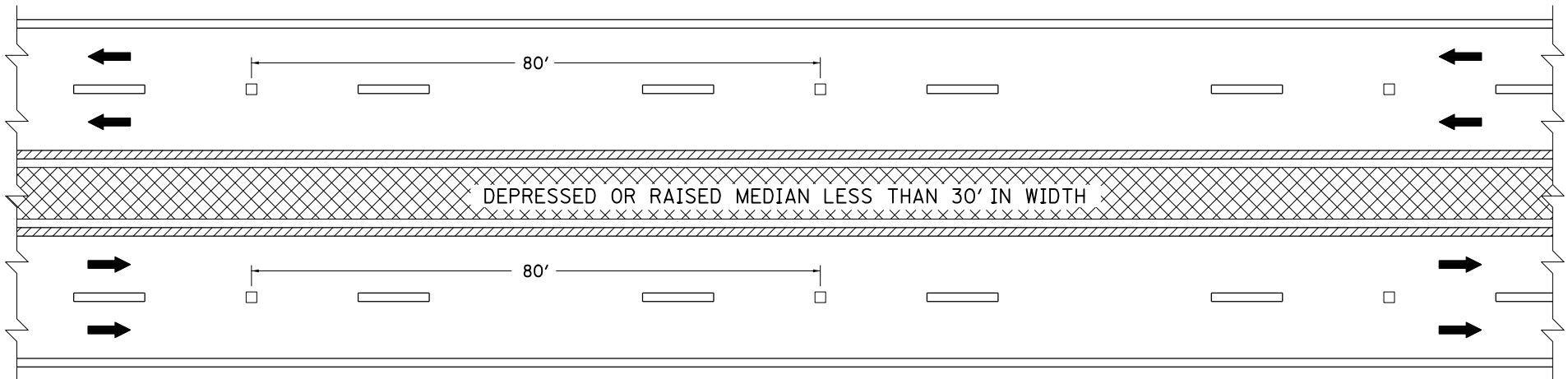


ARRANGEMENT "A" (UNDIVIDED HIGHWAY)



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

~ 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 OR PLACEMENT ADJUSTED AT THE DISCRETION OF THE ENGINEER.
4. MARKERS SHALL BE INSTALLED AT 40' SPACING ALONG SOLID WHITE AUXILIARY LANES. MARKER COLOR SHALL MATCH THE MARKERS INSTALLED ALONG THE WHITE LANE LINES.

BID ITEMS AND UNIT TO BID:  
 PAVEMENT MARKER TYPE V (B-W/R, B-Y/R, BY, MW, MY)  
 INLAID PAVEMENT MARKER

EACH  
 EACH

LEGEND	
⊠	BI-DIRECTIONAL (YELLOW)
□	MONO-DIRECTIONAL (WHITE)
▨	MARKINGS (YELLOW)
▭	MARKINGS (WHITE)
⊞	DEPRESSED OR RAISED MEDIAN

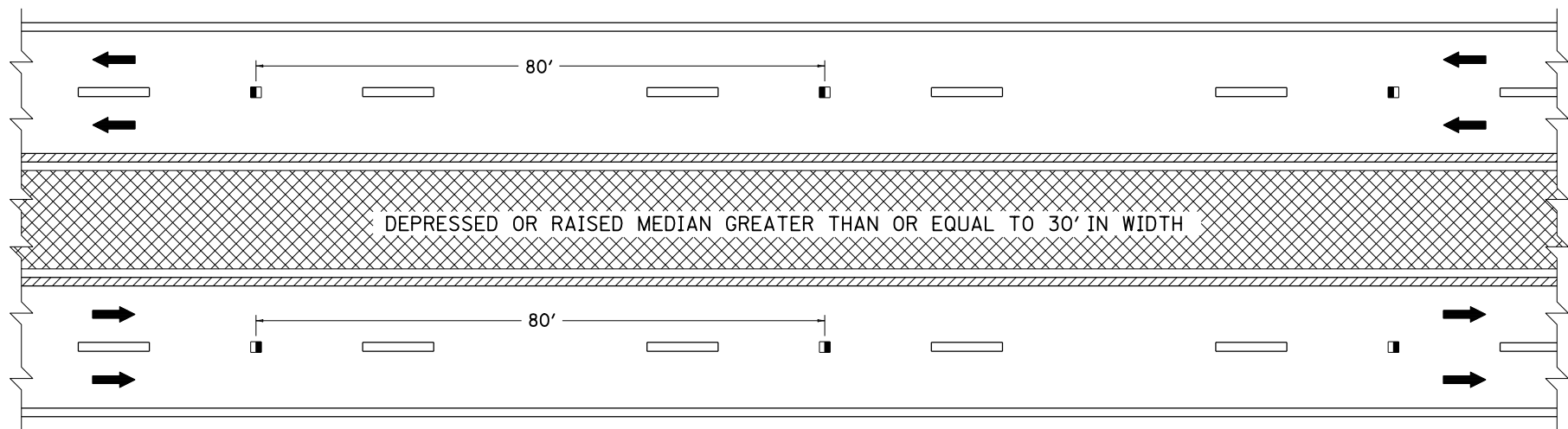
DRAWING NOT TO SCALE

**KENTUCKY**  
**DEPARTMENT OF HIGHWAYS**  
**PAVEMENT MARKER**  
**ARRANGEMENTS**  
**MULTI-LANE ROADWAYS**

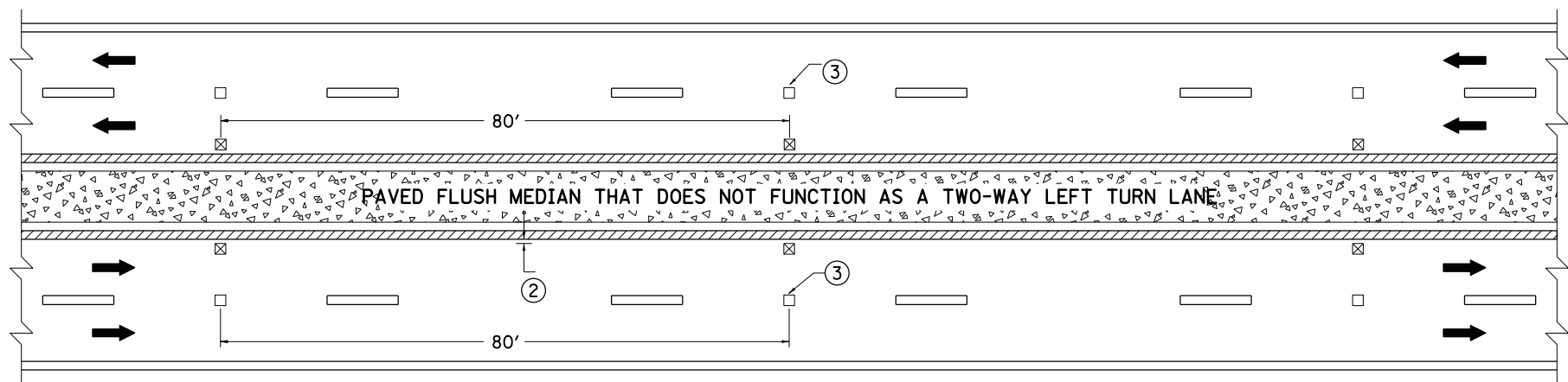
STANDARD DRAWING NO. TPM-100-03

SUBMITTED *B. Allen Wolf* 12-01-15  
DIRECTOR OF TRANSPORTATION OPERATIONS DATE

APPROVED *[Signature]* 12-01-15  
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)

~ 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/GROOVE 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 SHALL 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 OR PLACEMENT ADJUSTED AT THE DISCRETION OF THE ENGINEER.
5. MARKERS SHALL BE INSTALLED AT 40' SPACING ALONG SOLID WHITE AUXILIARY LANES. MARKER COLOR SHALL MATCH THE MARKERS INSTALLED ALONG THE WHITE LANE LINES.

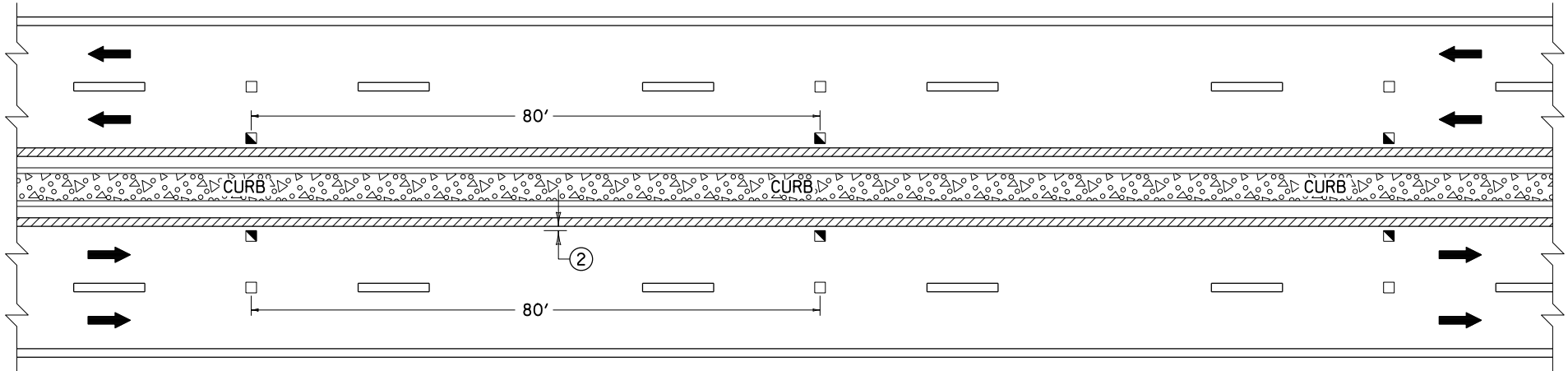
BID ITEMS AND UNIT TO BID  
 PAVEMENT MARKER TYPE V (B-W/R, B-Y/R, BY, MW, MY)  
 INLAID PAVEMENT MARKER

EACH  
 EACH

LEGEND	
	BI-DIRECTIONAL (YELLOW)
	BI-DIRECTIONAL (WHITE-RED)
	MONO-DIRECTIONAL (WHITE)
	MARKINGS (YELLOW)
	MARKINGS (WHITE)
	FLUSH MEDIAN
	DEPRESSED OR RAISED MEDIAN

DRAWING NOT TO SCALE

<b>KENTUCKY</b>	
<b>DEPARTMENT OF HIGHWAYS</b>	
<b>PAVEMENT MARKER</b>	
<b>ARRANGEMENTS</b>	
<b>MULTI-LANE ROADWAYS</b>	
STANDARD DRAWING NO. TPM-105-03	
SUBMITTED <i>B. Allen Wolf</i>	DATE 12-01-15
<small>DIRECTOR OF TRANSPORTATION OPERATIONS</small>	
APPROVED <i>[Signature]</i>	DATE 12-01-15
<small>STATE HIGHWAY ENGINEER</small>	



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

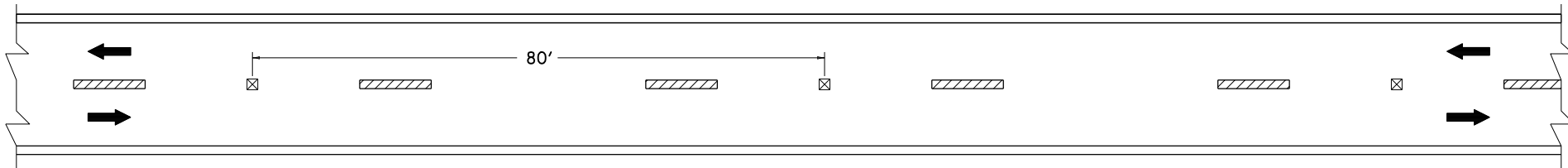
~ NOTES ~

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/GROOVE IS NO MORE THAN 1" FROM THE NEAR EDGE OF THE LINE.
  3. MARKERS SHALL 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 OR PLACEMENT ADJUSTED AT THE DISCRETION OF THE ENGINEER.
  4. MARKERS SHALL BE INSTALLED AT 40' SPACING ALONG SOLID WHITE AUXILIARY LANES. MARKER COLOR SHALL MATCH THE MARKERS INSTALLED ALONG THE WHITE LANE LINES.
- BID ITEMS AND UNIT TO BID:  
 PAVEMENT MARKER TYPE V (B-W/R, B-Y/R, BY, MW, MY)                      EACH  
 INLAID PAVEMENT MARKER    EACH

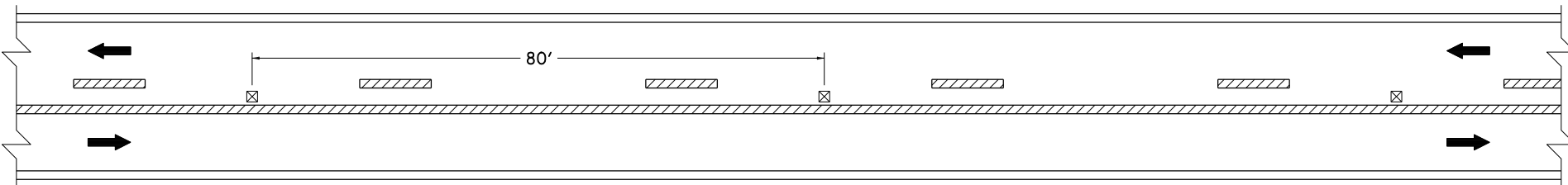
LEGEND	
■	MONO-DIRECTIONAL (YELLOW)
□	MONO-DIRECTIONAL (WHITE)
▨	MARKINGS (YELLOW)
▭	MARKINGS (WHITE)

DRAWING NOT TO SCALE

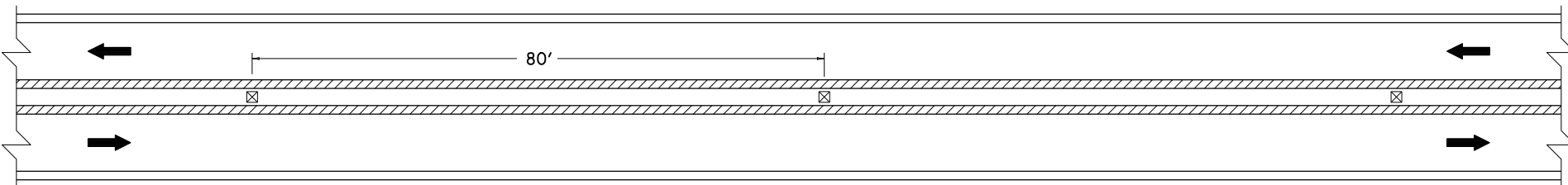
<b>KENTUCKY DEPARTMENT OF HIGHWAYS</b>	
<b>PAVEMENT MARKER ARRANGEMENTS MULTI-LANE ROADWAYS</b>	
STANDARD DRAWING NO. TPM-110-03	
SUBMITTED <i>B. Allen Wolf</i>	DATE 12-01-15
<small>DIRECTOR OF TRANSPORTATION OPERATIONS</small>	
APPROVED <i>[Signature]</i>	DATE 12-01-15
<small>STATE HIGHWAY ENGINEER</small>	



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)

~ 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 SHALL 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 OR PLACEMENT ADJUSTED AT THE DISCRETION OF THE ENGINEER.

BID ITEMS AND UNIT TO BID  
 PAVEMENT MARKER TYPE V (B-W/R, B-Y/R, BY, MW, MY)  
 INLAID PAVEMENT MARKER

EACH  
 EACH

LEGEND

- ⊗ BI-DIRECTIONAL (YELLOW)
- ▨ MARKINGS (YELLOW)
- ▭ MARKINGS (WHITE)

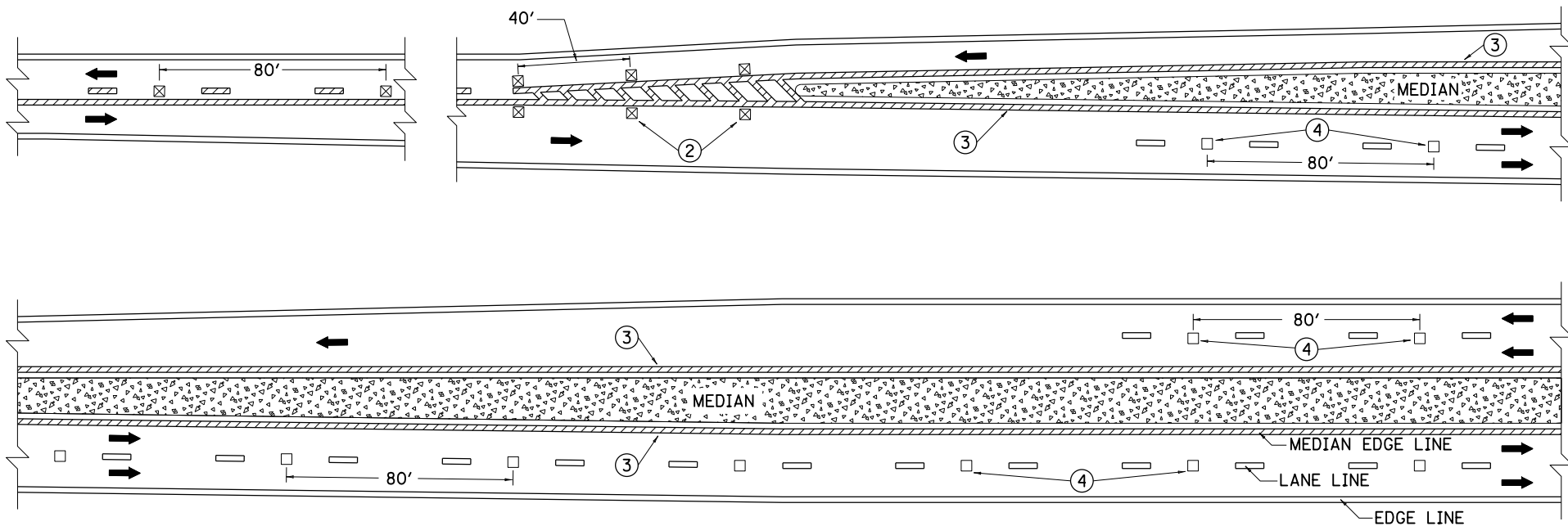
DRAWING NOT TO SCALE

USE WITH CUR. STD. DWGS.  
 TPM-150, TPM-155, TPM-160

KENTUCKY  
 DEPARTMENT OF HIGHWAYS  
 PAVEMENT MARKER  
 ARRANGEMENTS  
 TWO-LANE, TWO-WAY  
 ROADWAYS

STANDARD DRAWING NO. TPM-115-03

SUBMITTED *R. Allen Wolf* DATE 12-01-15  
 DIRECTOR OF TRAFFIC OPERATIONS  
 APPROVED *[Signature]* DATE 12-01-15  
 STATE HIGHWAY ENGINEER



TWO LANE TO FOUR LANE PAVEMENT TRANSITIONS

LEGEND

- ⊠ BI-DIRECTIONAL (YELLOW)
- MONO-DIRECTIONAL (WHITE) ④
- ▨ MARKINGS (YELLOW)
- ▭ MARKINGS (WHITE)

~ 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 SHALL 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.

BID ITEMS AND UNIT TO BID  
 PAVEMENT MARKER TYPE V (B-W/R, B-Y/R, BY, MW, OR MY)  
 INLAID PAVEMENT MARKER

EACH  
 EACH

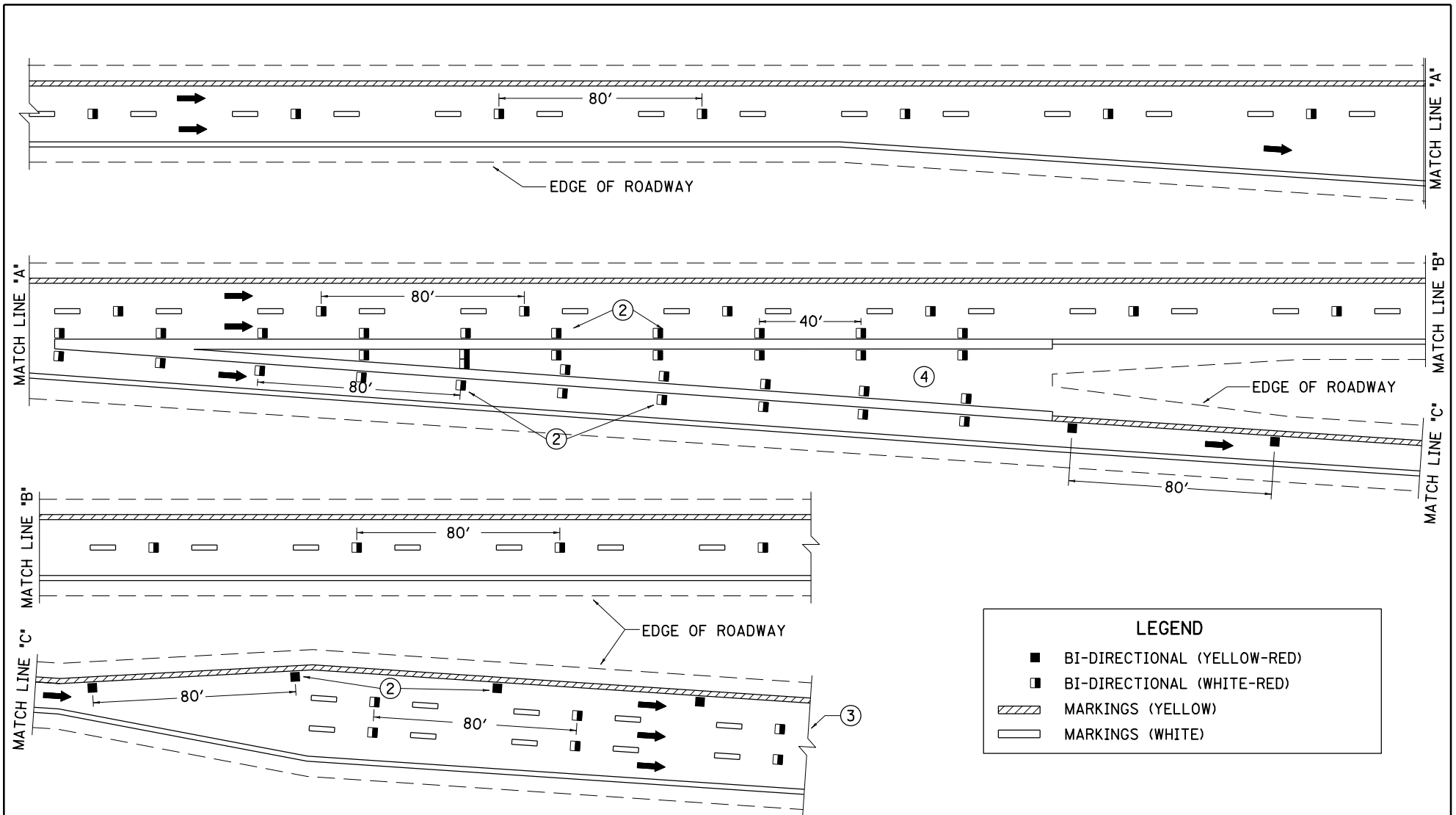
DRAWING NOT TO SCALE

USE WITH CUR. 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-120-03

SUBMITTED *R. Allen Wolf* 12-01-15  
 DIRECTOR OF STATE TRAFFIC OPERATIONS DATE  
 APPROVED *[Signature]* 12-01-15  
 STATE HIGHWAY ENGINEER DATE



**LEGEND**

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

~ 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/GROOVE 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 SHALL 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 OR PLACEMENT ADJUSTED AT THE DISCRETION OF THE ENGINEER.

BID ITEMS AND UNIT TO BID  
 PAVEMENT MARKER TYPE V (B-W/R, B-Y/R, BY, MW, MY)  
 INLAID PAVEMENT MARKER

EACH  
 EACH

DRAWING NOT TO SCALE

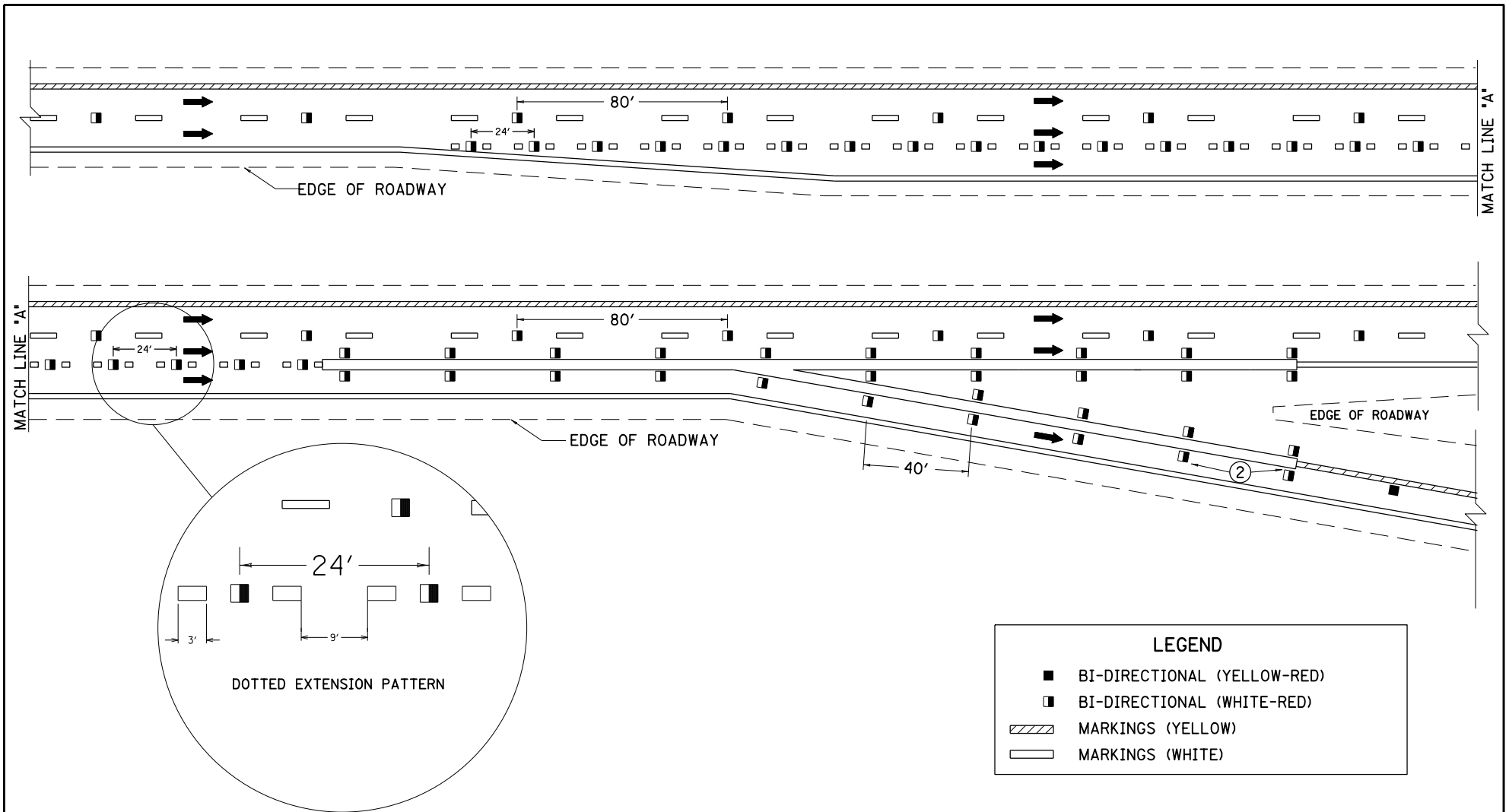
**KENTUCKY  
 DEPARTMENT OF HIGHWAYS**

**PAVEMENT MARKER  
 ARRANGEMENT  
 EXIT GORE AND OFF-RAMP**

STANDARD DRAWING NO. TPM-125-03

SUBMITTED *B. Allen Wolf* 12-01-15  
DIRECTOR OF TRANSPORTATION OPERATIONS DATE

APPROVED *[Signature]* 12-01-15  
STATE HIGHWAY ENGINEER DATE



~ 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 SHALL 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.
6. MARKERS INSTALLED ALONG THE RAMP EDGELINE SHALL BE SPACED AT 80' INTERVALS.

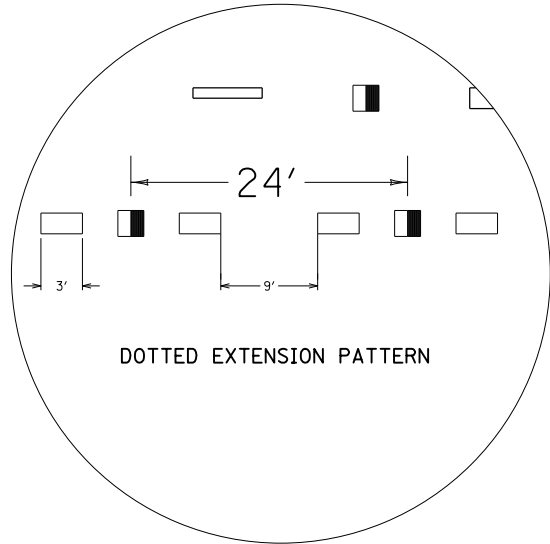
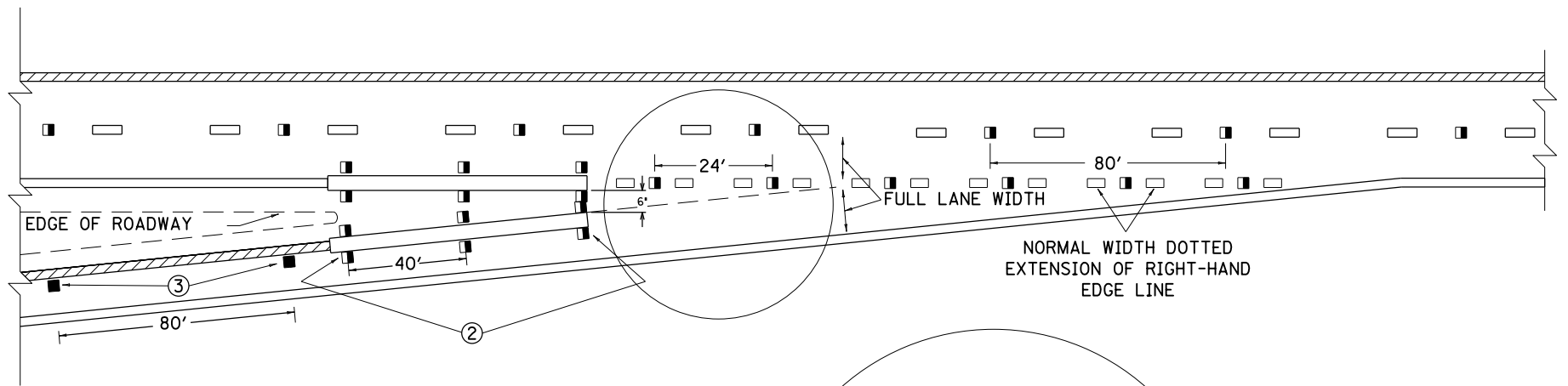
BID ITEMS AND UNIT TO BID  
 PAVEMENT MARKER TYPE V (B-W/R, B-Y/R, BY, MW, OR MY) EACH  
 INLAID PAVEMENT MARKER EACH

EACH  
 EACH

LEGEND	
■	BI-DIRECTIONAL (YELLOW-RED)
□	BI-DIRECTIONAL (WHITE-RED)
▨	MARKINGS (YELLOW)
▭	MARKINGS (WHITE)

DRAWING NOT TO SCALE

<b>KENTUCKY</b>			
<b>DEPARTMENT OF HIGHWAYS</b>			
<b>PAVEMENT MARKER</b>			
<b>ARRANGEMENT FOR</b>			
<b>PARALLEL DECELERATION LANE</b>			
STANDARD DRAWING NO. TPM-126			
SUBMITTED	<i>R. Allen Wolf</i>	DATE	12-01-15
DIRECTOR, DIVISION OF DESIGN			
APPROVED	<i>[Signature]</i>	DATE	12-01-15
STATE HIGHWAY ENGINEER			



LEGEND	
■	BI-DIRECTIONAL (YELLOW-RED)
▣	BI-DIRECTIONAL (WHITE-RED)
▨	MARKINGS (YELLOW)
▭	MARKINGS (WHITE)

~ NOTES ~

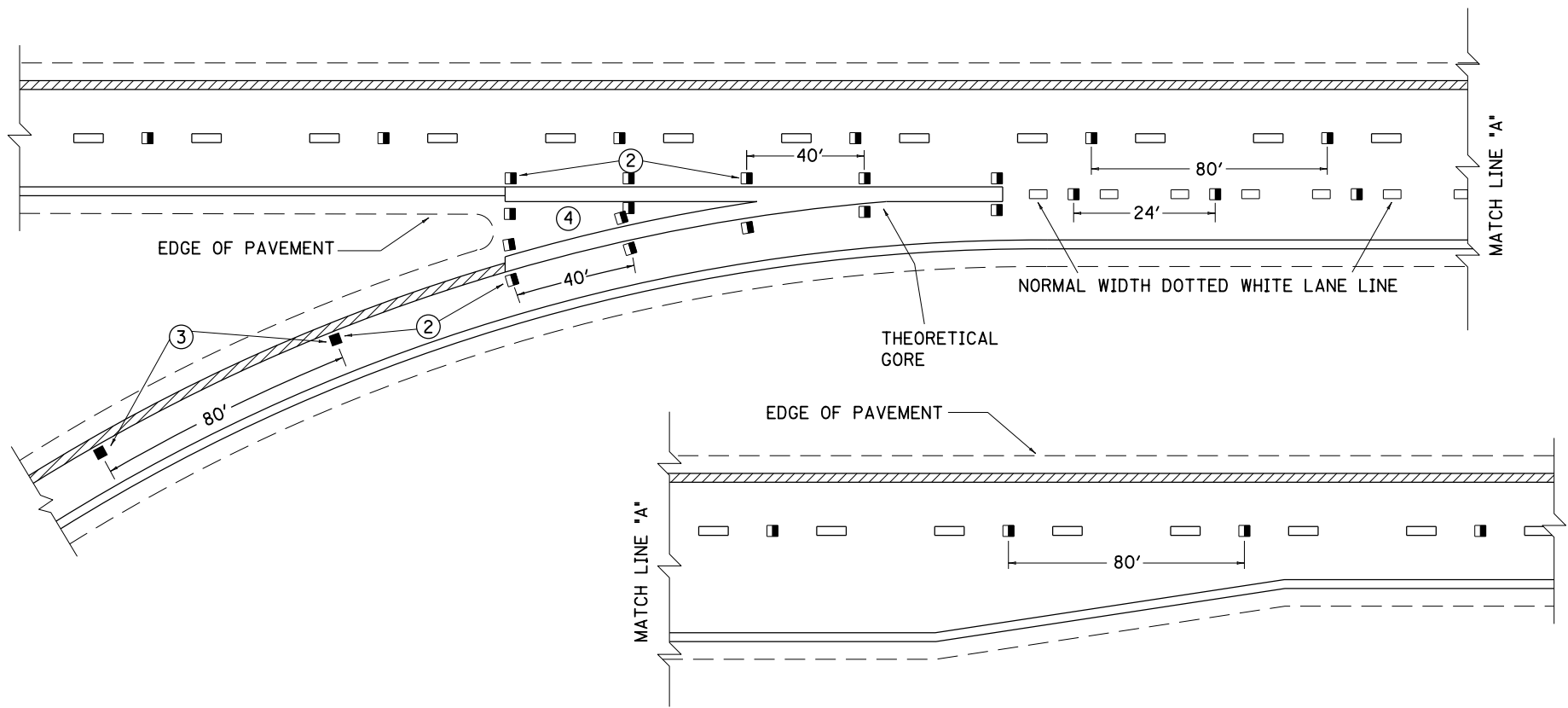
1. MARKERS INSTALLED ALONG LANE LINES SHALL BE PLACED BETWEEN AND IN LINE WITH THE SKIPS.
- ② MARKERS INSTALLED ALONG EDGE LINES SHALL BE PLACED SO THAT THE NEAR EDGE OF THE CASTING/GROOVE IS NO MORE THAN 1" FROM THE NEAR EDGE OF THE LINE.
- ③ BI-DIRECTIONAL (YELLOW-RED) MARKERS ARE TO BE PLACED ALONG 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 SHALL 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 OR PLACEMENT ADJUSTED AT THE DISCRETION OF THE ENGINEER.

BID ITEMS AND UNIT TO BID	
PAVEMENT MARKER TYPE V (B-W/R, B-Y/R, BY, MW, OR MY)	EACH
INLAID PAVEMENT MARKER	EACH

DRAWING NOT TO SCALE

<b>KENTUCKY</b>	
<b>DEPARTMENT OF HIGHWAYS</b>	
<b>PAVEMENT MARKER ARRANGEMENT ON-RAMP WITH TAPERED ACCELERATION LANE</b>	
STANDARD DRAWING NO. TPM-130-03	
SUBMITTED <i>B. Allen Wolf</i>	DATE 12-01-15
<small>DIRECTOR OF TRANSPORTATION OPERATIONS</small>	
APPROVED <i>[Signature]</i>	DATE 12-01-15
<small>STATE HIGHWAY ENGINEER</small>	





~ 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 SHALL 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 OR PLACEMENT ADJUSTED AT THE DISCRETION OF THE ENGINEER.
6. THE NORMAL WIDTH DOTTED WHITE LANE LINE SHALL EXTEND FOR AT LEAST HALF THE LENGTH OF THE FULL-WIDTH ACCELERATION LANE PLUS TAPER MEASURED FROM THE THEORETICAL GORE.

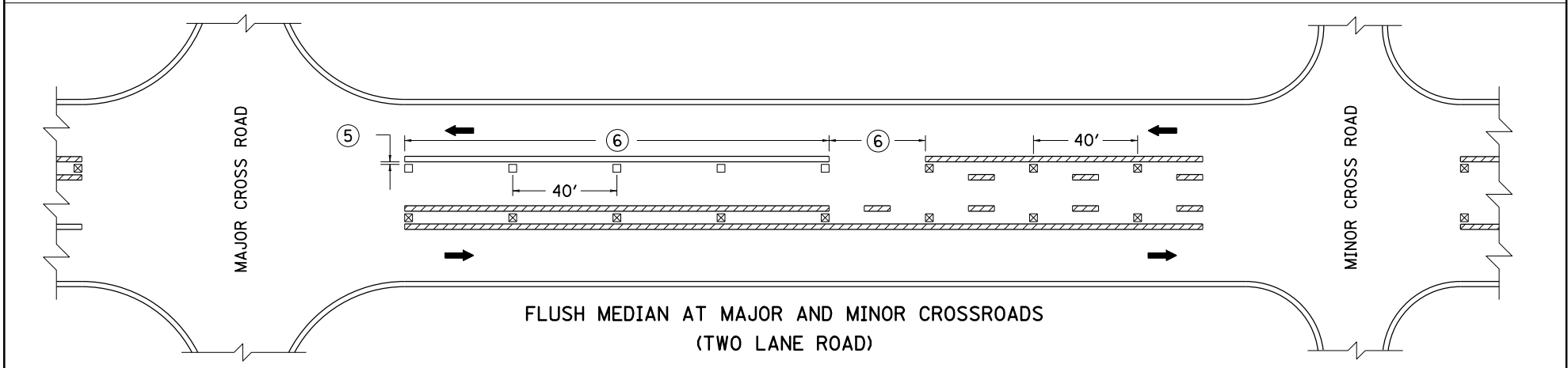
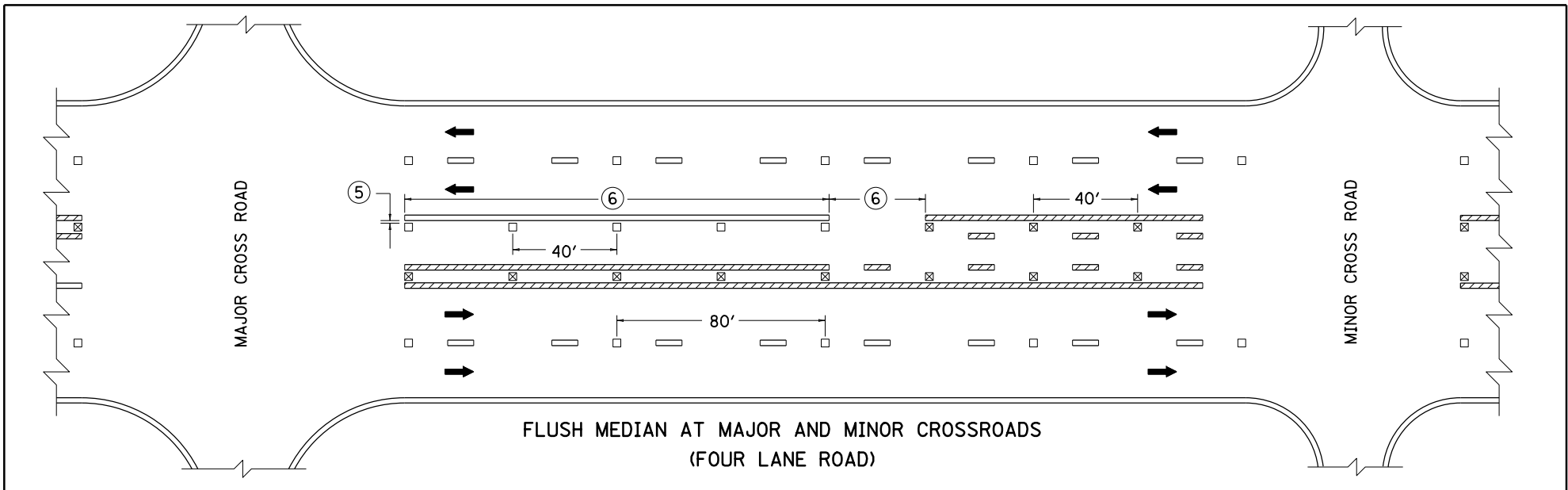
BID ITEMS AND UNIT TO BID  
 PAVEMENT MARKER TYPE V (B-W/R, B-Y/R, BY, MW, MY)  
 INLAID PAVEMENT MARKER

EACH  
 EACH

LEGEND	
■	BI-DIRECTIONAL (YELLOW-RED)
□	BI-DIRECTIONAL (WHITE-RED)
▨	MARKINGS (YELLOW)
▭	MARKINGS (WHITE)

DRAWING NOT TO SCALE

<b>KENTUCKY</b>	
<b>DEPARTMENT OF HIGHWAYS</b>	
<b>PAVEMENT MARKER</b>	
<b>ARRANGEMENT</b>	
<b>ON-RAMP WITH PARALLEL</b>	
<b>ACCELERATION LANE</b>	
STANDARD DRAWING NO. TPM-135-03	
SUBMITTED <i>B. Allen Wolf</i>	DATE 12-01-15
<small>DIRECTOR OF TRANSPORTATION OPERATIONS</small>	
APPROVED <i>[Signature]</i>	DATE 12-01-15
<small>STATE HIGHWAY ENGINEER</small>	



~ NOTES ~

1. MARKERS INSTALLED AT DOUBLE YELLOW CENTERLINES SHALL BE PLACED BETWEEN THE TWO LINES.
2. MARKERS INSTALLED ALONG LANE LINES OR DASHED YELLOW CENTERLINES SHALL BE PLACED BETWEEN AND IN LINE WITH THE SKIPS.
- ③ MARKERS INSTALLED ALONG EDGE LINES SHALL BE PLACED SO THAT THE NEAR EDGE OF THE CASTING/GROOVE IS NO MORE THAN 1" FROM THE NEAR EDGE OF THE LINE.
- ④ LENGTH TO BE DETERMINED ON A PROJECT BY PROJECT BASIS.
5. MARKERS SHALL 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 OR PLACEMENT ADJUSTED AT THE DISCRETION OF THE ENGINEER.

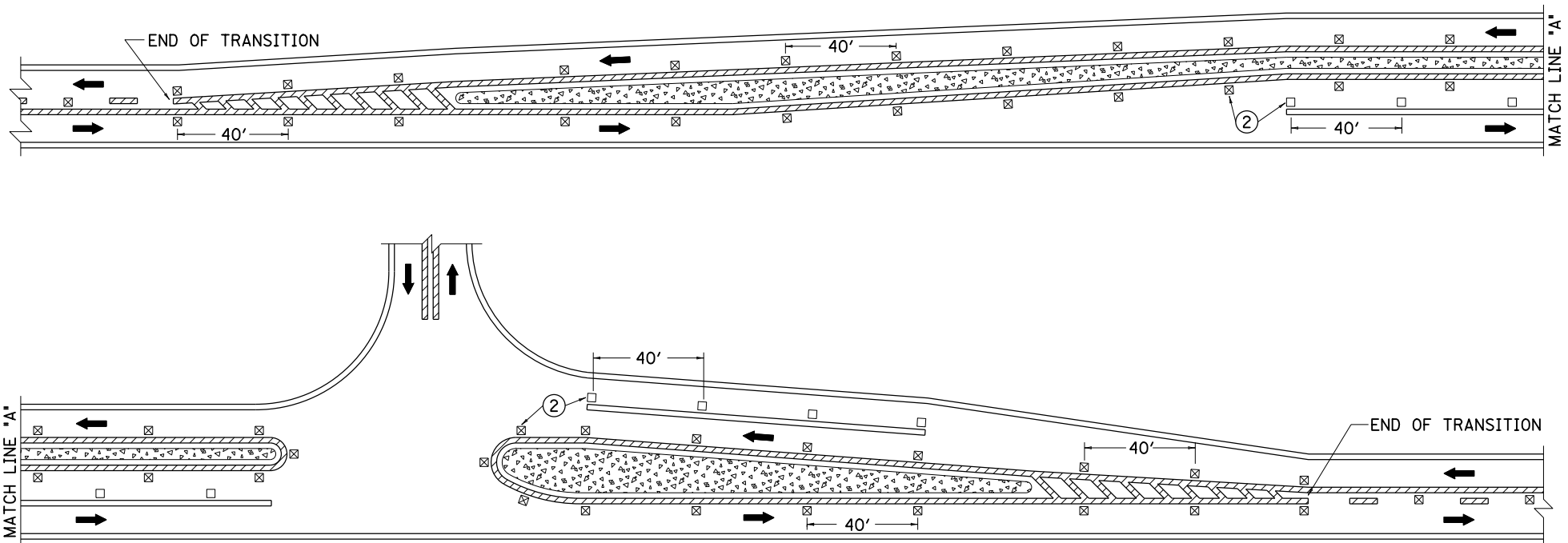
BID ITEMS AND UNIT TO BID  
 PAVEMENT MARKER TYPE V (B-W/R, B-Y/R, BY, MW, MY)  
 INLAID PAVEMENT MARKER

EACH  
 EACH

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

DRAWING NOT TO SCALE

<b>KENTUCKY</b>		
<b>DEPARTMENT OF HIGHWAYS</b>		
<b>PAVEMENT MARKER</b>		
<b>ARRANGEMENTS</b>		
<b>TWO-WAY, LEFT TURN LANE</b>		
STANDARD DRAWING NO. TPM-140-03		
SUBMITTED	<i>B. Allen Wolf</i>	12-01-15
DIRECTOR OF TRANSPORTATION OPERATIONS		DATE
APPROVED	<i>[Signature]</i>	12-01-15
STATE HIGHWAY ENGINEER		DATE



CHANNELIZED INTERSECTION ON A TWO DIRECTIONAL TWO LANE FACILITY

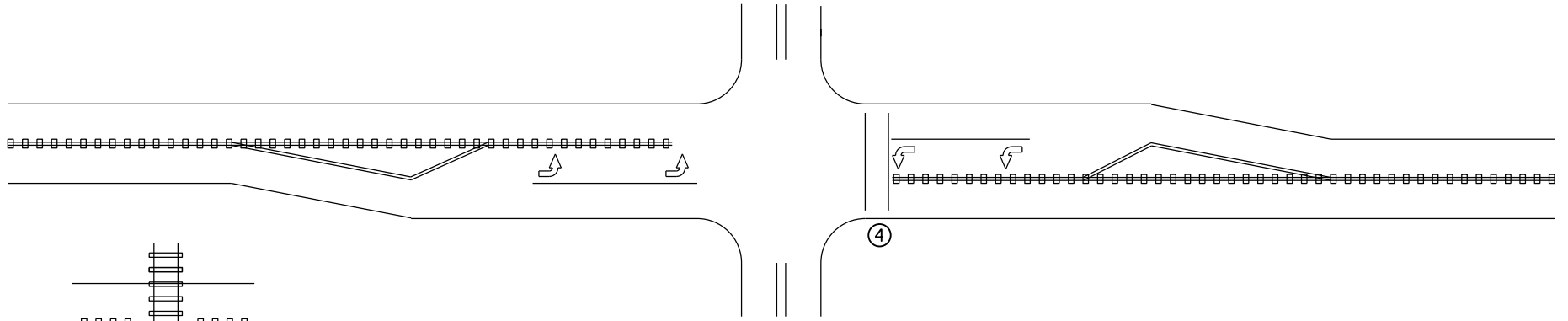
LEGEND	
⊠	BI-DIRECTIONAL (YELLOW)
□	MONO-DIRECTIONAL (WHITE)
▨	CURBED OR FLUSH MEDIAN
▨	MARKINGS (YELLOW)
▭	MARKINGS (WHITE)

~ NOTES ~

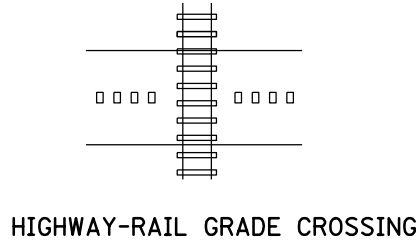
- MARKERS INSTALLED ALONG DASHED YELLOW CENTERLINES SHALL BE PLACED BETWEEN AND IN LINE WITH THE SKIPS.
  - MARKERS INSTALLED ALONG EDGE LINES OR CHANNELIZING LINES SHALL BE PLACED SO THAT THE NEAR EDGE OF THE CASTING/GROOVE IS NO MORE THAN 1" FROM THE NEAR EDGE OF THE LINE.
  - MARKERS SHALL NOT BE 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 OR PLACEMENT ADJUSTED AT THE DISCRETION OF THE ENGINEER.
- BID ITEMS AND UNIT TO BID  
 PAVEMENT MARKER TYPE V (B-W/R, B-Y/R, BY, MW, MY) EACH  
 INLAID PAVEMENT MARKER EACH

DRAWING NOT TO SCALE

<b>KENTUCKY</b>	
<b>DEPARTMENT OF HIGHWAYS</b>	
<b>PAVEMENT MARKER ARRANGEMENT CHANNELIZED INTERSECTION</b>	
STANDARD DRAWING NO. TPM-145-03	
SUBMITTED <i>B. Allen Wolf</i>	DATE 12-01-15
<small>DIRECTOR OF STATE TRAFFIC OPERATIONS</small>	
APPROVED <i>[Signature]</i>	DATE 12-01-15
<small>STATE HIGHWAY ENGINEER</small>	

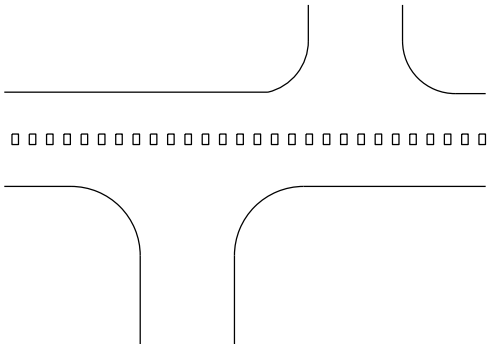


INTERSECTION WITH LEFT-TURN LANES



HIGHWAY-RAIL GRADE CROSSING

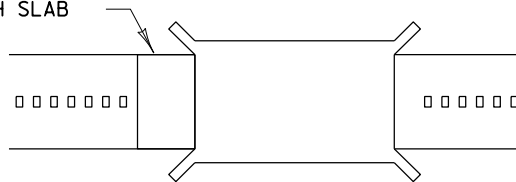
③



DRIVEWAYS/MINOR COMMERCIAL ENTRANCES

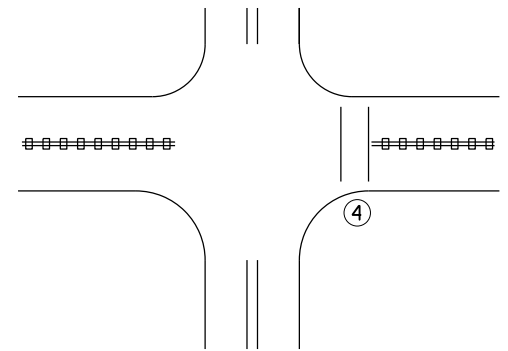
⑥

APPROACH SLAB



BRIDGE DECK/APPROACH SLAB

⑤



INTERSECTION WITHOUT LEFT-TURN LANES

DRAWING NOT TO SCALE

~ NOTES ~

- 1 CENTERLINE RUMBLE STRIPS SHALL BE OMITTED THROUGH MAJOR INTERSECTIONS WITH OR WITHOUT LEFT-TURN LANES. RUMBLE STRIPS SHALL BE OMITTED IN THE AREA WHERE CENTERLINE PAVEMENT MARKINGS HAVE BEEN OMITTED (NORMALLY WHERE SIDE STREET RADIUS INTERSECTS MAINLINE).
- 2 RUMBLE STRIPS SHALL BE OMITTED WHERE THE POSTED SPEED LIMIT IS 45 MPH OR LESS.
- ③ CENTERLINE RUMBLE STRIPS SHALL NOT BE INSTALLED ACROSS HIGHWAY-RAIL GRADE CROSSINGS.
- ④ CENTERLINE RUMBLE STRIPS SHALL NOT BE INSTALLED THROUGH MARKED CROSSWALKS.
- ⑤ CENTERLINE RUMBLE STRIPS SHALL NOT BE INSTALLED ON BRIDGE DECKS OR APPROACH SLABS.
- ⑥ CENTERLINE RUMBLE STRIPS SHALL BE INSTALLED THROUGH DRIVEWAYS/MINOR COMMERCIAL ENTRANCES.

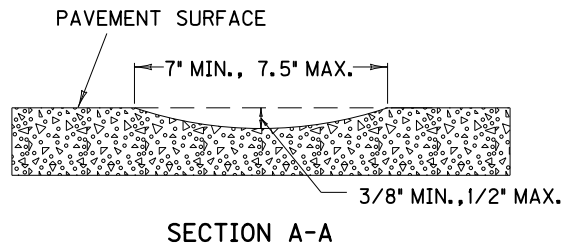
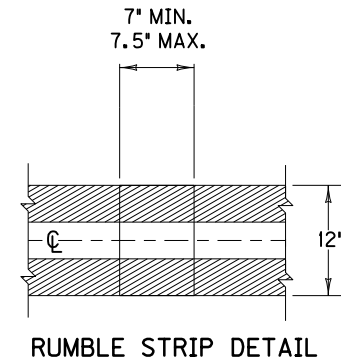
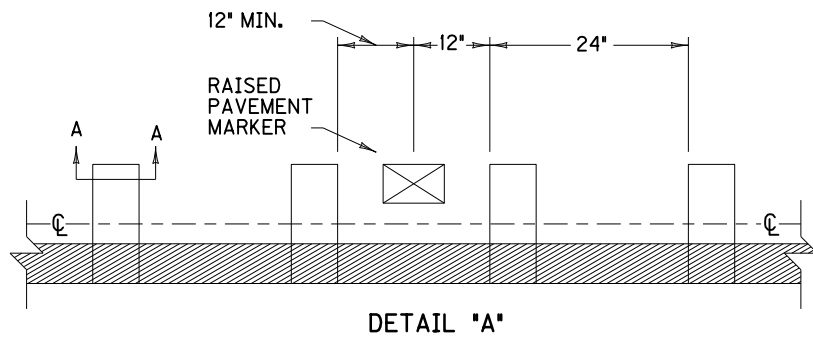
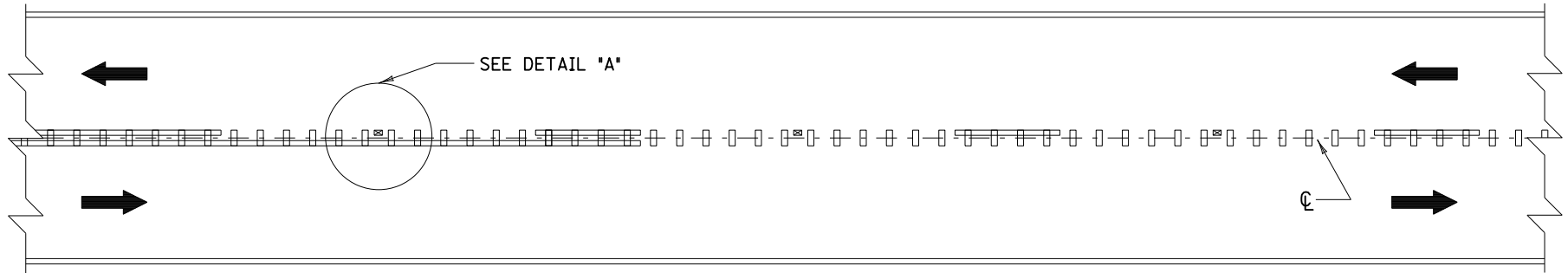
BID ITEM AND UNIT TO BID  
CENTERLINE RUMBLE STRIPS

LF

USE WITH CUR. STD. DWGS.  
TPM-155 AND TPM-160

<b>KENTUCKY</b>		
<b>DEPARTMENT OF HIGHWAYS</b>		
<b>CENTERLINE RUMBLE STRIPS</b>		
<b>STANDARD DRAWING NO. TPM-150-02</b>		
SUBMITTED	<i>B. Allen Wolf</i>	DATE 12-01-15
DIRECTOR, DIVISION OF DESIGN		DATE
APPROVED	<i>[Signature]</i>	DATE 12-01-15
STATE HIGHWAY ENGINEER		DATE

PLAN VIEW



~ NOTES ~

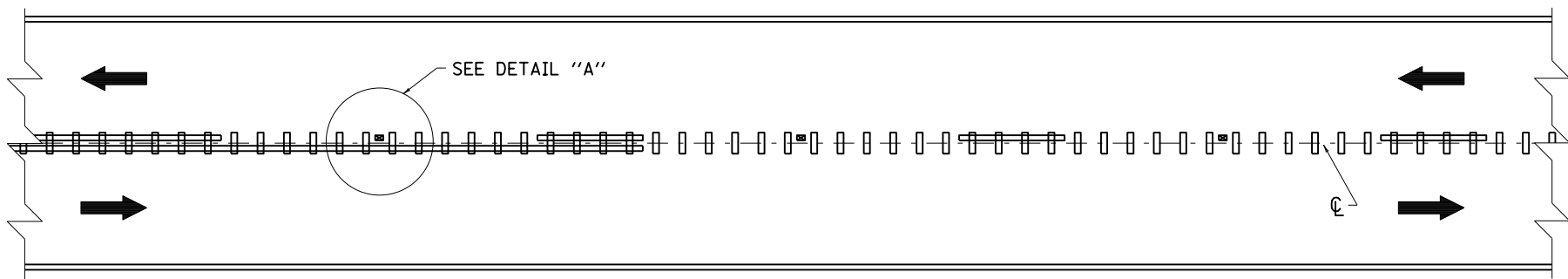
1. DISTANCES SHOWN ARE APPROXIMATE. MAINTAIN RUMBLE STRIP DIMENSIONS AND SPACING AS MUCH AS POSSIBLE.
2. RUMBLE STRIPS SHALL BE INSTALLED IN LINE WITH THE CENTER OF THE ROADWAY AS MUCH AS POSSIBLE.
3. DISCONTINUE RUMBLE STRIPS AT LEAST 12" BEFORE AND AFTER THE CENTER OF EACH RAISED PAVEMENT MARKER. INSTALL AS MANY RUMBLE STRIPS AS POSSIBLE BETWEEN ADJACENT PAVEMENT MARKERS WHILE MAINTAINING THE 24" CYCLE.
4. DO NOT INSTALL CENTERLINE RUMBLE STRIPS IN AREAS INDICATED ON [TPM-150](#).
5. RUMBLE STRIPS SHALL BE OMITTED WHERE THE POSTED SPEED LIMIT IS 45 MPH OR LESS.

BID ITEMS AND UNIT TO BID	
CENTERLINE RUMBLE STRIPS	EACH
CENTERLINE RUMBLE STRIPS-12 IN	EACH

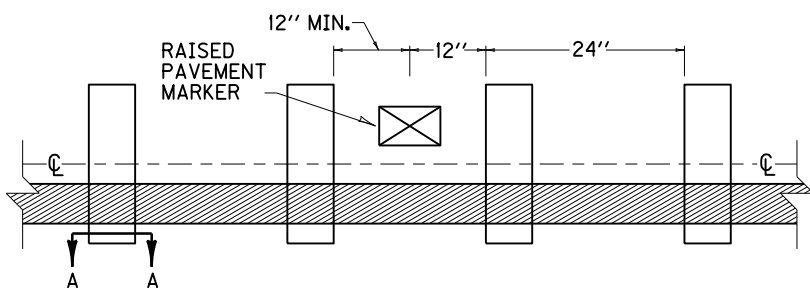
DRAWING NOT TO SCALE

USE WITH CUR. STD. DWG.  
[TPM-150](#)

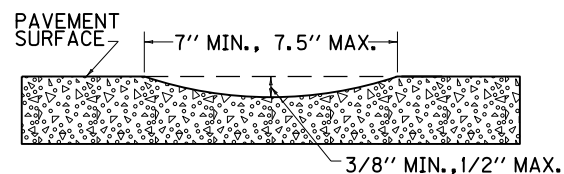
<b>KENTUCKY</b>	
<b>DEPARTMENT OF HIGHWAYS</b>	
<b>CENTERLINE RUMBLE STRIPS 4 INCH STRIPING</b>	
STANDARD DRAWING NO. TPM-155-02	
SUBMITTED <i>B. Allen Wolf</i>	DATE 12-01-15
<small>DIRECTOR OF TRANSPORTATION OPERATIONS</small>	
APPROVED <i>[Signature]</i>	DATE 12-01-15
<small>STATE HIGHWAY ENGINEER</small>	



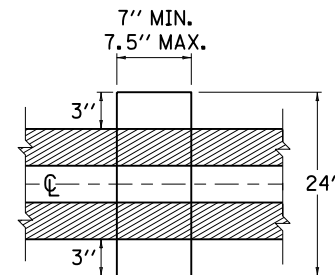
PLAN VIEW



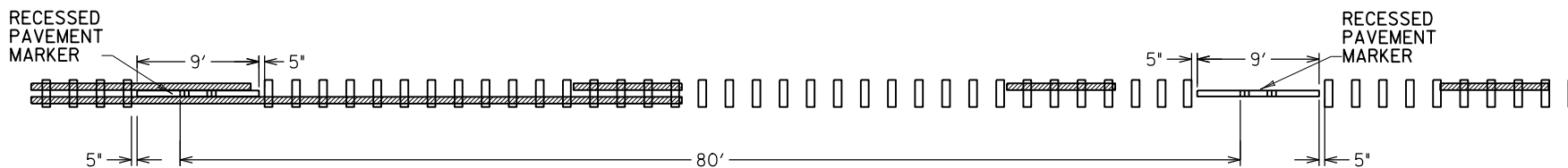
DETAIL "A"



SECTION A-A



RUMBLE STRIP DETAIL



DETAIL FOR CENTERLINE RUMBLE STRIPS WITH RECESSED PAVEMENT MARKERS

**APPLICATION**

THIS DRAWING APPLIES TO CENTERLINE RUMBLE STRIPS ON TWO-LANE HIGHWAYS AND FOUR-LANE UNDIVIDED HIGHWAYS WITH SIX-INCH STRIPING. RUMBLE STRIPS SHALL BE PLACED ON HIGHWAYS WITH A LANE WIDTH OF 11', AND A POSTED SPEED LIMIT GREATER THAN 45 MPH.

**~ NOTES ~**

1. DISTANCES SHOWN ARE APPROXIMATE. MAINTAIN RUMBLE STRIP DIMENSIONS AND SPACING AS MUCH AS POSSIBLE.
2. RUMBLE STRIPS SHALL BE INSTALLED IN LINE WITH THE CENTER OF THE ROADWAY AS MUCH AS POSSIBLE.
3. DISCONTINUE RUMBLE STRIPS AT LEAST 12" BEFORE AND AFTER THE CENTER OF EACH RAISED PAVEMENT MARKER, OR 5' BEFORE AND AFTER EACH RECESSED PAVEMENT MARKER. INSTALL AS MANY RUMBLE STRIPS AS POSSIBLE BETWEEN ADJACENT PAVEMENT MARKERS WHILE MAINTAINING THE 24" CYCLE.
4. DO NOT INSTALL CENTERLINE RUMBLE STRIPS IN AREAS INDICATED ON [TPM-150](#).
5. RUMBLE STRIPS SHALL BE OMITTED WHERE THE POSTED SPEED LIMIT IS 45 MPH OR LESS.

BID ITEMS AND UNIT TO BID	
CENTERLINE RUMBLE STRIPS	EACH
CENTERLINE RUMBLE STRIPS-12 IN	EACH

DRAWING NOT TO SCALE

USE WITH CUR. STD. DWG.  
[TPM-150](#)

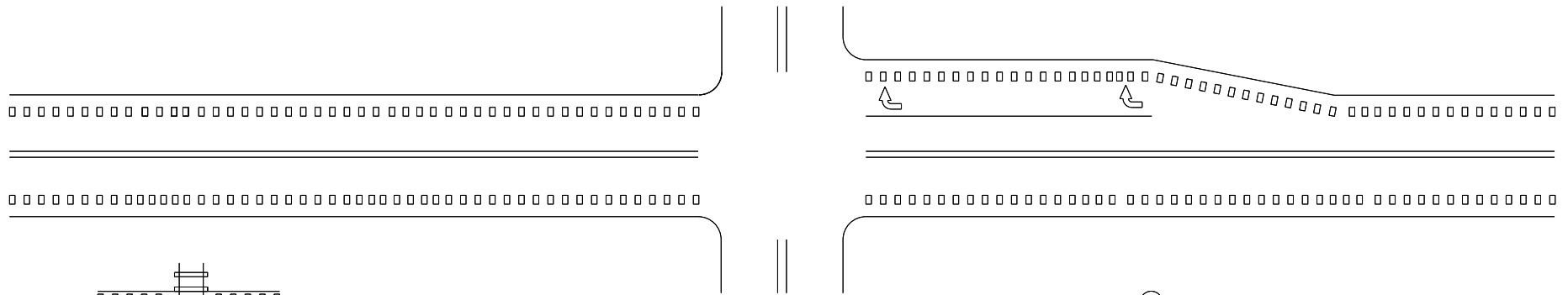
**KENTUCKY  
DEPARTMENT OF HIGHWAYS**

**CENTERLINE  
RUMBLE STRIPS  
6 INCH STRIPING**

STANDARD DRAWING NO. TPM-160-02

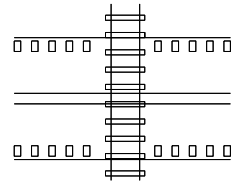
SUBMITTED *B. Allen Wolf* 12-01-15  
DATE DIRECTOR OF STATE TRAFFIC OPERATIONS

APPROVED *[Signature]* 12-01-15  
DATE STATE HIGHWAY ENGINEER



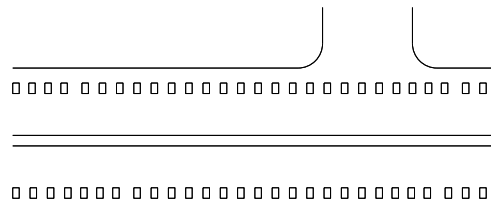
INTERSECTIONS WITH OR WITHOUT RIGHT-TURN LANES

②



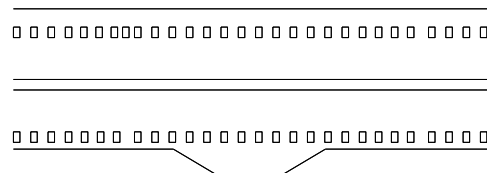
HIGHWAY-RAIL GRADE CROSSINGS

③



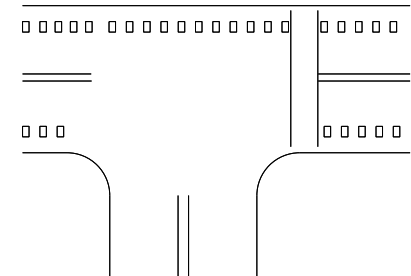
DRIVEWAYS/MINOR COMMERCIAL ENTRANCES

④



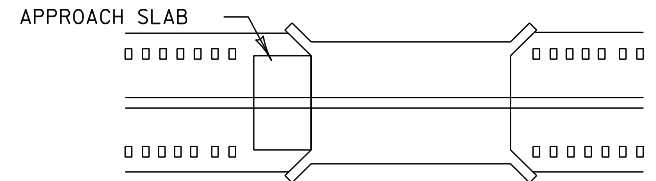
MAILBOX TURNOUTS

⑤



MARKED CROSSWALK

⑥



BRIDGE DECK/APPROACH SLAB

⑦

~ NOTES ~

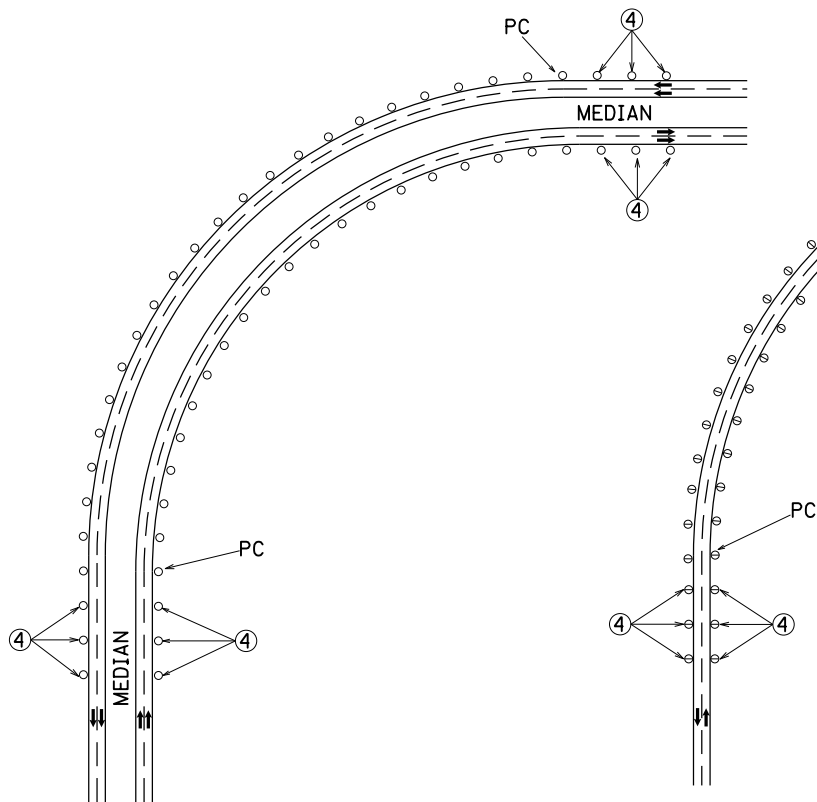
- 1 RUMBLE STRIPS SHALL BE OMITTED WHERE THE POSTED SPEED LIMIT IS 45 MPH OR LESS.
- ② RUMBLE STRIPS SHALL BE OMITTED THROUGH MAJOR INTERSECTIONS WITH OR WITHOUT RIGHT-TURN LANES. RUMBLE STRIPS SHALL BE OMITTED IN THE AREA WHERE EDGE LINE PAVEMENT MARKINGS HAVE BEEN OMITTED (NORMALLY WHERE SIDE STREET RADIUS INTERSECTS MAINLINE).
- ③ RUMBLE STRIPS SHALL NOT BE INSTALLED ACROSS HIGHWAY-RAIL GRADE CROSSINGS.
- ④ RUMBLE STRIPS SHALL BE INSTALLED THROUGH DRIVEWAYS/MINOR COMMERCIAL ENTRANCES.
- ⑤ RUMBLE STRIPS SHALL BE INSTALLED THROUGH MAILBOX TURNOUTS.
- ⑥ RUMBLE STRIPS SHALL NOT BE INSTALLED THROUGH MARKED CROSSWALKS.
- ⑦ RUMBLE STRIPS SHALL NOT BE INSTALLED ON BRIDGE DECKS OR APPROACH SLABS.

BID ITEMS AND UNIT TO BID  
 SHOULDER RUMBLE STRIPS-SAWED  
 SHOULDER RUMBLE STRIPS-SAW CUT

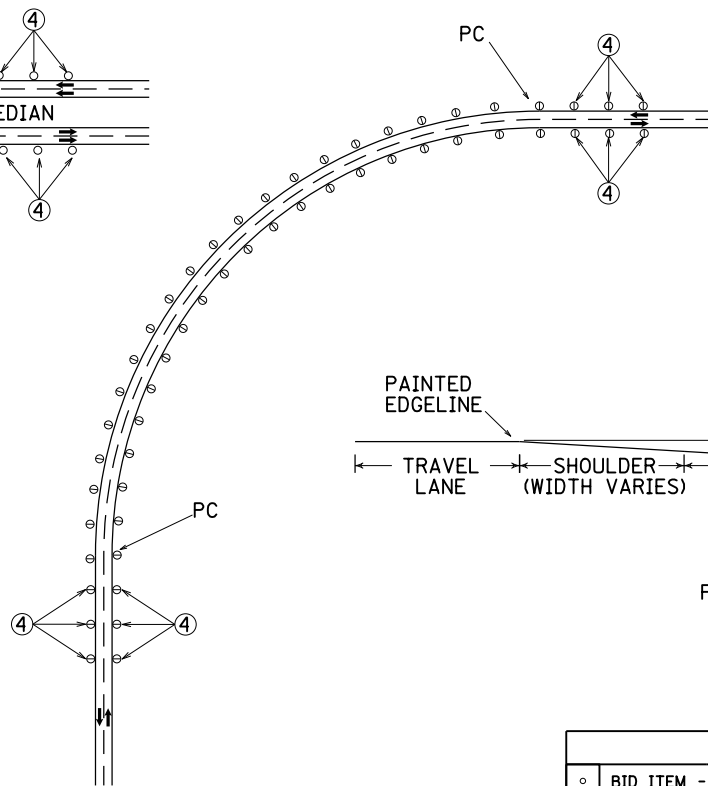
LF  
 LF

DRAWING NOT TO SCALE

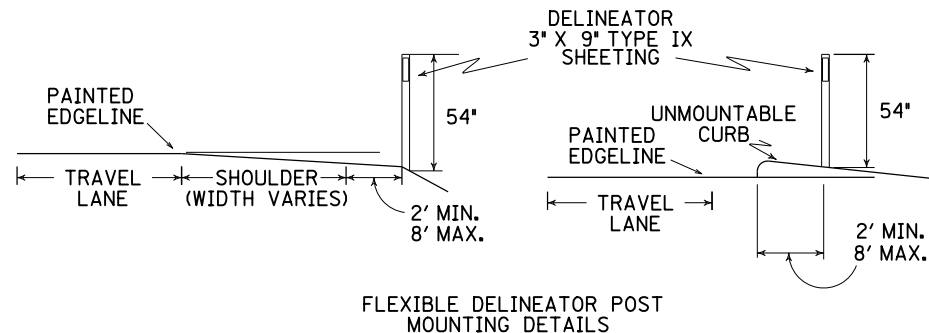
<b>KENTUCKY DEPARTMENT OF HIGHWAYS</b>		
<b>SHOULDER &amp; EDGE LINE RUMBLE STRIP DETAILS</b>		
<b>STANDARD DRAWING NO. TPM-165</b>		
SUBMITTED	<i>R. Allen Wolf</i> DIRECTOR, DIVISION OF DESIGN	DATE 12-01-15
APPROVED	<i>[Signature]</i> STATE HIGHWAY ENGINEER	DATE 12-01-15



DELINEATION FOR HORIZONTAL CURVES ON MULTI-LANE EXPRESSWAYS/FREEWAYS



DELINEATION FOR HORIZONTAL CURVES ON TWO-LANE EXPRESSWAYS/FREEWAYS



FLEXIBLE DELINEATOR POST MOUNTING DETAILS

LEGEND	
○	BID ITEM - FLEXIBLE DELINEATOR POST - M/W (MONO-WHITE)
⊙	BID ITEM - FLEXIBLE DELINEATOR POST - B/W (BI-WHITE)
APPROX. SPACING = 50 FEET	
UNIT BID = EACH	

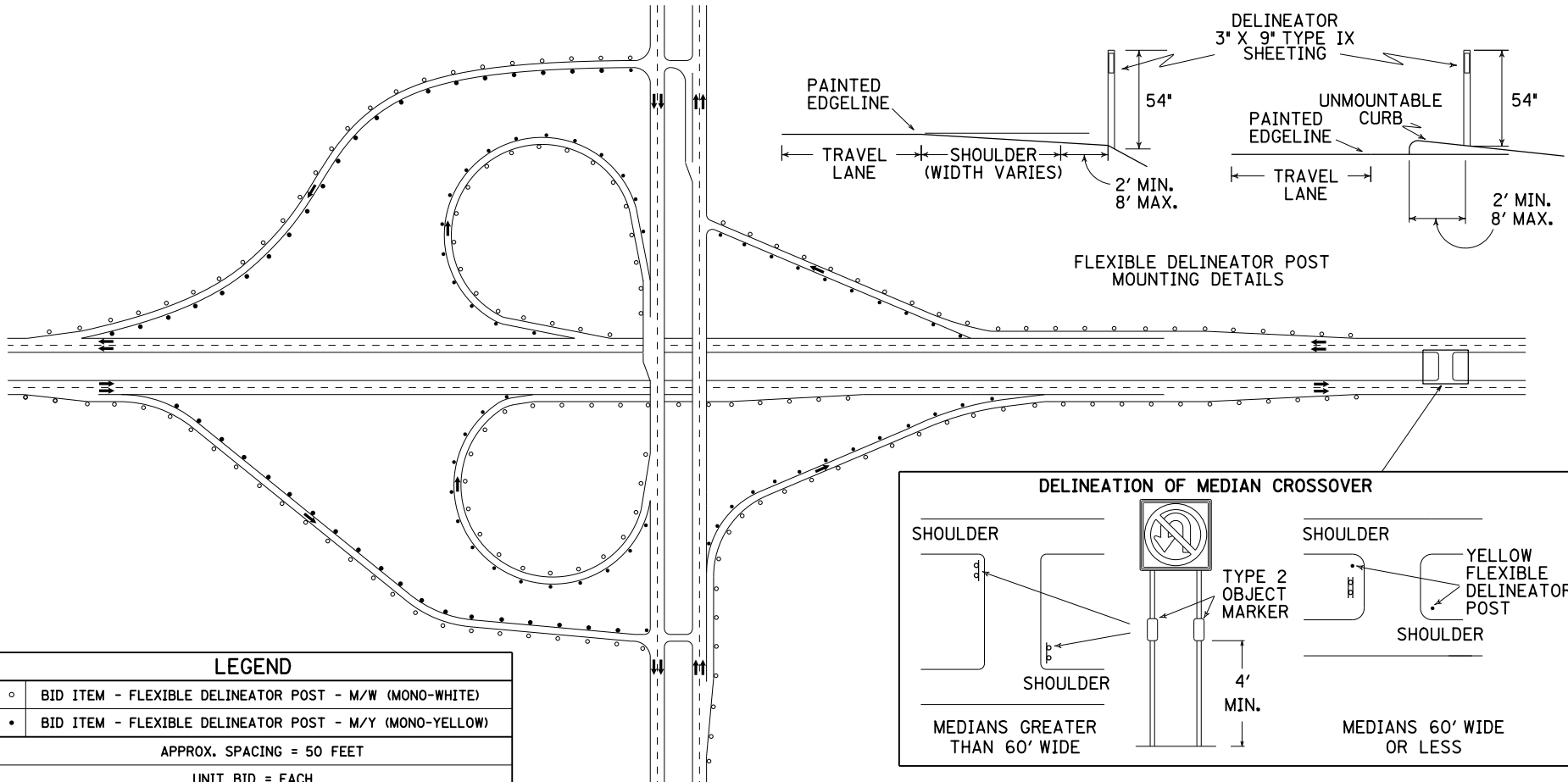
~ NOTES ~

1. DELINEATORS SHALL BE FROM THE LIST OF APPROVED MATERIALS AND SHALL BE IN ACCORDANCE WITH SECTION 838 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION.
2. DELINEATORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
3. THE DELINEATOR POST AND RETROREFLECTIVE SHEETING SHALL BE THE SAME COLOR AND SHALL MATCH THE COLOR OF THE EDGELINES THEY SUPPLEMENT.
- ④ THREE DELINEATORS SHOULD BE INSTALLED IN ADVANCE OF THE BEGINNING AND PROCEEDING AWAY FROM THE END OF THE CURVE AT A SPACING OF APPROXIMATELY 50 FEET.
5. DELINEATORS SHALL BE PROVIDED ON THE RIGHT-HAND SIDE OF HORIZONTAL CURVES ON EXPRESSWAYS AND FREEWAYS. DELINEATORS ARE NOT REQUIRED ON TANGENT SECTIONS OF EXPRESSWAYS AND FREEWAYS.
6. A FREEWAY IS DEFINED AS A DIVIDED HIGHWAY WITH FULL CONTROL OF ACCESS. AN EXPRESSWAY IS DEFINED AS A DIVIDED HIGHWAY WITH PARTIAL CONTROL OF ACCESS.
7. DELINEATORS SHOULD BE PLACED AT A CONSTANT DISTANCE FROM THE ROADWAY EDGE. WHEN AN OBSTRUCTION EXISTS NEAR THE PAVEMENT EDGE, THE LINE OF DELINEATORS SHOULD BE TRANSITIONED TO THE INSIDE OF THE OBSTRUCTION OR TO THE BARRIER DELINEATION IF THE OBSTRUCTION IS GUARDRAIL OR BARRIER WALL. SUCH TRANSITIONS SHOULD BEGIN APPROXIMATELY 200 FT IN ADVANCE OF THE OBSTRUCTION/BARRIER.
8. DELINEATORS SHOULD BE INSTALLED AT AN APPROXIMATE RIGHT ANGLE TO APPROACHING TRAFFIC.
9. DELINEATORS MAY BE DISCONTINUED ALONG SECTIONS WITH BARRIER WALL OR GUARDRAIL DELINEATION.
10. SPACING SHOULD BE ADJUSTED IN CURVES SO THAT SEVERAL DELINEATORS ARE ALWAYS SIMULTANEOUSLY VISIBLE TO THE ROAD USER.

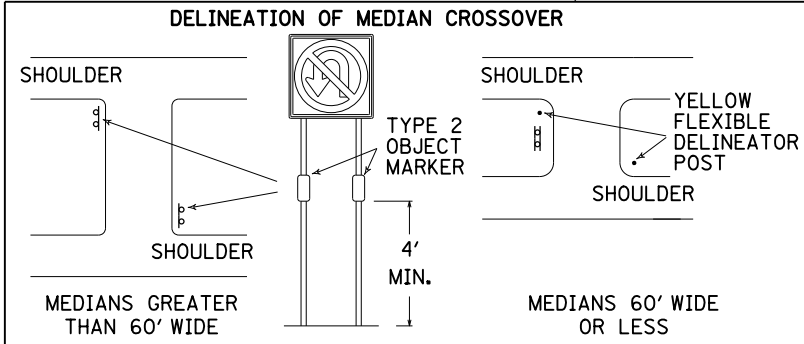
DRAWING NOT TO SCALE

<b>KENTUCKY</b>		
<b>DEPARTMENT OF HIGHWAYS</b>		
FLEXIBLE DELINEATOR POST ARRANGEMENTS FOR HORIZONTAL CURVES		
STANDARD DRAWING NO. TPM-170		
SUBMITTED	<i>R. Allen Wolf</i>	DATE 12-01-15
DIRECTOR, DIVISION OF DESIGN		DATE 12-01-15
APPROVED	<i>[Signature]</i>	DATE
STATE HIGHWAY ENGINEER		DATE





LEGEND	
○	BID ITEM - FLEXIBLE DELINEATOR POST - M/W (MONO-WHITE)
●	BID ITEM - FLEXIBLE DELINEATOR POST - M/Y (MONO-YELLOW)
APPROX. SPACING = 50 FEET	
UNIT BID = EACH	

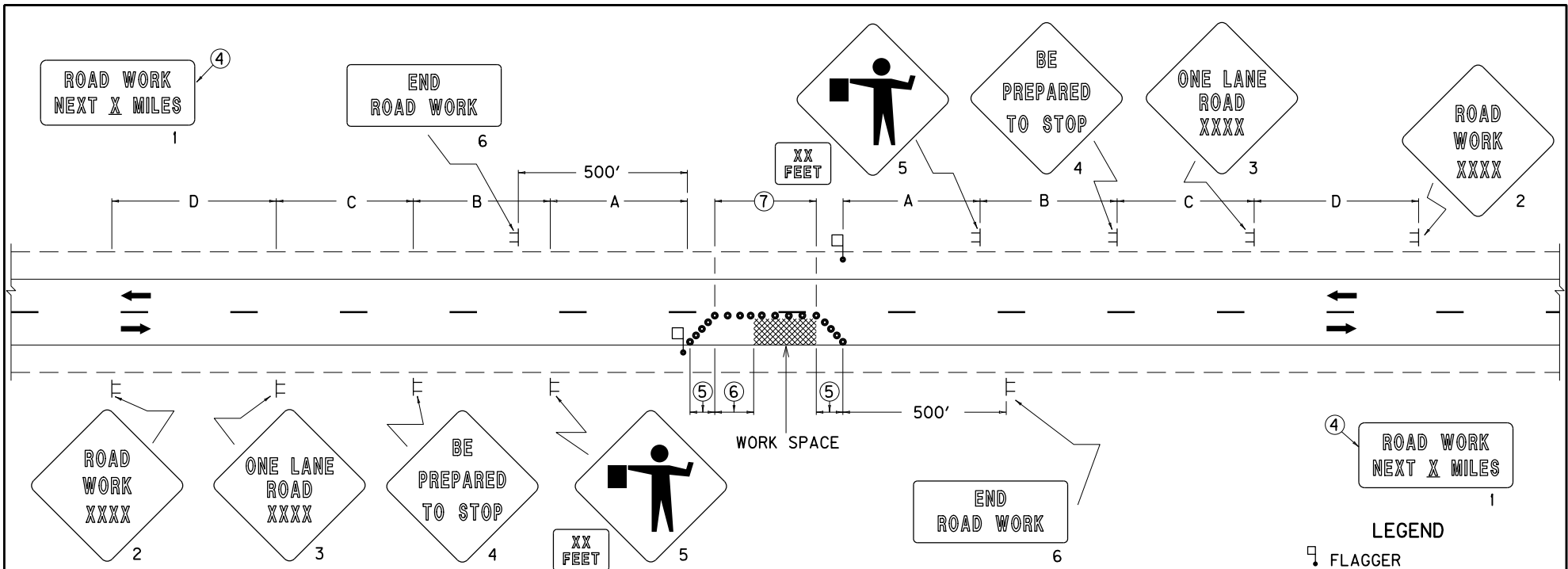


~ NOTES ~

1. DELINEATORS SHALL BE FROM THE LIST OF APPROVED MATERIALS AND SHALL BE IN ACCORDANCE WITH SECTION 838 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION.
2. DELINEATORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
3. THE DELINEATOR POST AND RETROREFLECTIVE SHEETING SHALL BE THE SAME COLOR AND SHALL MATCH THE COLOR OF THE EDGELINES THEY SUPPLEMENT.
4. DELINEATORS SHOULD BE PROVIDED ON BOTH SIDES OF INTERCHANGE RAMP. DELINEATORS SHOULD BE ERECTED AT APPROXIMATELY 50 FOOT INTERVALS ALONG RAMP AND ACCELERATION AND DECELERATION LANES ON THE MAINLINE AND CROSSROAD.
5. DELINEATORS SHOULD BE PLACED AT A CONSTANT DISTANCE FROM THE ROADWAY EDGE. WHEN AN OBSTRUCTION EXISTS NEAR THE PAVEMENT EDGE, THE LINE OF DELINEATORS SHOULD BE TRANSITIONED TO THE INSIDE OF THE OBSTRUCTION OR TO THE BARRIER DELINEATION IF THE OBSTRUCTION IS GUARDRAIL OR BARRIER WALL. SUCH TRANSITIONS SHOULD BEGIN APPROXIMATELY 200 FEET IN ADVANCE OF THE OBSTRUCTION/BARRIER.
6. DELINEATORS SHOULD BE INSTALLED AT AN APPROXIMATE RIGHT ANGLE TO APPROACHING TRAFFIC.
7. DELINEATORS MAY BE DISCONTINUED ALONG SECTIONS WITH BARRIER WALL OR GUARDRAIL DELINEATION.
8. SPACING SHOULD BE ADJUSTED IN CURVES SO THAT SEVERAL DELINEATORS ARE ALWAYS SIMULTANEOUSLY VISIBLE TO THE ROAD USER.

DRAWING NOT TO SCALE

<b>KENTUCKY</b>		
<b>DEPARTMENT OF HIGHWAYS</b>		
FLEXIBLE DELINEATOR POST ARRANGEMENTS FOR INTERCHANGE RAMP AND CROSSOVERS		
STANDARD DRAWING NO. TPM-171		
SUBMITTED	<i>B. Allen Wolf</i> DIRECTOR, DIVISION OF DESIGN	DATE 12-01-15
APPROVED	<i>[Signature]</i> STATE HIGHWAY ENGINEER	DATE 12-01-15



~ NOTES ~

1. THE SIZE OF SIGNS 2 THRU 5 SHALL BE 48" X 48" WITH 30" X 24" SUPPLEMENTAL PLAQUES FOR EXPRESSWAYS/FREEWAYS. THE MINIMUM SIZE OF SIGNS 2 THRU 5 SHALL BE 36" X 36" WITH 24" X 18" SUPPLEMENTAL PLAQUES FOR OTHER ROADWAYS. SIGN NOS. 1 AND 6 SHALL BE 48" X 24" FOR EXPRESSWAYS/FREEWAYS AND 36" X 18" FOR OTHER ROADWAYS. A FREEWAY SHALL BE DEFINED AS A DIVIDED HIGHWAY WITH FULL CONTROL OF ACCESS. AN EXPRESSWAY SHALL BE DEFINED AS A DIVIDED HIGHWAY WITH PARTIAL CONTROL OF ACCESS.
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 ACTIVITY AREA SO THAT APPROACHING ROAD USERS WILL HAVE SUFFICIENT DISTANCE TO STOP BEFORE ENTERING THE WORK SPACE. 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 SHOULD 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 BE 50' (MIN) TO 100' (MAX) IN LENGTH. 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. REFER TO TABLE 6C-2 OF THE MUTCD FOR GUIDANCE ON BUFFER SPACE LENGTH.
- ⑦ SPACING OF CHANNELIZING DEVICES THRU THE ACTIVITY AREA SHOULD BE 80'. ON ROADWAYS WITH WIDTHS LESS THAN 20 FEET, CHANNELIZING DEVICES MAY BE OMITTED THRU THE ACTIVITY AREA BASED ON ENGINEERING JUDGMENT.
8. WHEN NIGHTTIME WORK IS BEING PERFORMED, FLOODLIGHTS SHOULD BE USED TO ILLUMINATE THE WORK AREA.

- LEGEND**
- ④ FLAGGER
  - ⊞ SIGN
  - CHANNELIZING DEVICES  
CONES  
DRUMS  
TYPE II BARRICADES  
TUBULAR MARKERS

DRAWING NOT TO SCALE

BID ITEMS AND UNIT TO BID  
 LANE CLOSURE EACH  
 BARRICADE-TYPE I EACH  
 REFER TO SECTION 112 OF STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION.

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'	250'	250'

\*NOTE: USE NORMAL POSTED SPEED LIMIT

**APPLICATION**

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

**KENTUCKY  
DEPARTMENT OF HIGHWAYS**

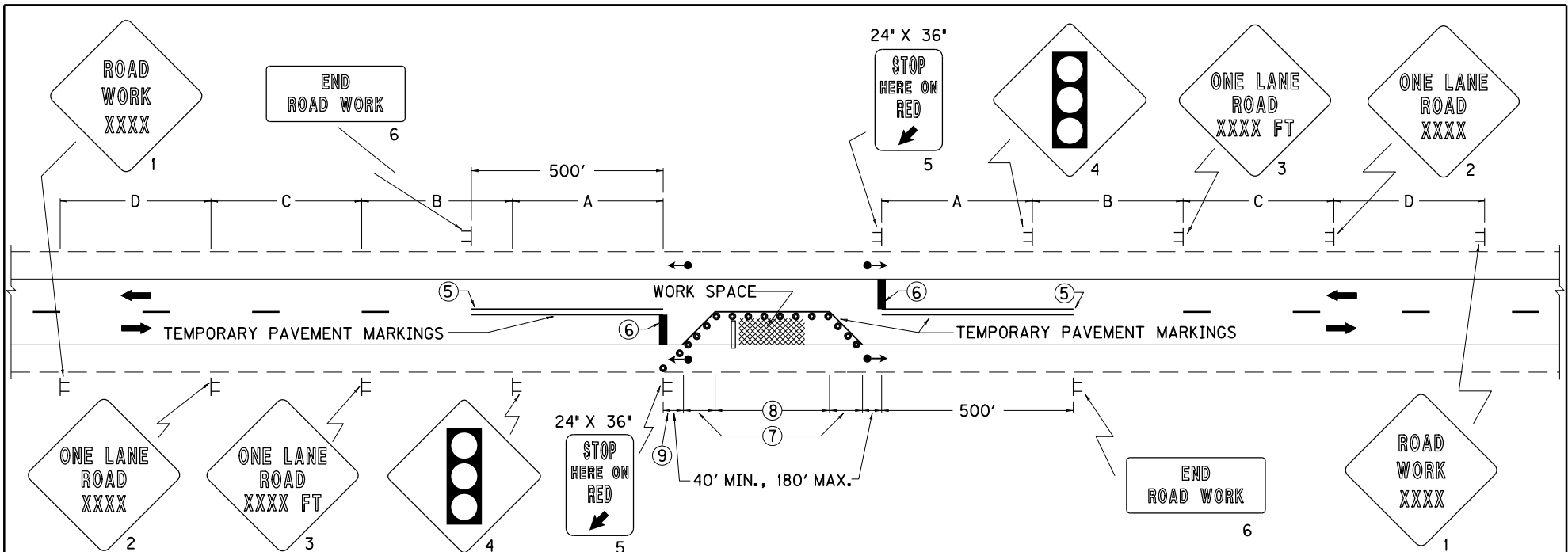
**LANE CLOSURE  
TWO-LANE HIGHWAY**

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STANDARD DRAWING NO. TTC-100-04

SUBMITTED *B. Allen Wolf* DATE 12-01-15  
DIRECTOR, DIVISION OF DESIGN

APPROVED *[Signature]* DATE 12-01-15  
STATE HIGHWAY ENGINEER



~ NOTES ~

1. THE SIZE OF SIGNS 2 THRU 5 SHALL BE 48" X 48" FOR EXPRESSWAYS/FREEWAYS. THE MINIMUM SIZE OF SIGNS 2 THRU 5 SHALL BE 36" X 36" FOR OTHER ROADWAYS. SIGN NOS. 1 AND 6 SHALL BE 48" X 24" FOR EXPRESSWAYS/FREEWAYS AND 36" X 18" FOR OTHER ROADWAYS. A FREEWAY SHALL BE DEFINED AS A DIVIDED HIGHWAY WITH FULL CONTROL OF ACCESS. AN EXPRESSWAY SHALL BE DEFINED AS A DIVIDED HIGHWAY WITH PARTIAL CONTROL OF ACCESS.
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 \*NO PASSING\* ZONES (500' MIN.) SHALL BE INSTALLED ON THE APPROACHES TO THE CLOSURE.
- ⑥ STOP BARS SHALL HAVE A WIDTH OF 24".
- ⑦ TAPERS SHALL BE 50' (MIN) TO 100' (MAX) IN LENGTH. SPACING OF CHANNELIZING DEVICES SHOULD BE 20' THRU THE TAPER AREAS.
- ⑧ SPACING OF CHANNELIZING DEVICES THROUGH THE ACTIVITY AREA SHOULD BE 80'.
- ⑨ SPACING OF CHANNELIZING DEVICES THROUGH SHOULDER TAPER SHOULD BE 20'.
10. TEMPORARY TRAFFIC CONTROL SIGNAL TIMING AND RED CLEARANCE INTERVALS SHALL BE VERIFIED BY THE DIVISION OF TRAFFIC OPERATIONS.

BID ITEMS AND UNIT TO BID

LANE CLOSURE EACH  
 TEMP SIGNAL EACH  
 REFER TO SECTION 112 OF STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION.

APPLICATION

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

LEGEND

- TYPE III BARRICADE
- ⊥ SIGN
- ←● TRAFFIC SIGNAL
- CHANNELIZING DEVICES  
DRUMS
- TYPE II BARRICADES

DRAWING NOT TO SCALE

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

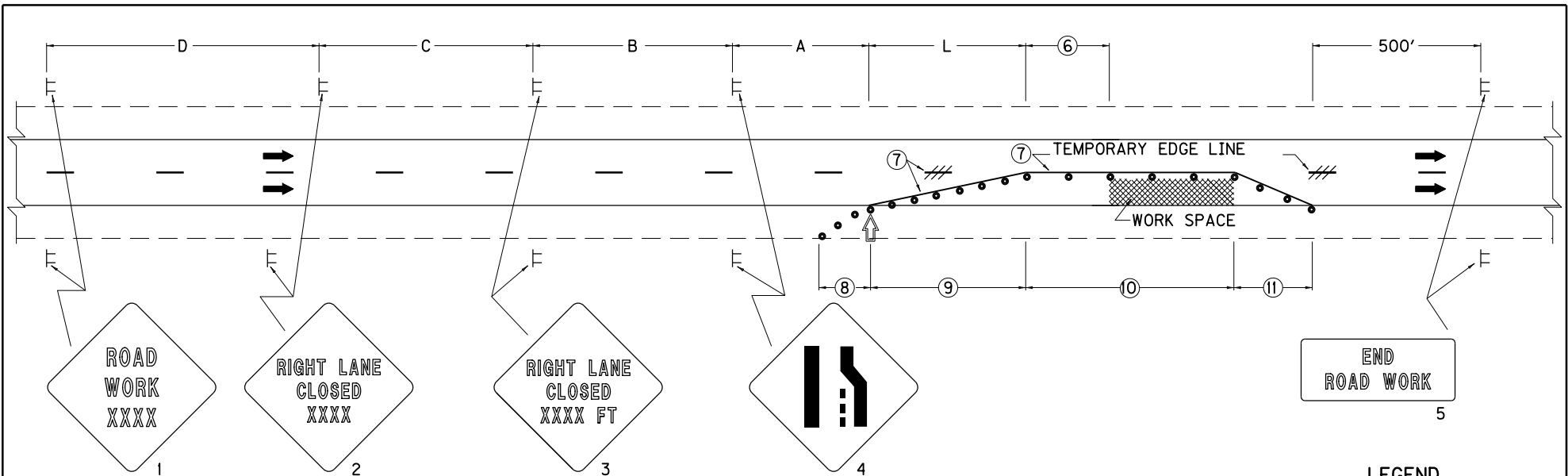
**KENTUCKY  
DEPARTMENT OF HIGHWAYS**

**LANE CLOSURE  
USING TRAFFIC SIGNALS**

STANDARD DRAWING NO. TTC-110-03

SUBMITTED *B. Allen Wolf* 12-01-15  
DIRECTOR OF TRAFFIC OPERATIONS DATE

APPROVED *[Signature]* 12-01-15  
STATE HIGHWAY ENGINEER DATE



~ NOTES ~

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' FOR EXPRESSWAYS/FREEWAYS. THE MINIMUM SIZE OF SIGNS 1 THRU 4 SHALL BE 36' X 36' FOR OTHER ROADWAYS. SIGN NO. 5 SHALL BE 48' X 24' FOR EXPRESSWAYS/FREEWAYS AND 36' X 18' FOR OTHER ROADWAYS. A FREEWAY SHALL BE DEFINED AS A DIVIDED HIGHWAY WITH FULL CONTROL OF ACCESS. AN EXPRESSWAY SHALL BE DEFINED AS A DIVIDED HIGHWAY WITH PARTIAL CONTROL OF ACCESS.
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). REFER TO TABLE 6C-2 OF THE MUTCD FOR GUIDANCE ON BUFFER SPACE LENGTH.
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 MINIMUM LENGTH OF 50' AND A MAXIMUM LENGTH OF 100'. SPACING OF CHANNELIZING DEVICES THRU THE DOWNSTREAM TAPER SHOULD BE 20'.

BID ITEM AND UNIT TO BID  
 LANE CLOSURE EACH  
 REFER TO SECTION 112 OF STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION.

**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

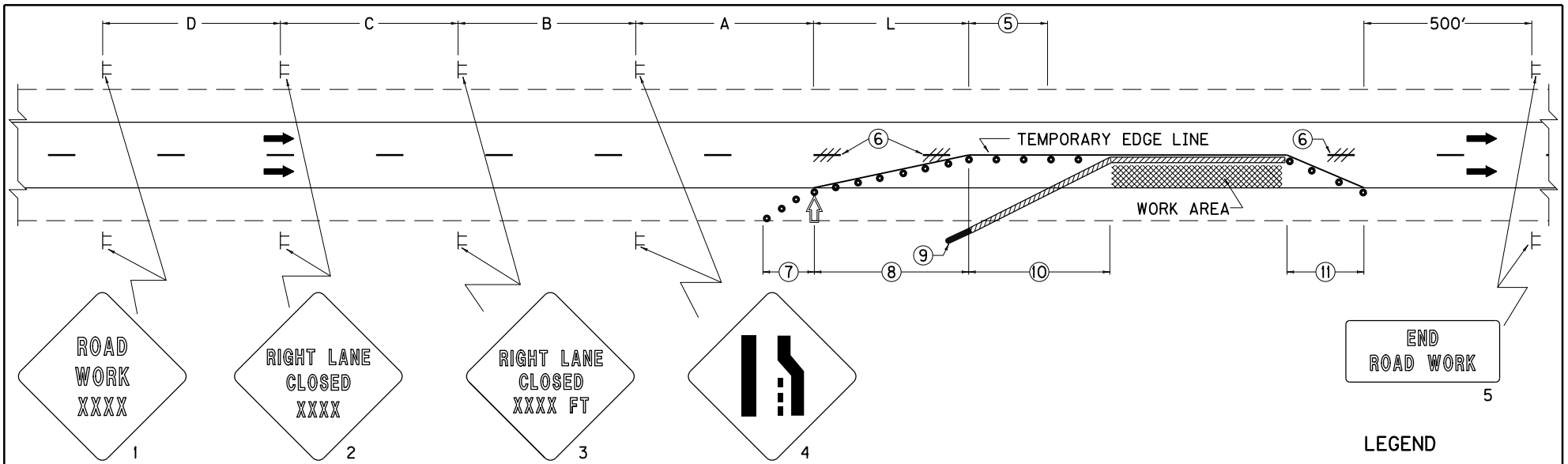
**LEGEND**

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

DRAWING NOT TO SCALE

USE WITH CUR. STD. DWG.  
 TTC-160

<b>KENTUCKY DEPARTMENT OF HIGHWAYS</b>	
<b>LANE CLOSURE MULTI-LANE HIGHWAY CASE I</b>	
STANDARD DRAWING NO. TTC-115-03	
SUBMITTED <i>B. Allen Wolf</i>	DATE 12-01-15
<small>DIRECTOR OF TRAFFIC OPERATIONS</small>	
APPROVED <i>[Signature]</i>	DATE 12-01-15
<small>STATE HIGHWAY ENGINEER</small>	



**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](#).

**~ NOTES ~**

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" FOR EXPRESSWAYS/FREEWAYS. THE MINIMUM SIZE OF SIGNS 1 THRU 4 SHALL BE 36" X 36" FOR OTHER ROADWAYS. SIGN NO. 5 SHALL BE 48" X 24" FOR EXPRESSWAYS/FREEWAYS AND 36" X 18" FOR OTHER ROADWAYS. A FREEWAY SHALL BE DEFINED AS A DIVIDED HIGHWAY WITH FULL CONTROL OF ACCESS. AN EXPRESSWAY SHALL BE DEFINED AS A DIVIDED HIGHWAY WITH PARTIAL CONTROL OF ACCESS.
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). REFER TO TABLE 6C-2 OF THE MUTCD FOR GUIDANCE ON BUFFER SPACE LENGTH.
- 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 MINIMUM LENGTH OF 50' AND A MAXIMUM LENGTH OF 100'. SPACING OF CHANNELIZING DEVICES THRU THE DOWNSTREAM TAPER SHOULD BE 20'.
12. THE COLOR OF BARRIER WALL DELINEATORS SHALL MATCH THE COLOR OF THE EDGE LINE THAT THEY SUPPLEMENT.  
 BID ITEMS AND UNIT TO BID  
 REFER TO SECTION 112 OF STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION.

END ROAD WORK  
5

**LEGEND**

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

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

DRAWING NOT TO SCALE

USE WITH CUR. STD. DWGS. [RBM-020](#) AND [TTC-160](#)

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

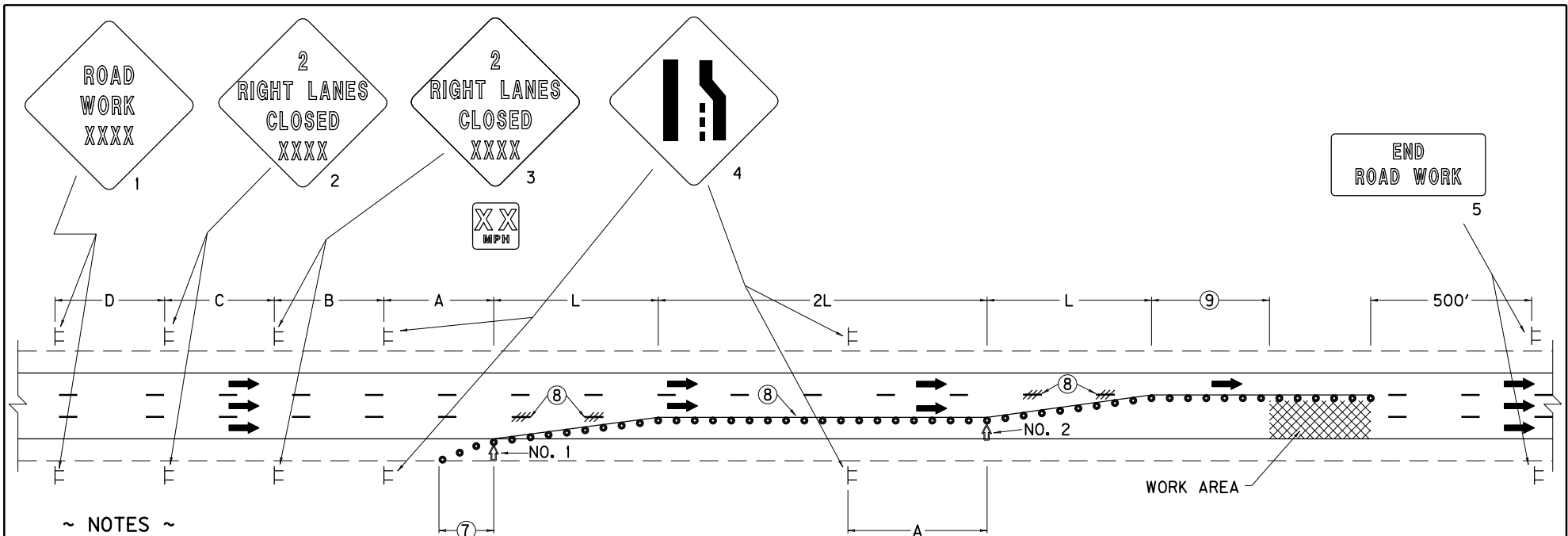
**KENTUCKY**  
**DEPARTMENT OF HIGHWAYS**

**LANE CLOSURE**  
**MULTI-LANE HIGHWAY**  
**CASE II**

STANDARD DRAWING NO. **TTC-120-03**

SUBMITTED *B. Allen Wolf* DATE 12-01-15  
DIRECTOR OF STATE TRAFFIC OPERATIONS

APPROVED *[Signature]* DATE 12-01-15  
STATE HIGHWAY ENGINEER



~ NOTES ~

1. THE SIZE OF SIGNS 1 THRU 4 SHALL BE 48" X 48" WITH 30" X 24" SUPPLEMENTAL PLAQUES FOR EXPRESSWAYS/FREEWAYS. THE MINIMUM SIZE OF SIGNS 1 THRU 4 SHALL BE 36" X 36" WITH 24" X 18" SUPPLEMENTAL PLAQUES FOR OTHER ROADWAYS. SIGN NO. 5 SHALL BE 48" X 24" FOR EXPRESSWAYS/FREEWAYS AND 36" X 18" FOR OTHER ROADWAYS. A FREEWAY SHALL BE DEFINED AS A DIVIDED HIGHWAY WITH FULL CONTROL OF ACCESS. AN EXPRESSWAY SHALL BE DEFINED AS A DIVIDED HIGHWAY WITH PARTIAL CONTROL OF ACCESS.
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 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). REFER TO TABLE 6C-2 OF THE MUTCD FOR GUIDANCE ON BUFFER SPACE LENGTH.

BID ITEMS AND UNIT TO BID  
REFER TO SECTION 112 OF STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION.

**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.

**LEGEND**

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

DRAWING NOT TO SCALE

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'

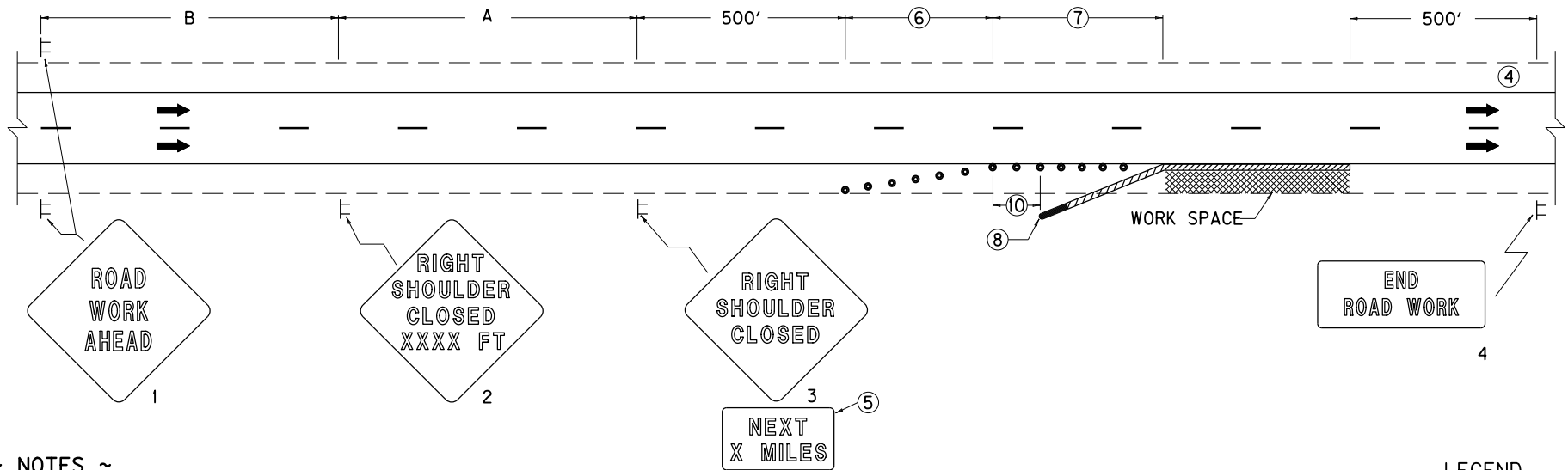
\*NOTE: USE NORMAL POSTED SPEED LIMIT

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

**KENTUCKY  
DEPARTMENT OF HIGHWAYS**

**DOUBLE  
LANE CLOSURE**

STANDARD DRAWING NO. TTC-125-03  
SUBMITTED *B. Allen Wolf* 12-01-15  
DIRECTOR OF TRAFFIC OPERATIONS  
APPROVED *[Signature]* 12-01-15  
STATE HIGHWAY ENGINEER DATE



~ NOTES ~

1. THE SIZE OF SIGNS 1 THRU 3 SHALL BE 48" X 48" WITH 30" X 24" SUPPLEMENTAL PLAQUES FOR EXPRESSWAYS/FREEWAYS. THE MINIMUM SIZE OF SIGNS 1 THRU 3 SHALL BE 36" X 36" WITH 24" X 18" SUPPLEMENTAL PLAQUES FOR OTHER ROADWAYS. SIGN NO. 4 SHALL BE 48" X 24" FOR EXPRESSWAYS/FREEWAYS AND 36" X 18" FOR OTHER ROADWAYS. A FREEWAY SHALL BE DEFINED AS A DIVIDED HIGHWAY WITH FULL CONTROL OF ACCESS. AN EXPRESSWAY SHALL BE DEFINED AS A DIVIDED HIGHWAY WITH PARTIAL CONTROL OF ACCESS.
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 TO 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. THE PLAQUE SHALL BE 36" X 30" FOR EXPRESSWAYS/FREEWAYS AND 24" X 18" FOR OTHER ROADWAYS.
- 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.
9. THE COLOR OF BARRIER WALL DELINEATORS SHALL MATCH THE COLOR OF THE EDGE LINE THAT THEY SUPPLEMENT.
10. BUFFER SPACE (OPTIONAL). REFER TO TABLE 6C-2 OF THE MUTCD FOR GUIDANCE ON BUFFER SPACE LENGTH.

BID ITEMS AND UNIT TO BID  
REFER TO SECTION 112 OF STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION.

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

LEGEND

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

DRAWING NOT TO SCALE

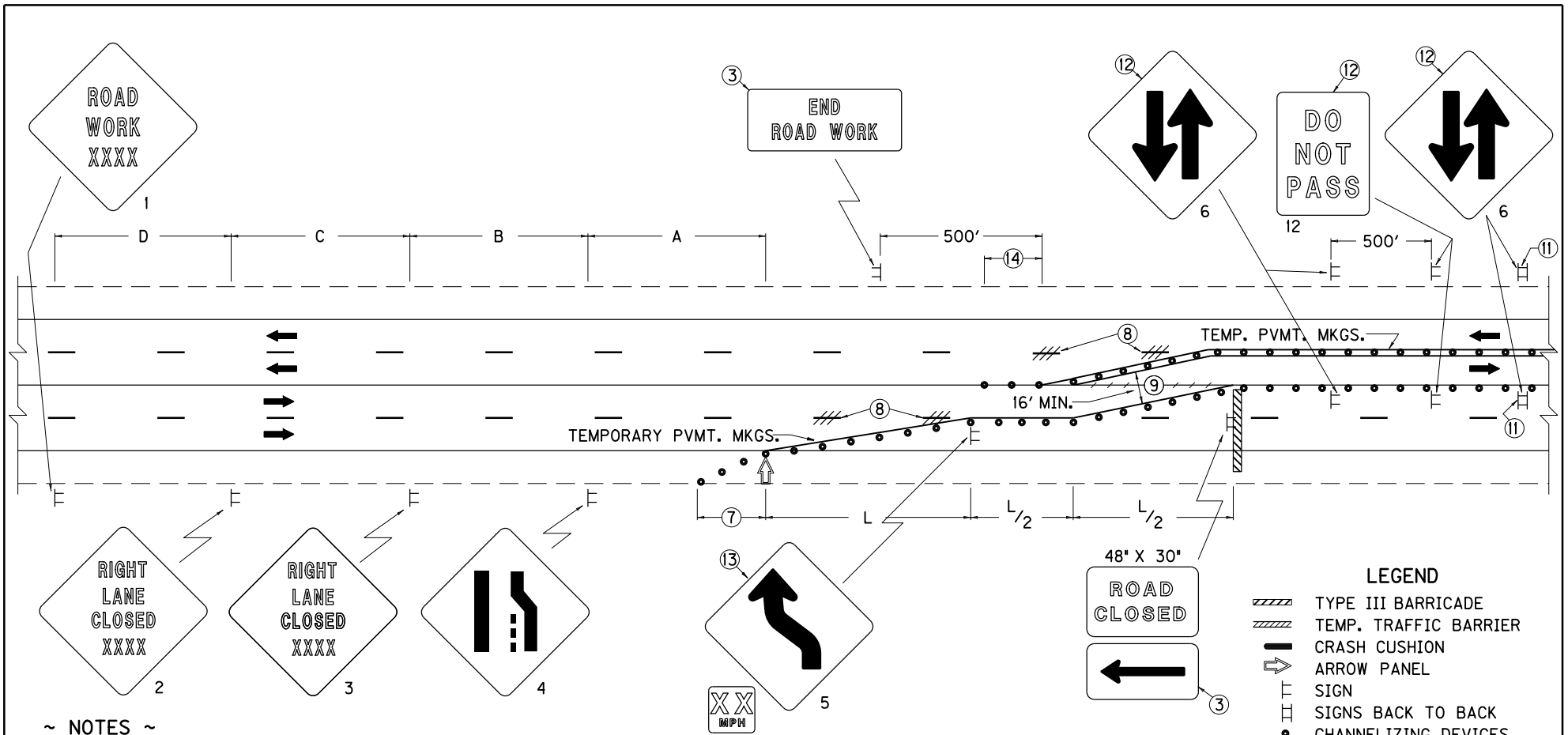
APPLICATION

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

KENTUCKY  
DEPARTMENT OF HIGHWAYS

SHOULDER CLOSURE

STANDARD DRAWING NO. TTC-135-02  
 SUBMITTED *B. Allen Wolf* 12-01-15  
DIRECTOR OF TRAFFIC OPERATIONS DATE  
 APPROVED *[Signature]* 12-01-15  
STATE HIGHWAY ENGINEER DATE



~ NOTES ~

1. THE SIZE OF SIGNS 1 THRU 11 SHALL BE 48" X 48" WITH 30" X 24" SUPPLEMENTAL PLAQUES FOR EXPRESSWAYS/FREEWAYS. THE MINIMUM SIZE OF SIGNS 1 THRU 11 SHALL BE 36" X 36" WITH 24" X 18" SUPPLEMENTAL PLAQUES FOR OTHER ROADWAYS. SIGN NOS. 12 AND 13 SHALL BE 36" X 48" FOR EXPRESSWAYS/FREEWAYS AND 24" X 30" FOR OTHER ROADWAYS. A FREEWAY SHALL BE DEFINED AS A DIVIDED HIGHWAY WITH FULL CONTROL OF ACCESS. AN EXPRESSWAY SHALL BE DEFINED AS A DIVIDED HIGHWAY WITH PARTIAL CONTROL OF ACCESS.
2. THE ADVISORY SPEED LIMIT ON SIGNS 5 AND 7 SHALL BE DETERMINED BY THE ENGINEER. THE SIZE OF SIGN PLAQUE SHALL BE 30" X 30" IF THE NORMAL POSTED SPEED LIMIT IS 45 MPH OR GREATER. OTHERWISE, 24" X 24" MAY BE USED.
3. THE ONE DIRECTION LARGE ARROW SIGN SHALL BE 60" X 30" FOR EXPRESSWAYS/FREEWAYS AND 48" X 24" FOR OTHER ROADWAYS. THE "END ROAD WORK" SIGN SHALL BE 48" X 24" FOR EXPRESSWAYS/FREEWAYS AND 36" X 18" FOR OTHER ROADWAYS.
4. SPACING OF CHANNELIZING DEVICES THRU THE TAPER AREAS SHOULD BE 40'. SPACING OF DEVICES THRU THE REMAINDER OF THE CLOSURE SHOULD BE 80'.
5. 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.
6. TEMPORARY PAVEMENT MARKINGS SHALL BE APPLIED AND MAINTAINED ON THE ROADWAY THROUGHOUT THE LIMITS OF THE CROSSOVER.

(NOTES CONTINUED ON CURRENT STD. DWG. [TTC-141](#) )

**APPLICATION**

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

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

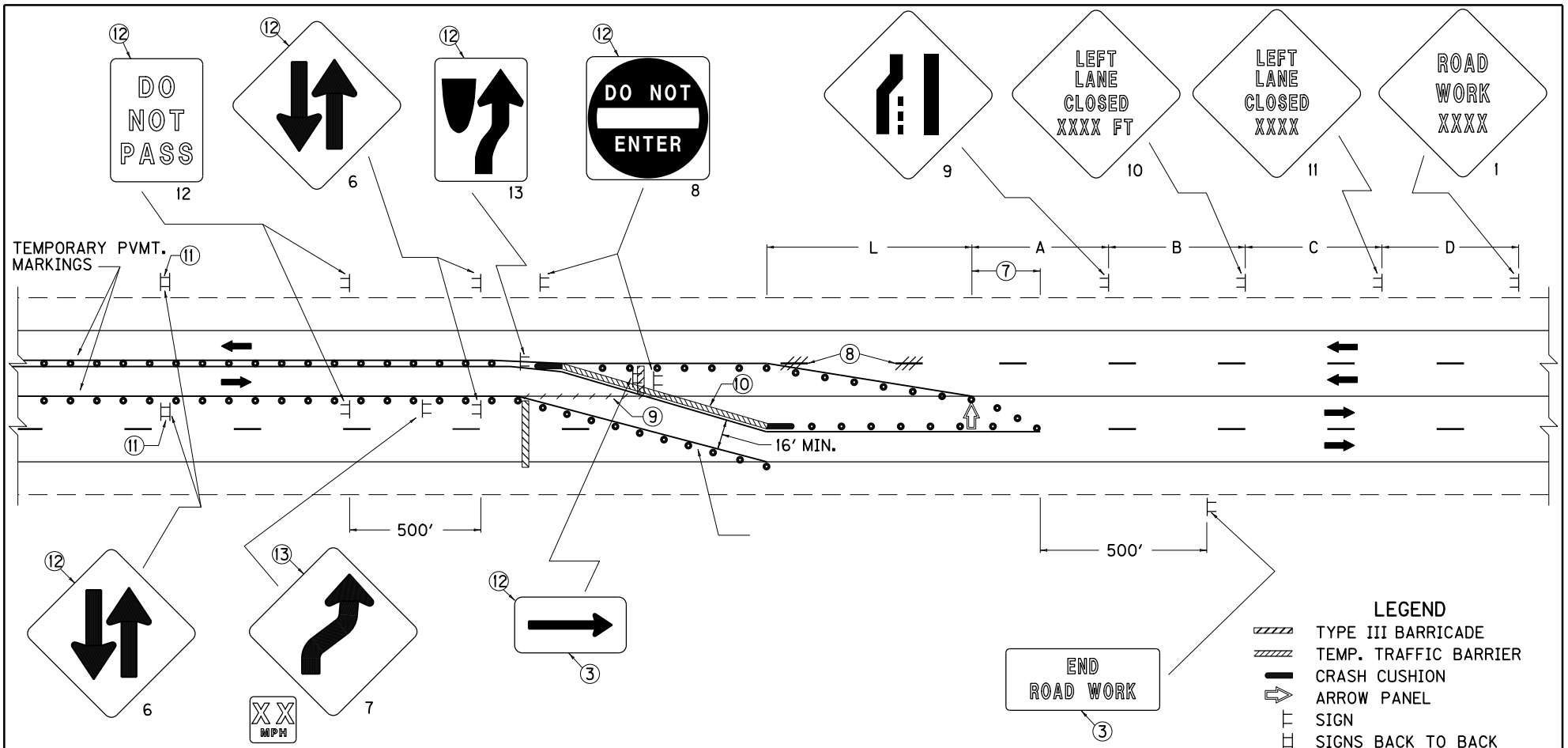
DRAWING NOT TO SCALE

USE WITH CUR. STD. DWGS.

[TTC-141](#) AND [TTC-160](#)

<b>KENTUCKY</b>	
<b>DEPARTMENT OF HIGHWAYS</b>	
<b>MEDIAN CROSSOVER</b>	
<b>CASE I</b>	
STANDARD DRAWING NO. <a href="#">TTC-140-03</a>	
SUBMITTED <i>B. Allen Wolf</i>	DATE 12-01-15
<small>DIRECTOR OF TRANSPORTATION OPERATIONS</small>	
APPROVED <i>[Signature]</i>	DATE 12-01-15
<small>STATE HIGHWAY ENGINEER</small>	





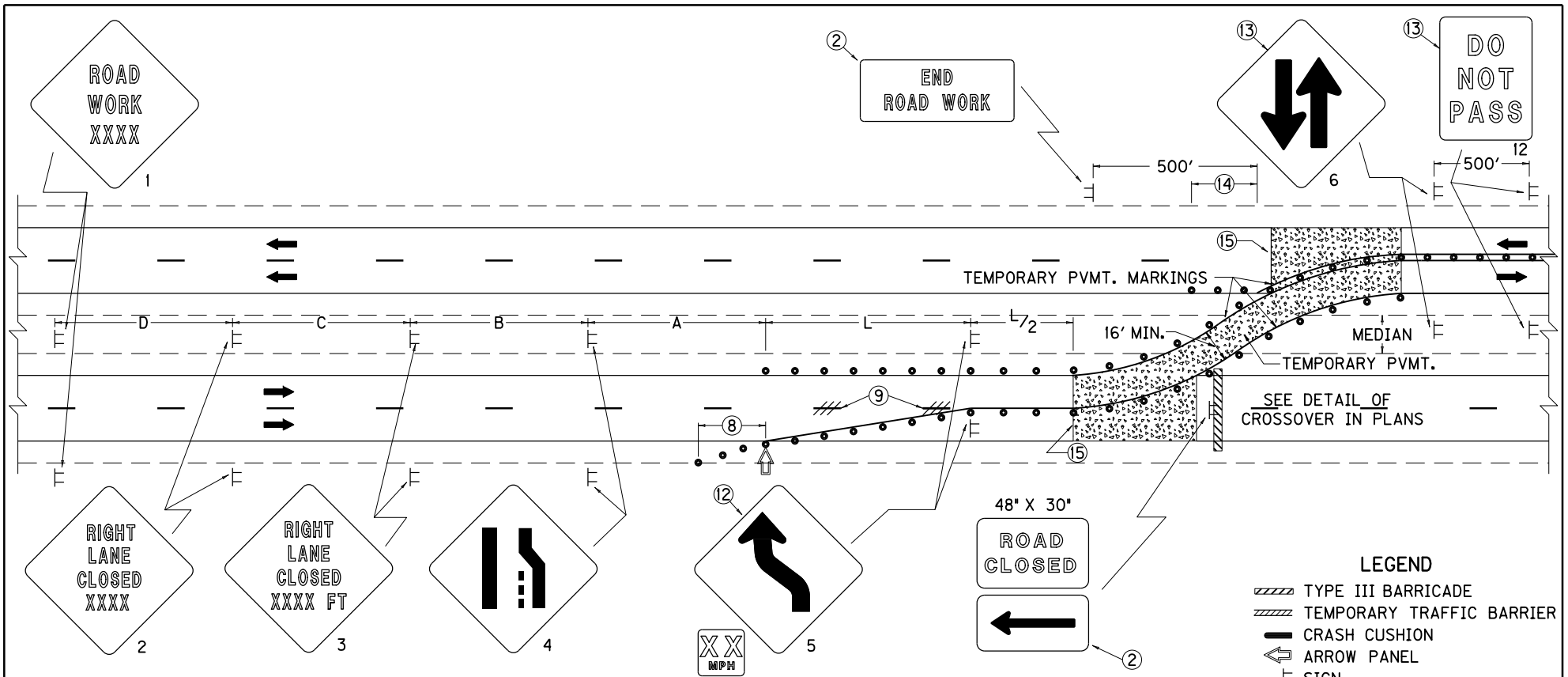
- LEGEND**
- TYPE III BARRICADE
  - TEMP. TRAFFIC BARRIER
  - CRASH CUSHION
  - ARROW PANEL
  - SIGN
  - SIGNS BACK TO BACK
  - CHANNELIZING DEVICES
  - TEMP. TRAFFIC BARRIER DRUMS
  - VERTICAL PANELS
  - TUBULAR MARKERS
- DRAWING NOT TO SCALE

(NOTES CONTINUED FROM CUR. STD. DWG. [TTC-140](#) )

- 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.
  - ⑨ OBLITERATE EXISTING CENTER LINE BY AN APPROVED METHOD. OTHER CONFLICTING PAVEMENT MARKINGS SHALL BE OBLITERATED.
  - ⑩ 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.
  - ⑪ WHEN CHANNELIZING DEVICES ARE USED TO SEPARATE OPPOSING TRAFFIC, TWO-WAY TRAFFIC SIGN(S) SHALL BE REPEATED EVERY MILE.
  - ⑫ WHEN TEMPORARY TRAFFIC BARRIER IS CONTINUOUS THROUGHOUT THE CLOSURE ZONE, THESE SIGNS SHALL BE ELIMINATED.
  - ⑬ REVERSE TURN SIGN (W1-3) SHALL BE USED IN LIEU OF REVERSE CURVE SIGN WHEN THE ADVISORY SPEED IS 30 MPH OR LESS.
  - ⑭ CHANNELIZING DEVICES SHALL BE EXTENDED BEYOND THE TRANSITION AREA FOR A DISTANCE EQUAL TO TWO TIMES THE NORMAL POSTED SPEED LIMIT.
  - 15. THE COLOR OF BARRIER WALL DELINEATORS SHALL MATCH THE COLOR OF THE EDGE LINE THAT THEY SUPPLEMENT.
- BID ITEMS AND UNIT TO BID  
REFER TO SECTION 112 OF STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION.

USE WITH CUR. STD. DWGS.  
[RBM-020](#), [TTC-140](#), [TTC-160](#)

<b>KENTUCKY</b>	
<b>DEPARTMENT OF HIGHWAYS</b>	
<b>MEDIAN CROSSOVER</b>	
<b>CASE I</b>	
STANDARD DRAWING NO. <b>TTC-141-03</b>	
SUBMITTED <i>B. Allen Wolf</i>	DATE 12-01-15
<small>DIRECTOR OF TRANSPORTATION OPERATIONS</small>	
APPROVED <i>[Signature]</i>	DATE 12-01-15
<small>STATE HIGHWAY ENGINEER</small>	



~ NOTES ~

1. THE SIZE OF SIGNS 1 THRU 11 SHALL BE 48" X 48" WITH 30" X 24" SUPPLEMENTAL PLAQUES FOR EXPRESSWAYS/FREEWAYS. THE MINIMUM SIZE OF SIGNS 1 THRU 11 SHALL BE 36" X 36" WITH 24" X 18" SUPPLEMENTAL PLAQUES FOR OTHER ROADWAYS. SIGN NOS. 12 AND 13 SHALL BE 36" X 48" FOR EXPRESSWAYS/FREEWAYS AND 24" X 30" FOR OTHER ROADWAYS. A FREEWAY SHALL BE DEFINED AS A DIVIDED HIGHWAY WITH FULL CONTROL OF ACCESS. AN EXPRESSWAY SHALL BE DEFINED AS A DIVIDED HIGHWAY WITH PARTIAL CONTROL OF ACCESS.
- ② THE ONE DIRECTION LARGE ARROW SIGN SHALL BE 60" X 30" FOR EXPRESSWAYS/FREEWAYS AND 48" X 24" FOR OTHER ROADWAYS. THE "END ROAD WORK" SIGN SHALL BE 48" X 24" FOR EXPRESSWAYS/FREEWAYS AND 36" X 18" FOR OTHER ROADWAYS.
3. THE ADVISORY SPEED LIMIT ON SIGNS 5 AND 7 SHALL BE DETERMINED BY THE ENGINEER. THE SIZE OF SIGN PLAQUE SHALL BE 30" X 30" FOR EXPRESSWAYS/FREEWAYS AND 24" X 24" FOR OTHER ROADWAYS.
4. SPACING OF CHANNELIZING DEVICES THRU THE TAPER AREAS SHOULD BE 40'. SPACING OF DEVICES THRU THE REMAINDER OF THE CLOSURE SHOULD BE 80'.
5. 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.
6. TEMPORARY PAVEMENT MARKINGS SHALL BE APPLIED AND MAINTAINED ON THE ROADWAY THROUGHOUT THE LIMITS OF THE CROSSOVER.  
(NOTES CONTINUED ON CURRENT STD. DWG. [TTC-146](#) )

**APPLICATION**

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

- 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

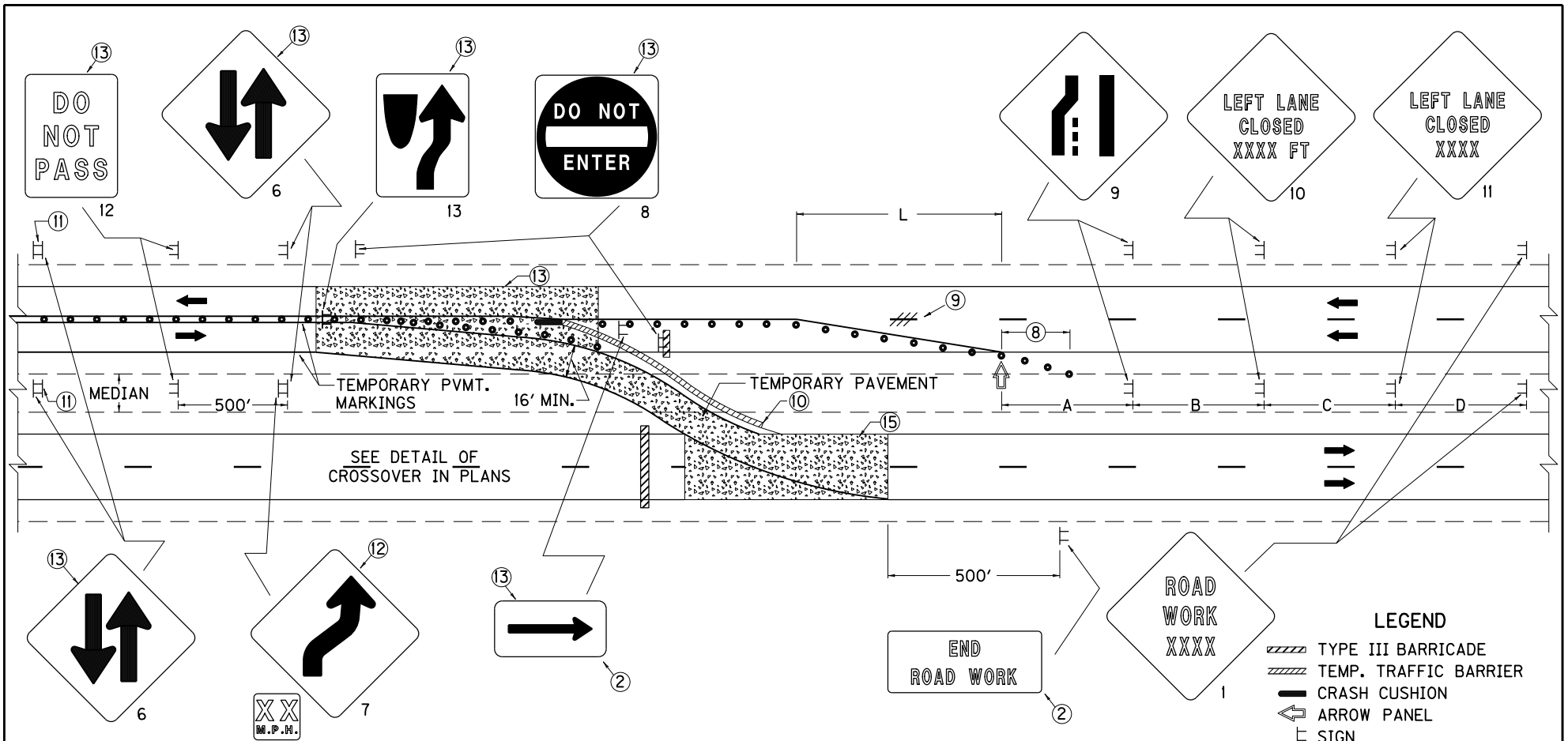
DRAWING NOT TO SCALE

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

\*NOTE: USE NORMAL POSTED SPEED LIMIT

USE WITH CUR. STD. DWGS.  
[TTC-146](#) AND [TTC-160](#)

<b>KENTUCKY DEPARTMENT OF HIGHWAYS</b>	
<b>MEDIAN CROSSOVER CASE II</b>	
STANDARD DRAWING NO. <a href="#">TTC-145-03</a>	
SUBMITTED <i>B. Allen Wolf</i>	DATE 12-01-15
<small>DIRECTOR OF TRANSPORTATION OPERATIONS</small>	
APPROVED <i>[Signature]</i>	DATE 12-01-15
<small>STATE HIGHWAY ENGINEER</small>	



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

7. CRASH CUSHION SHALL BE INSTALLED PARALLEL TO THE APPROACH LANE OF TRAFFIC.
8. 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'.
9. OBLITERATE SKIP LINES THRU THE LENGTH OF TAPERS BY APPROVED METHOD. OTHER CONFLICTING PAVEMENT MARKINGS SHALL BE OBLITERATED.
10. CRASH CUSHION SHALL BE REQUIRED WHEN THE END OF THE BARRIER WALL IS WITHIN CLEAR ZONE (REFER TO ROADSIDE DESIGN GUIDE).
11. WHEN CHANNELIZING DEVICES ARE USED TO SEPARATE OPPOSING TRAFFIC, TWO-WAY TRAFFIC SIGN(S) SHALL BE REPEATED EVERY MILE.
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. WHEN TEMPORARY TRAFFIC BARRIER IS CONTINUOUS THROUGHOUT THE CLOSURE ZONE, THESE SIGNS SHALL BE ELIMINATED.
14. CHANNELIZING DEVICES SHALL BE EXTENDED BEYOND THE TRANSITION AREA FOR A DISTANCE EQUAL TO TWO TIMES THE NORMAL POSTED SPEED LIMIT.
15. THIN ASPHALT OVERLAY TO BE USED AS DIRECTED BY THE ENGINEER.
16. THE COLOR OF BARRIER WALL DELINEATORS SHALL MATCH THE COLOR OF THE EDGE LINE THAT THEY SUPPLEMENT.

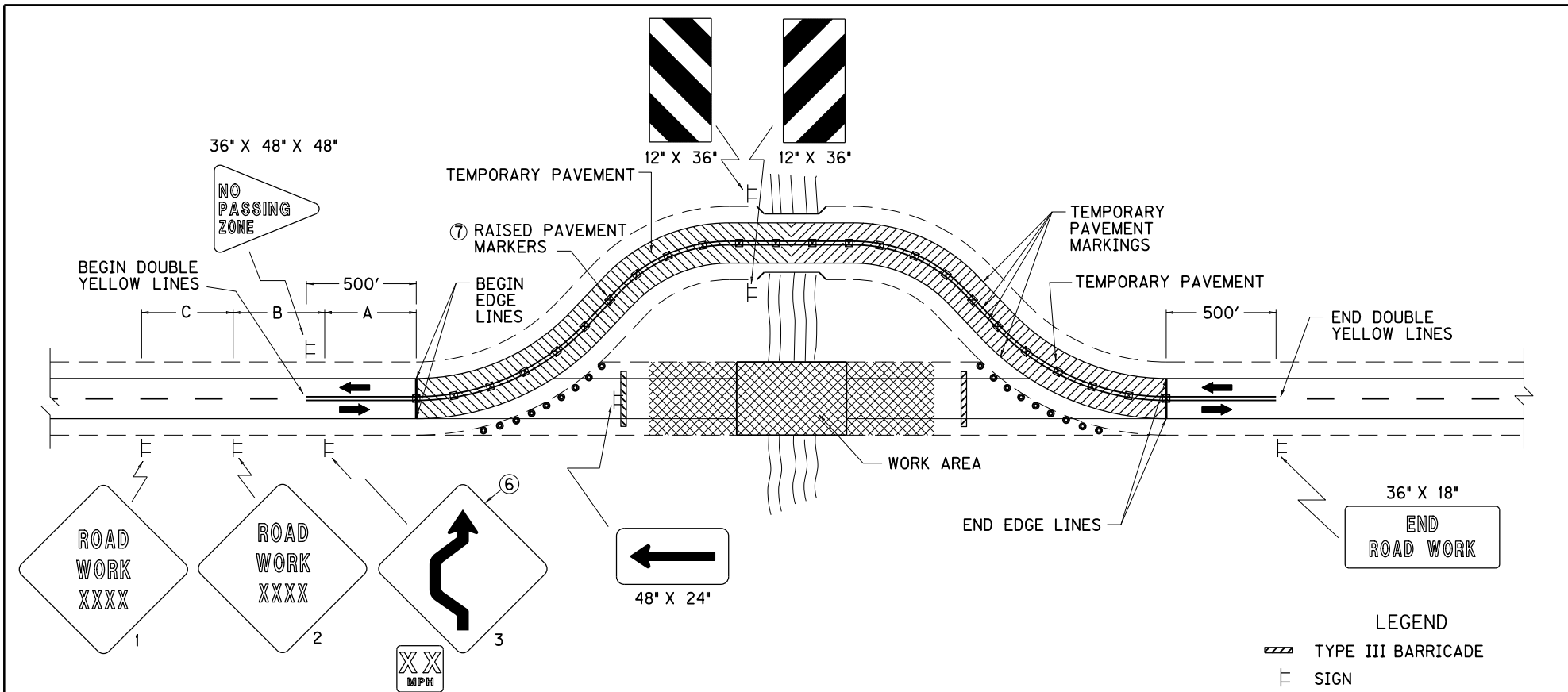
BID ITEMS AND UNIT TO BID  
REFER TO SECTION 112 OF STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION.

- 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 CUR. STD. DWG.  
[RBM-020](#)

<b>KENTUCKY</b>	
<b>DEPARTMENT OF HIGHWAYS</b>	
<b>MEDIAN CROSSOVER</b>	
<b>CASE II</b>	
STANDARD DRAWING NO. <a href="#">TTC-146-03</a>	
SUBMITTED <i>B. Allen Wolf</i>	DATE 12-01-15
<small>DIRECTOR OF TRANSPORTATION OPERATIONS</small>	
APPROVED <i>[Signature]</i>	DATE 12-01-15
<small>STATE HIGHWAY ENGINEER</small>	



**LEGEND**

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

DRAWING NOT TO SCALE

~ NOTES ~

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'.

BID ITEMS AND UNIT TO BID  
REFER TO SECTION 112 OF STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION.

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

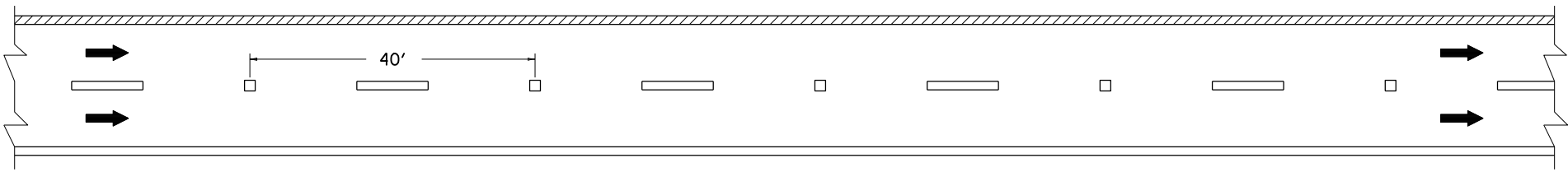
**KENTUCKY  
DEPARTMENT OF HIGHWAYS**

**ROAD CLOSURE  
WITH  
DIVERSION**

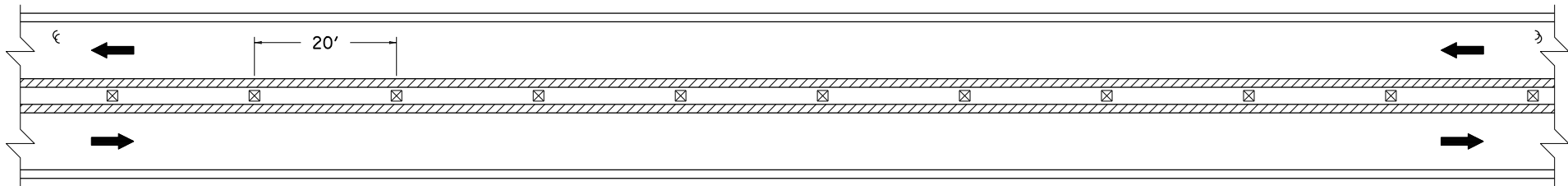
STANDARD DRAWING NO. TTC-150-03

SUBMITTED *B. Allen Wolf* DATE 12-01-15  
DIRECTOR OF TRAFFIC OPERATIONS

APPROVED *[Signature]* DATE 12-01-15  
STATE HIGHWAY ENGINEER



ARRANGEMENT "A" (WHITE LANE LINES)



ARRANGEMENT "B" (DOUBLE YELLOW CENTER LINES)

LEGEND	
☒	BI-DIRECTIONAL (YELLOW)
□	MONO-DIRECTIONAL (WHITE)
▨	MARKINGS (YELLOW)
▭	MARKINGS (WHITE)

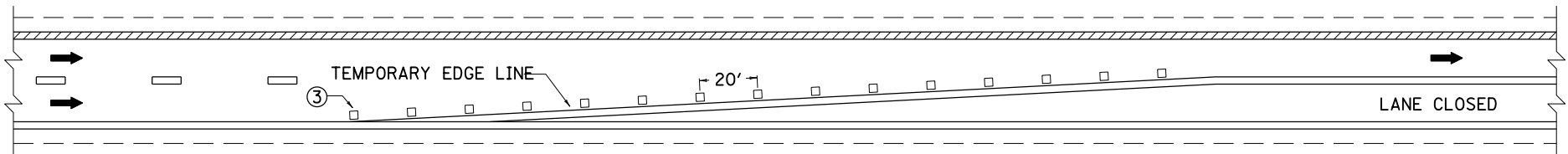
~ NOTES ~

- TEMPORARY PAVEMENT MARKERS SHALL BE APPLIED AS DIRECTED BY THE ENGINEER.
- 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.
- MARKERS INSTALLED AT DOUBLE YELLOW CENTERLINES SHALL BE PLACED BETWEEN THE TWO LINES.
- MARKERS INSTALLED ALONG LANE LINES SHALL BE PLACED BETWEEN AND IN LINE WITH THE SKIPS.
- 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.

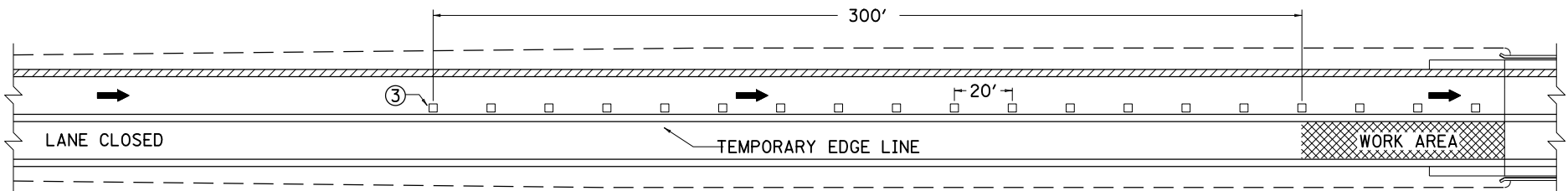
BID ITEMS AND UNIT TO BID  
 PAVEMENT MARKER TY IVA (BW, BY, MW, MY) TEMP EACH

DRAWING NOT TO SCALE

<b>KENTUCKY</b>	
<b>DEPARTMENT OF HIGHWAYS</b>	
<b>TEMPORARY PAVEMENT MARKER ARRANGEMENTS FOR CONSTRUCTION ZONES</b>	
STANDARD DRAWING NO. TTC-155-02	
SUBMITTED <i>B. Allen Wolf</i>	DATE 12-01-15
<small>DIRECTOR OF STATE TRAFFIC OPERATIONS</small>	
APPROVED <i>[Signature]</i>	DATE 12-01-15
<small>STATE HIGHWAY ENGINEER</small>	



ARRANGEMENT "A" ①



ARRANGEMENT "B" ②

**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) MARKERS 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.

LEGEND	
	MONO-DIRECTIONAL (WHITE)
	MARKINGS (YELLOW)
	MARKINGS (WHITE)

**~ 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.

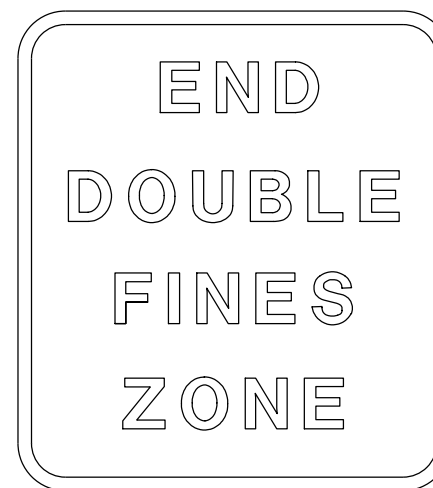
BID ITEMS AND UNIT TO BID  
 PAVEMENT MARKER TY IVA (BW, BY, MW, MY) TEMP EACH

DRAWING NOT TO SCALE

<b>KENTUCKY</b>	
<b>DEPARTMENT OF HIGHWAYS</b>	
<b>TEMPORARY PAVEMENT MARKER ARRANGEMENTS FOR LANE CLOSURES</b>	
STANDARD DRAWING NO. TTC-160-02	
SUBMITTED <i>B. Allen Wolf</i>	DATE 12-01-15
<small>DIRECTOR OF STATE TRAFFIC OPERATIONS</small>	
APPROVED <i>[Signature]</i>	DATE 12-01-15
<small>STATE HIGHWAY ENGINEER</small>	



R2-10



R2-11

**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.

~ NOTES ~

BID ITEM AND UNIT TO BID  
SIGNS SQFT

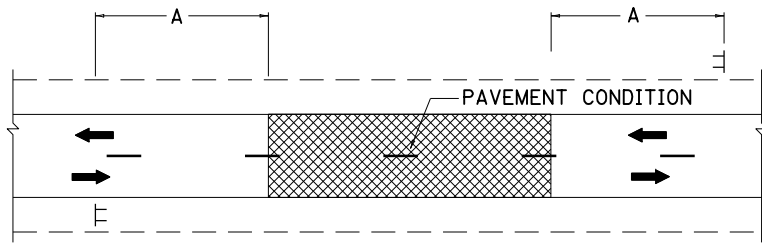
DOUBLE FINES ZONE SIGNS

1. THE DOUBLE FINES SIGNS SHALL BE 36" X 48" FOR EXPRESSWAYS/FREEWAYS AND 24" X 30" FOR OTHER ROADWAYS.
2. SIGNS SHALL BE MOUNTED AT ELEVATIONS AND OFFSETS PRESCRIBED IN THE MUTCD.
3. SIGNS SHALL BE RELOCATED AS THE WORK ZONE PROGRESSES ALONG THE HIGHWAY.
4. 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.
5. ADDITIONAL SIGNS MAY BE REQUIRED FOR LONG CONSTRUCTION ZONES OR WHERE RAMPS OR INTERSECTING STREETS JUNCTION WITHIN THE PROJECT LIMITS.
6. 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.
7. THE R2-10 SIGN(S) 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 R2-11 SIGN(S) SHALL BE INSTALLED NEAR THE END OF THE AREA WHERE WORKERS ARE UNPROTECTED.

REDUCED SPEED ZONE SIGNS

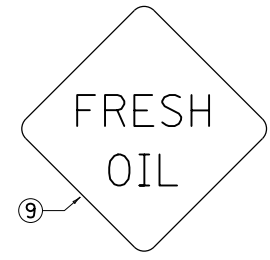
1. REDUCED SPEED ZONES SHOULD BE USED ONLY IN SPECIFIC PORTIONS OF THE WORK ZONE WHERE CONDITIONS OR RESTRICTIVE FEATURES ARE PRESENT. LOWERING THE REGULATORY SPEED LIMIT SHOULD BE AVOIDED AS MUCH AS PRACTICAL BECAUSE DRIVERS REDUCE THEIR SPEEDS ONLY IF THEY CLEARLY PERCEIVE A NEED TO DO SO.
2. SPEED 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.
3. 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>DOUBLE FINES ZONE SIGNS</b>	
STANDARD DRAWING NO. TTD-120-02	
SUBMITTED <i>B. Allen Wolf</i>	12-01-15 DATE
<small>DIRECTOR, BUREAU OF TRAFFIC OPERATIONS</small>	
APPROVED <i>[Signature]</i>	12-01-15 DATE
<small>STATE HIGHWAY ENGINEER</small>	



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.

### ~ NOTES ~

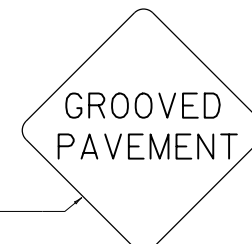
1. SIGNS SHALL HAVE A BLACK LEGEND ON A FLUORESCENT ORANGE BACKGROUND.
2. THE SIZE OF ABOVE SIGNS SHALL BE 48" X 48" FOR EXPRESSWAYS/FREEWAYS AND 36" X 36" FOR OTHER ROADWAYS. A FREEWAY SHALL BE DEFINED AS A DIVIDED HIGHWAY WITH FULL CONTROL OF ACCESS. AN EXPRESSWAY SHALL BE DEFINED AS A DIVIDED HIGHWAY WITH PARTIAL CONTROL OF ACCESS.
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" OR "GROOVED PAVEMENT" SIGNS SHOULD BE INSTALLED IN ADVANCE OF ANY TEMPORARILY TEXTURED/MILLED PAVEMENT SURFACES. PERMANENT SIGNS MAY BE INSTALLED IF ENGINEERING JUDGMENT DETERMINES THAT WARNING FOR A NON-TEMPORARY TEXTURED SURFACE (I.E. DIAMOND GRINDED PAVEMENT) IS NECESSARY.
- 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 "STEEL PLATE AHEAD" 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.
- ⑭ A MOTORCYCLE (W8-15P) PLAQUE MAY BE MOUNTED BELOW OR ABOVE ANY OF THE PRESCRIBED SIGNS IN THIS DRAWING IF THE WARNING IS INTENDED TO BE DIRECTED PRIMARILY TO MOTORCYCLISTS.

BID ITEMS AND UNIT TO BID

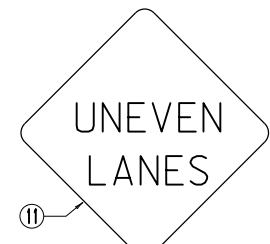
REFER TO SECTION 112 OF STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION.



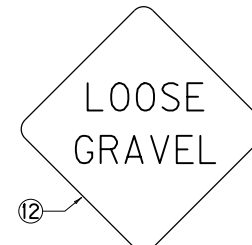
W8-8



W8-15



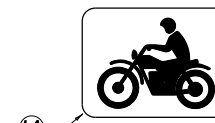
W8-11



W8-7



W8-24



W8-15P

KENTUCKY  
DEPARTMENT OF HIGHWAYS

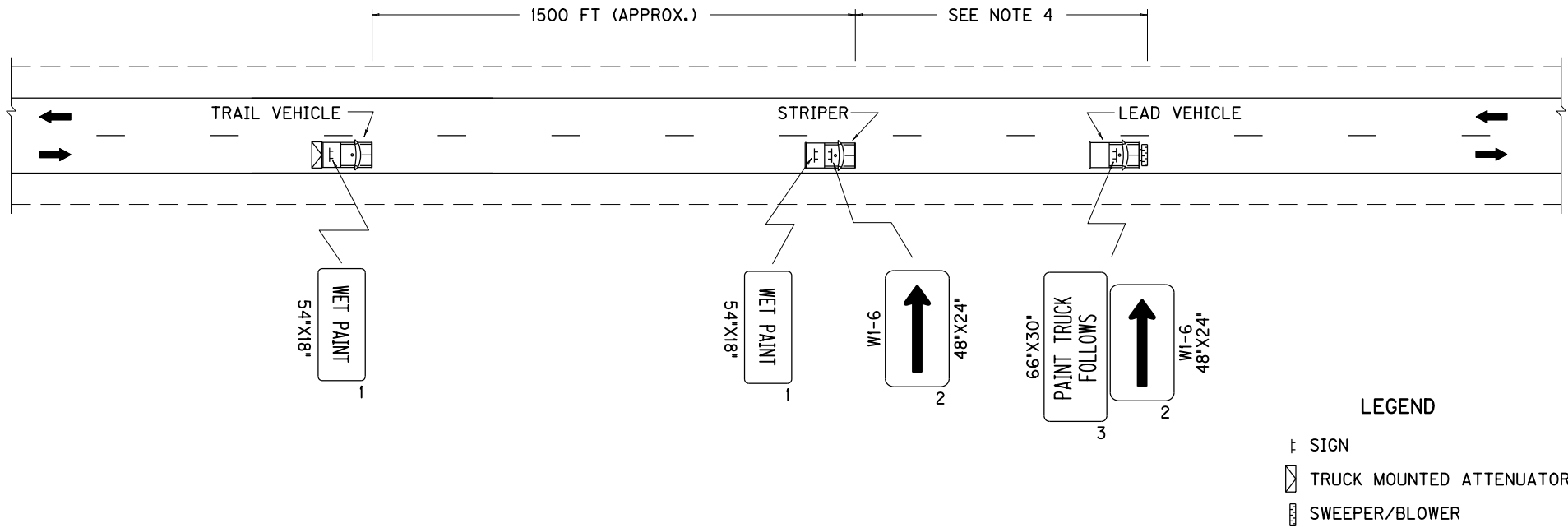
PAVEMENT CONDITION  
WARNING SIGNS

STANDARD DRAWING NO. TTD-125-02

SUBMITTED *B. Allen Wolf* DATE 12-01-15  
DIRECTOR, OPERATIONS

APPROVED *[Signature]* DATE 12-01-15  
STATE HIGHWAY ENGINEER





~ NOTES ~

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 TRUCK MOUNTED ATTENUATOR (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.

BID ITEMS AND UNIT TO BID  
 REFER TO SECTION 112 OF STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION.

APPLICATION

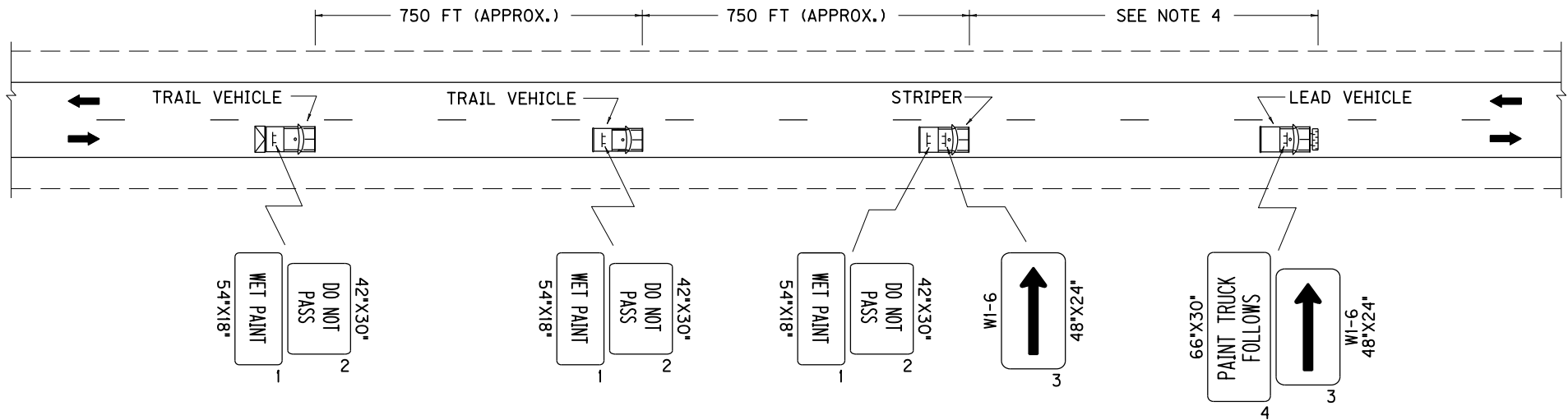
THIS DRAWING APPLIES TO STRIPING OPERATIONS ON TWO-LANE, TWO-WAY ROADWAYS INVOLVING THE PLACEMENT OF EDGE LINES ONLY.

LEGEND

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

DRAWING NOT TO SCALE

<b>KENTUCKY DEPARTMENT OF HIGHWAYS</b>	
<b>MOBILE OPERATION FOR PAINT STRIPING CASE I</b>	
STANDARD DRAWING NO. TTS-100-02	
SUBMITTED <i>B. Allen Wolf</i>	DATE 12-01-15
<small>DIRECTOR OF TRAFFIC OPERATIONS</small>	
APPROVED <i>[Signature]</i>	DATE 12-01-15
<small>STATE HIGHWAY ENGINEER</small>	



**LEGEND**

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

~ NOTES ~

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 TRUCK MOUNTED ATTENUATOR (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.

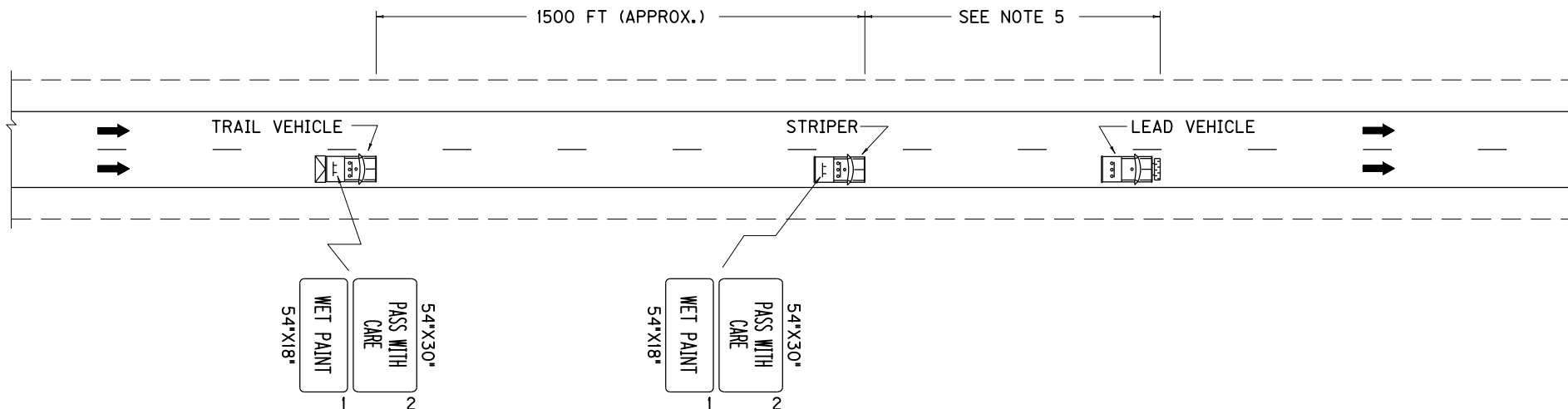
BID ITEMS AND UNIT TO BID  
 REFER TO SECTION 112 OF STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION.

**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

<b>KENTUCKY</b>	
<b>DEPARTMENT OF HIGHWAYS</b>	
<b>MOBILE OPERATION FOR PAINT STRIPING CASE II</b>	
STANDARD DRAWING NO. TTS-105-02	
SUBMITTED <i>B. Allen Wolf</i>	DATE 12-01-15
<small>DIRECTOR OF TRAFFIC OPERATIONS</small>	
APPROVED <i>[Signature]</i>	DATE 12-01-15
<small>STATE HIGHWAY ENGINEER</small>	



~ NOTES ~

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 TRUCK MOUNTED ATTENUATOR (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.
- BID ITEMS AND UNIT TO BID  
REFER TO SECTION 112 OF STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION.

APPLICATION

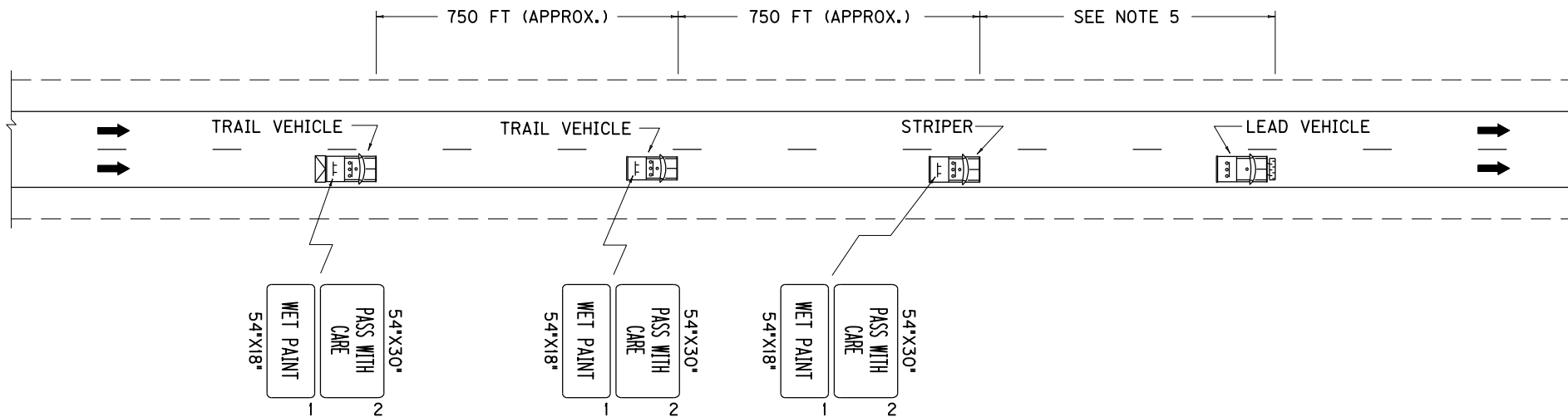
THIS DRAWING APPLIES TO PAINT STRIPING OPERATIONS ON MULTI-LANE ROADWAYS INVOLVING THE PLACEMENT OF EDGE LINES ONLY.

**LEGEND**

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

DRAWING NOT TO SCALE

<b>KENTUCKY DEPARTMENT OF HIGHWAYS</b>	
<b>MOBILE OPERATION FOR PAINT STRIPING CASE III</b>	
STANDARD DRAWING NO. TTS-110-02	
SUBMITTED <i>B. Allen Wolf</i>	DATE 12-01-15
<small>DIRECTOR OF TRAFFIC OPERATIONS</small>	
APPROVED <i>[Signature]</i>	DATE 12-01-15
<small>STATE HIGHWAY ENGINEER</small>	



~ NOTES ~

- FLASH ARROW PANELS TO DIRECT TRAFFIC RIGHT OR LEFT AS APPROPRIATE. FLASHING ARROW PANELS SHALL BE TYPE B (60"x30") OR LARGER.
  - 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.
  - ALL VEHICLES IN THE STRIPING TRAIN SHALL BE EQUIPPED WITH HIGH-INTENSITY ROTATING, FLASHING, OSCILLATING, OR STROBE LIGHTS ON THE CAB.
  - THE LAST TRAIL VEHICLE IN THE STRIPING TRAIN SHALL BE EQUIPPED WITH A TRUCK MOUNTED ATTENUATOR (T.M.A.) IF LANES ARE 10' WIDE OR GREATER.
  - THE LEAD VEHICLE SHALL MAINTAIN VISUAL CONTACT WITH THE STRIPER.
  - TWO-WAY RADIO COMMUNICATION SHALL BE MAINTAINED BETWEEN ALL VEHICLES IN THE STRIPING TRAIN.
  - ADDITIONAL VEHICLES MAY BE ADDED TO THE STRIPING TRAIN AS NEEDED TO PROTECT THE FRESHLY PAINTED LINE.
  - 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.
  - 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.
- BID ITEMS AND UNIT TO BID  
REFER TO SECTION 112 OF STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION.

APPLICATION

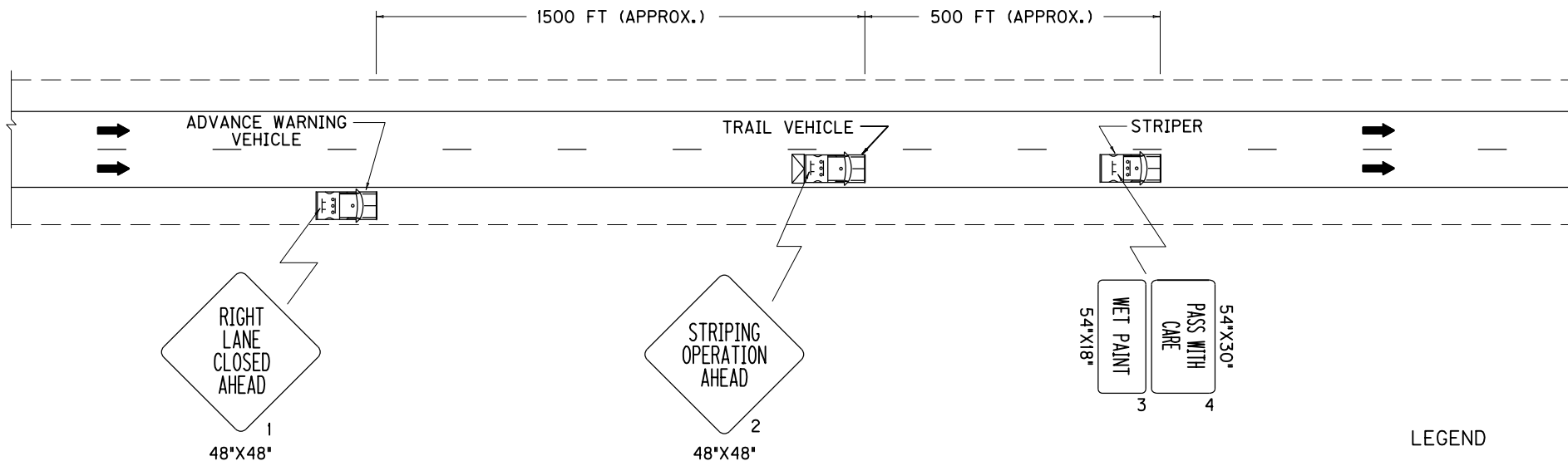
THIS DRAWING APPLIES TO PAINT STRIPING OPERATIONS ON MULTI-LANE ROADWAYS INVOLVING EITHER THE PLACEMENT OF LANE LINES ONLY OR A COMBINATION OF LANE LINES AND EDGE LINES.

**LEGEND**

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

DRAWING NOT TO SCALE

<b>KENTUCKY DEPARTMENT OF HIGHWAYS</b>	
<b>MOBILE OPERATION FOR PAINT STRIPING CASE IV</b>	
STANDARD DRAWING NO. TTS-115-02	
SUBMITTED <i>B. Allen Wolf</i>	DATE 12-01-15
<small>DIRECTOR OF TRANSPORTATION OPERATIONS</small>	
APPROVED <i>[Signature]</i>	DATE 12-01-15
<small>STATE HIGHWAY ENGINEER</small>	



~ NOTES ~

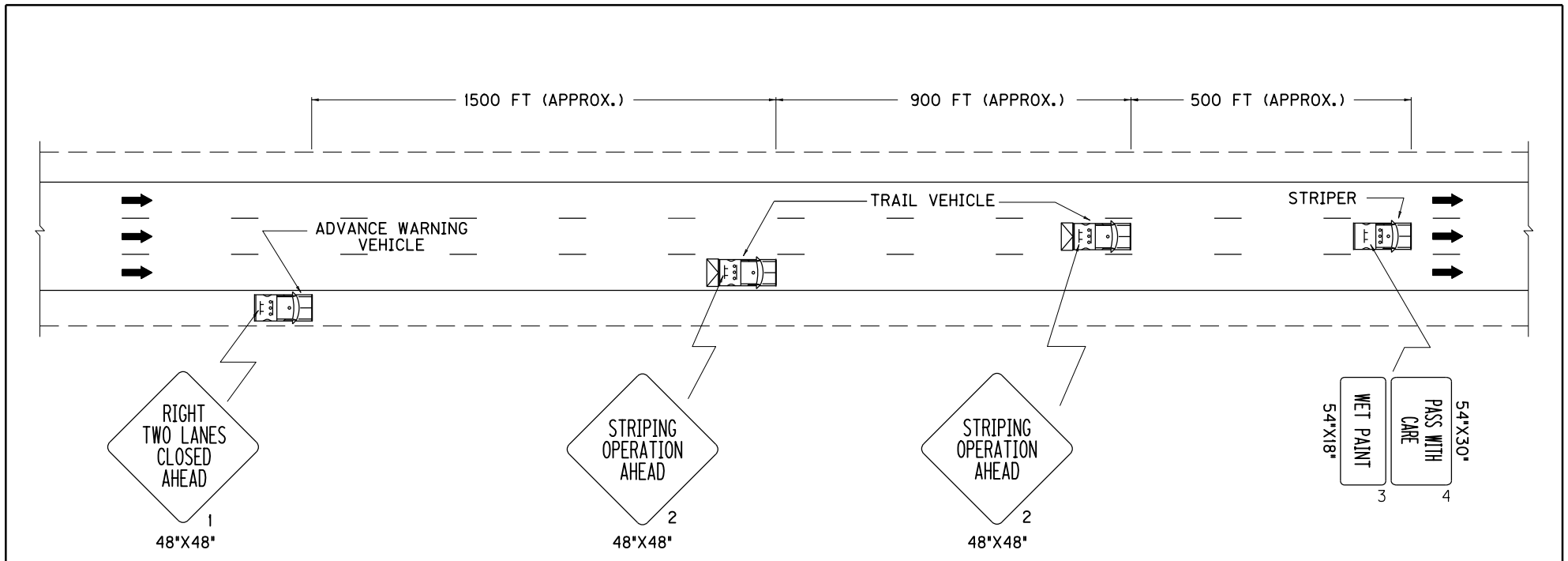
1. FLASH ARROW PANELS TO DIRECT TRAFFIC RIGHT OR LEFT AS APPROPRIATE. FLASHING ARROW PANELS SHALL BE TYPE B (60"x30") OR LARGER.
  2. SIGNS 1 THRU 3 SHALL HAVE A BLACK BORDER AND LEGEND ON A BACKGROUND OF FLUORESCENT ORANGE SHEETING. SIGN 4 SHALL HAVE A BLACK BORDER AND LEGEND ON A BACKGROUND OF REFLECTIVE 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 TRUCK MOUNTED ATTENUATOR (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.
- BID ITEMS AND UNIT TO BID  
REFER TO SECTION 112 OF STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION.

DRAWING NOT TO SCALE

APPLICATION

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

<b>KENTUCKY DEPARTMENT OF HIGHWAYS</b>	
<b>MOBILE OPERATION FOR DURABLE STRIPING CASE I</b>	
STANDARD DRAWING NO. TTS-120-02	
SUBMITTED <i>B. Allen Wolf</i>	DATE 12-01-15
<small>DIRECTOR OF TRANSPORTATION OPERATIONS</small>	
APPROVED <i>[Signature]</i>	DATE 12-01-15
<small>STATE HIGHWAY ENGINEER</small>	



~ NOTES ~

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 TRUCK MOUNTED ATTENUATOR (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.
- BID ITEMS AND UNIT TO BID  
 REFER TO SECTION 112 OF STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION.

LEGEND

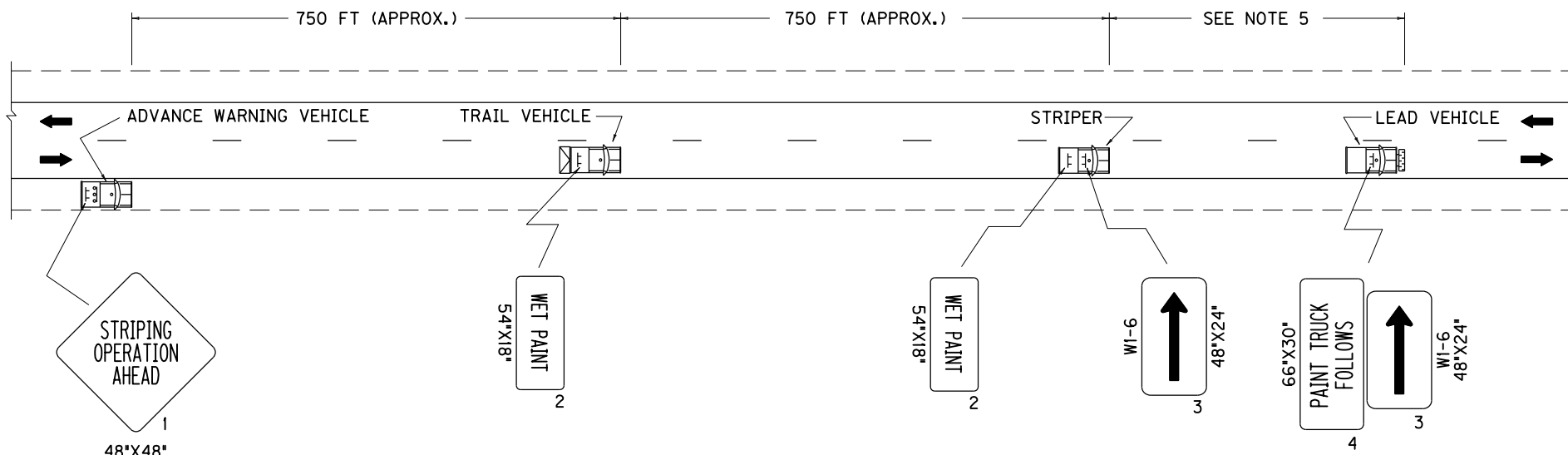
- ⚡ FLASHING ARROW PANEL
- ⊠ SIGN
- ⊠ TRUCK MOUNTED ATTENUATOR

DRAWING NOT TO SCALE

APPLICATION

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

<b>KENTUCKY DEPARTMENT OF HIGHWAYS</b>	
<b>MOBILE OPERATION FOR DURABLE STRIPING CASE II</b>	
STANDARD DRAWING NO. TTS-125-02	
SUBMITTED <i>B. Allen Wolf</i>	DATE 12-01-15
<small>DIRECTOR OF SPECIAL TRAFFIC OPERATIONS</small>	
APPROVED <i>[Signature]</i>	DATE 12-01-15
<small>STATE HIGHWAY ENGINEER</small>	



**LEGEND**

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

~ NOTES ~

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 TRUCK MOUNTED ATTENUATOR (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.

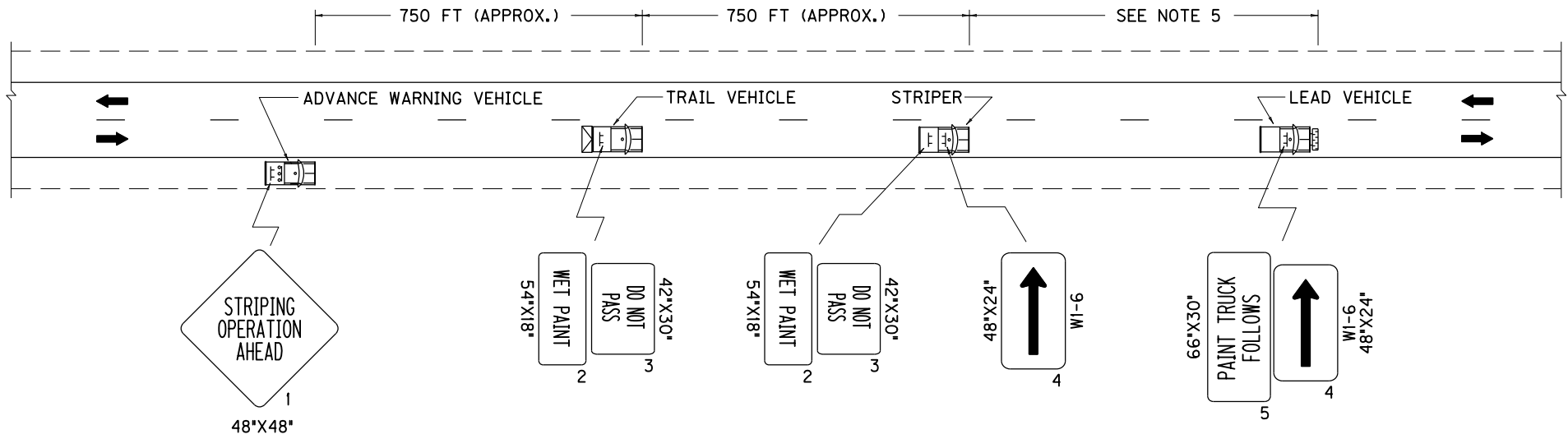
BID ITEMS AND UNIT TO BID  
 REFER TO SECTION 112 OF STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION.

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

<b>KENTUCKY DEPARTMENT OF HIGHWAYS</b>	
<b>MOBILE OPERATION FOR DURABLE STRIPING CASE III</b>	
STANDARD DRAWING NO. TTS-130-02	
SUBMITTED <i>B. Allen Wolf</i>	DATE 12-01-15
<small>DIRECTOR OF TRAFFIC OPERATIONS</small>	
APPROVED <i>[Signature]</i>	DATE 12-01-15
<small>STATE HIGHWAY ENGINEER</small>	<small>DATE</small>



LEGEND

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

~ NOTES ~

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 TRUCK MOUNTED ATTENUATOR (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.
- BID ITEMS AND UNIT TO BID  
REFER TO SECTION 112 OF STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION.

DRAWING NOT TO SCALE

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.

<b>KENTUCKY DEPARTMENT OF HIGHWAYS</b>	
<b>MOBILE OPERATION FOR DURABLE STRIPING CASE IV</b>	
STANDARD DRAWING NO. TTS-135-02	
SUBMITTED <i>B. Allen Wolf</i>	DATE 12-01-15
<small>DIRECTOR OF SAFETY AND TRAFFIC OPERATIONS</small>	
APPROVED <i>[Signature]</i>	DATE 12-01-15
<small>STATE HIGHWAY ENGINEER</small>	