



UltraThin Overlay in Platteville

November 29, 2016

Howard B. Crofoot, P.E.

Situation

- UltraThin Overlays are a part of a range of pavement preservation techniques to be used in specific circumstances.
- Summer 1997 was my first year as Director of Public Works
- Based on previous practice, the City of Platteville hired a contractor to do a chip seal on various streets.
 - Excessive bleeding complaints
 - Excess gravel complaints

Situation - continued

- Did a slurry seal as replacement for chip seal 1998 - 2002
 - Pro:
 - Relatively low cost
 - No tracking once the asphalt “broke”
 - Quick return to traffic
 - Con:
 - Can be tracked until asphalt emulsion “breaks”
 - Slurry removed by snowplows
 - No structural value

Situation - continued

- 2002 – approached by Iverson Construction (Mathy) about a new product – UltraThin overlay
- Pro:
 - No tracking
 - Quick return to traffic
 - Structural value the equivalent of 0.75 inches of asphalt
 - Expected life 7 – 10 years
- Con:
 - Higher cost than slurry seal. 2016 bid price: \$77.50/ton. We bid 2468 tons for slightly more than 52,000 SY or 21 SY per Ton. It comes to about \$3.63/SY



Third St – Pilot case June 2002

- Low Volume street in Downtown Platteville between Main and Pine Streets
- Local traffic only, heaviest vehicles are garbage trucks and plows
- Serves bank drive thru, private parking lots.
- WISLR information:
 - PASER 4 (estimated 2002 rating)
 - 422 feet long
 - Pavement width 24 feet
 - Last reconstruction in 1985
- Expected life – 7 years

Third St – Pilot case June 2002

- Before photos: June 2, 2002 – looking south from Main Street



Third St – Pilot case June 2002

- Before photos: June 2, 2002 Looking north from Pine Street



Third St – Pilot case June 2002

- Before photos: June 2, 2002 Close up of patching



Third St – Pilot case June 2002

- During Photos: June 5, 2002 Milled edges and ends instead of feathering, tack coat on surface



Third St – Pilot case June 2002

- During Photos: June 5, 2002 Rolled, but mix is more dense



Third St – Pilot case June 2002

- After Photo: March 2003 - Reflective cracking visible



Third St – Pilot case June 2002

- After Photo: April 2010 – full reflective cracking, no sealing, ride still good



Third St – Pilot case June 2002

- After Photo: September 2016– full reflective cracking, no sealing, ride fair



Conclusions

- Excellent longevity on low volume street at approximately PASER 4. 2015 rating – PASER 5
- Has served 14 years with no maintenance – double expectations!
- In recent years Platteville has budgeted approximately \$200,000 for Thin Overlays.
- There are 2 cases that are looked at for Thin Overlays
 - PASER 5 streets for preservation. Expect 10 years + on low volume streets
 - PASER 3 streets as Band-Aid. Expect 4 – 5 years. This delays need for full street reconstruction to spread out reconstruction budget.
- Caveats:
 - Higher volume/higher truck use shortens life
 - Used in 2006 on State Highway 80 as wedge course in wheel path ruts. Expected to reconstruct in 2008. Project was delayed twice and reconstructed in 2012. Wedges failed in 2010.



Questions?