANELS
  - TUBULAR MARKERS

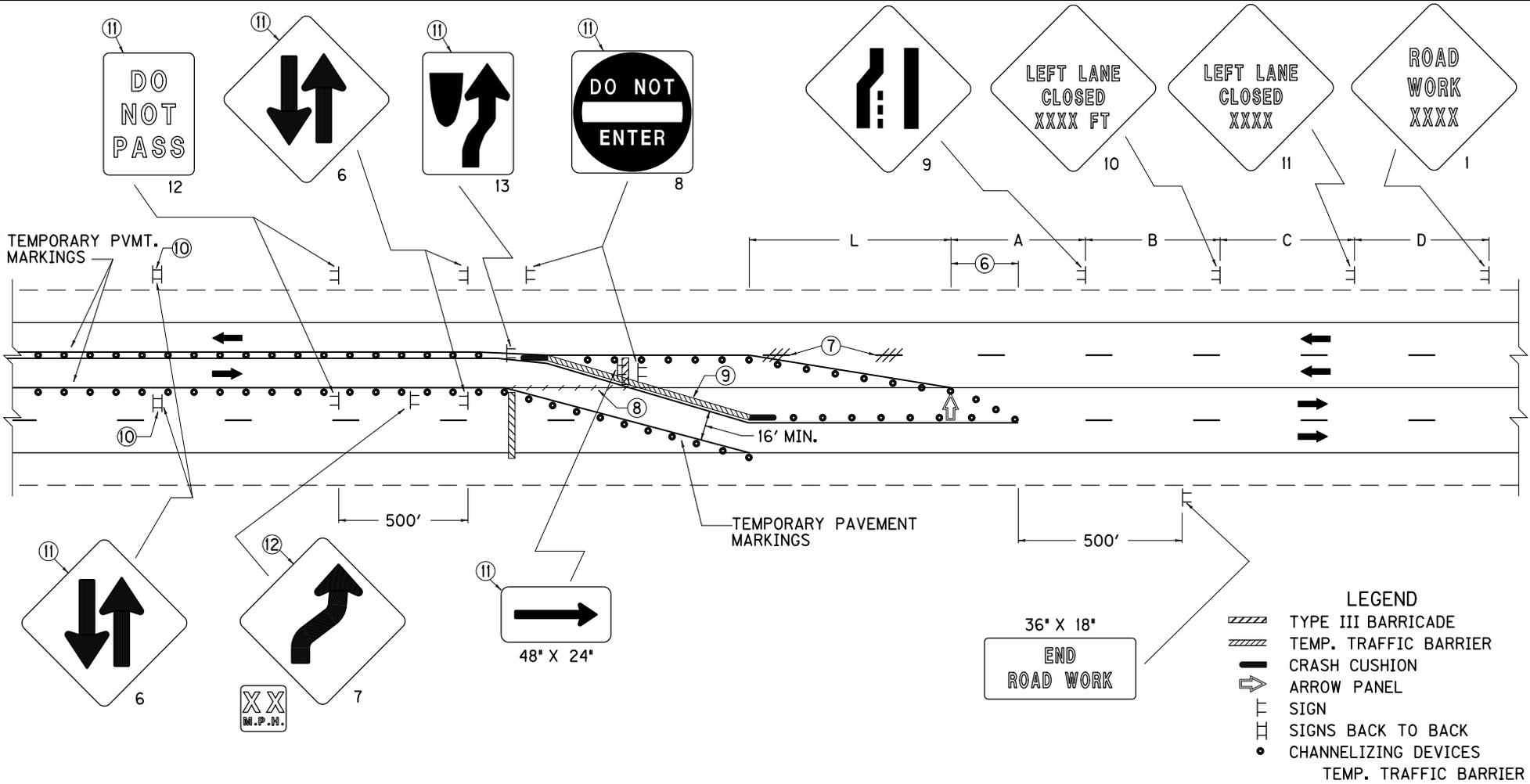
**DRAWING NOT TO SCALE**

USE WITH CURRENT STD. DWGS. **TTC-141**, **TTC-110**, AND **TTC-160**

**KENTUCKY  
DEPARTMENT OF HIGHWAYS**

**MEDIAN CROSSOVER  
CASE I**

STANDARD DRAWING NO. **TTC-140-01**  
 SUBMITTED *Dennis H. Johnson* 11-21-07 DATE  
 DIRECTOR, DIVISION OF TRAFFIC OPERATIONS  
 APPROVED *Matthew W. Matthews* 11-21-07 DATE  
 STATE HIGHWAY ENGINEER



(CONTINUED FROM CURRENT STD. DWG. TTC-140)

- ⑥ IF AN ARROW PANEL IS INSTALLED ON THE SHOULDER OR WITHIN THE CLEAR ZONE, A SHOULDER TAPER SHALL BE REQUIRED. TAPER LENGTH SHALL BE 0.33 L. SPACING OF CHANNELIZING DEVICES THRU THE SHOULDER TAPER SHOULD BE 40'.
- ⑦ OBLITERATE SKIP LINES THRU THE LENGTH OF TAPERS BY APPROVED METHOD.
- ⑧ OBLITERATE EXISTING CENTER LINE BY AN APPROVED METHOD. OTHER CONFLICTING PAVEMENT MARKINGS SHALL BE OBLITERATED.
- ⑨ TEMPORARY TRAFFIC BARRIER SHALL BE USED ON TAPER IF CROSSOVER REMAINS IN PLACE OVERNIGHT. IN URBAN AREAS WITH LOW OPERATING SPEEDS WHERE THE USE OF THE BARRIER RESULTS IN REDUCED LANE WIDTHS OR WHERE THE BARRIER INTERFERES WITH ACCESS TO ADJOINING PROPERTY, DRUMS OR TUBULAR MARKERS MAY BE USED IN LIEU OF TEMPORARY TRAFFIC BARRIER.
- ⑩ WHEN CHANNELIZING DEVICES ARE USED TO SEPARATE OPPOSING TRAFFIC, TWO-WAY TRAFFIC SIGN(S) SHALL BE REPEATED EVERY MILE.
- ⑪ WHEN TEMPORARY TRAFFIC BARRIER IS CONTINUOUS THROUGHOUT THE CLOSURE ZONE, THESE SIGNS SHALL BE ELIMINATED.
- ⑫ REVERSE TURN SIGN (W1-3) SHALL BE USED IN LIEU OF REVERSE CURVE SIGN WHEN THE ADVISORY SPEED IS 30 MPH OR LESS.
- ⑬ CHANNELIZING DEVICES SHALL BE EXTENDED BEYOND THE TRANSITION AREA FOR A DISTANCE EQUAL TO TWO TIMES THE NORMAL POSTED SPEED LIMIT.

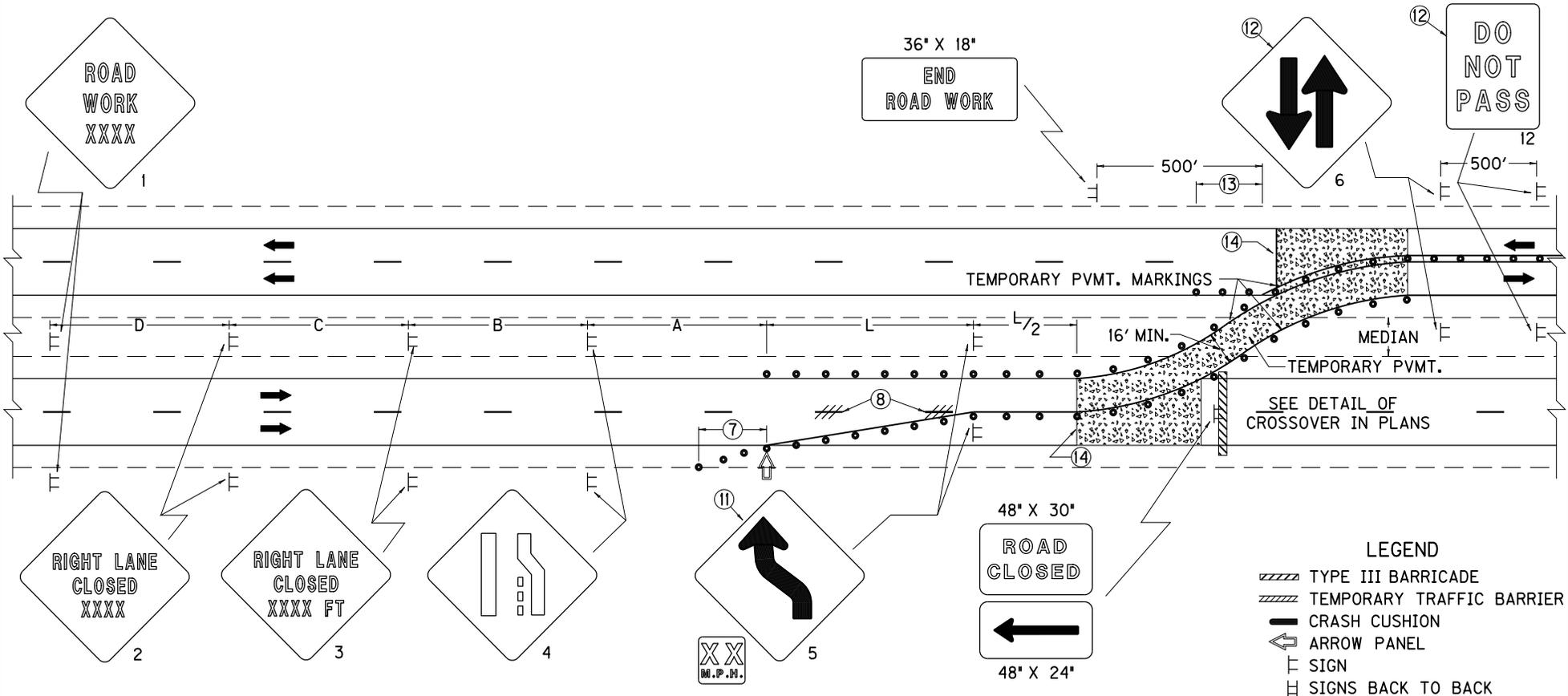
**LEGEND**

- TYPE III BARRICADE
- TEMP. TRAFFIC BARRIER
- CRASH CUSHION
- ARROW PANEL
- SIGN
- SIGNS BACK TO BACK
- CHANNELIZING DEVICES
- TEMP. TRAFFIC BARRIER DRUMS
- VERTICAL PANELS
- TUBULAR MARKERS

DRAWING NOT TO SCALE

USE WITH CURRENT STD. DWGS. TTC-140, TTD-110, AND TTC-160

<b>KENTUCKY</b>	
<b>DEPARTMENT OF HIGHWAYS</b>	
<b>MEDIAN CROSSOVER</b>	
<b>CASE I</b>	
<b>STANDARD DRAWING NO. TTC-141-01</b>	
SUBMITTED <i>Dennis H. Johnson</i>	11-21-07
<small>DIRECTOR, DIVISION OF TRAFFIC OPERATIONS</small>	<small>DATE</small>
APPROVED <i>Matthew A. Anderson</i>	11-21-07
<small>STATE HIGHWAY ENGINEER</small>	<small>DATE</small>



1. THE SIZE OF SIGNS 1 THRU 11 SHALL BE 48" X 48" IF THE NORMAL POSTED SPEED LIMIT IS 45 MPH OR GREATER. OTHERWISE, 36" X 36" SIGNS MAY BE USED. THE SIZE OF SIGNS 12 AND 13 SHALL BE 36" X 48" IF THE NORMAL POSTED SPEED LIMIT IS 45 MPH OR GREATER. OTHERWISE, 24" X 30" SIGNS MAY BE USED.
2. THE ADVISORY SPEED LIMIT ON SIGNS 5 AND 7 SHALL BE DETERMINED BY THE ENGINEER.
3. SPACING OF CHANNELIZING DEVICES THRU THE TAPER AREAS SHOULD BE 40'. SPACING OF DEVICES THRU THE REMAINDER OF THE CLOSURE SHOULD BE 80'.
4. ARROW PANELS SHALL BE LOCATED ON THE SHOULDERS AT THE BEGINNING OF THE MERGING TAPERS OR LOCATED IN THE CLOSED LANE BEHIND CHANNELIZING DEVICES WHEN SHOULDERS ARE NARROW.
5. TEMPORARY PAVEMENT MARKINGS SHALL BE APPLIED AND MAINTAINED ON THE ROADWAY THROUGHOUT THE LIMITS OF THE CROSSOVER.

- LEGEND**
- ▨ TYPE III BARRICADE
  - ▨ TEMPORARY TRAFFIC BARRIER
  - ▬ CRASH CUSHION
  - ⇐ ARROW PANEL
  - ⊥ SIGN
  - ⊥⊥ SIGNS BACK TO BACK
  - CHANNELIZING DEVICES
  - ▨ TEMP. TRAFFIC BARRIER DRUMS
  - ▨ VERTICAL PANELS
  - ▨ TUBULAR MARKERS

DRAWING NOT TO SCALE

USE WITH CURRENT STD. DWGS. TTC-146, TTD-110, AND TTC-160

**APPLICATION**

THIS DRAWING APPLIES TO A MEDIAN CROSSOVER ON MULTI-LANE HIGHWAYS WITH A MEDIAN WIDTH GREATER THAN 10 FEET.

SIGNING AND SPACING TABLE					
ROAD TYPE	A	B	C	D	L
EXPRESSWAY/ FREEWAY	1000'	500'	1100'	2600'	840'
SP. LT. ≥ 45 MPH*	500'	500'	500'	1100'	680'
SP. LT. ≤ 40 MPH*	250'	250'	500'	500'	320'

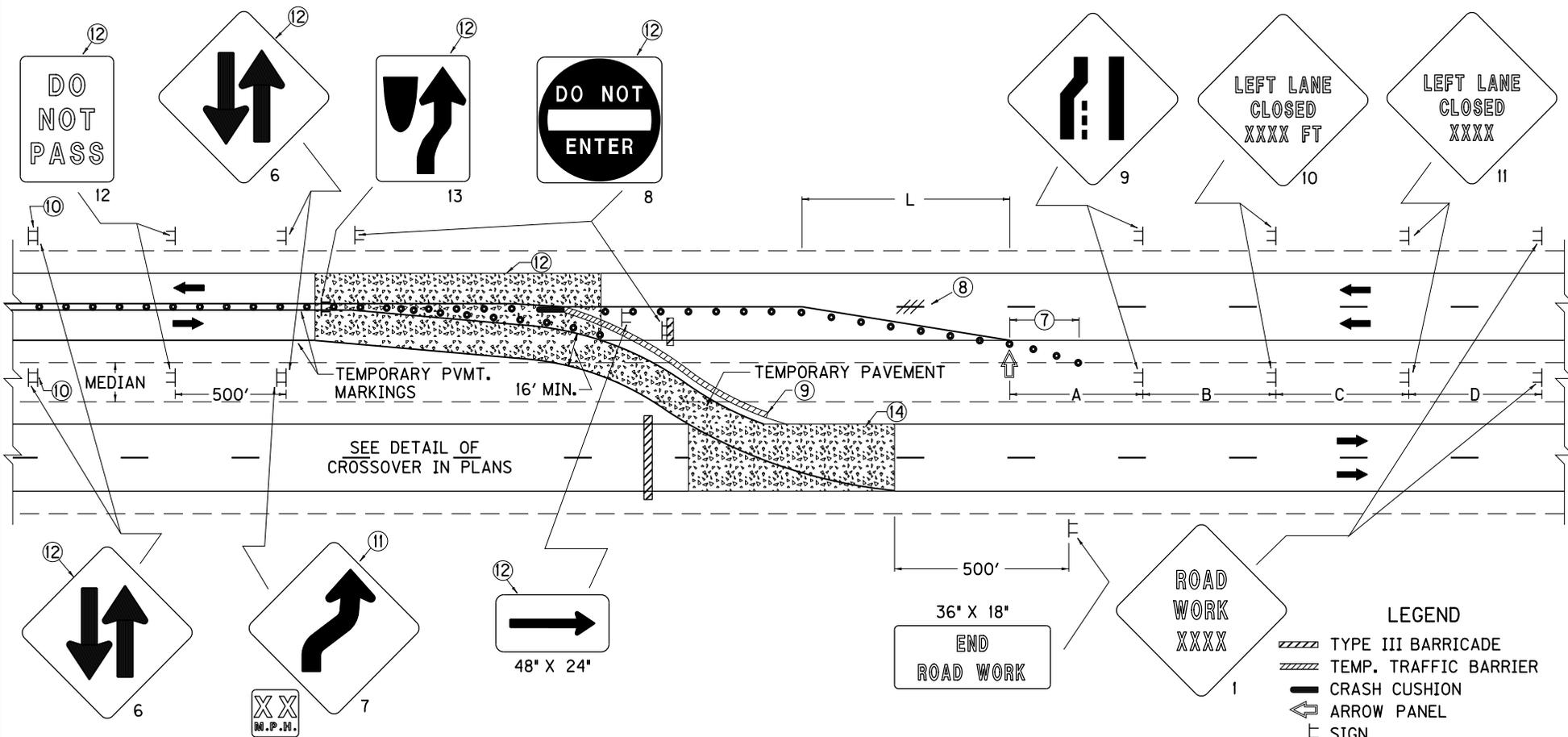
\*NOTE: USE NORMAL POSTED SPEED LIMIT

KENTUCKY  
DEPARTMENT OF HIGHWAYS

MEDIAN CROSSOVER  
CASE II

STANDARD DRAWING NO. TTC-145-01  
 SUBMITTED *Dennis H. Johnson* 11-21-07  
 DIRECTOR, DIVISION OF TRAFFIC OPERATIONS DATE  
 APPROVED *Matthew W. Matthews* 11-21-07  
 STATE HIGHWAY ENGINEER DATE

(CONTINUED ON CURRENT STD. DWG. TTC-146)



(CONTINUED FROM CURRENT STD. DWG. [TTC-145](#))

- 6. CRASH CUSHION SHALL BE INSTALLED PARALLEL TO THE APPROACH LANE OF TRAFFIC.
- 7. IF AN ARROW PANEL IS INSTALLED ON THE SHOULDER OR WITHIN THE CLEAR ZONE, A SHOULDER TAPER SHALL BE REQUIRED. TAPER LENGTH SHALL BE 0.33 L. SPACING OF CHANNELIZING DEVICES THRU THE SHOULDER TAPER SHOULD BE 40'.
- 8. OBLITERATE SKIP LINES THRU THE LENGTH OF TAPERS BY APPROVED METHOD. OTHER CONFLICTING PAVEMENT MARKINGS SHALL BE OBLITERATED.
- 9. CRASH CUSHION SHALL BE REQUIRED WHEN THE END OF THE BARRIER WALL IS WITHIN CLEAR ZONE (REFER TO ROADSIDE DESIGN GUIDE).
- 10. WHEN CHANNELIZING DEVICES ARE USED TO SEPARATE OPPOSING TRAFFIC, TWO-WAY TRAFFIC SIGN(S) SHALL BE REPEATED EVERY MILE.
- 11. REVERSE TURN SIGN (W1-3) SHALL BE USED IN LIEU OF REVERSE CURVE SIGN WHEN THE ADVISORY SPEED IS 30 MPH OR LESS.
- 12. WHEN TEMPORARY TRAFFIC BARRIER IS CONTINUOUS THROUGHOUT THE CLOSURE ZONE, THESE SIGNS SHALL BE ELIMINATED.
- 13. CHANNELIZING DEVICES SHALL BE EXTENDED BEYOND THE TRANSITION AREA FOR A DISTANCE EQUAL TO TWO TIMES THE NORMAL POSTED SPEED LIMIT.
- 14. THIN ASPHALT OVERLAY TO BE USED AS DIRECTED BY THE ENGINEER.

**LEGEND**

- TYPE III BARRICADE
- TEMP. TRAFFIC BARRIER
- CRASH CUSHION
- ARROW PANEL
- SIGN
- SIGNS BACK TO BACK
- CHANNELIZING DEVICES
- TEMP. TRAFFIC BARRIER DRUMS
- VERTICAL PANELS
- TUBULAR MARKERS

DRAWING NOT TO SCALE

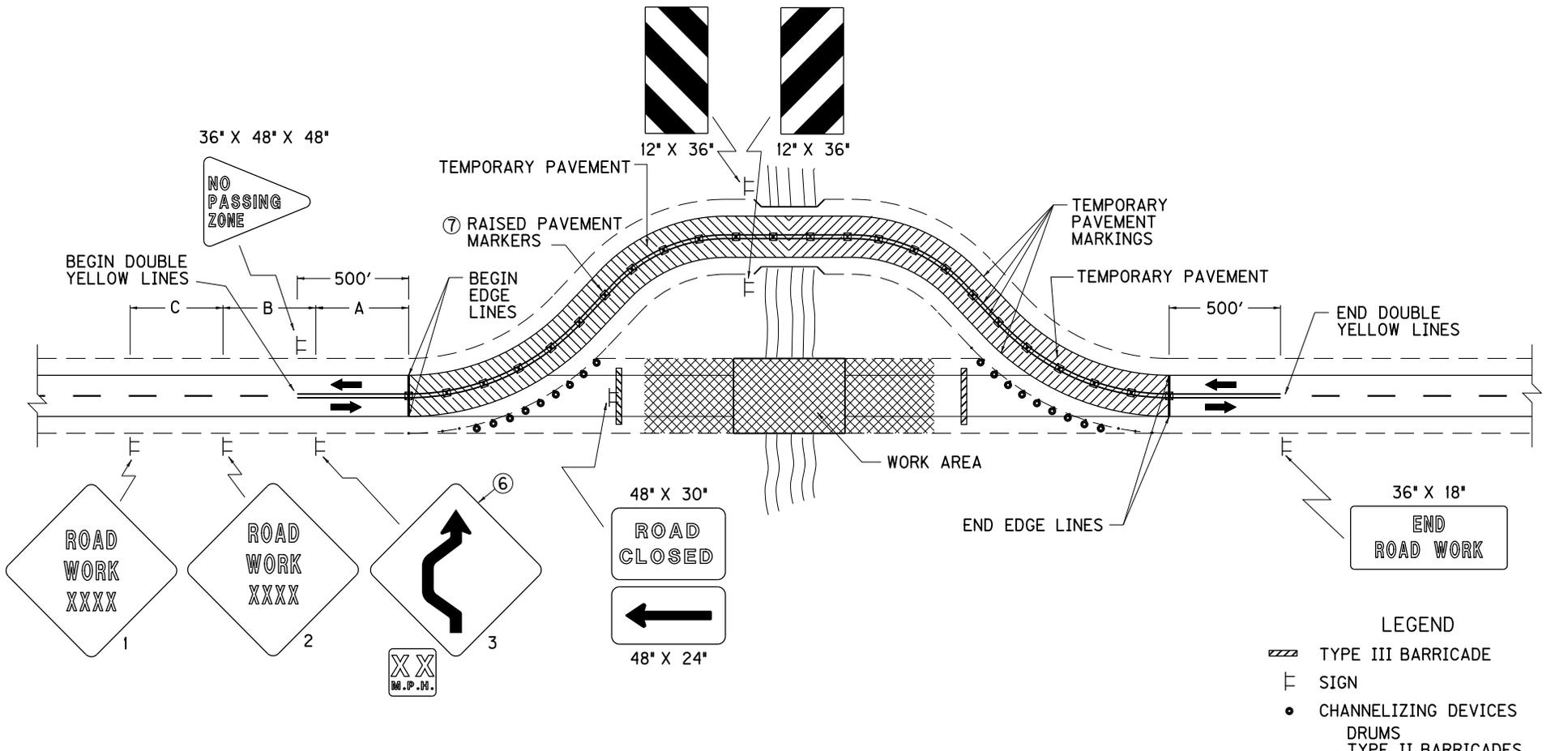
USE WITH CURRENT STD. DWGS. [TTC-145](#), [TTD-110](#), AND [TTC-160](#)

**KENTUCKY  
DEPARTMENT OF HIGHWAYS**

**MEDIAN CROSSOVER  
CASE II**

STANDARD DRAWING NO. [TTC-146-01](#)

SUBMITTED <i>Dennis H. Johnson</i>	11-21-07
<small>DIRECTOR, DIVISION OF TRAFFIC OPERATIONS</small>	<small>DATE</small>
APPROVED <i>Matthew A. Johnson</i>	11-21-07
<small>STATE HIGHWAY ENGINEER</small>	<small>DATE</small>



1. DEVICES SIMILAR TO THOSE DEPICTED SHALL BE PLACED FOR OPPOSITE DIRECTION OF TRAVEL.
2. THE SIZE OF SIGNS 1 THRU 3 SHALL BE 48" X 48" IF THE SPEED LIMIT IS 45 MPH OR GREATER. OTHERWISE, 36" X 36" SIGNS MAY BE USED.
3. THE ADVISORY SPEED LIMIT ON SIGN 3 SHALL BE DETERMINED BY THE ENGINEER.
4. PAVEMENT MARKINGS WHICH ARE NO LONGER APPLICABLE SHALL BE OBLITERATED BY AN APPROVED METHOD.
5. SPACING OF CHANNELIZING DEVICES SHOULD NOT EXCEED 20'.
- ⑥ IF THE TANGENT DISTANCE ALONG THE TEMPORARY DIVERSION IS MORE THAN 600 FEET, A REVERSE CURVE SIGN, LEFT FIRST, SHOULD BE USED INSTEAD OF THE DOUBLE REVERSE CURVE SIGN, AND A SECOND REVERSE CURVE SIGN, RIGHT FIRST, SHOULD BE PLACED IN ADVANCE OF THE SECOND REVERSE CURVE BACK TO THE ORIGINAL ALIGNMENT. WHEN THE TANGENT SECTION OF THE DIVERSION IS MORE THAN 600 FEET, AND THE DIVERSION HAS SHARP CURVES WITH RECOMMENDED SPEEDS OF 30 MPH OR LESS, REVERSE TURN SIGNS SHOULD BE USED.
- ⑦ RAISED PAVEMENT MARKERS ARE REQUIRED ONLY FOR HARD SURFACE ROADWAYS. TYPE IVA MARKERS SHALL BE MAINTAINED THROUGHOUT THE ENTIRE LIMITS OF THE DIVERSION AT A SPACING OF 20'.

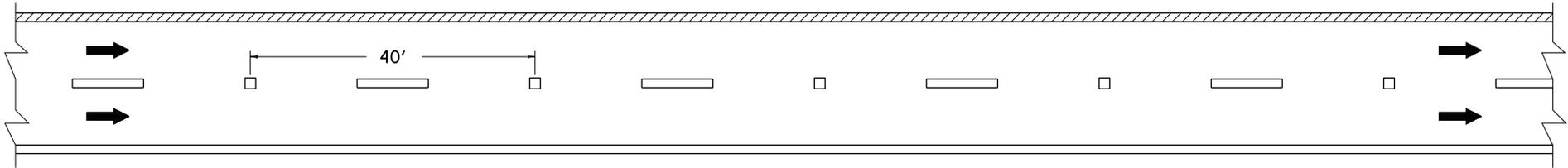
SIGNING AND SPACING TABLE			
ROAD TYPE	A	B	C
EXPRESSWAY/ FREEWAY	1000'	1600'	2600'
SP. LT. ≥ 45 MPH*	500'	500'	500'
SP. LT. ≤ 40 MPH*	250'	250'	500'

\*NOTE: USE NORMAL POSTED SPEED LIMIT

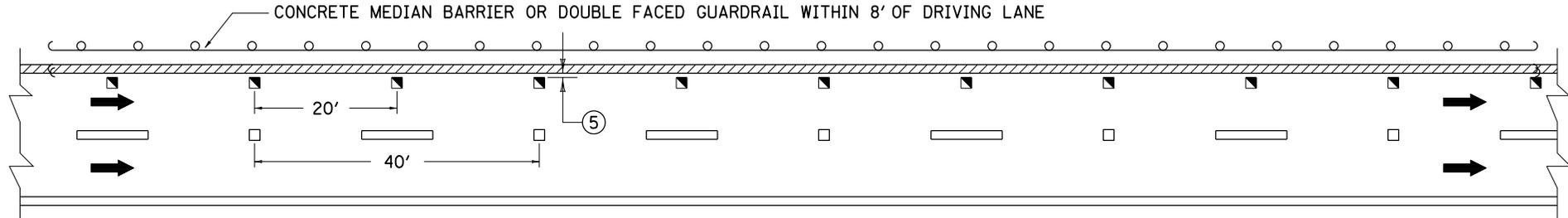
- LEGEND**
- TYPE III BARRICADE
  - SIGN
  - CHANNELIZING DEVICES  
DRUMS  
TYPE II BARRICADES
  - PAVEMENT MARKERS  
TYPE IVA  
(BI-DIRECTIONAL YELLOW)

DRAWING NOT TO SCALE  
USE WITH CURRENT STD. DWG.  
TTD-110

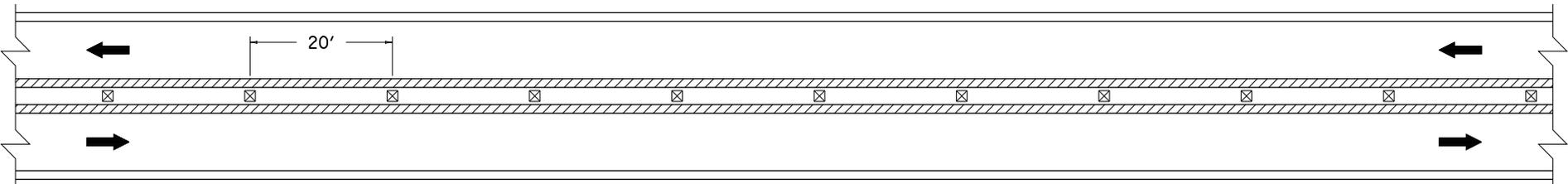
<b>KENTUCKY DEPARTMENT OF HIGHWAYS</b>	
<b>ROAD CLOSURE WITH DIVERSION</b>	
STANDARD DRAWING NO. TTC-150-01	
SUBMITTED <i>Dennis H. Johnson</i>	11-21-07 DATE
<small>DIRECTOR, DIVISION OF TRAFFIC OPERATIONS</small>	
APPROVED <i>Matthew A. [Signature]</i>	11-21-07 DATE
<small>STATE HIGHWAY ENGINEER</small>	



ARRANGEMENT "A" (WHITE LANE LINES)



ARRANGEMENT "B" (MEDIAN EDGE LINE WHEN CONCRETE MEDIAN BARRIER OR DOUBLE FACED GUARDRAIL IS WITHIN 8' OF DRIVING LANE)



ARRANGEMENT "C" (DOUBLE YELLOW CENTER LINES)

**GENERAL NOTES**

1. NO TEMPORARY PAVEMENT MARKERS SHALL BE APPLIED TO FINAL PAVED SURFACES EXCEPT IN TRANSITION AREAS, WHERE MARKERS WILL BE INSTALLED IN ACCORDANCE WITH THESE ARRANGEMENTS AND AS DIRECTED BY THE ENGINEER.
2. BI-DIRECTIONAL MARKERS, (WHITE-RED) OR (YELLOW-RED), MAY BE USED IN LIEU OF MONO-DIRECTIONAL MARKERS IF RED FACE WILL NOT BE VISIBLE TO OPPOSING TRAFFIC IN THEIR NORMAL TRAVEL LANE.
3. MARKERS INSTALLED AT DOUBLE YELLOW CENTERLINES SHALL BE PLACED BETWEEN THE TWO LINES.
4. MARKERS INSTALLED ALONG LANE LINES SHALL BE PLACED BETWEEN AND IN LINE WITH THE SKIPS.
- ⑤ MARKERS INSTALLED ALONG EDGE LINES SHALL BE PLACED SO THAT THE NEAR EDGE OF THE MARKER IS NO MORE THAN 1" FROM THE NEAR EDGE OF THE LINE.

LEGEND	
⊗	TYPE IVA BI-DIRECTIONAL (YELLOW)
■	TYPE IVA MONO-DIRECTIONAL (YELLOW)
□	TYPE IVA MONO-DIRECTIONAL (WHITE)
▨	MARKINGS (YELLOW)
▭	MARKINGS (WHITE)

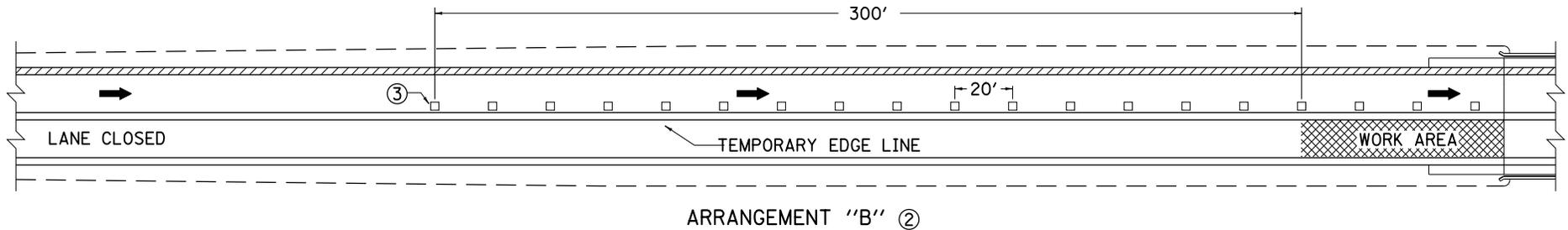
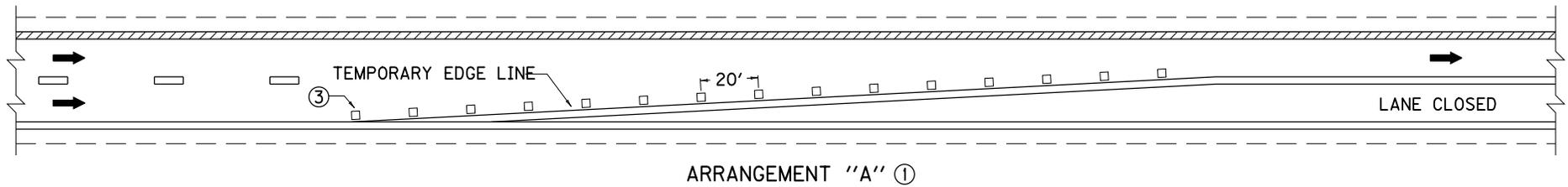
DRAWING NOT TO SCALE

KENTUCKY  
DEPARTMENT OF HIGHWAYS

TEMPORARY PAVEMENT  
MARKER ARRANGEMENTS  
FOR CONSTRUCTION ZONES

STANDARD DRAWING NO. TTC-155-01

SUBMITTED *Dennis H. Shover* 11-21-07  
DIRECTOR, DIVISION OF TRAFFIC OPERATIONS DATE  
APPROVED *Matthew M. Matthews* 11-21-07  
STATE HIGHWAY ENGINEER DATE



### APPLICATION

THIS DRAWING APPLIES TO LANE CLOSURE TRANSITIONS OR CASES WHERE DELINEATION IS DESIRABLE WITHIN LANE CLOSURES ON MULTI-LANE HIGHWAYS. THE DRAWINGS DEPICT LANE CLOSURES IN THE OUTSIDE LANE. WHEN THE INSIDE LANE IS CLOSED, THE SAME PRINCIPLES APPLY, EXCEPT MONO-DIRECTIONAL (YELLOW) MARKINGS SHALL BE USED. BI-DIRECTIONAL MARKERS, (WHITE-RED) OR (YELLOW-RED), MAY BE USED IN LIEU OF MONO-DIRECTIONAL MARKERS IF RED FACE WILL NOT BE VISIBLE TO OPPOSING TRAFFIC IN THEIR NORMAL TRAVEL LANE.

THIS STANDARD DRAWING SHALL BE USED IN CONJUNCTION WITH THE APPROPRIATE STANDARD DRAWING FOR THE LANE CLOSURE.

### GENERAL NOTES

- ① ARRANGEMENT "A" SHALL BE APPLIED WHEN THE LANE CLOSURE IS TO BE IN EFFECT AT THE SAME LOCATION FOR FOUR (4) DAYS OR GREATER AND THE EXISTING ADT IS 5,000 OR GREATER.
- ② ARRANGEMENT "B" SHALL BE APPLIED WHEN THE EXISTING PAVEMENT HAS BEEN REMOVED ADJACENT TO TRAFFIC (INCLUDING BRIDGE ENDS AND OTHER SPOT IMPROVEMENTS).
- ③ MARKERS INSTALLED ALONG EDGE LINES SHALL BE PLACED SO THAT THE NEAR EDGE OF THE CASTING IS NO MORE THAN 1" FROM THE NEAR EDGE OF THE LINE.

LEGEND	
□	TYPE IVA MONO-DIRECTIONAL (WHITE)
▨	MARKINGS (YELLOW)
▭	MARKINGS (WHITE)

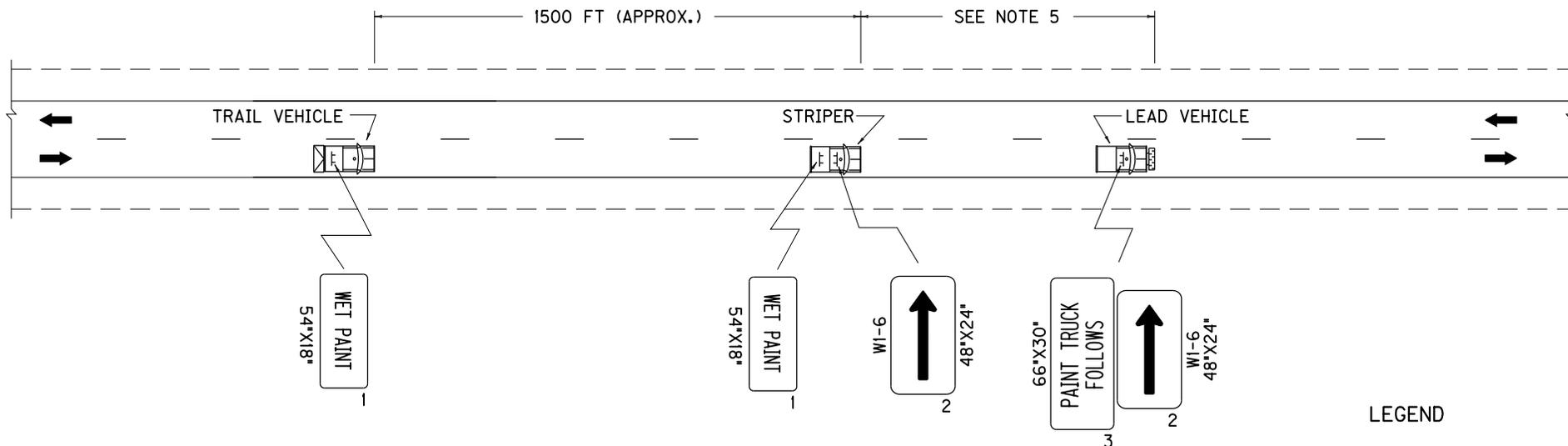
DRAWING NOT TO SCALE

**KENTUCKY  
DEPARTMENT OF HIGHWAYS**

**TEMPORARY PAVEMENT  
MARKER ARRANGEMENTS  
FOR LANE CLOSURES**

**STANDARD DRAWING NO. TTC-160-01**

SUBMITTED <i>Dennis H. Shuman</i>	11-21-07
<small>DIRECTOR, DIVISION OF TRAFFIC OPERATIONS</small>	<small>DATE</small>
APPROVED <i>Matthew M. [Signature]</i>	11-21-07
<small>STATE HIGHWAY ENGINEER</small>	<small>DATE</small>



**LEGEND**

- ⊠ SIGN
- ⊠ TRUCK MOUNTED ATTENUATOR
- ⊠ SWEEPER/BLOWER

1. SIGNS 1 THRU 3 SHALL HAVE A BLACK BORDER AND LEGEND ON A BACKGROUND OF FLOURESCENT ORANGE SHEETING.
2. ALL VEHICLES IN THE STRIPING TRAIN SHALL BE EQUIPPED WITH HIGH-INTENSITY ROTATING, FLASHING, OSCILLATING, OR STROBE LIGHTS ON THE CAB.
3. THE LAST TRAIL VEHICLE IN THE STRIPING TRAIN SHALL BE EQUIPPED WITH A T.M.A. IF LANES ARE 10' WIDE OR GREATER.
4. THE LEAD VEHICLE SHALL MAINTAIN VISUAL CONTACT WITH THE STRIPER WHENEVER POSSIBLE TO COORDINATE ON AND OFF THE ROAD MANEUVERS. THE STRIPING TRAIN SHALL BE REQUIRED TO PULL OFF THE ROADWAY PERIODICALLY TO ALLEVIATE TRAFFIC CONGESTION.
5. TWO-WAY RADIO COMMUNICATION SHALL BE MAINTAINED BETWEEN ALL VEHICLES IN THE STRIPING TRAIN.
6. ADDITIONAL VEHICLES MAY BE ADDED TO THE STRIPING TRAIN AS NEEDED TO PROTECT THE FRESHLY PAINTED LINE.
7. THE SPACING BETWEEN VEHICLES IN THE WORK TRAIN SHOULD BE ADJUSTED, AS NEEDED, TO PROVIDE ADEQUATE SIGHT DISTANCE TO APPROACHING VEHICLES AND TO PROTECT THE FRESHLY APPLIED LINE.
8. VEHICLE-MOUNTED SIGNS SHALL BE MOUNTED IN A MANNER SUCH THAT THEY ARE NOT OBSCURED BY EQUIPMENT OR SUPPLIES. SIGN LEGENDS ON VEHICLE-MOUNTED SIGNS SHALL BE COVERED OR TURNED FROM VIEW WHEN WORK IS NOT IN PROGRESS. IF AN ARROW PANEL IS USED, IT SHALL BE USED IN THE CAUTION MODE.

APPLICATION

THIS DRAWING APPLIES TO STRIPING OPERATIONS ON TWO-LANE, TWO-WAY ROADWAYS INVOLVING THE PLACEMENT OF EDGE LINES ONLY.

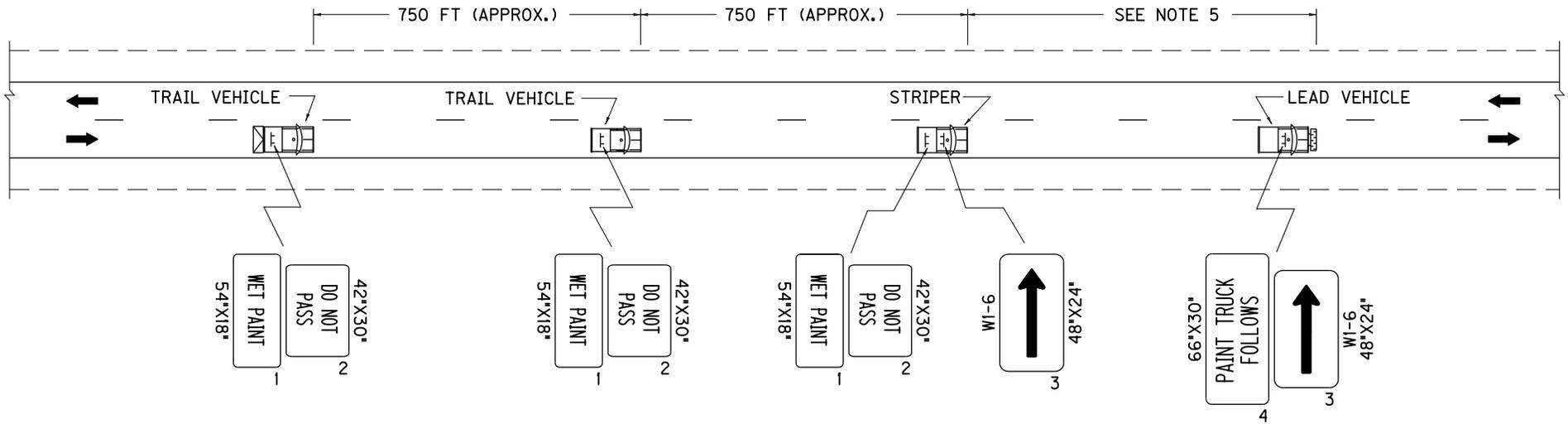
DRAWING NOT TO SCALE

**KENTUCKY  
DEPARTMENT OF HIGHWAYS**

**MOBILE OPERATION  
FOR PAINT STRIPING  
CASE I**

STANDARD DRAWING NO. TTS-100-01

SUBMITTED *Dennis H. Shuman* 11-21-07  
DIRECTOR, DIVISION OF TRAFFIC OPERATIONS DATE  
 APPROVED *M. Anderson* 11-21-07  
STATE HIGHWAY ENGINEER DATE



**LEGEND**

- ⊢ SIGN
- ☒ TRUCK MOUNTED ATTENUATOR
- ☒ SWEEPER/BLOWER

1. SIGNS 1, 3, AND 4 SHALL HAVE A BLACK BORDER AND LEGEND ON A BACKGROUND OF FLUORESCENT ORANGE SHEETING. SIGN 2 SHALL HAVE A BLACK BORDER AND LEGEND ON A BACKGROUND OF REFLECTIVE WHITE SHEETING.
2. ALL VEHICLES IN THE STRIPING TRAIN SHALL BE EQUIPPED WITH HIGH-INTENSITY ROTATING, FLASHING, OSCILLATING, OR STROBE LIGHTS ON THE CAB.
3. THE LAST TRAIL VEHICLE IN THE STRIPING TRAIN SHALL BE EQUIPPED WITH A T.M.A. IF LANES ARE 10' WIDE OR GREATER.
4. THE LEAD VEHICLE SHALL MAINTAIN VISUAL CONTACT WITH THE STRIPER WHENEVER POSSIBLE TO COORDINATE ON AND OFF THE ROAD MANEUVERS. THE STRIPING TRAIN SHALL BE REQUIRED TO PULL OFF THE ROADWAY PERIODICALLY TO ALLEVIATE TRAFFIC CONGESTION.
5. TWO-WAY RADIO COMMUNICATION SHALL BE MAINTAINED BETWEEN ALL VEHICLES IN THE STRIPING TRAIN.
6. ADDITIONAL VEHICLES MAY BE ADDED TO THE STRIPING TRAIN AS NEEDED TO PROTECT THE FRESHLY PAINTED LINE.
7. THE SPACING BETWEEN VEHICLES IN THE WORK TRAIN SHOULD BE ADJUSTED, AS NEEDED, TO PROVIDE ADEQUATE SIGHT DISTANCE TO APPROACHING VEHICLES AND TO PROTECT THE FRESHLY APPLIED LINE.
8. VEHICLE-MOUNTED SIGNS SHALL BE MOUNTED IN A MANNER SUCH THAT THEY ARE NOT OBSCURED BY EQUIPMENT OR SUPPLIES. SIGN LEGENDS ON VEHICLE-MOUNTED SIGNS SHALL BE COVERED OR TURNED FROM VIEW WHEN WORK IS NOT IN PROGRESS. IF AN ARROW PANEL IS USED, IT SHALL BE USED IN THE CAUTION MODE.

**APPLICATION**

THIS DRAWING APPLIES TO STRIPING OPERATIONS ON TWO-LANE, TWO-WAY ROADWAYS INVOLVING THE PLACEMENT OF EITHER THE CENTERLINE ONLY OR A COMBINATION OF THE CENTERLINE AND EDGE LINE.

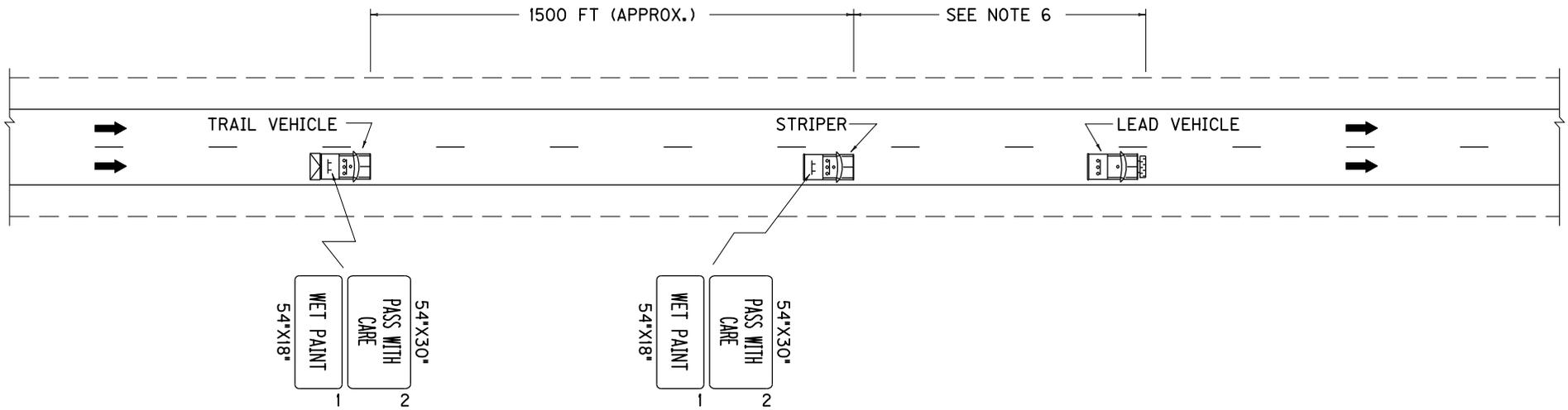
DRAWING NOT TO SCALE

**KENTUCKY  
DEPARTMENT OF HIGHWAYS**

**MOBILE OPERATION  
FOR PAINT STRIPING  
CASE II**

STANDARD DRAWING NO. TTS-105-01

SUBMITTED *Dennis H. Johnson* 11-21-07  
DIRECTOR, DIVISION OF TRAFFIC OPERATIONS DATE  
 APPROVED *Matthew M. Anderson* 11-21-07  
STATE HIGHWAY ENGINEER DATE



**LEGEND**

- ⊞ FLASHING ARROW PANELS
- ⊞ SIGN
- ⊞ TRUCK MOUNTED ATTENUATOR
- ⊞ SWEEPER/BLOWER

1. FLASH ARROW PANELS TO DIRECT TRAFFIC RIGHT OR LEFT AS APPROPRIATE. FLASHING ARROW PANELS SHALL BE TYPE B (60"X30") OR LARGER.
2. SIGN 1 SHALL HAVE A BLACK BORDER AND LEGEND ON A BACKGROUND OF FLOURESCENT ORANGE SHEETING. SIGN 2 SHALL HAVE A BLACK BORDER AND LEGEND ON A BACKGROUND OF REFLECTIVE WHITE SHEETING.
3. ALL VEHICLES IN THE STRIPING TRAIN SHALL BE EQUIPPED WITH HIGH-INTENSITY ROTATING, FLASHING, OSCILLATING, OR STROBE LIGHTS ON THE CAB.
4. THE LAST TRAIL VEHICLE IN THE STRIPING TRAIN SHALL BE EQUIPPED WITH A T.M.A. IF LANES ARE 10' WIDE OR GREATER.
5. THE LEAD VEHICLE SHALL MAINTAIN VISUAL CONTACT WITH THE STRIPER.
6. TWO-WAY RADIO COMMUNICATION SHALL BE MAINTAINED BETWEEN ALL VEHICLES IN THE STRIPING TRAIN.
7. ADDITIONAL VEHICLES MAY BE ADDED TO THE STRIPING TRAIN AS NEEDED TO PROTECT THE FRESHLY PAINTED LINE.
8. THE SPACING BETWEEN VEHICLES IN THE WORK TRAIN SHOULD BE ADJUSTED, AS NEEDED, TO PROVIDE ADEQUATE SIGHT DISTANCE TO APPROACHING VEHICLES AND TO PROTECT THE FRESHLY APPLIED LINE.
9. VEHICLE-MOUNTED SIGNS SHALL BE MOUNTED IN A MANNER SUCH THAT THEY ARE NOT OBSCURED BY EQUIPMENT OR SUPPLIES. SIGN LEGENDS ON VEHICLE-MOUNTED SIGNS SHALL BE COVERED OR TURNED FROM VIEW WHEN WORK IS NOT IN PROGRESS.

APPLICATION

THIS DRAWING APPLIES TO PAINT STRIPING OPERATIONS ON MULTI-LANE ROADWAYS INVOLVING THE PLACEMENT OF EDGE LINES ONLY.

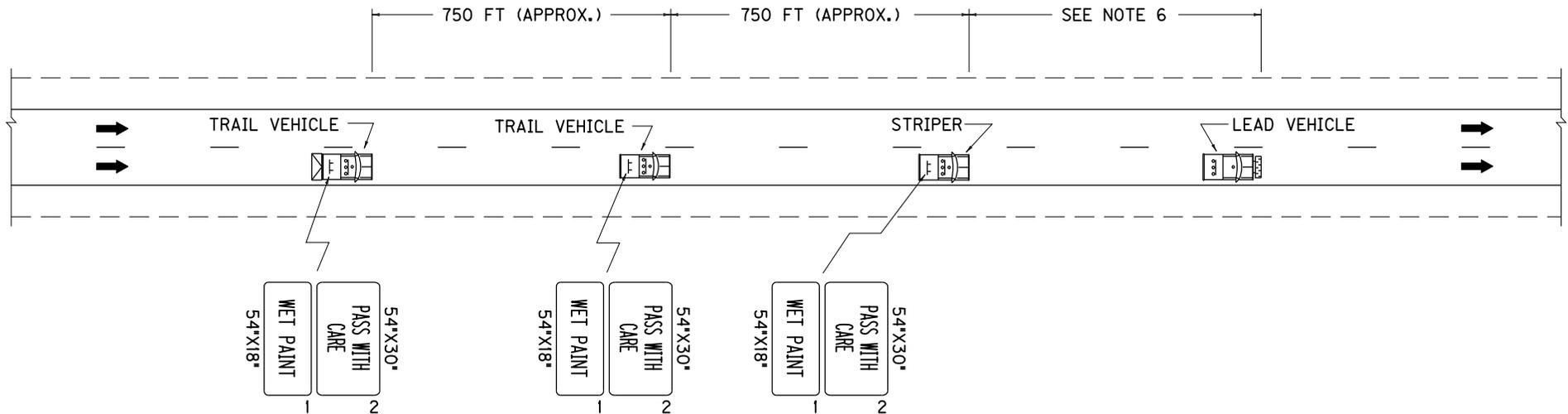
DRAWING NOT TO SCALE

**KENTUCKY  
DEPARTMENT OF HIGHWAYS**

**MOBILE OPERATION  
FOR PAINT STRIPING  
CASE III**

STANDARD DRAWING NO. TTS-110-01

SUBMITTED *Dennis H. Johnson* 11-21-07  
DIRECTOR, DIVISION OF TRAFFIC OPERATIONS DATE  
 APPROVED *Maryellen M. Anderson* 11-21-07  
STATE HIGHWAY ENGINEER DATE



**LEGEND**

- ⏏ FLASHING ARROW PANELS
- ⊠ SIGN
- ⊠ TRUCK MOUNTED ATTENUATOR
- ⊠ SWEEPER/BLOWER

1. FLASH ARROW PANELS TO DIRECT TRAFFIC RIGHT OR LEFT AS APPROPRIATE. FLASHING ARROW PANELS SHALL BE TYPE B (60"x30") OR LARGER.
2. SIGN 1 SHALL HAVE A BLACK BORDER AND LEGEND ON A BACKGROUND OF FLUORESCENT ORANGE SHEETING. SIGN 2 SHALL HAVE A BLACK BORDER AND LEGEND ON A BACKGROUND OF REFLECTIVE WHITE SHEETING.
3. ALL VEHICLES IN THE STRIPING TRAIN SHALL BE EQUIPPED WITH HIGH-INTENSITY ROTATING, FLASHING, OSCILLATING, OR STROBE LIGHTS ON THE CAB.
4. THE LAST TRAIL VEHICLE IN THE STRIPING TRAIN SHALL BE EQUIPPED WITH A T.M.A. IF LANES ARE 10' WIDE OR GREATER.
5. THE LEAD VEHICLE SHALL MAINTAIN VISUAL CONTACT WITH THE STRIPER.
6. TWO-WAY RADIO COMMUNICATION SHALL BE MAINTAINED BETWEEN ALL VEHICLES IN THE STRIPING TRAIN.
7. ADDITIONAL VEHICLES MAY BE ADDED TO THE STRIPING TRAIN AS NEEDED TO PROTECT THE FRESHLY PAINTED LINE.
8. THE SPACING BETWEEN VEHICLES IN THE WORK TRAIN SHOULD BE ADJUSTED, AS NEEDED, TO PROVIDE ADEQUATE SIGHT DISTANCE TO APPROACHING VEHICLES AND TO PROTECT THE FRESHLY APPLIED LINE.
9. VEHICLE-MOUNTED SIGNS SHALL BE MOUNTED IN A MANNER SUCH THAT THEY ARE NOT OBSCURED BY EQUIPMENT OR SUPPLIES. SIGN LEGENDS ON VEHICLE-MOUNTED SIGNS SHALL BE COVERED OR TURNED FROM VIEW WHEN WORK IS NOT IN PROGRESS.

**APPLICATION**

THIS DRAWING APPLIES TO PAINT STRIPING OPERATIONS ON MULTI-LANE ROADWAYS INVOLVING EITHER THE PLACEMENT OF LANE LINES ONLY OR A COMBINATION OF LANE LINES AND EDGE LINES.

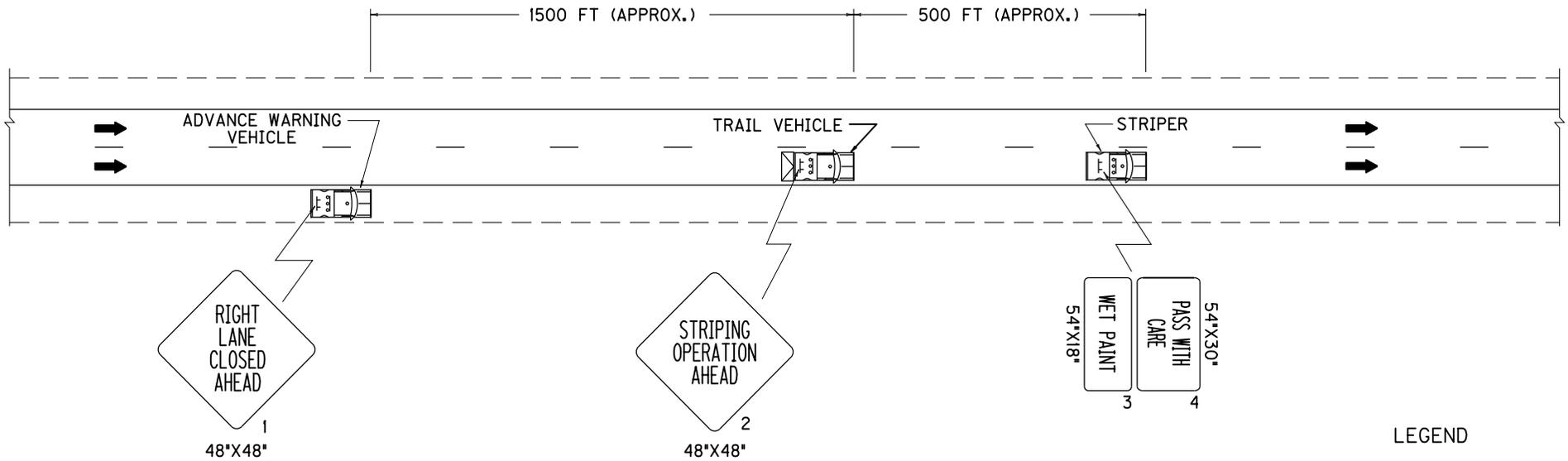
DRAWING NOT TO SCALE

**KENTUCKY  
DEPARTMENT OF HIGHWAYS**

**MOBILE OPERATION  
FOR PAINT STRIPING  
CASE IV**

STANDARD DRAWING NO. TTS-115-01

SUBMITTED *Dennis H. Johnson* 11-21-07  
DIRECTOR, DIVISION OF TRAFFIC OPERATIONS DATE  
 APPROVED *Matthew M. Anderson* 11-21-07  
STATE HIGHWAY ENGINEER DATE



LEGEND

- ⊠ FLASHING ARROW PANEL
- ⊠ SIGN
- ⊠ TRUCK MOUNTED ATTENUATOR

1. FLASH ARROW PANELS TO DIRECT TRAFFIC RIGHT OR LEFT AS APPROPRIATE. FLASHING ARROW PANELS SHALL BE TYPE B (60\"X30\") OR LARGER.
2. SIGNS 1 THRU 3 SHALL HAVE A BLACK BORDER AND LEGEND ON A BACKGROUND OF FLUORESCENT ORANGE SHEETING. SIGN 4 SHALL HAVE A BLACK BORDER AND LEGEND ON A BACKGROUND OF REFLECTIVE WHITE SHEETING.
3. ALL VEHICLES IN THE STRIPING TRAIN SHALL BE EQUIPPED WITH HIGH-INTENSITY ROTATING, FLASHING, OSCILLATING, OR STROBE LIGHTS ON THE CAB.
4. THE LAST TRAIL VEHICLE IN THE WORK TRAIN SHALL BE EQUIPPED WITH A T.M.A. IF LANES ARE 10' WIDE OR GREATER.
5. TWO-WAY RADIO COMMUNICATION SHALL BE MAINTAINED BETWEEN ALL VEHICLES IN THE WORK TRAIN.
6. THE SPACING BETWEEN VEHICLES IN THE WORK TRAIN SHOULD BE ADJUSTED, AS NEEDED, TO PROVIDE ADEQUATE SIGHT DISTANCE TO APPROACHING VEHICLES AND TO PROTECT THE FRESHLY APPLIED LINE.
7. VEHICLE-MOUNTED SIGNS SHALL BE MOUNTED IN A MANNER SUCH THAT THEY ARE NOT OBSCURED BY EQUIPMENT OR SUPPLIES. SIGN LEGENDS ON VEHICLE-MOUNTED SIGNS SHALL BE COVERED OR TURNED FROM VIEW WHEN WORK IS NOT IN PROGRESS.

APPLICATION

THIS DRAWING APPLIES TO DURABLE STRIPING OPERATIONS ON MULTI-LANE ROADWAYS INVOLVING THE CLOSURE OF ONE LANE ONLY.

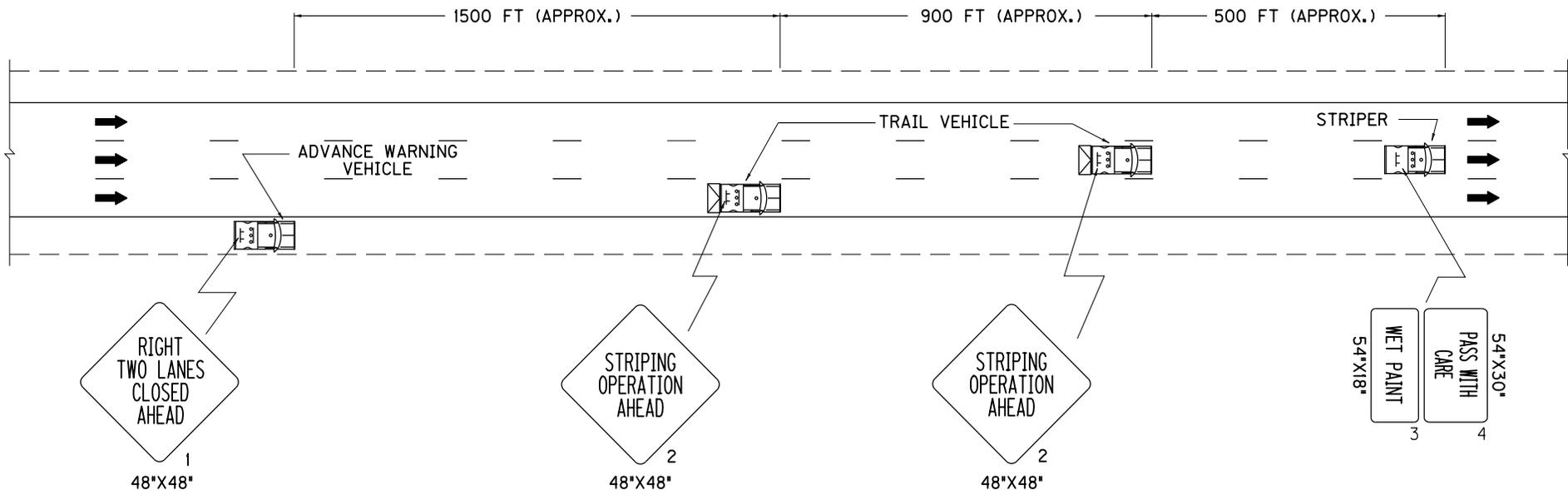
DRAWING NOT TO SCALE

KENTUCKY  
DEPARTMENT OF HIGHWAYS

MOBILE OPERATION  
FOR DURABLE STRIPING  
CASE I

STANDARD DRAWING NO. TTS-120-01

SUBMITTED *Dennis H. Johnson* 11-21-07  
DIRECTOR, DIVISION OF TRAFFIC OPERATIONS DATE  
APPROVED *Matthew M. Anderson* 11-21-07  
STATE HIGHWAY ENGINEER DATE



1. FLASH ARROW PANELS TO DIRECT TRAFFIC RIGHT OR LEFT AS APPROPRIATE. FLASHING ARROW PANELS SHALL BE TYPE B (60"x30") OR LARGER.
2. SIGNS 1 THRU 3 SHALL HAVE A BLACK BORDER AND LEGEND ON A BACKGROUND OF FLUORESCENT ORANGE SHEETING. SIGN 4 SHALL HAVE A BLACK BORDER AND LEGEND ON A BACKGROUND OF REFLECTIVE WHITE SHEETING.
3. ALL VEHICLES IN THE STRIPING TRAIN SHALL BE EQUIPPED WITH HIGH-INTENSITY ROTATING, FLASHING, OSCILLATING, OR STROBE LIGHTS ON THE CAB.
4. THE LAST TRAIL VEHICLE IN THE WORK TRAIN SHALL BE EQUIPPED WITH A T.M.A. IF LANES ARE 10' WIDE OR GREATER.
5. WHEN MORE THAN TWO LANES ARE TO BE CLOSED, SIGN 1 SHALL AGREE WITH THE NUMBER OF LANES CLOSED AND ADDITIONAL TRAIL VEHICLES SHALL BE USED.
6. TWO-WAY RADIO COMMUNICATION SHALL BE MAINTAINED BETWEEN ALL VEHICLES IN THE WORK TRAIN.
7. THE SPACING BETWEEN VEHICLES IN THE WORK TRAIN SHOULD BE ADJUSTED, AS NEEDED, TO PROVIDE ADEQUATE SIGHT DISTANCE TO APPROACHING VEHICLES AND TO PROTECT THE FRESHLY APPLIED LINE.
8. VEHICLE-MOUNTED SIGNS SHALL BE MOUNTED IN A MANNER SUCH THAT THEY ARE NOT OBSCURED BY EQUIPMENT OR SUPPLIES. SIGN LEGENDS ON VEHICLE-MOUNTED SIGNS SHALL BE COVERED OR TURNED FROM VIEW WHEN WORK IS NOT IN PROGRESS.

- LEGEND
- ⚡ FLASHING ARROW PANEL
  - ⚡ SIGN
  - ⊠ TRUCK MOUNTED ATTENUATOR

**APPLICATION**

THIS DRAWING APPLIES TO DURABLE STRIPING OPERATIONS INVOLVING MULTIPLE LANE CLOSURES ON MULTI-LANE ROADWAYS.

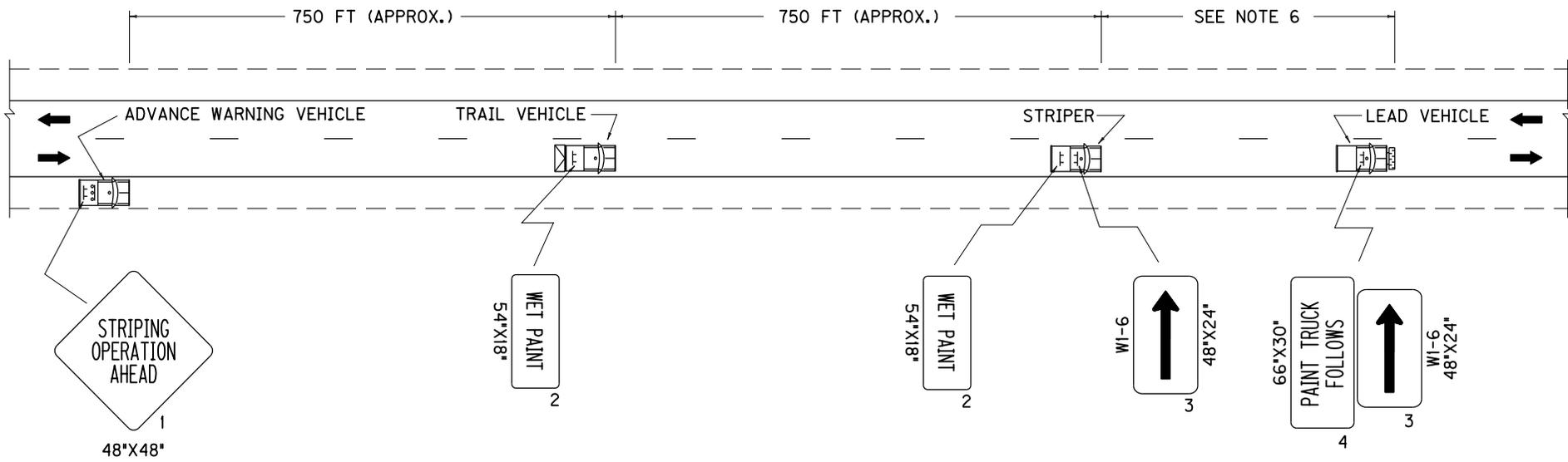
DRAWING NOT TO SCALE

**KENTUCKY  
DEPARTMENT OF HIGHWAYS**

**MOBILE OPERATION  
FOR DURABLE STRIPING  
CASE II**

**STANDARD DRAWING NO. TTS-125-01**

SUBMITTED <i>Dennis H. Johnson</i>	11-21-07 DATE
DIRECTOR, DIVISION OF TRAFFIC OPERATIONS	
APPROVED <i>M. Anderson</i>	11-21-07 DATE
STATE HIGHWAY ENGINEER	



LEGEND

- † SIGN
- ⊠ TRUCK MOUNTED ATTENUATOR
- ☐ SWEEPER/BLOWER
- ⊞ FLASHING ARROW PANEL

1. OPERATE FLASHING ARROW PANEL IN CAUTION MODE. THE ARROW PANEL SHALL BE TYPE B (60"X30") OR LARGER.
2. SIGNS 1 THRU 4 SHALL HAVE A BLACK BORDER AND LEGEND ON A BACKGROUND OF FLUORESCENT ORANGE SHEETING.
3. ALL VEHICLES IN THE STRIPING TRAIN SHALL BE EQUIPPED WITH HIGH-INTENSITY ROTATING, FLASHING, OSCILLATING, OR STROBE LIGHTS ON THE CAB.
4. THE LAST TRAIL VEHICLE IN THE WORK TRAIN SHALL BE EQUIPPED WITH A T.M.A. IF LANES ARE 10' WIDE OR GREATER.
5. THE LEAD VEHICLE SHALL MAINTAIN VISUAL CONTACT WITH THE STRIPER WHENEVER POSSIBLE TO COORDINATE ON AND OFF THE ROAD MANEUVERS. THE WORK TRAIN SHALL BE REQUIRED TO PULL OFF THE ROADWAY PERIODICALLY TO ALLEVIATE TRAFFIC CONGESTION.
6. TWO-WAY RADIO COMMUNICATION SHALL BE MAINTAINED BETWEEN ALL VEHICLES IN THE WORK TRAIN.
7. THE SPACING BETWEEN VEHICLES IN THE WORK TRAIN SHOULD BE ADJUSTED, AS NEEDED, TO PROVIDE ADEQUATE SIGHT DISTANCE TO APPROACHING VEHICLES AND TO PROTECT THE FRESHLY APPLIED LINE.
8. VEHICLE-MOUNTED SIGNS SHALL BE MOUNTED IN A MANNER SUCH THAT THEY ARE NOT OBSCURED BY EQUIPMENT OR SUPPLIES. SIGN LEGENDS ON VEHICLE-MOUNTED SIGNS SHALL BE COVERED OR TURNED FROM VIEW WHEN WORK IS NOT IN PROGRESS.

APPLICATION

THIS DRAWING APPLIES TO DURABLE STRIPING OPERATIONS ON TWO-LANE, TWO-WAY ROADWAYS INVOLVING THE PLACEMENT OF EDGE LINES ONLY.

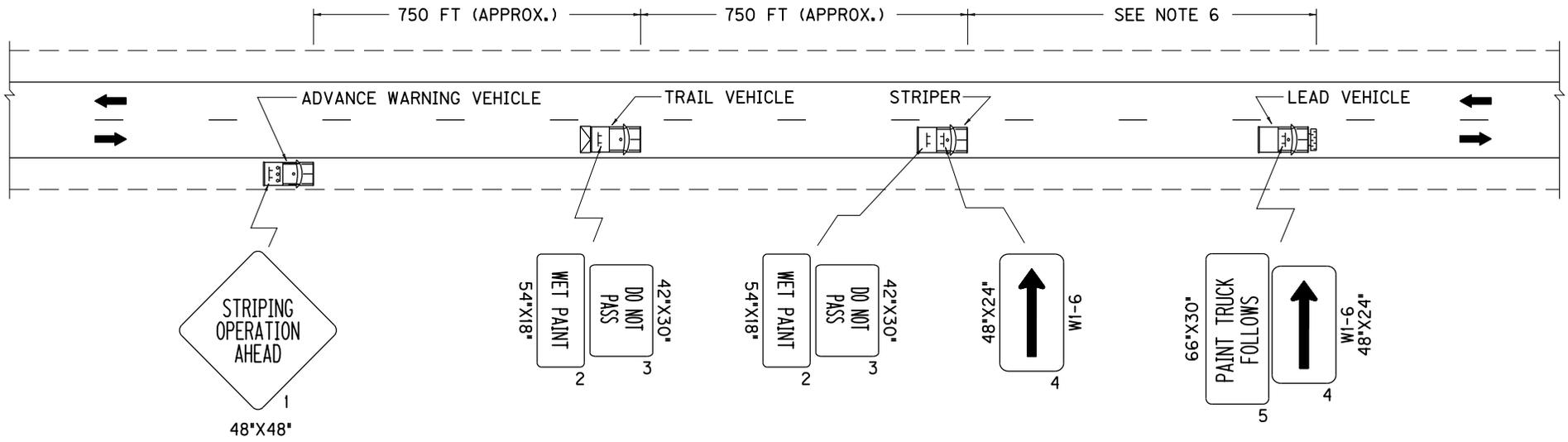
DRAWING NOT TO SCALE

KENTUCKY  
DEPARTMENT OF HIGHWAYS

MOBILE OPERATION  
FOR DURABLE STRIPING  
CASE III

STANDARD DRAWING NO. TTS-130-01

SUBMITTED *Dennis H. Shuman* 11-21-07  
DIRECTOR, DIVISION OF TRAFFIC OPERATIONS DATE  
APPROVED *M. Anderson* 11-21-07  
STATE HIGHWAY ENGINEER DATE



LEGEND

- ⊠ SIGN
- ⊠ TRUCK MOUNTED ATTENUATOR
- ⊠ SWEEPER/BLOWER
- ⊠ FLASHING ARROW PANEL

1. OPERATE FLASHING ARROW PANEL IN CAUTION MODE. THE ARROW PANEL SHALL BE TYPE B (60'X30') OR LARGER.
2. SIGNS 1, 2, 4, AND 5 SHALL HAVE A BLACK BORDER AND LEGEND ON A BACKGROUND OF FLUORESCENT ORANGE SHEETING. SIGN 3 SHALL HAVE A BLACK BORDER AND LEGEND ON A BACKGROUND OF REFLECTIVE WHITE SHEETING.
3. ALL VEHICLES IN THE STRIPING TRAIN SHALL BE EQUIPPED WITH HIGH-INTENSITY ROTATING, FLASHING, OSCILLATING, OR STROBE LIGHTS ON THE CAB.
4. THE LAST TRAIL VEHICLE IN THE WORK TRAIN SHALL BE EQUIPPED WITH A T.M.A. IF LANES ARE 10' WIDE OR GREATER.
5. THE LEAD VEHICLE SHALL MAINTAIN VISUAL CONTACT WITH THE STRIPER WHENEVER POSSIBLE TO COORDINATE ON AND OFF THE ROAD MANEUVERS. THE WORK TRAIN SHALL BE REQUIRED TO PULL OFF THE ROADWAY PERIODICALLY TO ALLEVIATE TRAFFIC CONGESTION.
6. TWO-WAY RADIO COMMUNICATION SHALL BE MAINTAINED BETWEEN ALL VEHICLES IN THE WORK TRAIN.
7. THE SPACING BETWEEN VEHICLES IN THE WORK TRAIN SHOULD BE ADJUSTED, AS NEEDED, TO PROVIDE ADEQUATE SIGHT DISTANCE TO APPROACHING VEHICLES AND TO PROTECT THE FRESHLY APPLIED LINE.
8. VEHICLE-MOUNTED SIGNS SHALL BE MOUNTED IN A MANNER SUCH THAT THEY ARE NOT OBSCURED BY EQUIPMENT OR SUPPLIES. SIGN LEGENDS ON VEHICLE-MOUNTED SIGNS SHALL BE COVERED OR TURNED FROM VIEW WHEN WORK IS NOT IN PROGRESS.

APPLICATION

THIS DRAWING APPLIES TO DURABLE STRIPING OPERATIONS ON TWO-LANE, TWO-WAY ROADWAYS INVOLVING THE PLACEMENT OF EITHER THE CENTERLINE ONLY OR A COMBINATION OF THE CENTERLINE AND EDGE LINE.

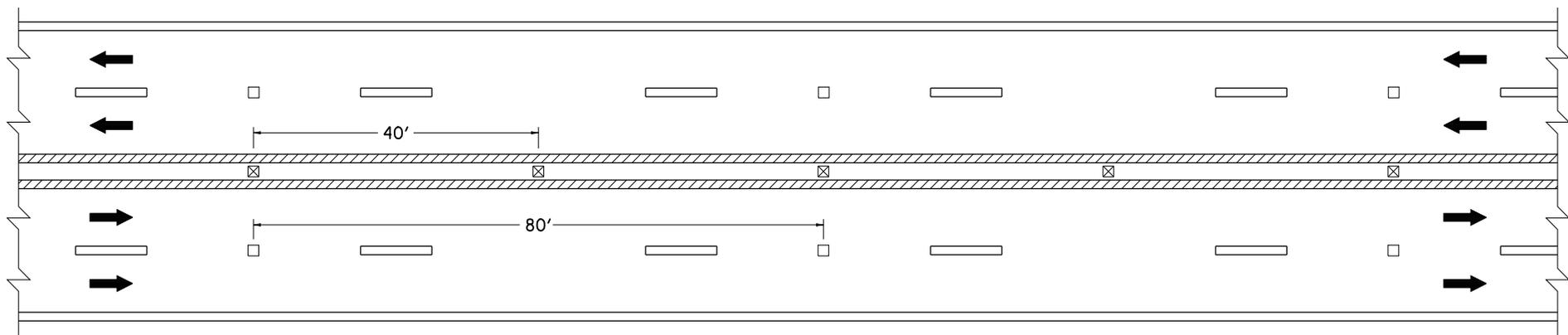
DRAWING NOT TO SCALE

KENTUCKY  
DEPARTMENT OF HIGHWAYS

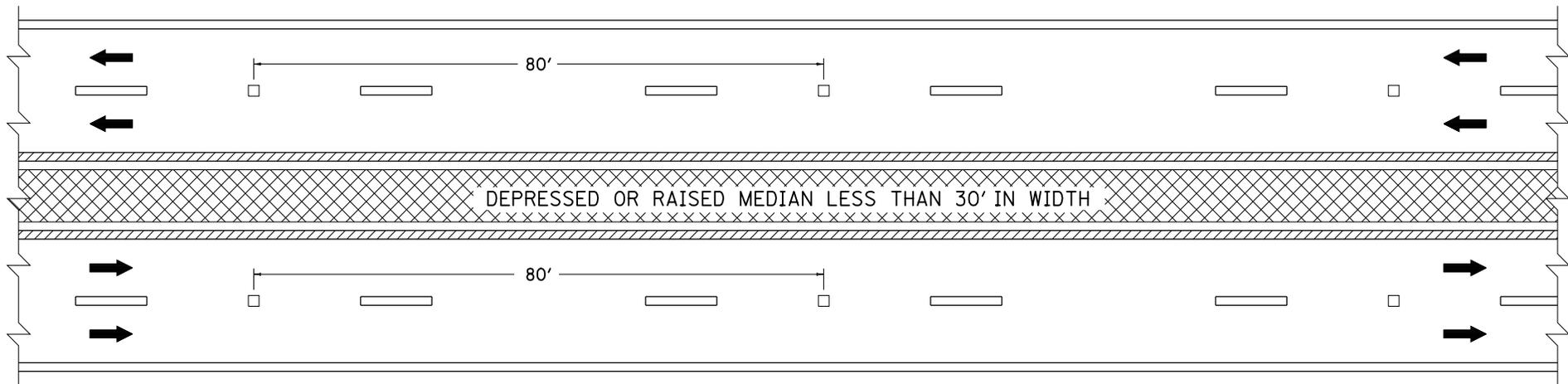
MOBILE OPERATION  
FOR DURABLE STRIPING  
CASE IV

STANDARD DRAWING NO. TTS-135-01

SUBMITTED *David H. Shuman* 11-21-07  
DIRECTOR, DIVISION OF TRAFFIC OPERATIONS DATE  
APPROVED *Matthew M. Anderson* 11-21-07  
STATE HIGHWAY ENGINEER DATE



ARRANGEMENT "A" (UNDIVIDED HIGHWAY)



ARRANGEMENT "B" (DIVIDED HIGHWAY WITH DEPRESSED OR RAISED MEDIAN LESS THAN 30' IN WIDTH)

**GENERAL NOTES**

1. MARKERS INSTALLED WITH DOUBLE YELLOW CENTERLINES SHOULD BE PLACED BETWEEN THE TWO LINES.
2. MARKERS INSTALLED ALONG LANE LINES SHOULD BE PLACED BETWEEN AND IN LINE WITH THE SKIPS.
3. MARKERS SHOULD NOT BE INSTALLED ON TOP OF THE PAVEMENT JOINT. OFFSET MARKERS A MINIMUM OF 2" FROM THE PAVEMENT JOINT. ENSURE THAT THE FINISHED LINE OF MARKERS IS STRAIGHT WITH MINIMAL LATERAL DEVIATION. MARKERS MAY BE ELIMINATED AT THE DISCRETION OF THE ENGINEER.

**LEGEND**

- ☒ TYPE V BI-DIRECTIONAL (YELLOW)
- TYPE V MONO-DIRECTIONAL (WHITE)
- ▨ MARKINGS (YELLOW)
- ▭ MARKINGS (WHITE)
- ▩ DEPRESSED OR RAISED MEDIAN

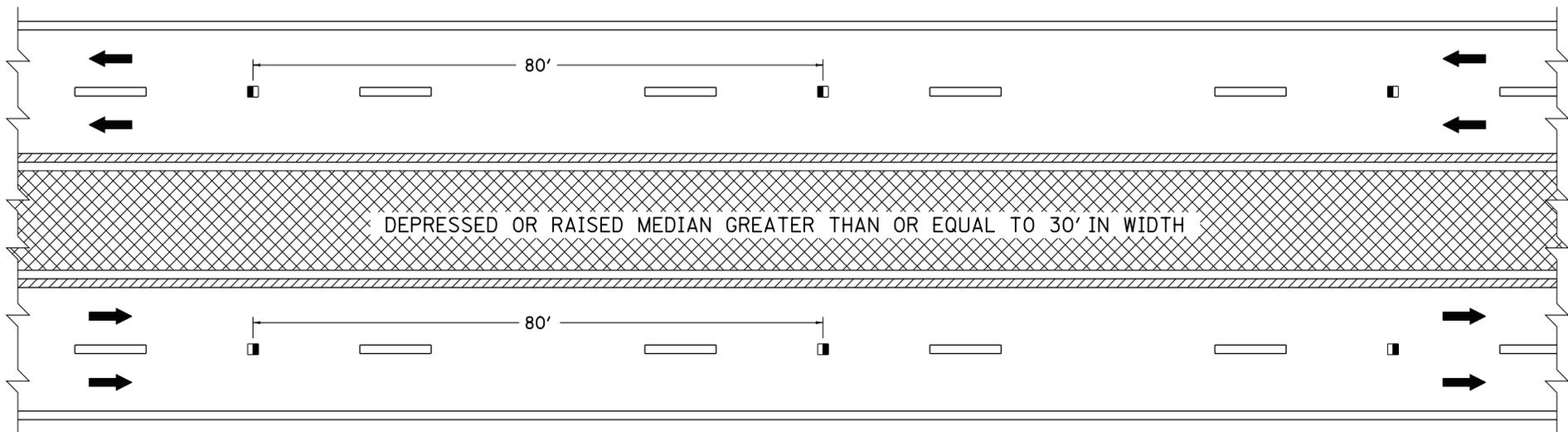
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KENTUCKY  
DEPARTMENT OF HIGHWAYS

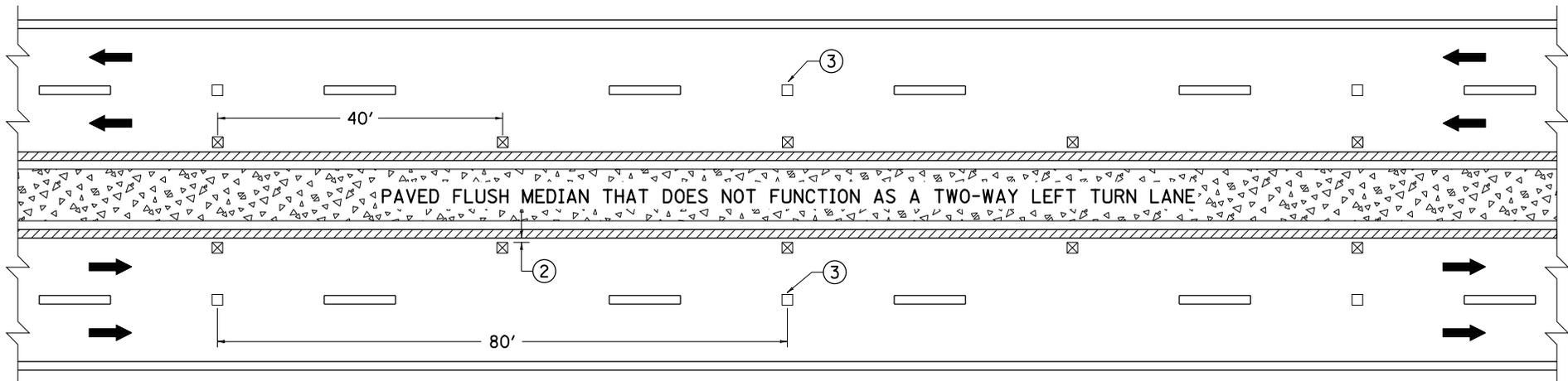
PAVEMENT MARKER  
ARRANGEMENTS  
MULTI-LANE ROADWAYS

STANDARD DRAWING NO. TPM-100-01

SUBMITTED *Dennis H. Shuman* 11-21-07  
DIRECTOR, DIVISION OF TRAFFIC OPERATIONS DATE  
APPROVED *Matthew M. Anderson* 11-21-07  
STATE HIGHWAY ENGINEER DATE



ARRANGEMENT "C" (DIVIDED HIGHWAY WITH DEPRESSED OR RAISED MEDIAN GREATER THAN OR EQUAL TO 30' IN WIDTH)



ARRANGEMENT "D" (DIVIDED HIGHWAY WITH PAVED FLUSH MEDIAN THAT DOES NOT FUNCTION AS A TWO-WAY LEFT TURN LANE)

**GENERAL NOTES**

1. MARKERS INSTALLED ALONG LANE LINES SHOULD BE PLACED BETWEEN AND IN LINE WITH THE SKIPS.
- ② MARKERS INSTALLED ALONG EDGE LINES SHOULD BE PLACED SO THAT THE NEAR EDGE OF THE CASTING IS NO MORE THAN 1" FROM THE NEAR EDGE OF THE LINE.
- ③ IF WIDTH OF PAVED FLUSH MEDIAN IS GREATER THAN OR EQUAL TO 30', BI-DIRECTIONAL (WHITE-RED) MARKERS SHALL BE USED ALONG THE LANE LINES IN LIEU OF MONO-DIRECTIONAL (WHITE) MARKERS.
4. MARKERS SHOULD NOT BE INSTALLED ON TOP OF THE PAVEMENT JOINT. OFFSET MARKERS A MINIMUM OF 2" FROM THE PAVEMENT JOINT. ENSURE THAT THE FINISHED LINE OF MARKERS IS STRAIGHT WITH MINIMAL LATERAL DEVIATION. MARKERS MAY BE ELIMINATED AT THE DISCRETION OF THE ENGINEER.

**LEGEND**

- ☒ TYPE V BI-DIRECTIONAL (YELLOW)
- TYPE V BI-DIRECTIONAL (WHITE-RED)
- TYPE V MONO-DIRECTIONAL (WHITE) ③
- ▨ MARKINGS (YELLOW)
- ▭ MARKINGS (WHITE)
- ▧ FLUSH MEDIAN
- ▩ DEPRESSED OR RAISED MEDIAN

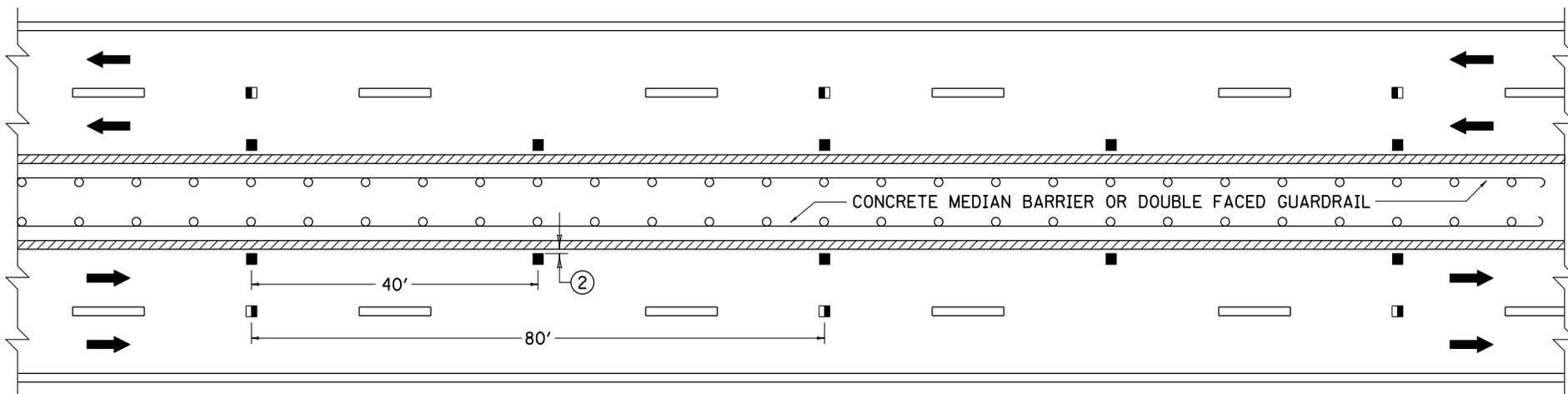
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KENTUCKY  
DEPARTMENT OF HIGHWAYS

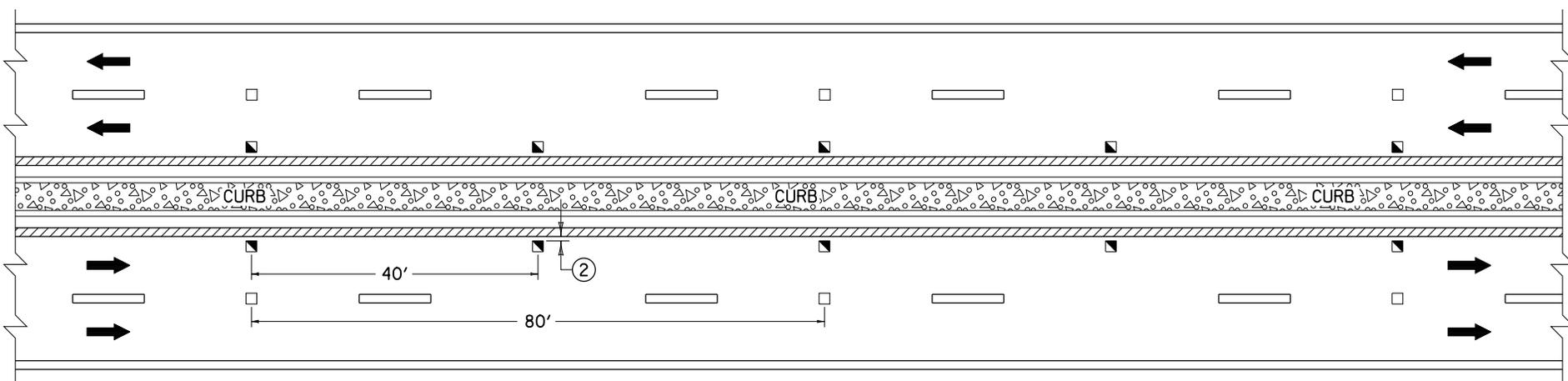
PAVEMENT MARKER  
ARRANGEMENTS  
MULTI-LANE ROADWAYS

STANDARD DRAWING NO. TPM-105-01

SUBMITTED *Dennis H. Shuman* 11-21-07  
DIRECTOR, DIVISION OF TRAFFIC OPERATIONS DATE  
APPROVED *Matthew M. Matthews* 11-21-07  
STATE HIGHWAY ENGINEER DATE



ARRANGEMENT "E" (DIVIDED HIGHWAY WITH CONCRETE MEDIAN BARRIER OR DOUBLE FACED GUARDRAIL WITHIN 8' OF DRIVING LANE)



ARRANGEMENT "F" (DIVIDED HIGHWAY WITH CURB WITHIN 8' OF DRIVING LANE)

**GENERAL NOTES**

1. MARKERS INSTALLED ALONG LANE LINES SHALL BE PLACED BETWEEN AND IN LINE WITH THE SKIPS.
- ② MARKERS INSTALLED ALONG EDGE LINES SHALL BE PLACED SO THAT THE NEAR EDGE OF THE CASTING IS NO MORE THAN 1" FROM THE NEAR EDGE OF THE LINE.
3. MARKERS SHOULD NOT BE INSTALLED ON TOP OF THE PAVEMENT JOINT. OFFSET MARKERS A MINIMUM OF 2" FROM THE PAVEMENT JOINT. ENSURE THAT THE FINISHED LINE OF MARKERS IS STRAIGHT WITH MINIMAL LATERAL DEVIATION. MARKERS MAY BE ELIMINATED AT THE DISCRETION OF THE ENGINEER.

LEGEND	
■	TYPE V BI-DIRECTIONAL (YELLOW-RED)
◼	TYPE V BI-DIRECTIONAL (WHITE-RED)
◼	TYPE V MONO-DIRECTIONAL (YELLOW)
◻	TYPE V MONO-DIRECTIONAL (WHITE)
▨	MARKINGS (YELLOW)
▭	MARKINGS (WHITE)

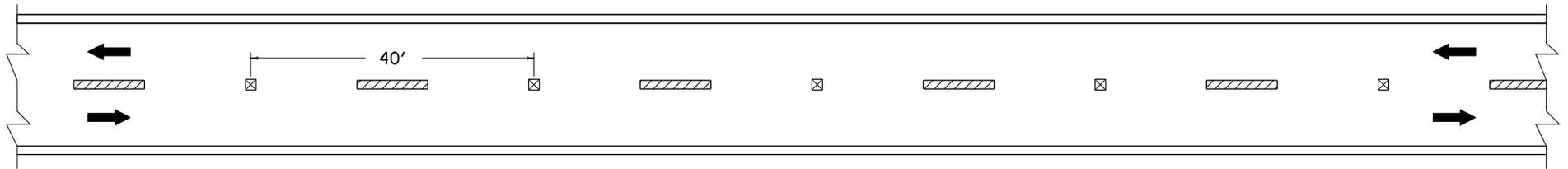
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KENTUCKY  
DEPARTMENT OF HIGHWAYS

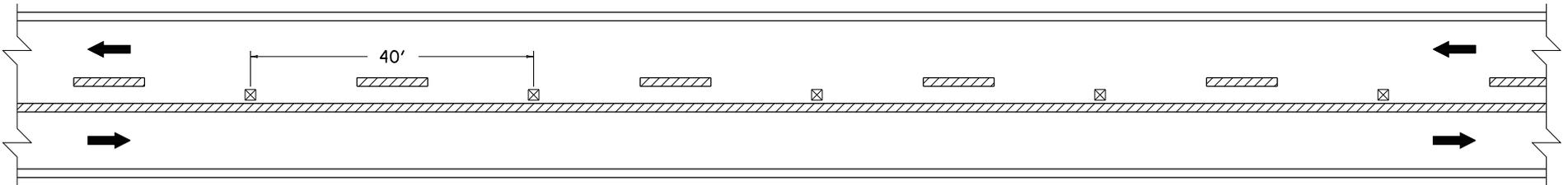
PAVEMENT MARKER  
ARRANGEMENTS  
MULTI-LANE ROADWAYS

STANDARD DRAWING NO. TPM-110-01

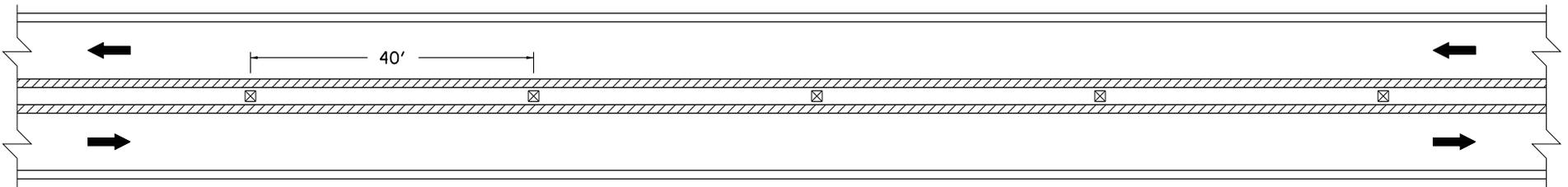
SUBMITTED	<i>Dennis H. Shuman</i>	11-21-07
DIRECTOR, DIVISION OF TRAFFIC OPERATIONS		DATE
APPROVED	<i>Matthew M. [Signature]</i>	11-21-07
STATE HIGHWAY ENGINEER		DATE



ARRANGEMENT "A" (PASSING PERMITTED FOR BOTH DIRECTIONS OF TRAVEL)



ARRANGEMENT "B" (PASSING PERMITTED FOR ONE DIRECTION OF TRAVEL)



ARRANGEMENT "C" (PASSING PROHIBITED FOR BOTH DIRECTIONS OF TRAVEL)

**GENERAL NOTES**

1. MARKERS INSTALLED ALONG DASHED YELLOW CENTERLINES SHALL BE PLACED BETWEEN AND IN LINE WITH THE DASHES.
2. MARKERS INSTALLED WITH DOUBLE YELLOW CENTERLINES SHALL BE PLACED BETWEEN THE TWO LINES.
3. MARKERS SHOULD NOT BE INSTALLED ON TOP OF THE PAVEMENT JOINT. OFFSET MARKERS A MINIMUM OF 2' FROM THE PAVEMENT JOINT. ENSURE THAT THE FINISHED LINE OF MARKERS IS STRAIGHT WITH MINIMAL LATERAL DEVIATION. MARKERS MAY BE ELIMINATED AT THE DISCRETION OF THE ENGINEER.

LEGEND	
⊗	TYPE V BI-DIRECTIONAL (YELLOW)
▨	MARKINGS (YELLOW)
▭	MARKINGS (WHITE)

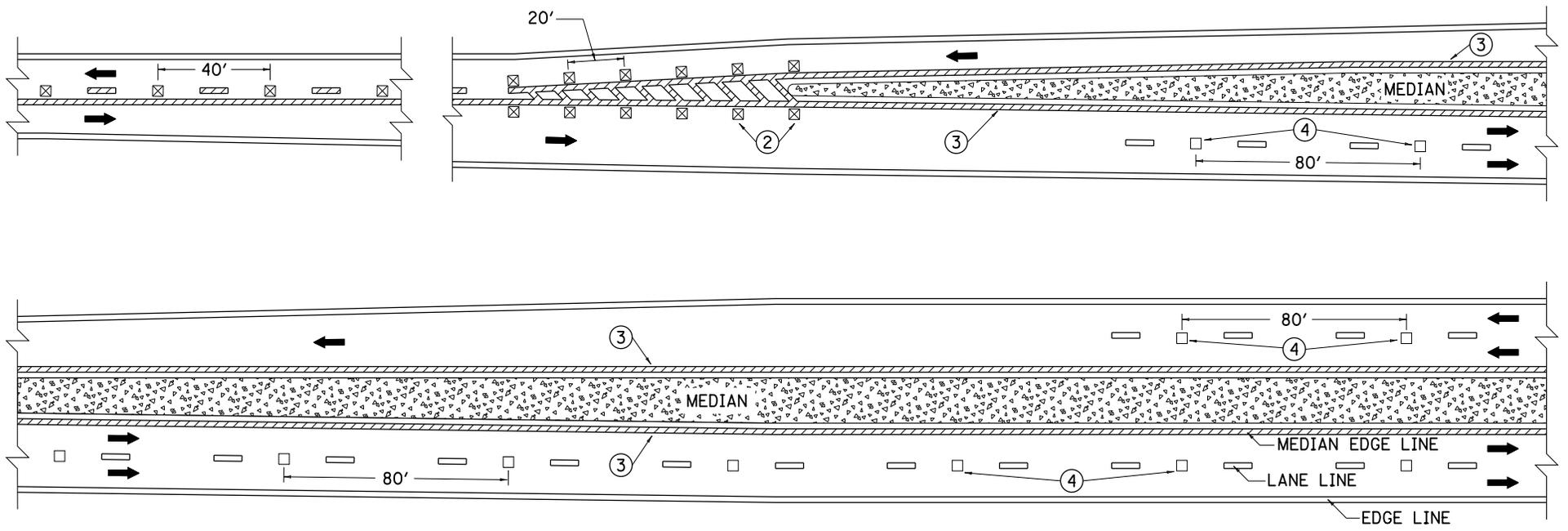
DRAWING NOT TO SCALE

KENTUCKY  
DEPARTMENT OF HIGHWAYS

PAVEMENT MARKER  
ARRANGEMENTS  
TWO-LANE, TWO-WAY  
ROADWAYS

STANDARD DRAWING NO. TPM-115-01

SUBMITTED	<i>David H. Shuman</i>	11-21-07
DIRECTOR, DIVISION OF TRAFFIC OPERATIONS		DATE
APPROVED	<i>Matthew M. [Signature]</i>	11-21-07
STATE HIGHWAY ENGINEER		DATE



TWO LANE TO FOUR LANE PAVEMENT TRANSITIONS

LEGEND

- ⊗ TYPE V BI-DIRECTIONAL (YELLOW)
- TYPE V MONO-DIRECTIONAL (WHITE) ④
- ▨ MARKINGS (YELLOW)
- ▭ MARKINGS (WHITE)

GENERAL NOTES

1. MARKERS INSTALLED ALONG LANE LINES OR DASHED YELLOW CENTERLINES SHALL BE PLACED BETWEEN AND IN LINE WITH THE DASHES.
- ② MARKERS INSTALLED ALONG EDGE LINES SHALL BE PLACED SO THAT THE NEAR EDGE OF THE CASTING IS NO MORE THAN 1" FROM THE NEAR EDGE OF THE LINE.
- ③ MARKERS MAY BE REQUIRED ALONG THE MEDIAN EDGE LINES DEPENDING ON TYPE AND WIDTH OF MEDIAN. SEE [TPM-100](#), [TPM-105](#), AND [TPM-110](#) FOR GUIDANCE.
- ④ IF MEDIAN WIDTH IS GREATER THAN OR EQUAL TO 30', BI-DIRECTIONAL (WHITE-RED) MARKERS SHALL BE USED ALONG THE LANE LINES IN LIEU OF MONO-DIRECTIONAL (WHITE) MARKERS.
5. MARKERS SHOULD NOT BE INSTALLED ON TOP OF THE PAVEMENT JOINT. OFFSET MARKERS A MINIMUM OF 2" FROM THE PAVEMENT JOINT. ENSURE THAT THE FINISHED LINE OF MARKERS IS STRAIGHT WITH MINIMAL LATERAL DEVIATION. MARKERS MAY BE ELIMINATED AT THE DISCRETION OF THE ENGINEER.

DRAWING NOT TO SCALE

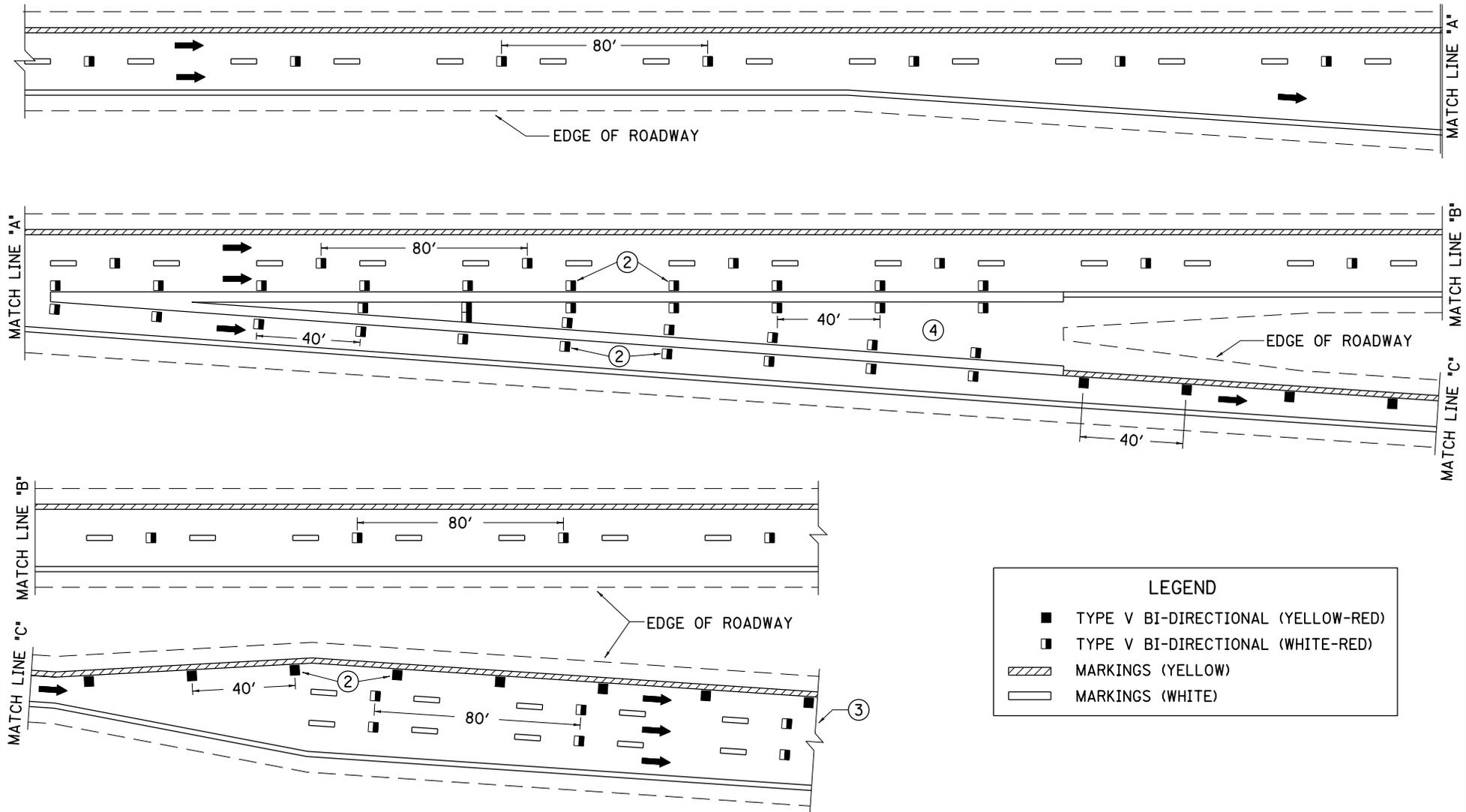
USE WITH CURRENT STD. DWGS.  
TPM-100 ,TPM-105, TPM-110

KENTUCKY  
DEPARTMENT OF HIGHWAYS

PAVEMENT MARKER  
ARRANGEMENT  
TWO-LANE TO FOUR-LANE  
TRANSITIONS

STANDARD DRAWING NO. TPM-120-01

SUBMITTED *Dennis H. Johnson* 11-21-07  
DIRECTOR, DIVISION OF TRAFFIC OPERATIONS DATE  
APPROVED *Matthew M. Anderson* 11-21-07  
STATE HIGHWAY ENGINEER DATE



LEGEND	
■	TYPE V BI-DIRECTIONAL (YELLOW-RED)
◻	TYPE V BI-DIRECTIONAL (WHITE-RED)
▨	MARKINGS (YELLOW)
▭	MARKINGS (WHITE)

**GENERAL NOTES**

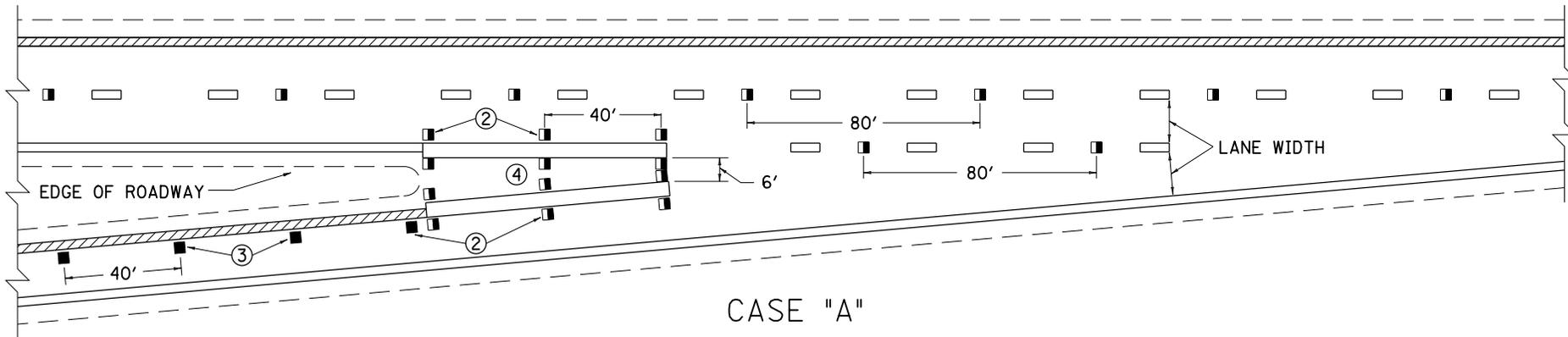
1. MARKERS INSTALLED ALONG LANE LINES SHALL BE PLACED BETWEEN AND IN LINE WITH THE SKIPS.
- ② MARKERS INSTALLED ALONG EDGE LINES SHALL BE PLACED SO THAT THE NEAR EDGE OF THE CASTING IS NO MORE THAN 1" FROM THE NEAR EDGE OF THE LINE.
- ③ MARKERS SHALL BE CONTINUED ALONG THE ENTIRE LENGTH OF THE RAMP UNTIL THE INTERSECTION WITH THE CROSS-STREET.
- ④ ON TWO-LANE, TWO-WAY HIGHWAYS, MARKERS INSTALLED ALONG GORE MARKINGS SHALL BE MONO-DIRECTIONAL (WHITE).
5. MARKERS SHOULD NOT BE INSTALLED ON TOP OF THE PAVEMENT JOINT. OFFSET MARKERS A MINIMUM OF 2" FROM THE PAVEMENT JOINT. ENSURE THAT THE FINISHED LINE OF MARKERS IS STRAIGHT WITH MINIMAL LATERAL DEVIATION. MARKERS MAY BE ELIMINATED AT THE DISCRETION OF THE ENGINEER.

DRAWING NOT TO SCALE

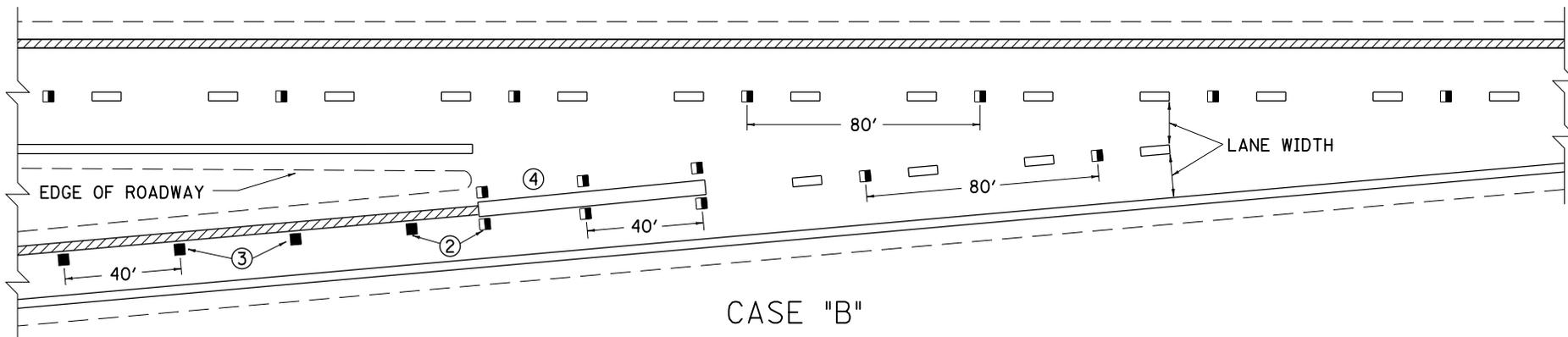
KENTUCKY  
DEPARTMENT OF HIGHWAYS

PAVEMENT MARKER  
ARRANGEMENT  
EXIT GORE AND OFF-RAMP

STANDARD DRAWING NO. TPM-125-01  
 SUBMITTED *Dennis H. Shuman* 11-21-07  
 DIRECTOR, DIVISION OF TRAFFIC OPERATIONS DATE  
 APPROVED *Matthew M. Anderson* 11-21-07  
 STATE HIGHWAY ENGINEER DATE



CASE "A"



CASE "B"

**APPLICATION**

THE ARRANGEMENT SHOWN IN CASE "A" IS PREFERRED. IF ON-RAMP IS STRIPED AS SHOWN IN CASE "B", CASE "B" ARRANGEMENT SHALL BE USED.

**GENERAL NOTES**

1. MARKERS INSTALLED ALONG LANE LINES SHALL BE PLACED BETWEEN AND IN LINE WITH THE SKIPS.
- ② MARKERS INSTALLED ALONG EDGE LINES SHALL BE PLACED SO THAT THE NEAR EDGE OF THE CASTING IS NO MORE THAN 1" FROM THE NEAR EDGE OF THE LINE.
- ③ BI-DIRECTIONAL (YELLOW-RED) MARKERS ARE TO BE PLACED ALONG THE ENTIRE LENGTH OF THE YELLOW EDGE LINE FROM THE INTERSECTION OF THE CROSS-STREET TO THE BEGINNING OF THE GORE AREA.
- ④ ON TWO-LANE, TWO-WAY HIGHWAYS, MARKERS INSTALLED ALONG GORE MARKINGS SHALL BE MONO-DIRECTIONAL (WHITE).
5. MARKERS SHOULD NOT BE INSTALLED ON TOP OF THE PAVEMENT JOINT. OFFSET MARKERS A MINIMUM OF 2" FROM THE PAVEMENT JOINT. ENSURE THAT THE FINISHED LINE OF MARKERS IS STRAIGHT WITH MINIMAL LATERAL DEVIATION. MARKERS MAY BE ELIMINATED AT THE DISCRETION OF THE ENGINEER.

**LEGEND**

- TYPE V BI-DIRECTIONAL (YELLOW-RED)
- ▣ TYPE V BI-DIRECTIONAL (WHITE-RED)
- ▨ MARKINGS (YELLOW)
- ▭ MARKINGS (WHITE)

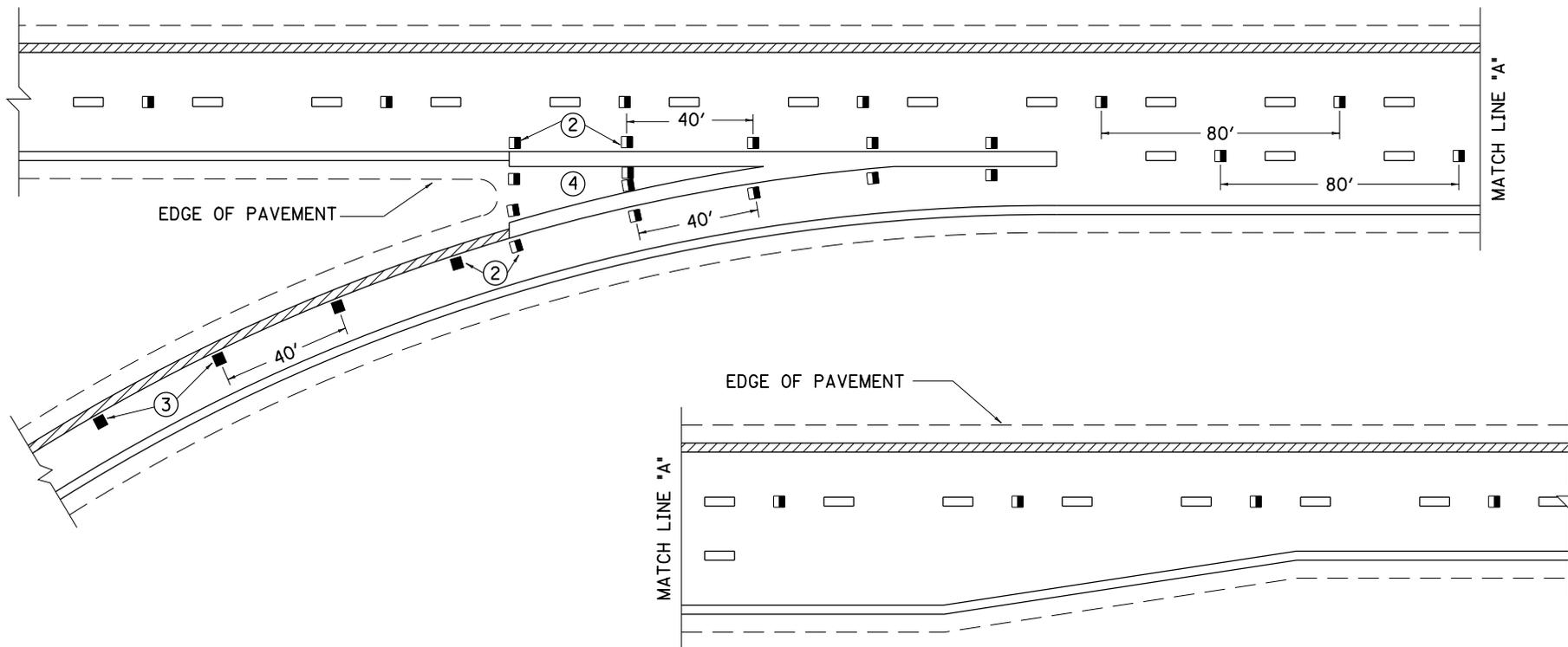
DRAWING NOT TO SCALE

KENTUCKY  
DEPARTMENT OF HIGHWAYS

PAVEMENT MARKER  
ARRANGEMENT  
ON-RAMP WITH TAPERED  
ACCELERATION LANE

STANDARD DRAWING NO. TPM-130-01

SUBMITTED *Dennis H. Shuman* 11-21-07  
DIRECTOR, DIVISION OF TRAFFIC OPERATIONS DATE  
APPROVED *Matthew M. Anderson* 11-21-07  
STATE HIGHWAY ENGINEER DATE



LEGEND	
■	TYPE V BI-DIRECTIONAL (YELLOW-RED)
◼	TYPE V BI-DIRECTIONAL (WHITE-RED)
▨	MARKINGS (YELLOW)
▭	MARKINGS (WHITE)

**GENERAL NOTES**

1. MARKERS INSTALLED ALONG LANE LINES SHALL BE PLACED BETWEEN AND IN LINE WITH THE SKIPS.
- ② MARKERS INSTALLED ALONG EDGE LINES SHALL BE PLACED SO THAT THE NEAR EDGE OF THE CASTING IS NO MORE THAN 1" FROM THE NEAR EDGE OF THE LINE.
- ③ BI-DIRECTIONAL (YELLOW-RED) MARKERS ARE TO BE PLACED ALONG THE ENTIRE LENGTH OF THE YELLOW EDGE LINE FROM THE INTERSECTION OF THE CROSS-STREET TO THE BEGINNING OF THE GORE AREA.
- ④ ON TWO-LANE, TWO-WAY HIGHWAYS, MARKERS INSTALLED ALONG GORE MARKINGS SHALL BE MONO-DIRECTIONAL (WHITE).
5. MARKERS SHOULD NOT BE INSTALLED ON TOP OF THE PAVEMENT JOINT. OFFSET MARKERS A MINIMUM OF 2" FROM THE PAVEMENT JOINT. ENSURE THAT THE FINISHED LINE OF MARKERS IS STRAIGHT WITH MINIMAL LATERAL DEVIATION. MARKERS MAY BE ELIMINATED AT THE DISCRETION OF THE ENGINEER.

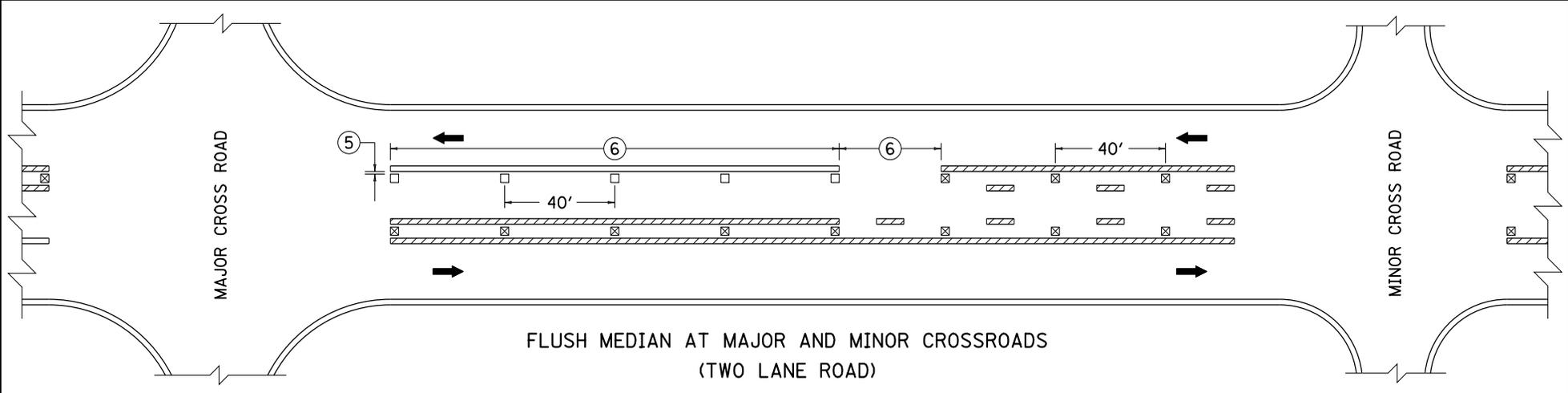
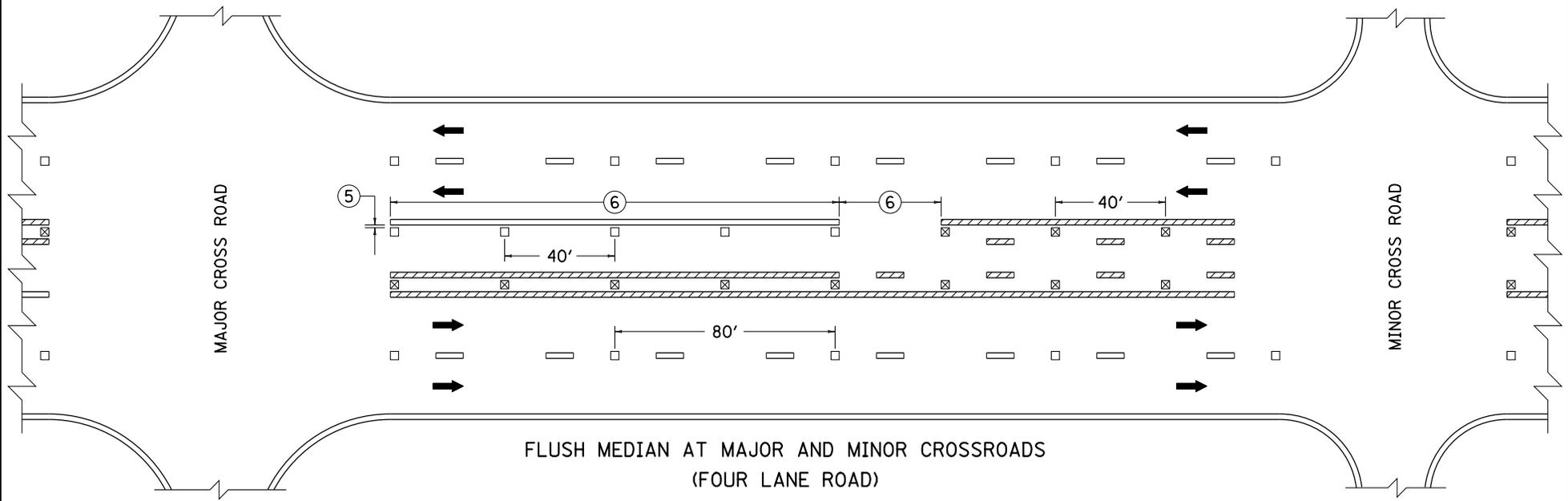
DRAWING NOT TO SCALE

**KENTUCKY  
DEPARTMENT OF HIGHWAYS**

**PAVEMENT MARKER  
ARRANGEMENT  
ON-RAMP WITH PARALLEL  
ACCELERATION LANE**

STANDARD DRAWING NO. TPM-135-01

SUBMITTED <i>Dennis H. Johnson</i>	11-21-07
DIRECTOR, DIVISION OF TRAFFIC OPERATIONS	DATE
APPROVED <i>Matthew W. Anderson</i>	11-21-07
STATE HIGHWAY ENGINEER	DATE



**GENERAL NOTES**

1. MAJOR STREET OR ROAD CROSSING = CURRENT ADT GREATER THAN OR EQUAL TO 400.
2. MINOR STREET OR ROAD CROSSING = CURRENT ADT LESS THAN 400.
3. MARKERS INSTALLED AT DOUBLE YELLOW CENTERLINES SHALL BE PLACED BETWEEN THE TWO LINES.
4. MARKERS INSTALLED ALONG LANE LINES OR DASHED YELLOW CENTERLINES SHALL BE PLACED BETWEEN AND IN LINE WITH THE SKIPS.
- ⑤ MARKERS INSTALLED ALONG EDGE LINES SHALL BE PLACED SO THAT THE NEAR EDGE OF THE CASTING IS NO MORE THAN 1" FROM THE NEAR EDGE OF THE LINE.
- ⑥ LENGTH TO BE DETERMINED ON A PROJECT BY PROJECT BASIS.
7. MARKERS SHOULD NOT BE INSTALLED ON TOP OF THE PAVEMENT JOINT. OFFSET MARKERS A MINIMUM OF 2" FROM THE PAVEMENT JOINT. ENSURE THAT THE FINISHED LINE OF MARKERS IS STRAIGHT WITH MINIMAL LATERAL DEVIATION. MARKERS MAY BE ELIMINATED AT THE DISCRETION OF THE ENGINEER.

LEGEND	
⊠	TYPE V BI-DIRECTIONAL (YELLOW)
□	TYPE V MONO-DIRECTIONAL (WHITE)
▨	MARKINGS (YELLOW)
▬	MARKINGS (WHITE)

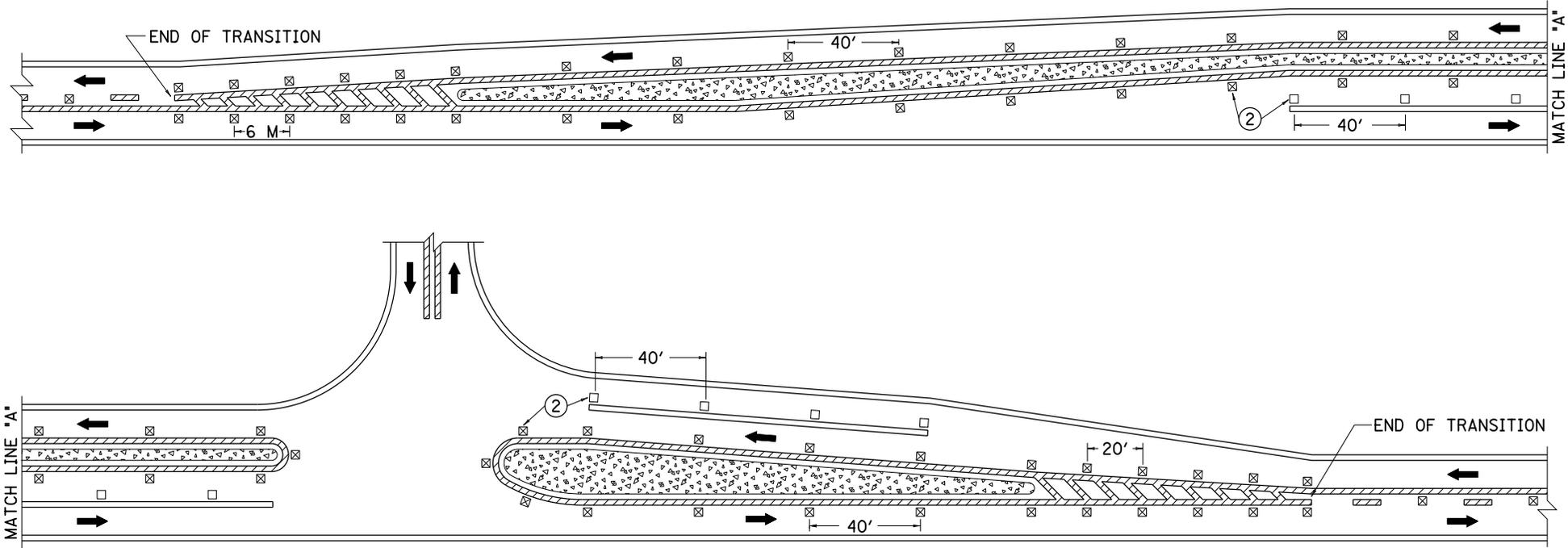
DRAWING NOT TO SCALE

KENTUCKY  
DEPARTMENT OF HIGHWAYS

PAVEMENT MARKER  
ARRANGEMENTS  
TWO-WAY, LEFT TURN LANE

STANDARD DRAWING NO. TPM-140-01

SUBMITTED	<i>David H. Thomas</i>	11-21-07
DIRECTOR, DIVISION OF TRAFFIC OPERATIONS		DATE
APPROVED	<i>Matthew A. Anderson</i>	11-21-07
STATE HIGHWAY ENGINEER		DATE



CHANNELIZED INTERSECTION ON A TWO DIRECTIONAL TWO LANE FACILITY

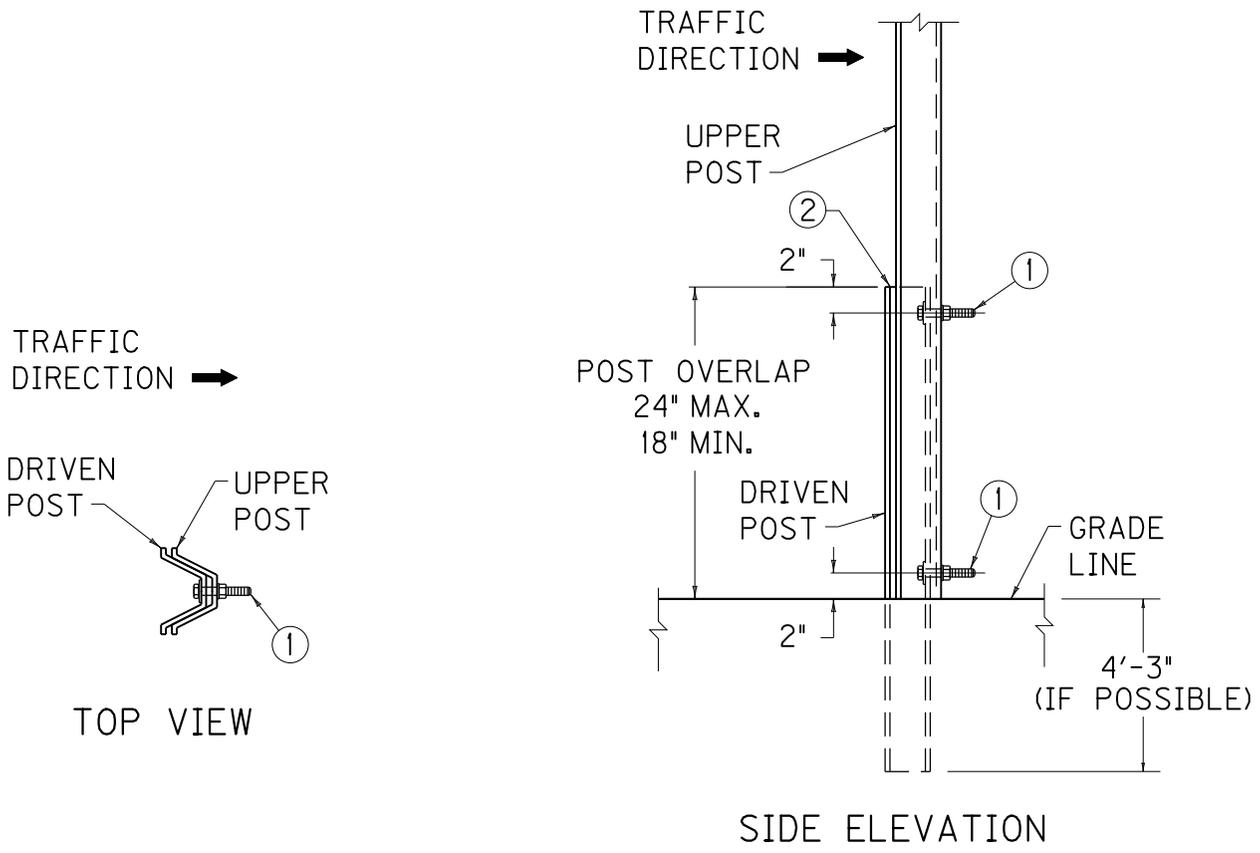
LEGEND	
⊗	TYPE V BI-DIRECTIONAL (YELLOW)
□	TYPE V MONO-DIRECTIONAL (WHITE)
	RAISED OR FLUSH MEDIAN
	MARKINGS (YELLOW)
	MARKINGS (WHITE)

**GENERAL NOTES**

- MARKERS INSTALLED ALONG DASHED YELLOW CENTERLINES SHALL BE PLACED BETWEEN AND IN LINE WITH THE SKIPS.
- MARKERS INSTALLED ALONG EDGE LINES OR CHANNELIZING LINES SHALL BE PLACED SO THAT THE NEAR EDGE OF THE CASTING IS NO MORE THAN 1" FROM THE NEAR EDGE OF THE LINE.
- MARKERS SHOULD NOT BE INSTALLED ON TOP OF THE PAVEMENT JOINT. OFFSET MARKERS A MINIMUM OF 2" FROM THE PAVEMENT JOINT. ENSURE THAT THE FINISHED LINE OF MARKERS IS STRAIGHT WITH MINIMAL LATERAL DEVIATION. MARKERS MAY BE ELIMINATED AT THE DISCRETION OF THE ENGINEER.

DRAWING NOT TO SCALE

<b>KENTUCKY</b> <b>DEPARTMENT OF HIGHWAYS</b>	
<b>PAVEMENT MARKER</b> <b>ARRANGEMENT</b> <b>CHANNELIZED</b> <b>INTERSECTION</b>	
<b>STANDARD DRAWING NO. TPM-145-01</b>	
SUBMITTED <i>Dennis H. Shuman</i> <small>DIRECTOR, DIVISION OF TRAFFIC OPERATIONS</small>	11-21-07 <small>DATE</small>
APPROVED <i>M. Anderson</i> <small>STATE HIGHWAY ENGINEER</small>	11-21-07 <small>DATE</small>



**APPLICATION**

PREFERABLY, SIGN POSTS ARE NOT TO BE SPLICED. HOWEVER, TO OBTAIN THE REQUIRED HEIGHT, SIGN POSTS MAY BE SPLICED ONCE IN THEIR LENGTH AND ACCORDING TO THIS STANDARD DRAWING.

**GENERAL NOTES**

- ① TWO (2) 5/16" X 2" HEX HEAD CAP SCREWS, TWO (2) ROUND WASHERS, TWO (2) LOCK WASHERS AND TWO HEX HEAD NUTS (ASTM A307).
- ② THE DRIVEN POST STUB SHALL BE REMOVED WHEN THE UPPER POST IS NOT IN PLACE.

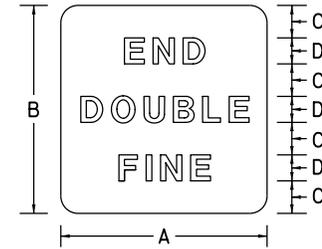
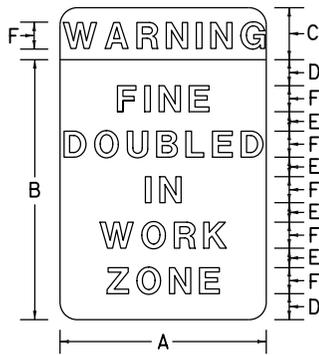
DRAWING NOT TO SCALE

KENTUCKY  
DEPARTMENT OF HIGHWAYS

POST  
SPLICING  
DETAIL

STANDARD DRAWING NO. TTD-110-01

SUBMITTED	<i>David H. Shuman</i>	11-21-07
DIRECTOR, DIVISION OF TRAFFIC OPERATIONS		DATE
APPROVED	<i>Matthew M. [Signature]</i>	11-21-07
STATE HIGHWAY ENGINEER		DATE



SIGN DETAILS						
ROAD TYPE	A	B	C	D	E	F
INTERSTATES, PARKWAYS & 4-LANE DIVIDED HIGHWAYS	48"	60"	12"	6"	4.5"	6"D
OTHER MULTI-LANE HIGHWAYS & 2-LANE HIGHWAYS >18' IN WIDTH	36"	48"	8"	5"	4.5"	4"E
ROADWAYS LESS THAN 18' IN WIDTH	24"	30"	6"	3"	2.25"	3"E

SIGN DETAILS				
ROAD TYPE	A	B	C	D
INTERSTATES, PARKWAYS & 4-LANE DIVIDED HIGHWAYS	48"	48"	7.5"	6"D
OTHER MULTI-LANE & 2-LANE HIGHWAYS	36"	36"	6"	4"E

NOTE: SIGN SHALL HAVE A BLACK LEGEND ON A WHITE BACKGROUND.

NOTE: "WARNING" PLAQUE SHALL HAVE A BLACK LEGEND ON A FLUORESCENT ORANGE BACKGROUND. REMAINDER OF SIGN SHALL HAVE A BLACK LEGEND ON A WHITE BACKGROUND.

### APPLICATION

A HIGHWAY WORK ZONE SHALL BE ELIGIBLE FOR PLACEMENT OF DOUBLE FINE SIGNS IF A WORKER IS NOT ROUTINELY PROTECTED BY BARRIER WALL OR IF A CONDITION EXISTS WHICH EXPOSES A WORKER TO TRAFFIC HAZARDS.

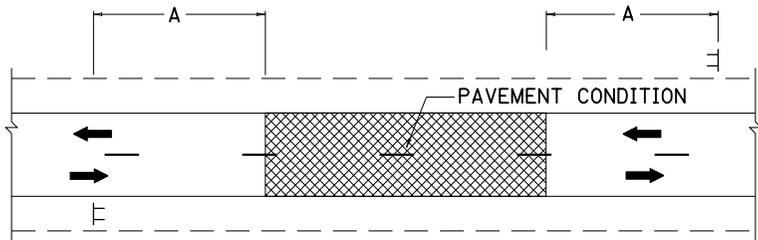
### DOUBLE FINE SIGNS

- ALL AREAS SHALL BE RETROREFLECTIVE EXCEPT THE BLACK PORTION OF SIGN MESSAGES.
- SIGNS SHALL BE MOUNTED AT ELEVATIONS AND OFFSETS PRESCRIBED IN THE MUTCD.
- SIGNS SHALL BE RELOCATED AS THE WORK ZONE PROGRESSES ALONG THE HIGHWAY.
- SIGNS SHALL BE DUAL-MOUNTED ON MULTI-LANE HIGHWAYS WHERE MEDIAN IS WIDE ENOUGH TO MAINTAIN LATERAL CLEARANCES AS PRESCRIBED IN THE MUTCD. WHERE CONSTRUCTION ONLY AFFECTS ONE DIRECTION OF A DIVIDED HIGHWAY WITH A BARRIER OR WIDE MEDIAN, SIGNS SHALL NOT BE ERECTED FOR OPPOSING DIRECTION.
- ADDITIONAL SIGNS MAY BE REQUIRED FOR LONG CONSTRUCTION ZONES OR WHERE RAMPS OR INTERSECTING STREETS JUNCTION WITHIN THE PROJECT LIMITS.
- WHEN THE HIGHWAY WORK ZONE DOES NOT HAVE A WORKER PRESENT FOR MORE THAN A TWO (2) HOUR PERIOD OF TIME, DOUBLE FINE SIGNS SHALL BE REMOVED OR COVERED SO THAT THE MESSAGE IS NOT VISIBLE.
- THE "WARNING/FINE DOUBLED IN WORK ZONE" SIGN SHALL BE INSTALLED APPROXIMATELY 500' IN ADVANCE OF THE AREA WHERE WORKERS ARE UNPROTECTED AND NO CLOSER THAN 250' TO ANY OTHER WORK ZONE SIGNING. THE "END DOUBLE FINE" SIGN(S) SHALL BE INSTALLED NEAR THE END OF THE AREA WHERE WORKERS ARE UNPROTECTED.

### REDUCED SPEED ZONE SIGNS

- REDUCED SPEED ZONES SHOULD BE USED ONLY IN SPECIFIC PORTIONS OF THE WORK ZONE WHERE CONDITIONS OR RESTRICTIVE FEATURES ARE PRESENT. LOWERING THE REGULATORY SPEED LIMIT SHOULD BE AVOIDED AS MUCH AS PRACTICAL BECAUSE DRIVERS REDUCE THEIR SPEEDS ONLY IF THEY CLEARLY PERCEIVE A NEED TO DO SO.
- SPEED LIMIT MAY BE REDUCED BY 15 MPH WITHOUT A TRAFFIC ENGINEERING INVESTIGATION ON HIGHWAYS WHERE THE NORMAL POSTED SPEED LIMIT IS 70 MPH. THE SPEED LIMIT MAY BE REDUCED BY 10 MPH WITHOUT A TRAFFIC ENGINEERING INVESTIGATION ON OTHER HIGHWAYS. LARGER SPEED REDUCTIONS REQUIRE A TRAFFIC ENGINEERING INVESTIGATION AND APPROVAL OF THE SECRETARY OF TRANSPORTATION.
- A SPEED REDUCTION (W3-5) SIGN SHALL BE INSTALLED IN ADVANCE OF A WORK ZONE WITH A TEMPORARY WORK ZONE SPEED LIMIT. SIGNS SHALL BE DUAL-MOUNTED ON MULTI-LANE HIGHWAYS WHERE MEDIAN IS WIDE ENOUGH TO MAINTAIN LATERAL CLEARANCES AS PRESCRIBED IN THE MUTCD. THE SIGN SHALL HAVE A FLUORESCENT ORANGE BACKGROUND, AND THE SPEED LIMIT DISPLAYED ON THE SIGN SHOULD MATCH THE DESIRED SPEED LIMIT THROUGH THE WORK ZONE. THE SIGN(S) SHALL BE INSTALLED APPROXIMATELY 500' IN ADVANCE OF THE SPEED LIMIT SIGN AND NO CLOSER THAN 250' TO ANY OTHER WORK ZONE SIGNING.

<b>KENTUCKY DEPARTMENT OF HIGHWAYS</b>	
<b>WORK ZONE SPEED LIMIT AND DOUBLE FINE SIGNS</b>	
STANDARD DRAWING NO. <b>TTD-120</b>	
SUBMITTED <i>Dennis H. Shuman</i>	11-21-07 DATE
DIRECTOR, DIVISION OF TRAFFIC OPERATIONS	
APPROVED <i>Matthew W. Anderson</i>	11-21-07 DATE
STATE HIGHWAY ENGINEER	



SIGN SPACING TABLE	
ROAD TYPE	A
EXPRESSWAY/ FREEWAY	750'
RURAL/URBAN SP. LT. $\geq$ 45 MPH*	500'
URBAN SP. LT. $\leq$ 40 MPH*	250'

\*NOTE: USE NORMAL POSTED SPEED LIMIT

#### APPLICATION

PAVEMENT CONDITION SIGNS GIVE MOTORISTS ADVANCE WARNING OF TEMPORARY IMPACTS TO PAVEMENT CONDITIONS WITHIN WORK ZONES. SUCH ADVANCE WARNING IS PARTICULARLY CRITICAL FOR MOTORCYCLISTS. IF USED, THESE SIGNS SHALL BE USED IN COMBINATION WITH OTHER REQUIRED WORK ZONE SIGNING.

#### GENERAL NOTES

1. SIGNS SHALL HAVE A BLACK LEGEND ON A FLUORESCENT ORANGE BACKGROUND.
2. THE SIZE OF ABOVE SIGNS SHALL BE 48" X 48" IF THE NORMAL POSTED SPEED LIMIT IS 45 MPH OR GREATER. OTHERWISE, 36" X 36" SIGNS MAY BE USED.
3. SIGNS SHALL BE MOUNTED AT ELEVATIONS AND OFFSETS PRESCRIBED IN THE MUTCD.
4. SIGNS SHALL BE DUAL-MOUNTED ON MULTI-LANE HIGHWAYS WHERE MEDIAN IS WIDE ENOUGH TO MAINTAIN LATERAL CLEARANCES AS PRESCRIBED IN THE MUTCD.
5. ADDITIONAL SIGNS MAY BE REQUIRED FOR LONG CONSTRUCTION ZONES OR WHERE RAMPS OR INTERSECTING STREETS JUNCTION WITHIN THE PROJECT LIMITS.
6. SIGNS SHOULD BE INSTALLED IN ACCORDANCE WITH SPACING IN SIGN SPACING TABLE AND NO CLOSER THAN 250' TO ANY OTHER REQUIRED WORK ZONE SIGNING.
7. IF A PAVEMENT CONDITION EXISTS OVER A LONG STRETCH OF ROADWAY, PAVEMENT CONDITION WARNING SIGNS MAY BE USED IN COMBINATION WITH A SUPPLEMENTARY DISTANCE PLAQUE (W7-3A).
- ⑧ \*WET PAVEMENT\* SIGNS SHOULD BE INSTALLED IN ADVANCE OF LOCATIONS WHERE WATER IS APPLIED TO THE PAVEMENT TO CONTROL DUST IN A WORK ZONE.
- ⑨ \*FRESH OIL\* SIGNS SHOULD BE INSTALLED WHERE PAVING OPERATIONS RESULT IN A SLIPPERY PAVEMENT SURFACE AND/OR WHERE SPLASHING MAY OCCUR.
- ⑩ \*ROUGH ROAD\* SIGNS SHOULD BE INSTALLED IN ADVANCE OF ANY TEMPORARILY TEXTURED/MILLED PAVEMENT SURFACES.
- ⑪ \*UNEVEN LANES\* SIGNS SHOULD BE INSTALLED IN ADVANCE OF LOCATIONS WHERE THERE IS A SUBSTANTIAL DIFFERENCE IN ELEVATION BETWEEN ADJACENT LANES THAT ARE OPEN TO TRAVEL.
- ⑫ \*LOOSE GRAVEL\* SIGNS SHOULD BE INSTALLED WHERE WORK ZONE OPERATIONS FREQUENTLY RESULT IN ROCK DEBRIS IN THE ROADWAY.
- ⑬ \*BUMP\* SIGNS WITH SUPPLEMENTAL \*STEEL PLATE\* PLAQUES SHOULD BE INSTALLED IN ADVANCE OF LOCATIONS WHERE STEEL PLATES ARE USED TO BRIDGE OPEN CUTS IN THE ROADWAY.



⑧



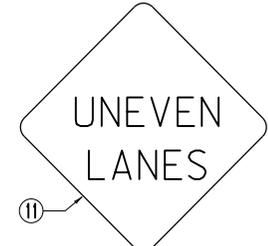
⑨

W21-2



⑩

W8-8



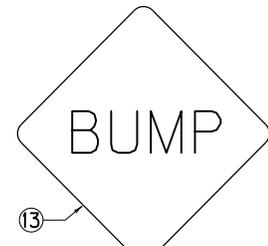
⑪

W8-11



⑫

W8-7



⑬

W8-1



KENTUCKY  
DEPARTMENT OF HIGHWAYS

PAVEMENT CONDITION  
WARNING SIGNS

STANDARD DRAWING NO. TTD-125

SUBMITTED *Dennis H. Jones* 11-21-07  
DIRECTOR, DIVISION OF TRAFFIC OPERATIONS DATE  
APPROVED *M. Anderson* 11-21-07  
STATE HIGHWAY ENGINEER DATE