

# Dowel Basket Attachment

## Application evaluation

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## Dowel Basket - Conclusions from NCC task force





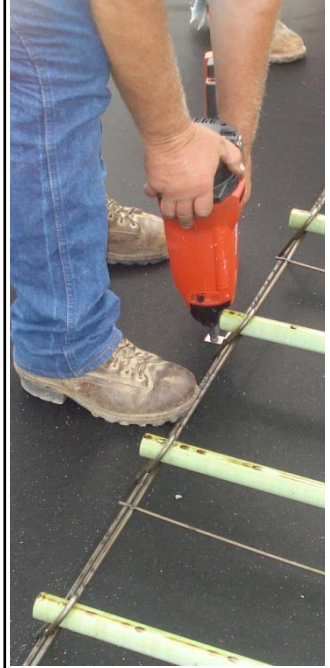

- **Although Dowel Baskets are not standardized across DOT's, the variations among the baskets are not extremely high**
- **A current project triggered by the NC<sup>2</sup> meeting in San Antonio have concluded that multiple benefits exist in standardizing baskets the approach may be regional**
- **The diameter of the basket / frame is mostly standardized and around 0.306" across States. Bigger frames are used for Airport runway projects.**

# Dowel Basket Fastening – Hilti evaluation

**According to our initial research we concluded the following:**

- **Although not very common, there seems to exist situations where the movement of a dowel basket during paving resulted in early failure of the pavement at the joint.**
- **Most DOT's will specify typical fastening methods and number of fastenings (in some cases depth of fastening)**
- **There is an absence of a performance specification for dowel basket attachments, depending on base material**
- **No manufacturer have, to our knowledge, evaluate other technologies or alternatives to attach baskets on a compacted sub-base rather than utilizing spikes / stakes**
- **The selection of the fastening methodology is mostly up to the contractor following the existing specs on the jointing plan or DOT recommendations**
- **In the mean time new technologies, such as Gas fastening, have been developed**

# Dowel Basket Application – Current methods

Rudimentary	Most typical	Concrete	Asphalt overlay	Conc. Overlay	All overlays
					
<p>D&amp;D TE consumables</p>	<p>D&amp;D DX-L (tbd)</p>	<p>DX-L Brick tie</p>	<p>DF Air Brick tie</p>	<p>GX Clip or brick tie</p>	<p>DX Basket clip</p>
<p>Asphalt Comp. base</p>	<p>Asphalt Comp. base</p>	<p>Conc. Pav. Asphalt</p>	<p>Asphalt</p>	<p>Conc. Pav. Unbond. Overlay</p>	<p>Concrete Asphalt</p>