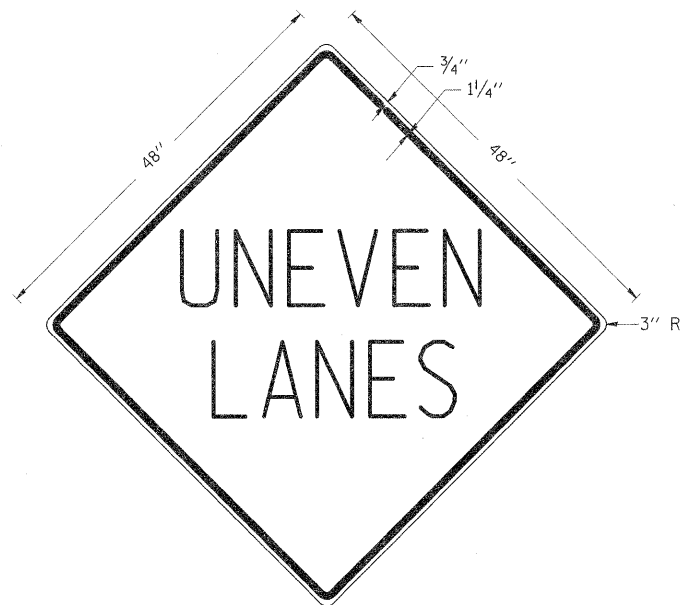


UNEVEN LANES SIGN

W8-11 (48" x 48")



COLORS:
LEGEND AND BORDER - BLACK NON-REFLECTORIZED
BACKGROUND - ORANGE REFLECTORIZED

NOTE: PRIOR TO ALLOWING TRAFFIC ON ANY PORTION OF THE ROADWAY THAT HAS BEEN COLD MILLED OR BEFORE RESURFACING OPERATIONS BEGIN, THE CONTRACTOR SHALL HAVE ERECTED "UNEVEN PAVEMENT" SIGNS THAT CONFORM TO THE ABOVE DETAILS. A MINIMUM OF ONE SIGN AT EACH END OF THE IMPROVEMENT WILL BE REQUIRED. THE CONTRACTOR SHALL MAINTAIN THE "UNEVEN PAVEMENT" SIGNS UNTIL THE RESURFACING OPERATIONS ARE COMPLETED.

IF AT ANY TIME THE SIGNS ARE IN PLACE BUT NOT APPLICABLE, THEY SHALL BE TURNED FROM THE VIEW OF MOTORISTS OR COVERED AS DIRECTED BY THE ENGINEER.

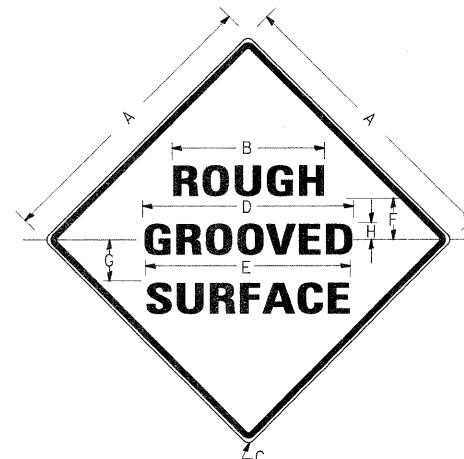
THE COST OF FURNISHING, ERECTING, MAINTAINING, AND REMOVING THE REQUIRED SIGNS SHALL BE INCLUDED IN THE CONTRACT.

REVISIONS	
DRAWN	2-15-89
REVISED	4-06-93
RESIGNED	7-23-04
RESIZED	5-08-08

STD. 9-41

ILLINOIS STANDARD

W8-I106



COLORS:

LEGEND AND BORDER- BLACK NON-REFLECTORIZED
BACKGROUND- ORANGE REFLECTORIZED

SIGN SIZE	DIMENSIONS							
	A	B	C	D	E	F	G	H
48X48	48.0	24.1	3.0	34.0	33.0	6.0	13.0	3.5

SIGN SIZE	SERIES LINES			MAR-GIN	BOR-DER	BLANK STD.
	1	2	3			
48X48	7C	7C	7C	0.8	1.2	B4-48D

ALL DIMENSIONS IN INCHES

NOTES:

PRIOR TO ALLOWING TRAFFIC ON ANY PORTION OF THE ROADWAY THAT HAS BEEN COLD MILLED, THE CONTRACTOR SHALL HAVE ERECTED "ROUGH GROOVED SURFACE" SIGNS THAT CONFORM TO THE ABOVE DETAILS. A MINIMUM OF ONE SIGN AT EACH END OF THE IMPROVEMENT WILL BE REQUIRED. THE CONTRACTOR SHALL MAINTAIN THE "ROUGH GROOVED SURFACE" SIGNS UNTIL THE COLD MILLED SURFACE IS COVERED WITH LEVELING BINDER OR SURFACE COURSE.

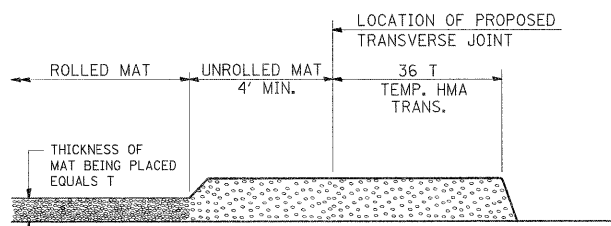
IF AT ANY TIME THE SIGNS ARE IN PLACE BUT NOT APPLICABLE, THEY SHALL BE TURNED FROM THE VIEW OF MOTORISTS OR COVERED AS DIRECTED BY THE ENGINEER.

THE COST OF FURNISHING, ERECTING, MAINTAINING, AND REMOVING THE REQUIRED SIGNS SHALL BE INCLUDED IN THE CONTRACT.

REVISIONS	
REDRAWN	2-15-89
REVISED	4-6-93
REVISED	3-27-08
REVISED	

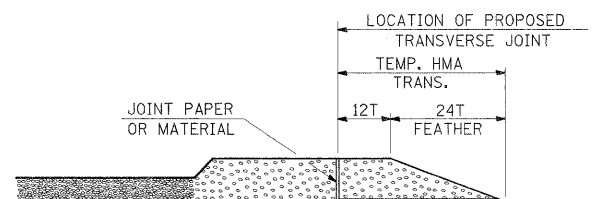
STD. 9-39

TEMPORARY HOT-MIX ASPHALT TRANSITIONS



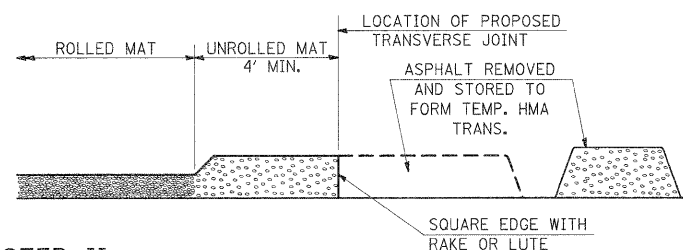
STEP I

- PLACE HOT-MIX ASPHALT MAT, LENGTH 36 TIMES THE THICKNESS OF THE MAT BEING PLACED PAST THE PROPOSED TRANSVERSE JOINT LOCATION USING NORMAL OPERATING PROCEDURES. EXTREME CARE SHOULD BE TAKEN TO MAINTAIN ENOUGH MATERIAL IN FRONT OF THE SCREED TO MAINTAIN REQUIRED PAVING DEPTH.



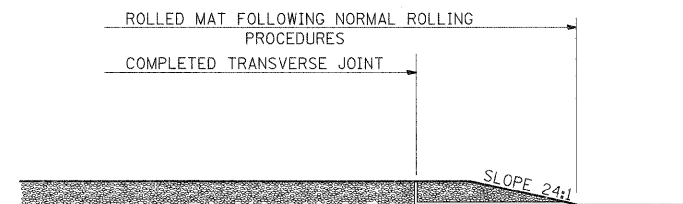
STEP III

- JOINT PAPER OR OTHER PRESELECTED JOINT MATERIAL IS THEN PLACED IN THE CLEARED AREA AND THE EXCESS ASPHALT USED TO HAND FORM A TRANSITION TO THE DIMENSIONS SHOWN ABOVE.
- NOTE THAT IN CONSTRUCTING THE TRANSITION, THE MAT DEPTH IS CONTINUED AS PART OF THE TRANSITION BEFORE FORMING THE FEATHER.



STEP II

- MOVE THE PAVER OUT OF THE WAY AND REMOVE THE ASPHALT FROM THE AREA OF THE PROPOSED TEMPORARY HOT-MIX ASPHALT TRANSITION.
- SQUARE UP THE END OF THE MAT WITH A RAKE OR LUTE.
- NOTE THAT THE MAT WITHIN 4' OF THE END OF JOINT IS NOT TO BE ROLLED AT THIS TIME.



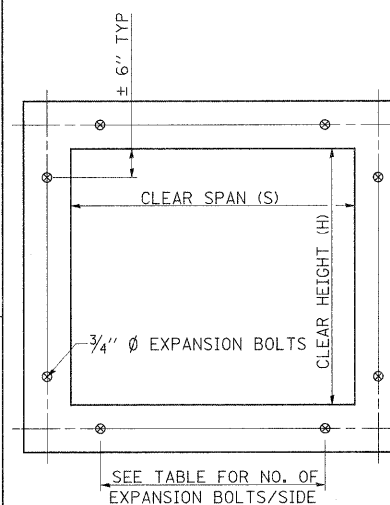
STEP IV

- COMPLETE TEMPORARY TRANSITION BY ROLLING.
- TO RESUME PAVING, AT THE JOINT, REMOVE TEMPORARY TRANSITION AND DISPOSE OF THE MATERIAL ACCORDING TO ART. 202.03 OF THE STD. SPECS. (COST INCLUDED IN THE CONTRACT).
- CONSTRUCTING THE TEMPORARY TRANSITIONS WILL NOT BE PAID FOR SEPARATELY IN ACCORDANCE WITH ARTICLE 406.14 OF THE STANDARD SPECIFICATIONS.

REVISIONS	
REDRAWN	2-15-89
REVISED	8-16-94
REVISED	01-09-07
RESIZED	05-8-08

STD. 9-26

EXPANSION BOLTS REQUIRED FOR CULVERT EXTENSIONS



EXPANSION BOLTS SHALL CONSIST OF SELF DRILLING EXPANSION SHIELDS AND 3/4" Ø HOOKED BOLTS. HOOKED BOLTS SHALL EXTEND A MINIMUM OF 9" INTO NEW CONCRETE.

MINIMUM CERTIFIED PROOF LOAD=7500 LBS.

BOLTS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR EXPANSION BOLTS, 3/4 INCH.

H OR S	NO. EXPANSION BOLTS REQ'D/SIDE			
	EXTENSION ≤ 15'		EXTENSION > 15'	
	NO.	SPACING	NO.	SPACING
2.0	*	*	*	*
2.5	2	18"	2	18"
3.0	2	24"	2	24"
4.0	3	18"	3	18"
5.0	4	16"	3	24"
6.0	5	15"	4	20"
7.0	5	18"	4	24"
8.0	6	17"	5	21"
9.0	6	19"	5	24"
10.0	7	18"	6	21"
11.0	8	17"	6	24"
12.0	8	19"	7	22"

* NOTE: USE MINIMUM OF 1 EXPANSION BOLT AT EACH CORNER.

EXAMPLE:

6' X 4' BOX CULVERT TO BE EXTENDED 18' AT ONE END ONLY.

FROM TABLE FIND:
6' SIDE REQUIRES (4)-3/4" Ø EXPANSION BOLTS AT 20" CENTERS
4' SIDE REQUIRES (3)-3/4" Ø EXPANSION BOLTS AT 18" CENTERS

TOTAL NO. REQUIRED
(4+3)2 = (14)-3/4" Ø EXPAN. BOLTS

REVISIONS	
REDRAWN	2-15-89
REVISED	8-15-94
REVISED	12-14-01
REVISED	3-26-08

STD. 9-9

FILE NAME =
c:\p\work\p\wido\knightam\d0157472\78155-sht-details.dgn

USER NAME = knightam
DESIGNED -
DRAWN -
CHECKED -
PLOT SCALE = 50.0000' / IN.
PLOT DATE = 3/22/2011

DESIGNED -
DRAWN -
CHECKED -
DATE -

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAILS - UNEVEN LANES AND ROUGH GROOVED SURFACE SIGNS,
HMA TRANSITIONS, AND EXPANSION BOLTS

SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RITE. SECTION COUNTY TOTAL SHEETS SHEET NO.
331 (1X-1R-1,RS-2,N-2,TS-3 WILLIAMSON 167 92
CONTRACT NO. 78155
ILLINOIS FED. AID PROJECT