

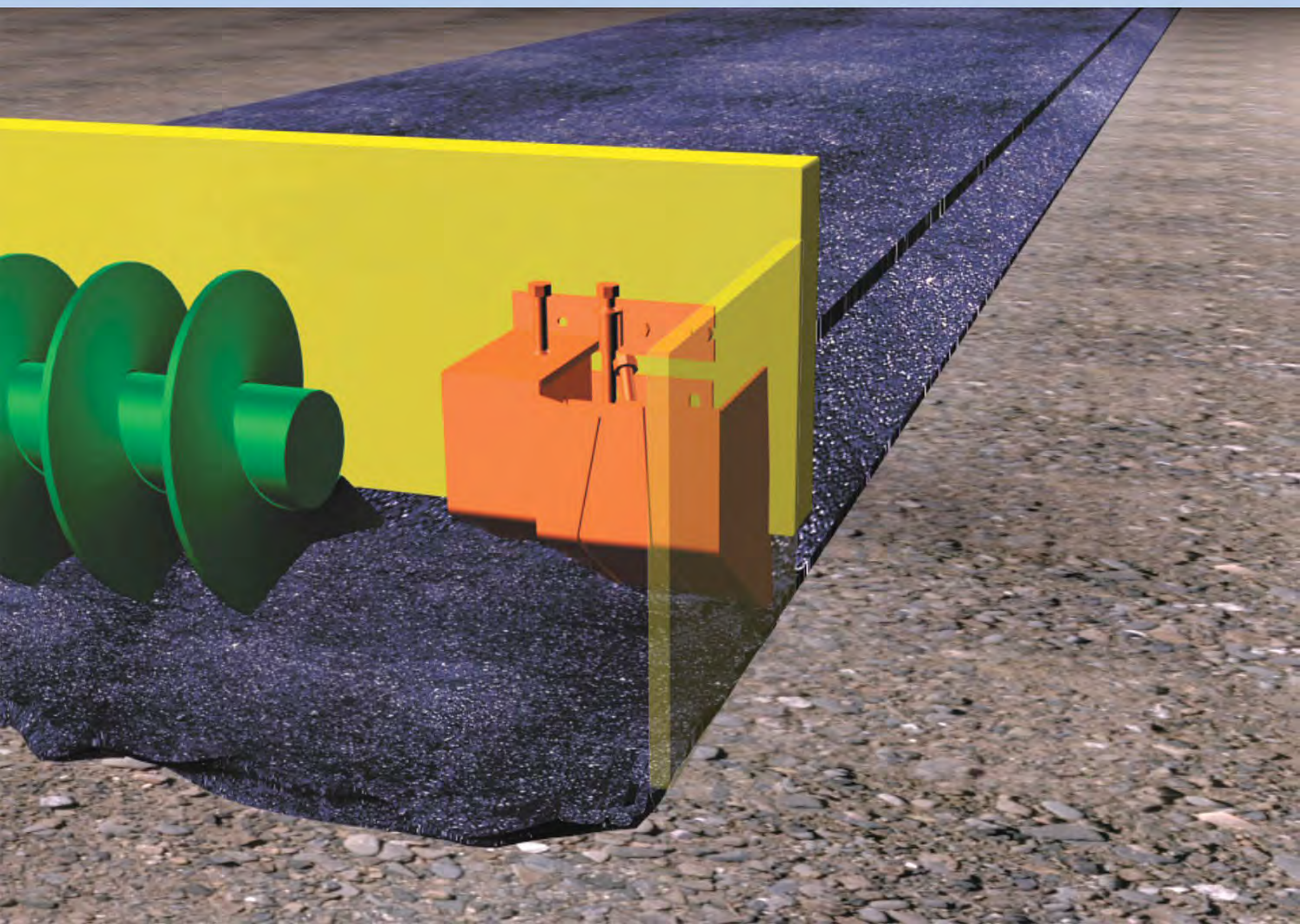
# Longitudinal Joint Systems

## Notched Wedge Joint Maker

- Provides notch and wedge joint shaping for increased density of the joint
- Provides safety ramp off the mat during construction periods
- Fits most mainline paver screeds
- Easy to install. Easy to adjust on the run.
- Thin lift produces two different ramp width sizes 12" and 5.75"

## Vertical Joint Maker

- Precompacts HMA before the screed
- Develops higher density and a more vertical edge
- Provides better interlock when closing the joint
- Dramatically reduces segregation
- Helps to develop some confinement prior to the shaping of the joint edge by the screed





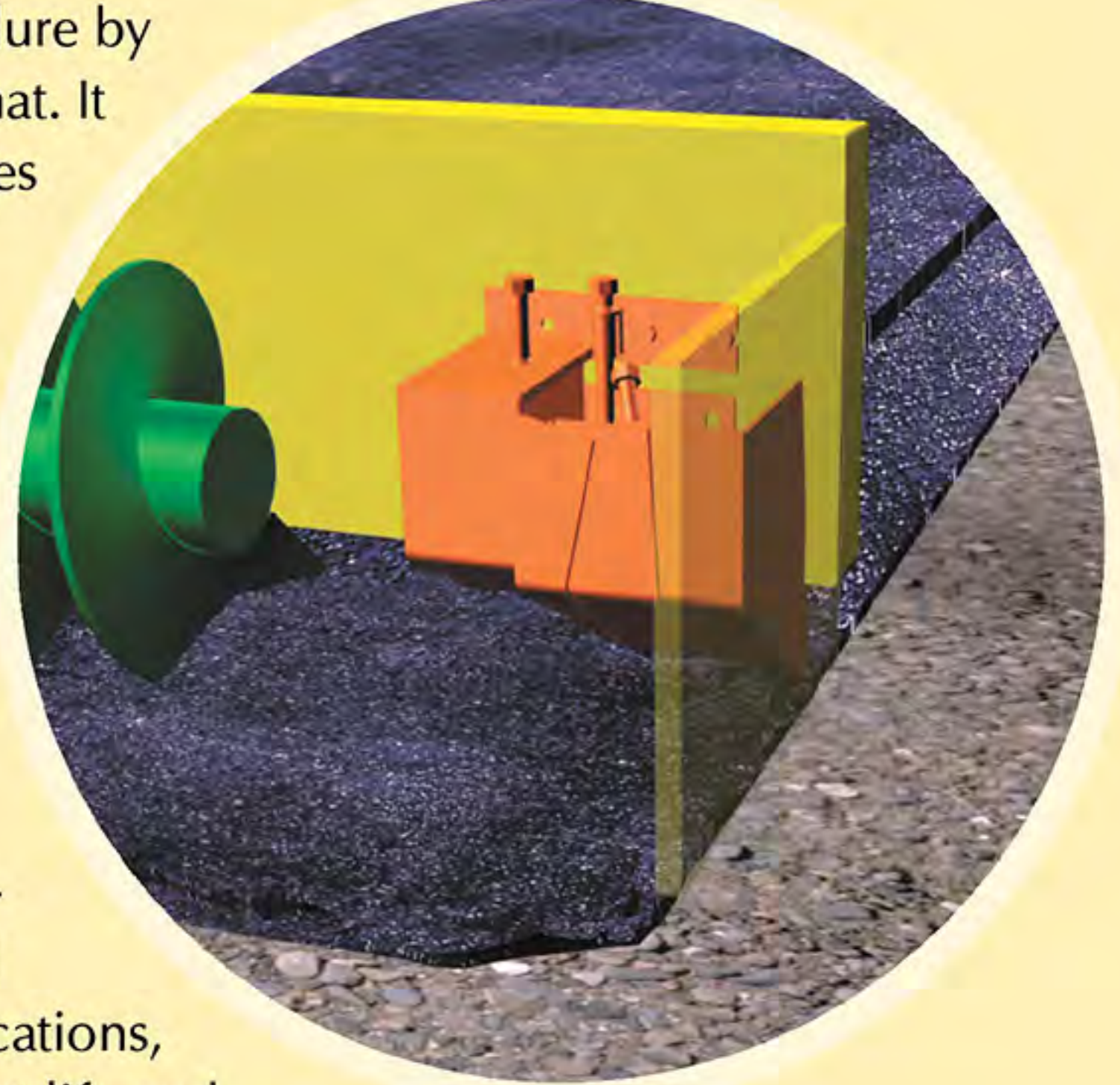


## Notched Wedge Joint Maker

Long-term monitoring of asphalt road structures has proven that the failure of the longitudinal joint is the primary cause of asphalt mat failure in road construction. And the number one reason for this failure is poor density of the joint during construction. TransTech's Notched Wedge Joint Maker (NWJM) is designed to pre-

vent longitudinal joint failure by shaping the edge of the mat. It provides two vertical edges for confinement plus an adjustable tapered wedge for superior interlock and higher densities following joint compaction.

Following many years in the field working for many different jurisdictions, the NWJM has consistently met or exceeded joint performance specifications, while increasing pavement life and decreasing maintenance costs. Depending on the mix and ambient conditions, the NWJM typically provides joint densities approximating the density of the adjacent mat. As an added bonus, the wedge shaped edge of the mat provides an excellent safety ramp down to the underlying mat for traffic during construction periods. The NWJM fits most mainline paver screeds. It is easy to install and easy to adjust to meet jobsite specifications. For copies of test results, please contact TransTech.



## Comparison of Notched Wedge Joint and Mat Densities

LOCATION	JOINT CORES		MAT CORES, 1' TO RIGHT		MAT CORES, 1' TO LEFT	
	lb/cu-ft	% of Max	lb/cu-ft	% of Max	lb/cu-ft	% of Max
81.00	148.2	94.6	152.5	97.3	148.4	94.7
89.00	153.0	97.6	143.3	91.4	152.8	97.5
97.00	144.3	92.1	152.1	97.1	147.2	93.9
Average		94.8		95.3		95.4
Maximum Theoretical Density = 156.7 lb/cu-ft						



# Longitudinal Joint Systems

## Thin Lift (NWJM)

In recent years, due to increased fuel costs and increased asphalt pricing, lift thicknesses have been reduced. Most maintenance overlays are between 1-3/4" and 2" thick. With this reduced mat thickness, the 12" ramp length has become too slight in angle to be effective. Therefore TransTech has introduced a new model notch wedge joint maker called the "Thin Lift". The device is basically the same as the original standard model except the ramp width is only 5" wide; resulting in slightly steeper angled slopes, and only uses 3 bolts to mount.

Tests have shown that the joint region density is closer to the mat density and sectioning of joint cores have shown interlocking of aggregate such that the joint line can not be seen.

For as long as there have been paved roads, there have been questions about the longitudinal joint between lanes. How do you make the joint last longer? How do you prevent raveling, cracking, and erosion? How do you prevent water infiltration? What are the critical factors? Now we know and we have the answer, TransTech System's Notch Wedge Joint Maker and Joint Maker Thin Lift. Easy to install, easy to adjust, and the best part, it does the job as you pave with no additional material or labor.



## Vertical Joint Density Comparison

COUNTRY/ STATE	PAVING CONTRACTOR	PAVEMENT TYPE	AVERAGE DENSITY		
			MAT	JOINT	DIFFERENCE
Maine	Lane Construction	Highway	92.0%	93.8%	+1.8%
Indiana	Milestone Contractors	Highway	94.1%	94.1%	+0.0% (Warranty, SuperPave)
Manitoba, CAN.	Nelson River Construction	Highway	94.8%	94.1%	-0.7%
Pennsylvania	Quaker Sales Corp.	Airport	97.4%	96.6%	-0.8% (Military Project)
Pennsylvania	McMinn's Asphalt	Highway	94.0%	93.0%	-1.0%
Florida	Better Roads, Inc.	Airport	98.1%	96.9%	-1.2% (P-401 Mix)
Indiana	Milestone Contractors	Airport	97.6%	96.4%	-1.2% (P-401.75 Mix)
Indiana	Milestone Contractors	Airport	97.4%	95.8%	-1.6% (P-401 Mix)
Puerto Rico	Better Roads, Inc.	Airport	100.0%	98.3%	-1.7% (P-401 Mix)
New York	Janik Paving & Construction	Airport	99.2%	97.3%	-1.9% (P-401 Mix)
Louisiana	TL. James and Company	Airport	99.3%	97.0%	-2.3% (P-401 Mix)

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# Longitudinal Joint Systems

## Vertical Joint Maker

TransTech's Vertical Joint Maker attaches to the paver screed at the edge of the mat to provide precompaction of the HMA mix before the screed. This simple yet effective device helps to develop some confinement prior to the shaping of the joint edge by the screed. This additional compaction booster has proven to provide higher densities at the joint, provide a more vertical edge and better aggregate interlock when closing the joint. It also serves to dramatically reduce segregation.



## Don't Believe Us?

Here's what the industry has to say about TransTech's Longitudinal Joint Systems:

"Our customers, the driving public, continue to tell us that smooth roads are their number one concern. Since this approach of joint construction reduces the number of transverse joints in pavements, the end result should be smoother roads. And, the density results on the Street Road project point strongly to improved joint quality at the same time."

J. Pat Gardiner, Chief, Quality Assurance  
East Division, Bureau of Construction and Materials Pennsylvania  
Department of Transportation

"This new technology for constructing longitudinal joints was so successful on Street Road that we are working with PennDOT to use it on other projects in our district. For a modest investment, the Wedge Joint Maker increases paving productivity, simplifies our traffic control, greatly improves worksite safety and, most importantly, constructs a very high quality longitudinal joint."

Ricke Foster, Vice President  
James D. Morrissey, Inc.

"We use TransTech's Wedge Joint Maker all the time. It has improved our joint densities consistently, while at the same time improving our production and the quality of the finished mat. It has also given us smoother, more durable roadways. The NWJM is easy to install or adjust and we have never had any problems with it."

David Maugle, Vice President  
JD Eckman, Inc.

"The Wedge Joint Maker gives us the most consistent notched tapered mat edge we have ever seen...and the joint densities it delivers should allow contractors to hit bonuses on projects being let by NYS Department of Transportation."

Bernard Granger, Paving Superintendent  
Kubricky Construction

"With all the intersections, utilities, and roadside obstructions to deal with, we wanted to do everything we could to simplify the paving process...TransTech's Wedge Joint Maker helped by reducing the number of pullbacks we had to make to close the longitudinal joints."

Joe Hellenbrand, Asphalt Superintendent  
James D. Morrissey, Inc.



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