

## Project Profile – Sedgwick County, Kansas Flexible Microsurfacing

**Project Location:** Various roads – South 63<sup>rd</sup> St., 21<sup>st</sup> St., 29<sup>th</sup> St., 61<sup>st</sup> St., 263<sup>rd</sup> W. Ave., 295<sup>th</sup> W. Ave., Greenwich Rd., Webb Rd.

**Road Owner / Contact:** Sedgwick County, Kansas

**Date Placed:** September 2009

Sedgwick County, KS, like many other agencies across the U.S., has a number of roads that require preservation to keep them in long-lasting condition. Although these roads were in good structural condition, they needed a treatment to keep them that way and to extend their life. By overlaying the surface with a MicroTekk™ microsurfacing treatment, Sedgwick County is achieving its goal.

Cracks from the existing pavement reflect through a new micro surfacing layer in a short time, even if the cracks have been sealed. This has led to agencies asking for improvements in the process. A new process developed by Road Science, named MicroTekk flexible micro surfacing, helps solve this problem by delaying the first occurrence of reflective cracking and consequentially extending treatment's life.

### Construction Information

**Contractor:** Ballou Construction

**Equipment Used:** Bergkamp M1

**Construction Notes:** Placement was at 22 to 25 pounds per square yard

**Pavement Condition:** Moderate to high severity transverse cracks. High-severity cracks had been sealed while many of the low to moderate-severity cracks had not been sealed.

### Photos:

#### 21<sup>st</sup> Street North

Before Construction



During Construction



3 Months After Construction



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### 61<sup>st</sup> Street North

Before



During



After (September 2009)



#### **Design, Testing & Performance Information**

An ISSA mix design process was performed on the materials before construction. Design emulsion content was 11.7 percent. The emulsion was formulated and an additive was used for flexibility of the system. Additionally, an overlay tester (Tex-248-F) was used to test the flexibility in the laboratory, and it exceeded the criteria of 100 cycles. Traditional micro surfacing usually fails the overlay test at three cycles.

Visual pavement condition ratings were performed on the roads before construction, with a low value of 52 and a high value of 85. After construction, the lowest condition rating was 85 and the highest was 94.

*For more information on this project, on the MicroTekk™ process, or other solutions available in your area, contact your local Road Science, LLC representative ([www.roadsciencellc.com](http://www.roadsciencellc.com)).*



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