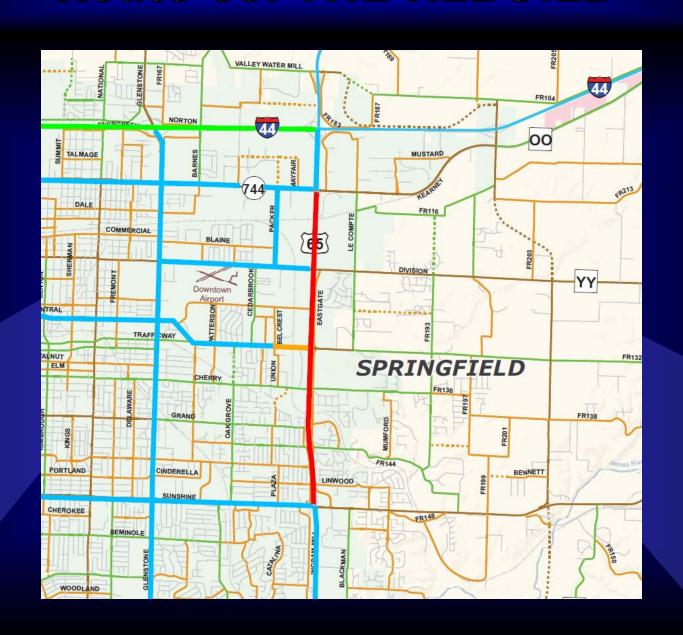


### **Route 65: THE REBUILD**



### **Route 65: THE REBUILD**



### Original Pavement from early 1970s



### Here's what we were dealing with









# So what are the options?

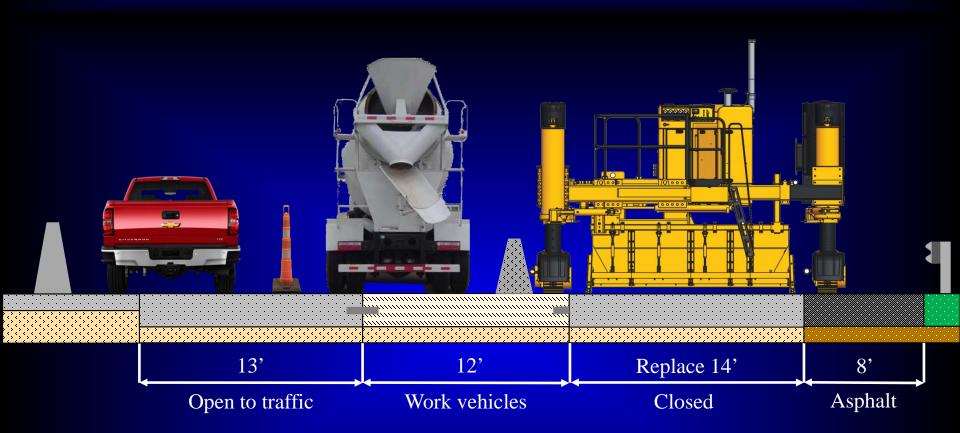
# **Asphalt Overlay?**



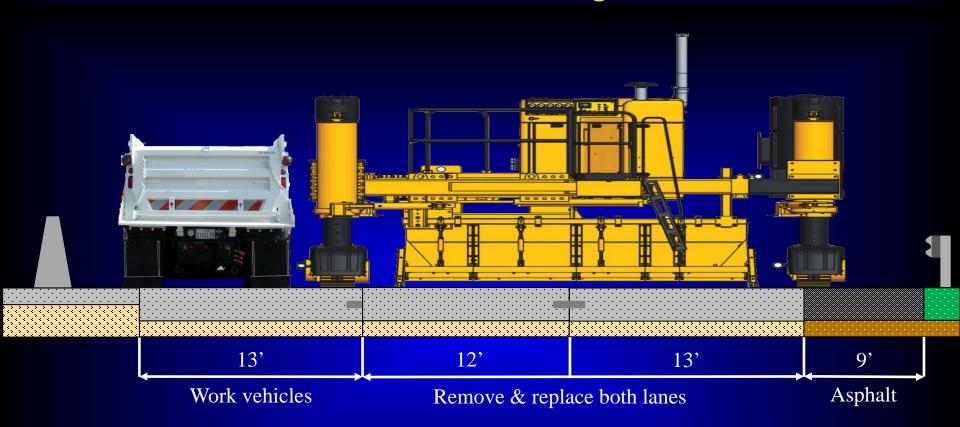
# Concrete Pavement Repair?



### Concrete Pavement Replacement with Barrier Wall?



# Concrete Pavement Replacement With Full Closing?



# **Project Incentive**

### **Contractor Incentive**



### **Contractor Disincentive**



### Keys to Success = Communication





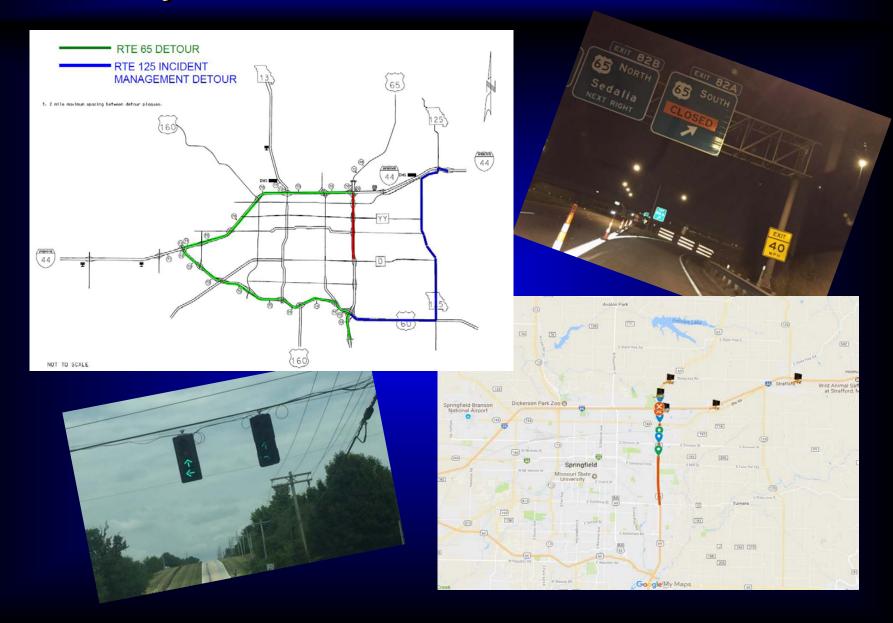








### Keys to Success = Traffic Control



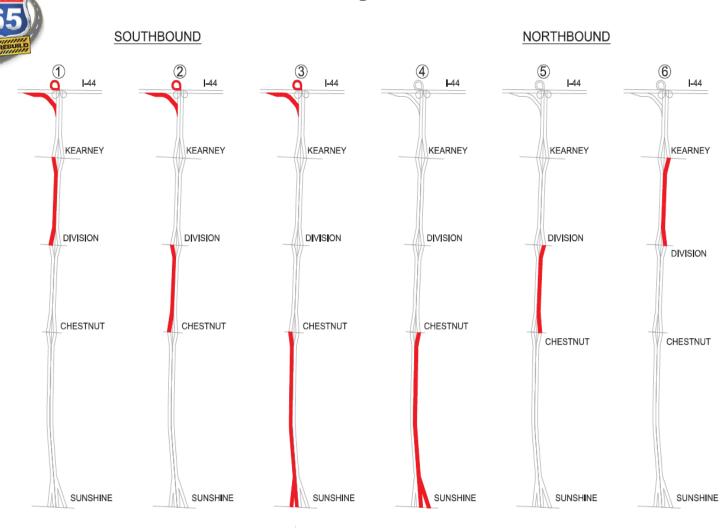
### Keys to Success = Engagement





### Phasing

### **US65 Stage Closures**



## Phasing

Route 65 - Greene County																															
Proposed Schedule	July																														
	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7	8
	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tu
Full-Bonus Schedule 42 Days																															
Southbound Construction		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21									
Kearney Intersection Closures																															
Kearney to SB65 On-Ramp Closed																															
																															П
Division Intersection Closures																															П
SB65 to Division Off-Ramp Closed																															П
Division to SB65 On-Ramp Closed																															
Chestnut Intersection Closures																															
SB65 to Chestnut Off-Ramp Closed																															
Chestnut to SB65 On-Ramp Closed																															П
																														$\Box$	

Proposed Schedule	August															Sept														
	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2 3	3
	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat Su	ın
Full-Bonus Schedule 42 Days																														
Northbound Construction			22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42							
Chestnut Intersection Closures Northbound																														
NB65 to Chestnut Off-Ramp Closed																														
Chestnut to NB65 On-Ramp Closed																														
Division Intersection Closures Northbound																														
NB65 to Division Off-Ramp Closed																														
Division to NB65 On-Ramp Closed																														
Kearney Intersection Closures Northbound																														
NB65 to Kearney Off-Ramp Closed																														

### 7 Day Schedule

### **Maturity Method**

- Maturity Curve Established to Determine Strength of Concrete
  - 32 Hours Average for 2500 PSI





### Construction Sequencing

- Traffic Switch
- Pavement Rubbilization
- Pavement Removals
- Base Rock
- Concrete Setup
- Mainline Pours
- Ramp Pours

### **Quantities Highlights**

- 7 Miles of Roadway
- 35,000 CY of Concrete
- 110,000 SY of 10" Concrete Pavement
  - 14 Mainline Pours
  - Average Mainline Pour 2800 LF
  - 11 Ramp Accel/Decel Pours

### Quantities Highlights

- Total Manhours 23,000 MH
- Total Trucking Hours
  - Pavement Removals 3200 Hours
  - Concrete Batching 3000 Hours



# Pavement Rubbilization

### Pavement Rubbilization



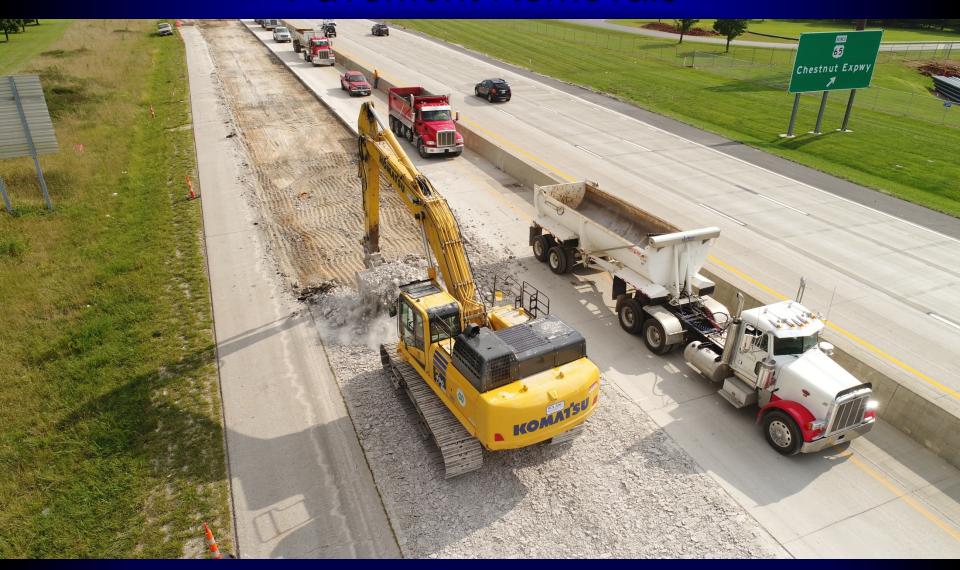


### **Pavement Removals**





### Pavement Removals





### Base Rock





### Concrete Setup





### Concrete Setup



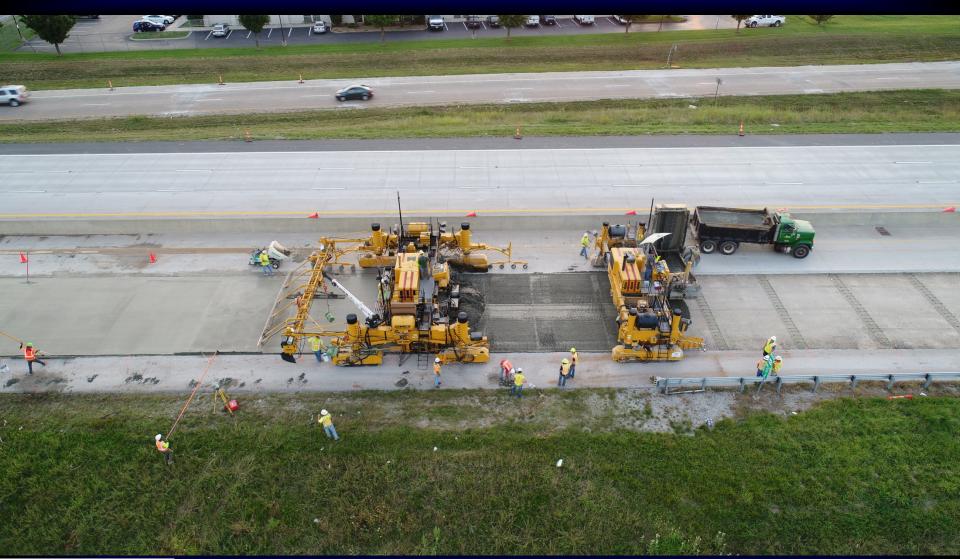


### Concrete Setup





### Mainline Paving





### Mainline Paving Equipment

- Gomaco 2600 Spreader/Placer
- Gomaco 2800 Paver
  - With Leica Stringless
- Gomaco Texture Cure

## **Mainline Paving**







# **Mainline Paving**





# Leica Stringless Paving





# Ramp Paving





# Concrete Plant



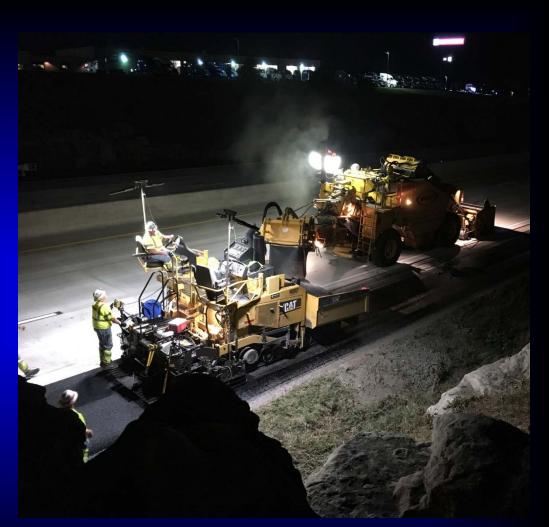


#### **Concrete Plant**

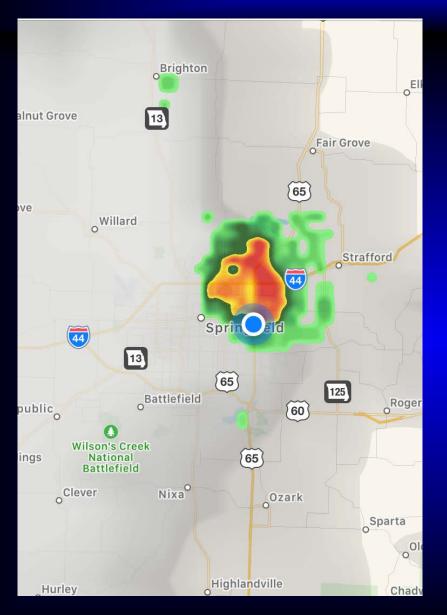
- RexCon Model S Portable Batch Plant
- Optimized Mix
  - Conco Quarries
  - Capital Sand
  - Central Plains Cement
  - Headwaters Flyash
  - GRT Admixtures

### Major Subcontractor Items

- Guardrail
- Pavement Repairs
- Shoulder Mill & Fill



- Weather
  - Rain
  - Heat
- Soft Spots
- Landlocked
- Traffic





SUN 7/16	MON 7/17	TUE 7/18	WED 7/19	THU 7/20	FRI 7/21	SAT 7/22
Actual Temp						
91°/68°	93°/68°	92°/70°	94°/70°	96°/72°	97°/72°	98°/73°

Heat Index Over 100°





- Soft Spots
  - Removed Existing Material
  - Replaced with RockFill Base



- Landlocked
  - One Way In / One Way Out



#### Traffic





#### Successes

- Completed in 42 Days! 10 Days ahead of schedule
- Communication
  - Project Team
  - Public Outreach (Twitter/Emails)
- Minimal Traffic Congestion
- Incentives



#### Successes

- Partnership of Project Team
  - Constant Communication
  - Swift Solutions
  - Coordination of Subcontractors

## Coordination of Major Subcontractors and Suppliers























### Partnering with local law enforcement







