Route 65: THE REBUILD
Springfield, MO
2018 TEAM CONFERENCE
BRAD GRIPKA - MoDOT
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?

- 13’ Open to traffic
- 12’ Work vehicles
- Replace 14’ Closed
- 8’ Asphalt
Concrete Pavement Replacement With Full Closing?

- Work vehicles: 13’
- Remove & replace both lanes: 12’
- Asphalt: 9’
Project Incentive

Contractor Incentive

Contractor Disincentive
Keys to Success = Communication
Keys to Success = Traffic Control
Keys to Success = Engagement
Route 65: THE REBUILD
Construction Phasing/Staging
Phasing

US65 Stage Closures

SOUTHBOUND
1. KEARNEY
2. DIVISION
3. CHESTNUT
4. SUNSHINE

NORTHBOUND
5. KEARNEY
6. DIVISION
7. CHESTNUT
8. SUNSHINE
## Phasing

### Route 65 - Greene County

#### Proposed Schedule

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#### Full-Bonus Schedule 42 Days

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#### Proposed Schedule

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#### Northbound Construction

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<td>Chestnut Intersection Closures Northbound</td>
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<td>NB65 to Chestnut Off-Ramp Closed</td>
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<tr>
<td>Chestnut to NB65 On-Ramp Closed</td>
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<tr>
<td>Division Intersection Closures Northbound</td>
<td>22 23 24 25</td>
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<td>NB65 to Division Off-Ramp Closed</td>
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<td>Division to NB65 On-Ramp Closed</td>
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<tr>
<td>Kearney Intersection Closures Northbound</td>
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<td>NB60 to Kearney Off-Ramp Closed</td>
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7 Day Schedule
Maturity Method

- Maturity Curve Established to Determine Strength of Concrete
  - 32 Hours Average for 2500 PSI
Route 65: THE REBUILD
Construction
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
Traffic Switch
Pavement Rubbilization
Pavement Rubbilization
Pavement Rubbilization
Pavement Removals
Base Rock
Concrete Setup
Concrete Setup
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
Ramp Paving
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
Challenges

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

- **Heat Index Over 100°**

<table>
<thead>
<tr>
<th>SUN 7/16</th>
<th>MON 7/17</th>
<th>TUE 7/18</th>
<th>WED 7/19</th>
<th>THU 7/20</th>
<th>FRI 7/21</th>
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<tbody>
<tr>
<td>Actual Temp 91°/68°</td>
<td>Actual Temp 93°/68°</td>
<td>Actual Temp 92°/70°</td>
<td>Actual Temp 94°/70°</td>
<td>Actual Temp 96°/72°</td>
<td>Actual Temp 97°/72°</td>
<td>Actual Temp 98°/73°</td>
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</table>
Challenges
Challenges

- **Soft Spots**
  - Removed Existing Material
  - Replaced with Rock Fill Base
Challenges

- Landlocked
  - One Way In / One Way Out
Challenges

- Traffic
Route 65: THE REBUILD
Successes
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
Route 65: THE REBUILD

Your questions