

Two Lift Paving

Contractor's Perspective

National Open House
Two Lift Concrete Paving
Abilene, Kansas
October 16, 2008

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Overview

- Concept
- Planning
- Scheduling
 - Delays
- Test Section
 - Lessons Learned
- I-70 Paving

Concept

- European Scan Tour
 - KDOT representative
- Market Need
 - Air void problems
 - Aggregate quality of local market
 - Extended pavement life
- Appropriate Project / Location
- Exposed Aggregate Surface

Concept – Market Need

Concept - Project

- I-70 in Saline County, Kansas
 - 2 year pavement reconstruction project
 - WBL in 2007
 - EBL in 2008
 - Rest area on each side
 - Ideal for test sections
 - Revised typical section required 24' paving
 - Uniform Shoulders on Variable Granular Base

Planning

- Preliminary Discussion
 - April 2007 – Manhattan, KS
 - KDOT, FHWA, CP Tech Center, KSU, Koss
 - Highways for Life
- Workshop
 - June 2007 – Abilene, KS
 - Dr. Hermann Sommer (Austrian Engineer)
 - CP Tech Center
 - Dr. Rob Rasmussen

Planning

- Mix Designs
 - Stiffness of Bottom Lift
 - Durability of Top Lift
- Equipment and Logistics
 - Delivery and placement of bottom lift
 - Stiffness
 - Haul Road v. Front of Paver
 - Delivery and placement of top lift
 - Minimize deformation of bottom lift
 - Production and Delivery of Two Mixes

Planning

- Test Section
 - Expectations
 - Location
 - Complexity

Scheduling

- Test Section
 - Late Summer / Fall 2007
 - 2007 Season – Extremely Wet
 - Paving Crew Unavailable
 - Spring 2008
 - More economical to re-schedule to location where a paving crew was already working
 - US-69 Side Road
 - » Minimal risk
 - » District IV
 - 2008 Season – Extremely Wet
 - Paving completed in June 2008

Test Section



Test Section



Test Section



Test Section



Test Section



Test Section



I-70

- Plant
 - Dual Drum
 - Two Silos
 - Split
 - Aggregate Bins
 - Four



I-70

- Delivery
 - Product from either drum
 - Truck could delivery either
 - Color Coded Cards



I-70

- Delivery



I-70

- Placement
 - Haul Road
 - Spreaders



I-70

- Placement
 - Top Lift
 - Distance



I-70



I-70



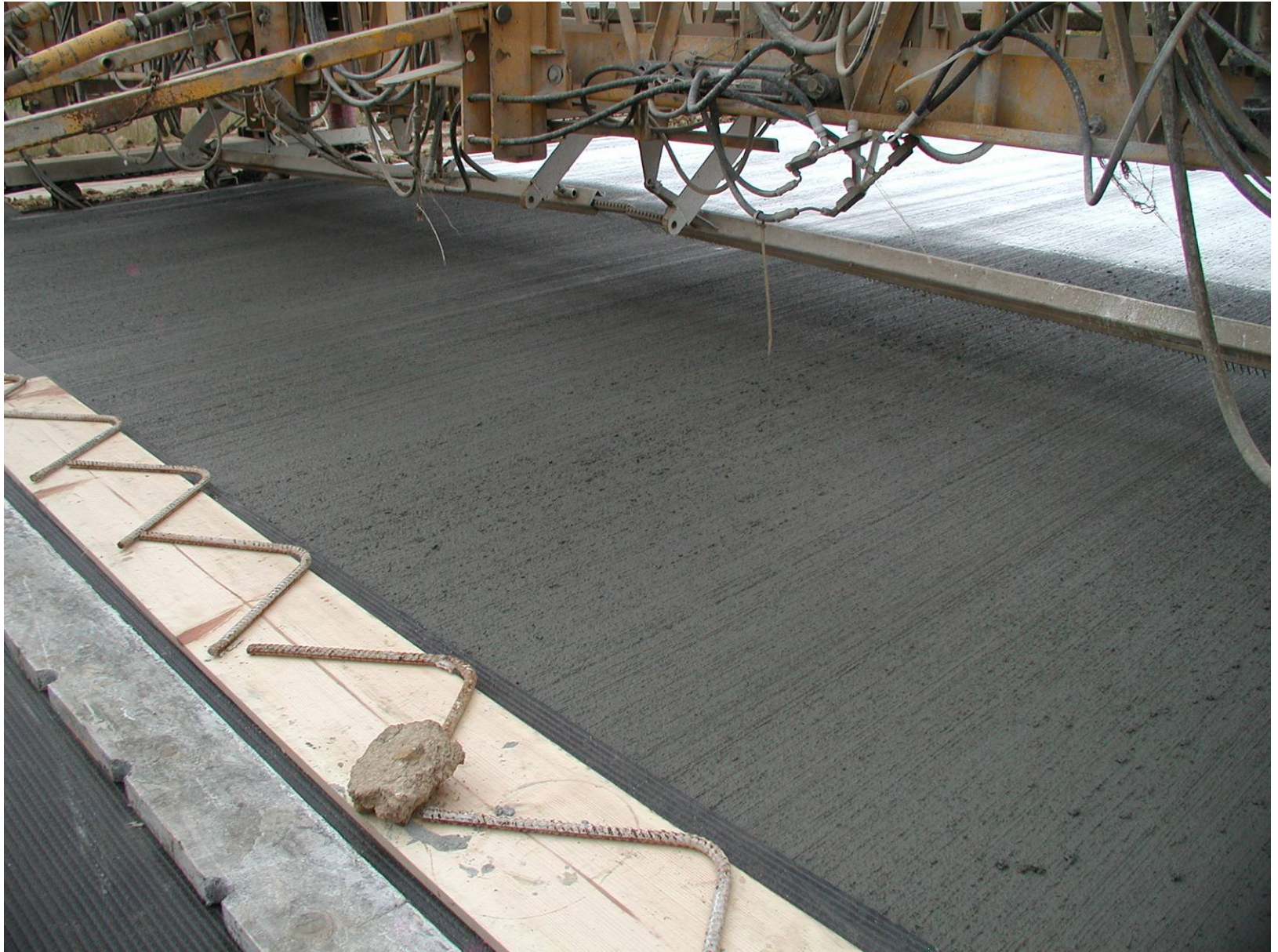
I-70



I-70



I-70







Jointing



Jointing



Jointing



Conclusion

- Practical Application
- Limited Production Impact
- Economical
 - Economize bottom lift
 - Extended pavement life
- No Problem
- Team Effort