

CASE STUDY SERIES: In the Field with LifeMark



VONTZ PAVING INC.

Hastings, Nebraska | Paving Contractor | LifeMark-100 System

Title: *A New Standard in Paving Layout Safety and Efficiency*

Subtitle: Vontz Paving becomes the first paving contractor to implement the LifeMark-100 Auto Layout System strictly for layout operations

"We used to need half a day and a full team to set string lines. Now it takes one person and 20 minutes. That changes everything."

— Sean Vontz, Vice President, Vontz Paving Inc.

HIGHLIGHT PANEL

System Used: LifeMark-100

Industry: Asphalt Paving

Location: Hastings, Nebraska

Primary Benefit: Improved Safety & Labor Efficiency in Layout Operations

Background

Founded in 1992 by Brad Vontz, Vontz Paving Inc. has grown from a small local outfit to a leader in paving operations throughout Nebraska. With Brad's sons Sean and Jay joining

full-time in 2002 and 2010, the company continued expanding its team and equipment, while keeping its focus on quality work and worker safety.

For over a decade, Vontz Paving has explored alternatives to the manual and dangerous method of string line layout—a method that not only demands high labor input but also places workers at unnecessary risk in live traffic lanes.

The Challenge

Traditional string line layout is labor-intensive and dangerous. It requires multiple workers, extended setup time, and frequently places personnel within active lanes of traffic. After a fatality occurred at a neighboring contractor while performing this task, Sean Vontz and his team renewed their efforts to find a safer and more efficient method.

Their past attempts at innovation included agricultural GPS systems (2016) and a mini-robot layout tool (2019), but each had limitations in real-world roadwork environments—either lacking accuracy, being too slow, or too complex to operate.

Discovering LifeMark-100

In 2024, the team at Vontz Paving discovered the LifeMark-100 Auto Layout System.



Intrigued by its simplicity and GPS-driven capabilities, they became the first paving contractor to adopt the system solely for layout operations. Their first unit was delivered in March 2025.

Working primarily on state highway mill-and-pave projects, the team uses GPS coordinate data provided by the Nebraska Department of Transportation. These CSV files are imported directly into the LifeMark-100 to automatically mark the centerline—eliminating the need for physical string lines.

The Results

- **Time Savings:** Reduced layout time from 4 hours to 20 minutes
- **Labor Efficiency:** One operator now replaces a multi-person layout crew
- **Improved Safety:** Dramatic reduction in worker exposure to live traffic
- **Operational Flexibility:** Layouts can be completed in advance of project start dates

- **Ease of Use:** Simple aerosol-based operation; no messy paint tanks or complex setup
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Overcoming Challenges

When Vontz Paving attempted long 6" markings spaced every 3 feet, they observed that the system's built-in air compressor couldn't keep pace. The team resolved this by adding a secondary compressor, maintaining speed and consistency.

The system's simplicity, paired with LimnTech's responsive support, made adoption smooth. The Vontz team is also now exploring LifeMark's surveying capabilities and considering software like Trimble Business Center to manage point data in-house.

Looking Ahead

Vontz Paving now plans to use the LifeMark-100 on all eligible paving projects. With the ability to eliminate a dedicated layout crew and significantly improve safety, the system is becoming a foundational part of their operations.

As more DOTs begin providing digital layout data—and as contractors gain tools to create it themselves—the value of automated layout systems like the LifeMark-100 will only increase.

Want to learn how the LifeMark-100 can work for your paving or layout operations?

Visit www.limntech.com or contact us at sales@limntech.com