



J613149 & J61387 Pre-bid Meeting

I-55 Bridge Rehabilitation

November 4, 2021

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Agenda

- Introductions
- Project Overview
- Railroad
- Bridges
- Roadway
- Maintenance of Traffic
- Right of Way
- Utilities
- Job Special Provisions
- Schedule

Introductions

Aaron Groff

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Introductions

MoDOT

- Aaron Groff, Project Manager
- Michele Atkinson, Bridge
- Jonathan Barnes, Right of Way
- Scott Washausen, Construction
- Yan Gluzman, Traffic
- Larry Scheperle, Railroad
- Jen Wade, Area Engineer

Union Pacific

- Nik Shepard, Public Project Manager

Consultant Staff

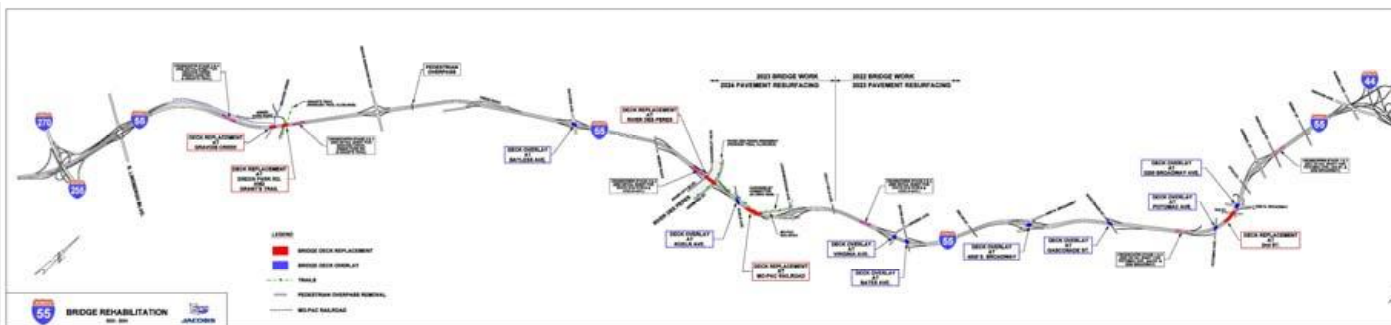
- Christina Sfreddo, Jacobs, Project Manager
- Rod Riley, Jacobs, Bridge
- Chris Linneman, EFK Moen, Bridge
- Jack Blakemore, CMT, Roadway
- Rich Baum, Jacobs, MOT
- Ron Leible, CMT, Utilities
- Greg Horn, Jacobs, Project Principal

Project Overview

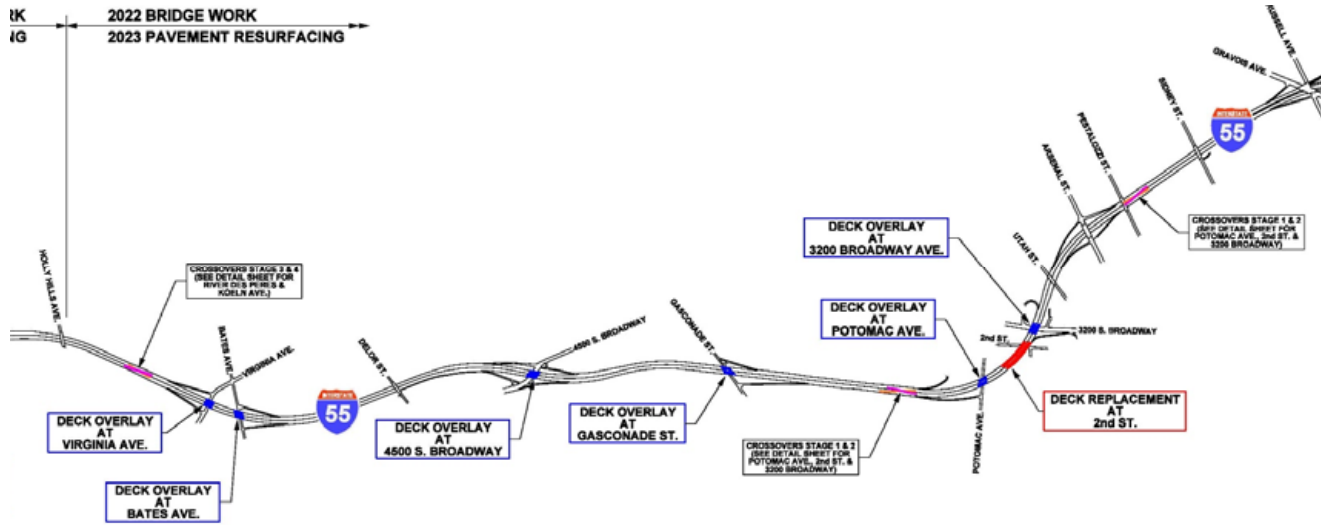
Christina Sfreddo

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Project Overview



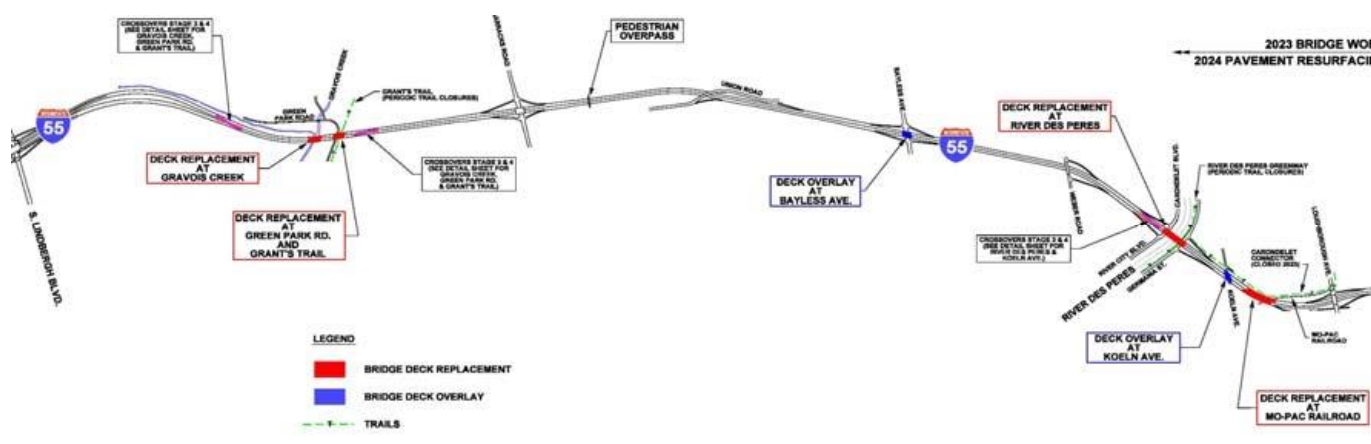
J613149



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J613187



- LEGEND**
- █ BRIDGE DECK REPLACEMENT
 - █ BRIDGE DECK OVERLAY
 - TRAILS

Railroad

Larry Scheperle, Nik Shepard

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Railroad

- J613187-Year 2
- Contractor's Right of Entry Agreement (CROE) required 30 days prior to work on railroad property.
 - Fill out the CROE using information in JSP T
 - Sign the CROE
 - Submit the \$1025 fee
 - Email signed CROE to cjmoore@up.com
 - Allow minimum of 30 days to process CROE after agreement and payment received by UPRR
- Submit signed/sealed demolition/means and methods plan to the Railroad for approval Note: all plans must be approved prior to *issuance* of CROE
- UP Website: https://www.up.com/real_estate/roadxing/industry/index.htm

Bridges

Rod Riley, Chris Linneman

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J6I3149 – 14 Bridge Rehabilitations

- 10 Voided Slab Bridges and 2 Concrete Box Bridges
 - Remove and replace wearing surface
 - Removal of raised pavement markers included with removal of wearing surface
 - Removal of cathodic systems
 - New bridge approach slabs
 - Approach slab notch repair
 - Diamond grinding
 - Miscellaneous repairs

J6I3149 – 14 Bridge Rehabilitations

- 2 Composite Wide Flange Beam Bridges
 - Remove and replace bridge deck, barriers, conduits and drains
 - Deck removal restrictions (A10852 & A10853 2nd Street)
 - Increased girder haunch heights with reinforcing
 - Replace expansion joints with strip seals using concrete blockouts and UHPC secondary pours
 - Replace bearings at end bents and hinges
 - Steel repair at hinges and end bents
 - Non-destructive testing – top flange cover plate welds
 - Limited painting
 - New bridge approach slabs
 - Lighting on Bridge A10852 & A10853 2nd Street
 - Miscellaneous substructure repairs

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J6I3187 – 10 Bridge Rehabilitations

- 2 Voided Slab Bridges (each carries NB and SB traffic)
 - Remove and replace wearing surface
 - Removal of raised pavement markers included with removal of wearing surface
 - Removal of cathodic systems
 - New bridge approach slabs
 - Approach slab notch repair
 - Diamond grinding
 - Miscellaneous repairs
- 8 Composite Steel Plate Girder or Rolled Beam Bridges
 - Remove and replace bridge deck, barriers, conduits and drains
 - Add fencing to A10763 and A12763 over railroad
 - Deck removal restrictions (Green Park, Gravois Creek and River Des Peres)
 - Increased girder haunch heights with reinforcing

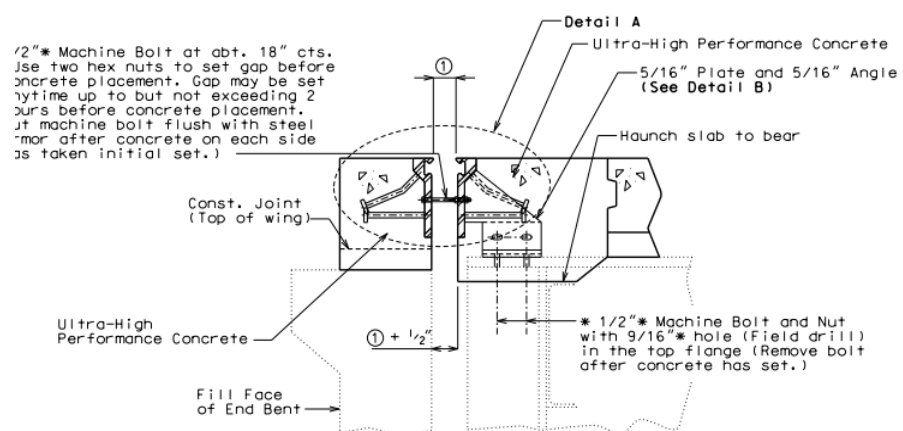
J6I3187 – 10 Bridge Rehabilitations

- 8 Composite Steel Plate Girder or Rolled Beam Bridges (continued)
 - Replace expansion joints with strip seals using concrete blockouts and UHPC secondary pours
 - Replace bearings at end bents and hinges
 - Steel repair at hinges, including replacement of pins and pin plates (A12763 UPRR)
 - Partial steel replacement (A10574 & A10575, River Des Peres)
 - Non-destructive testing – top flange cover plate welds on rolled beams
 - Limited painting
 - New bridge approach slabs
 - Lighting on Bridges A10763 & A12763 UPRR, and A10574 & A10575, River Des Peres
 - Miscellaneous substructure repairs

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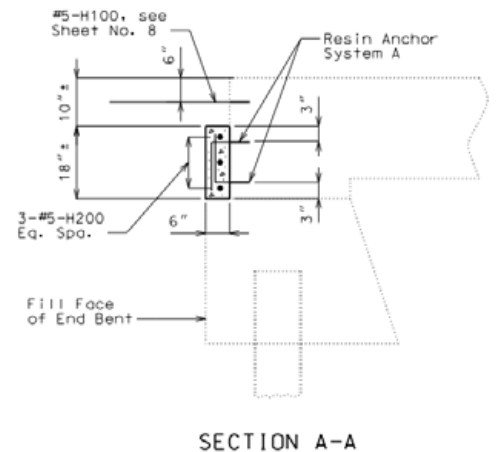
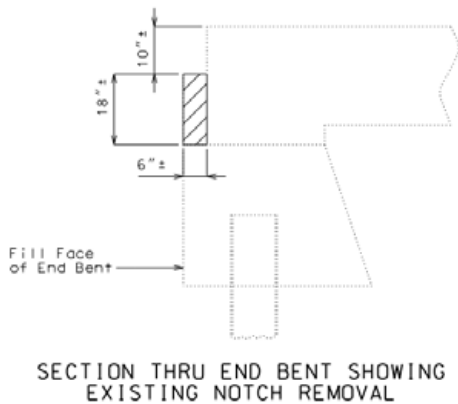
Expansion Joint Replacement using UHPC



- JSP-Special Change Order and Value Engineering Consideration
- JSP-Ultra-High-Performance Concrete

Approach Slab Notch Repair

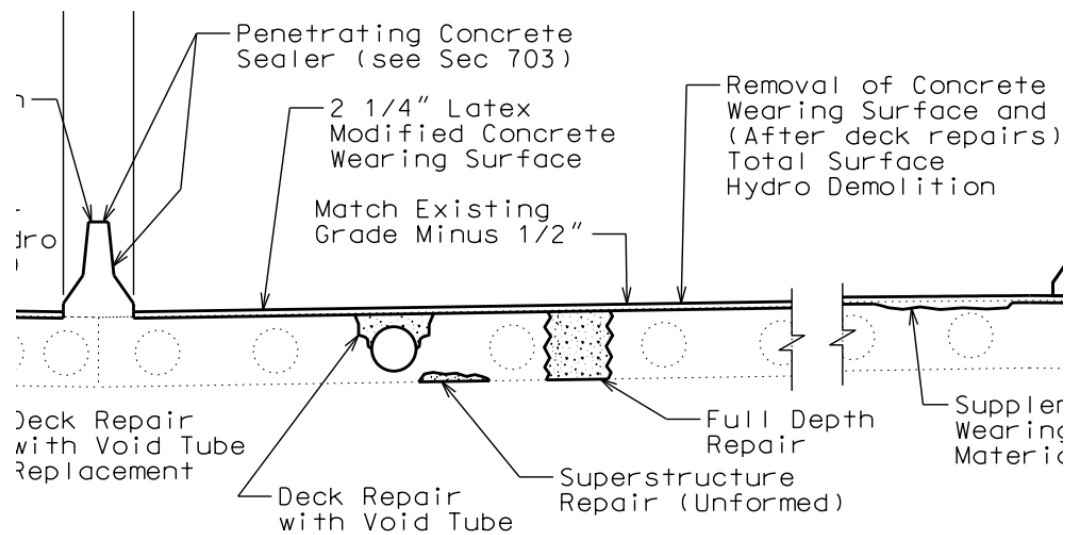
- After approach slab removal, inspect the supporting notch
- Remove deteriorated notch and replace with reinforced notch detail
- Plan Quantity to be field adjusted as required



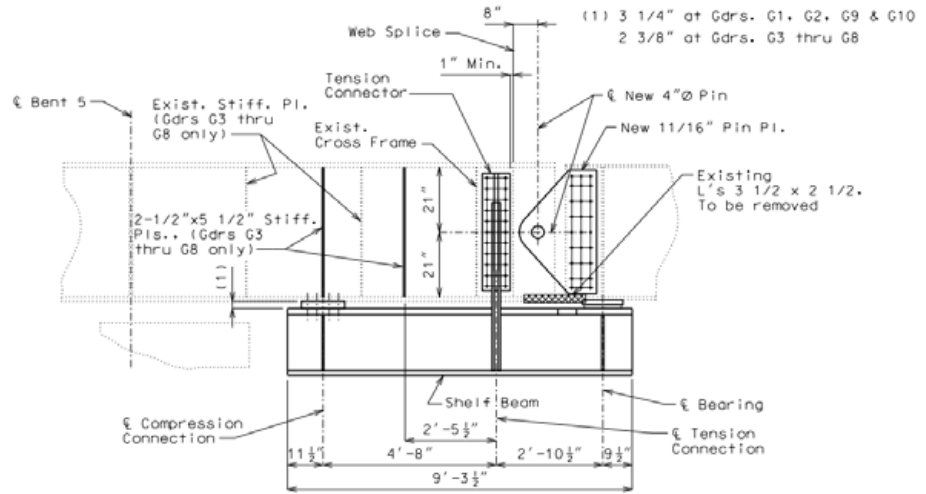
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Full-Depth Repair at Existing Construction Joints where Bridge was Widened



Bridge A12763 I-55 SB over UPRR – Hinge Retrofit

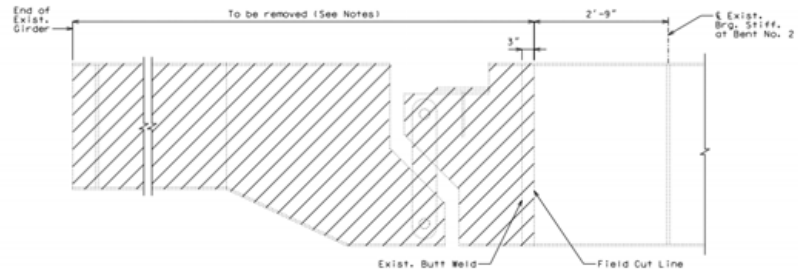


PART ELEVATION SHOWING NEW SHELF BEAM
 Note: Elevation is shown for Exist. Gdrs G3 thru G8.
 Elevation for Exist. Gdrs G1, G2, G9 and G10 similar,
 except as noted.

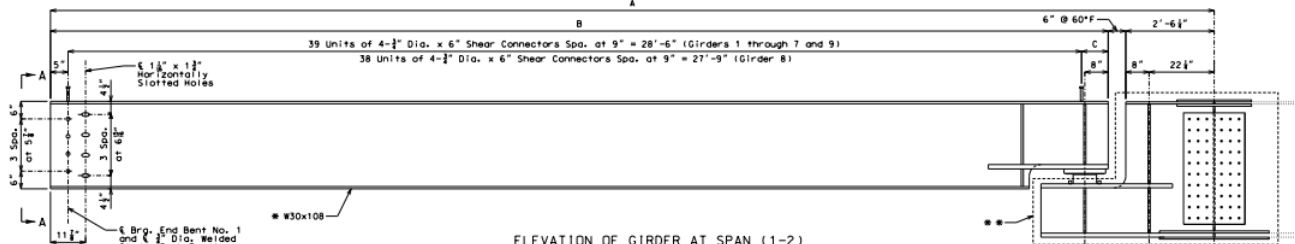
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Bridge A10574 & A10575 I-55 NB/SB over River Des Peres – Hinge and Stringer Replacement



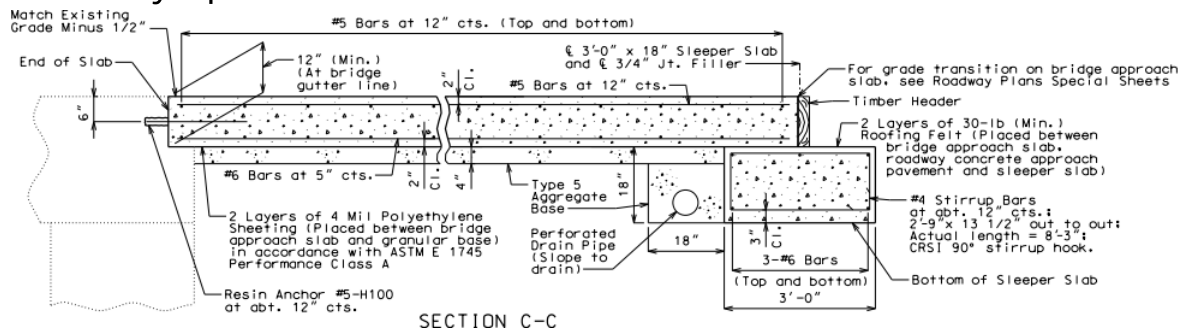
**DEMOLITION OF EXISTING PIN AND HANGER
 NEAR INTERMEDIATE BENT NO. 2**
 Notes: Pin and Hanger at Bent No. 7, Similar.



ELEVATION OF GIRDER AT SPAN (1-2)

Bridge Deck Elevations and Transitions

- JSP Deflection and Haunching
- Prior to overlay or deck removal – survey existing bridge deck
- Bridge Plans indicate target grade related to existing elevations.
 - For Example: Match existing grade minus 1/2"
- Transition from new top of bridge deck to new top of roadway occurs on bridge and roadway approach slab
- Detailed in roadway Special Sheets



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Construction Requirements

- Deck Removal
 - Per Construction Requirement JSP (Bridge) – Material from removal of bridge decks shall not be allowed to fall below the superstructure at
 - J6I3149 Bridges A10852 & A10853 (2nd Street)
 - J6I3187 Bridges A05914 & A05915 (Green Park)
 - J6I3187 Bridges A06072 & A06073 (Gravois Creek)
 - J6I3187 Bridges A10574 & A10575 (River Des Peres)
- Bridge Demo and Hydro-demolition
 - Roadway JSP Work Zone Traffic Management C.3.5 – All bridge demolition and hydro-demolition shall only occur between the hours of 7:00 a.m. and 8:00 p.
- Pedestrian Bridge (A0619) Demolition
 - JSP I 2.0 Liquidated Damages Specified - Completion Date: July 1, 2022

Roadway

Jack Blakemore

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Roadway

- Replace Median Barrier on Majority of Project
 - Modified barrier at sharp curves (Special Sheets)
 - Barrier transitions at bridges (Roadway Plan Sheets)
 - Barrier transitions and concrete median strip at existing sign pedestals (Special Sheets)
 - Galvanized plates (Special Sheets)
 - Median concrete slope protection (Special Sheets)
 - Shoulder barrier taper rates at I-55 NB Off Ramp to 3200 S. Broadway (Special Sheets)

- Replace Guardrail at Rehab Bridge Ends
 - Replace curb under some new guardrail (General Note #4, Roadway Plan Sheet)

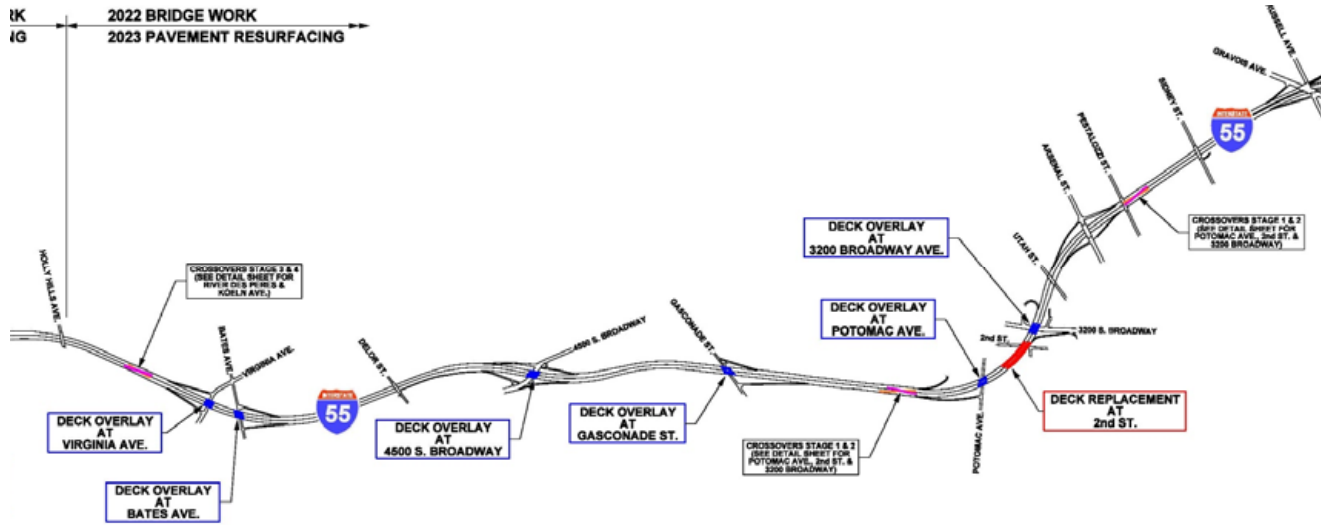
Roadway

- Vertical Grade Transition on Approach Slab & Approach Pavement (Special Sheet)
 - A10833 & A10834 - Gasconade Street
 - A10842 & A10843 - Potomac Street
 - A10863 & A10864 - 3200 S. Broadway

Maintenance of Traffic

Rich Baum

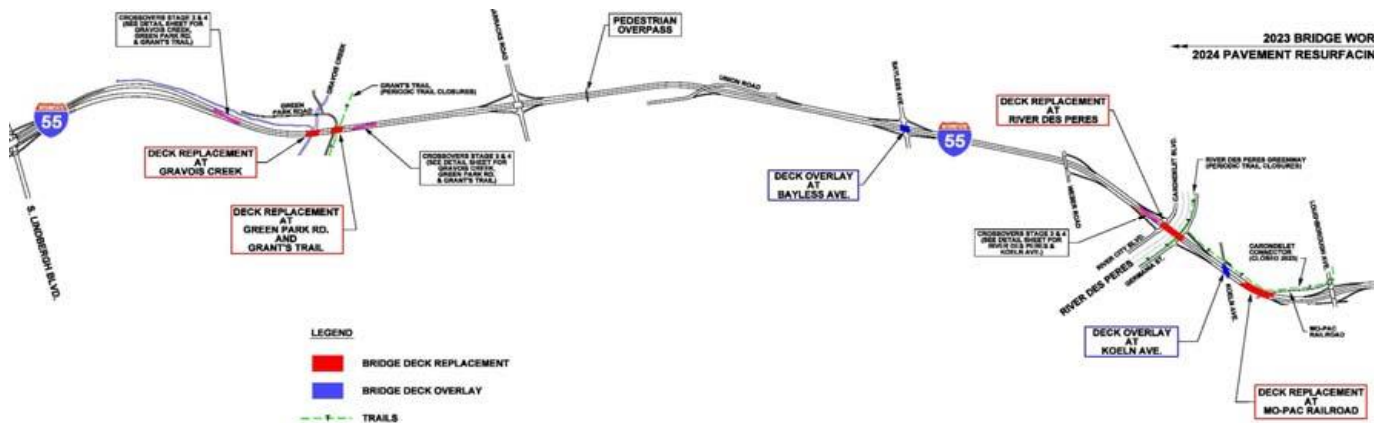
Overview – Year 1 – J6I3149



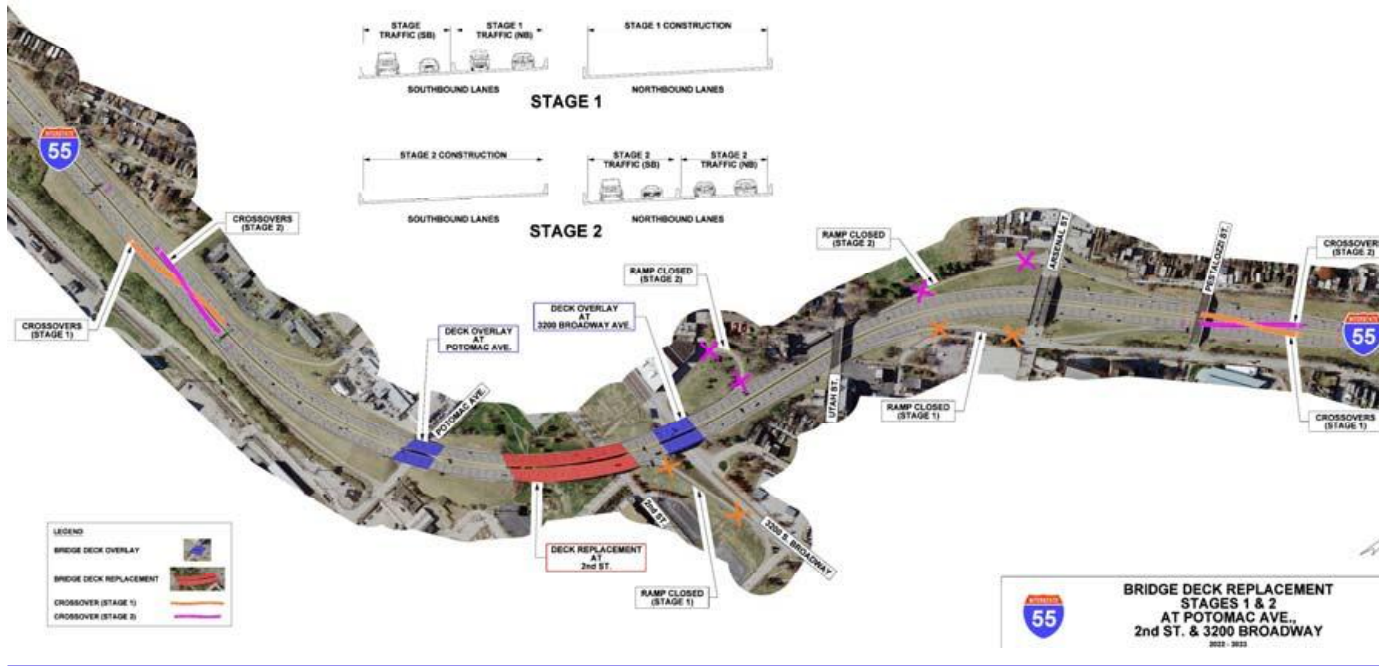
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Overview – Year 2 – J6I3187



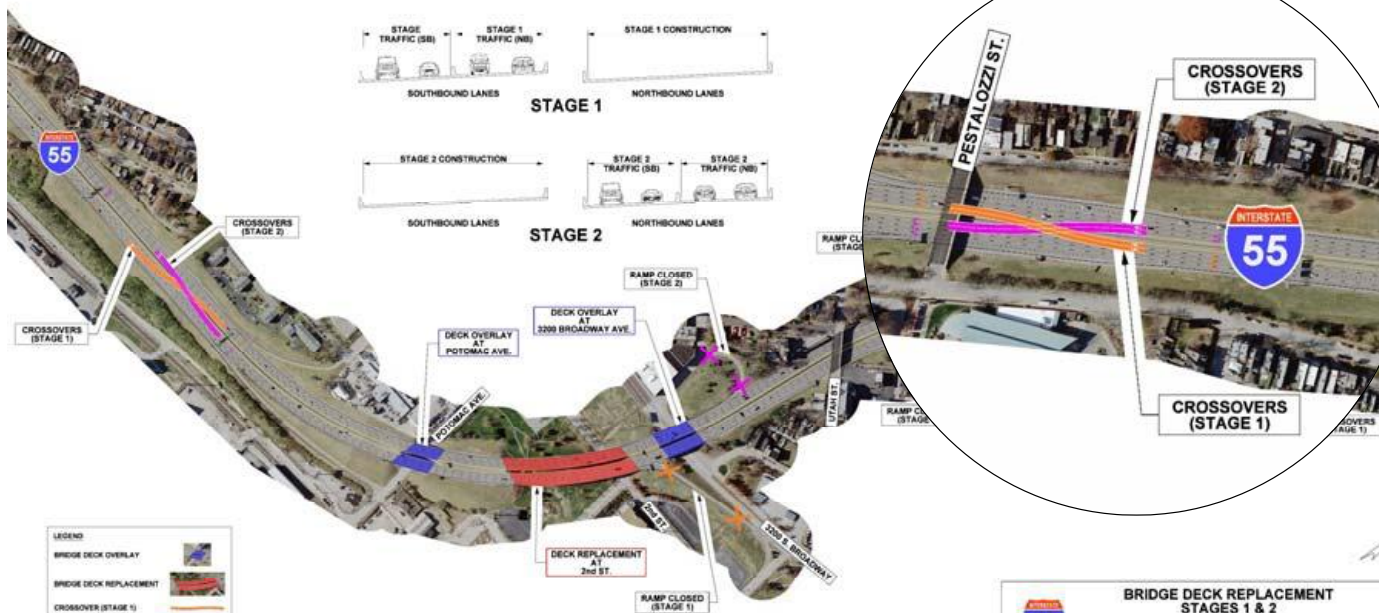
J6I3149 - Stages 1 & 2 – Potomac Ave., 2nd St. & 3200 S. Broadway



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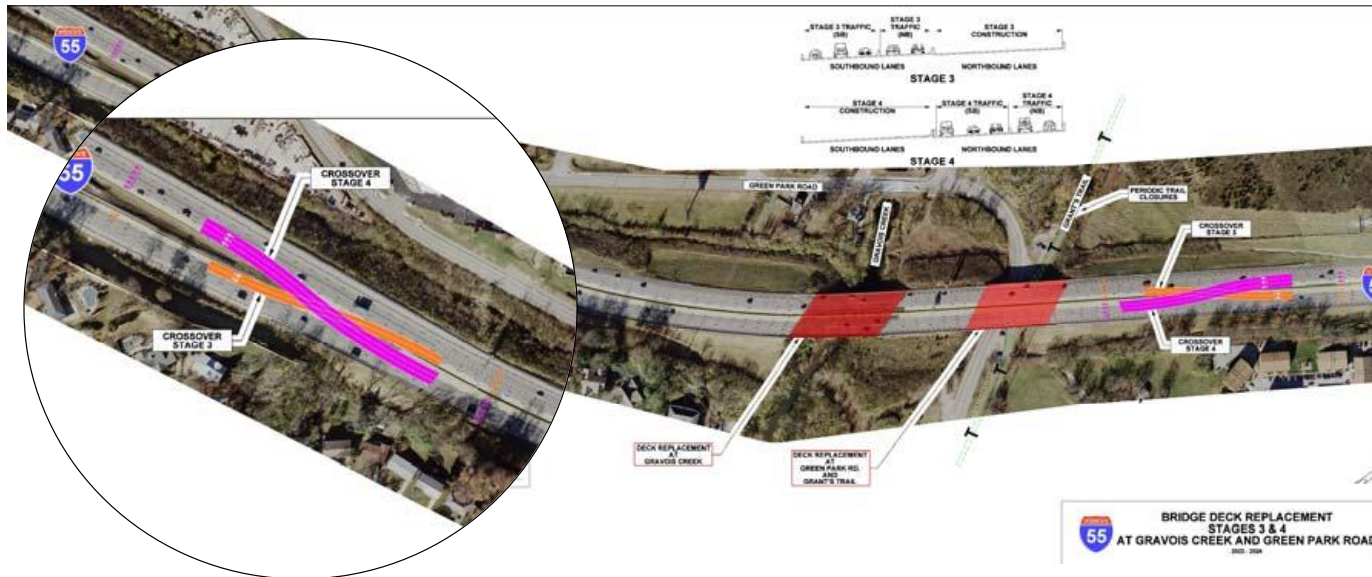
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J6I3149 - Stages 1 & 2 – Potomac Ave., 2nd St. & 3200 S. Broadway



BRIDGE DECK REPLACEMENT STAGES 1 & 2

J613187 - Stages 3 & 4 – Green Park Rd. and Gravois Creek



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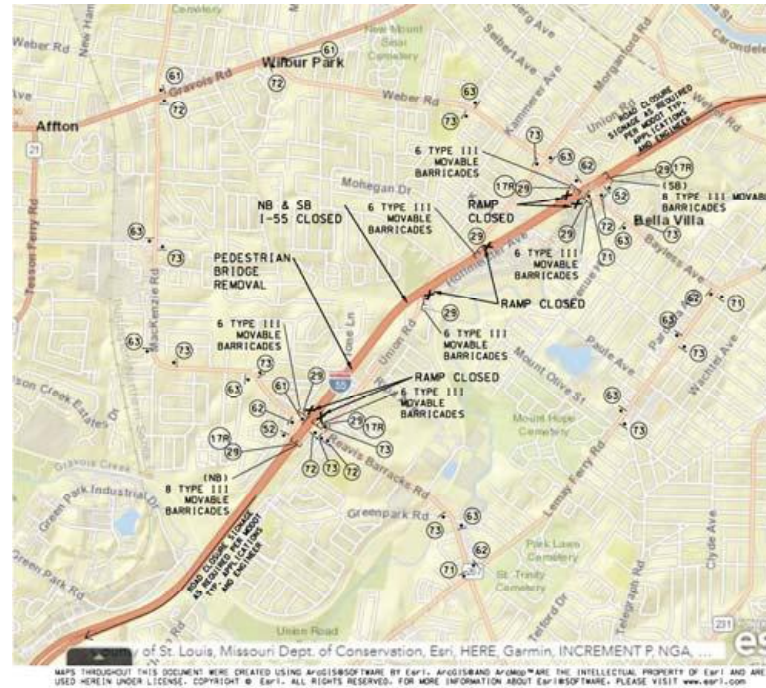
Roadway Detours

- I-55 for Pedestrian Bridge A0619 Removal
- Stage 1 – NB I-55 – 3200 S Broadway & Arsenal St Off-Ramp
- Stage 2 – SB I-55 – Arsenal St & Cherokee St On-Ramp
- Stage 3 – NB I-55 – Loughborough Ave Off-Ramp
- Stage 3 – NB I-55 Loughborough Ave & Germania St On-Ramp
- Stage 4 – NB I-55 Germania St On-Ramp
- Stage 4 – SB I-55 Loughborough Ave On-Ramp
- Stage 4 – SB I-55 Loughborough Ave & Germania St Off-Ramp

I-55 Ped Bridge Demo Detour

Signed detour route using
Reavis Barracks Rd,
Lemay Ferry Rd,
Bayless Ave/Weber Rd,
Gravois Rd & Mackenzie Rd

Must be complete by July 1, 2022
due to St. Louis County's Project
on Bayless Ave.



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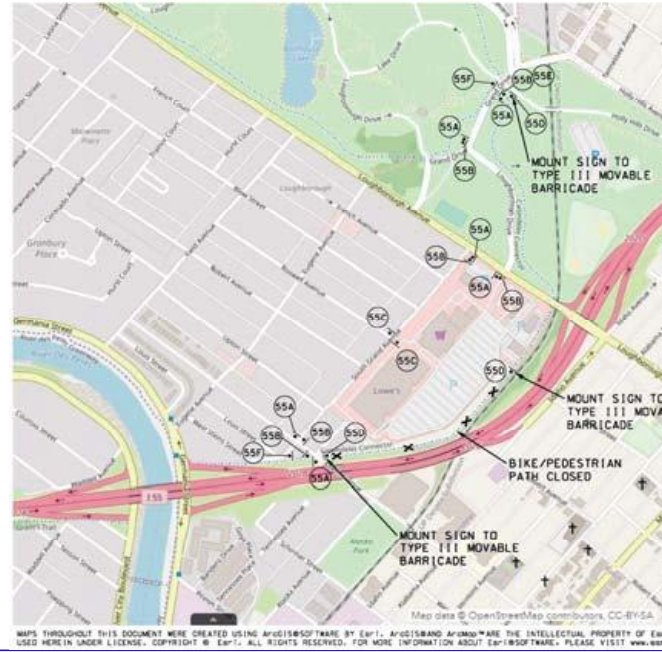
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Trail Closures & Detours

- Carondelet Connector (extended closure – detour required)
- River Des Peres Greenway (closure allowed Monday-Friday – no detour)
- Grant's Trail (detour required)

Carondelet Connector Detour

- Signed detour route using Koeln Ave, S. Grand Ave & Loughborough Ave
- Needed for construction on A1276 (SB over UPRR)



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Right of Way

Jonathan Barnes, Aaron Groff

Right of Way

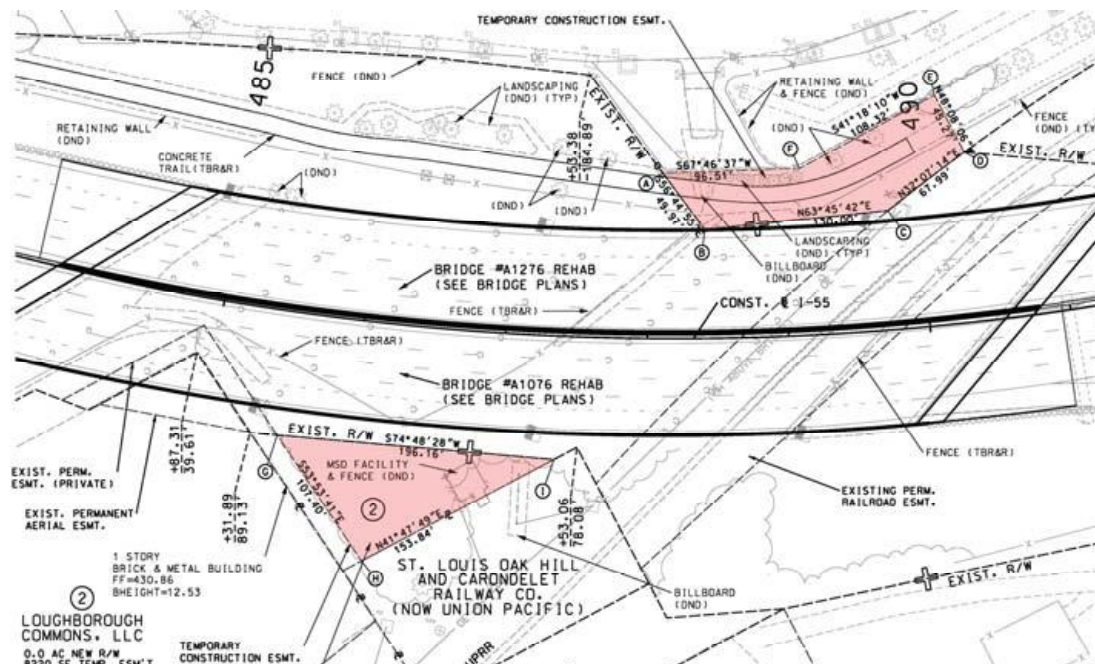
- Easements
 - Bridges A1076 & A1276 near UPRR (Loughborough Commons)
 - Bridge A1085 - 2nd Street (Sigma Aldrich)
- Delayed Possession (JSP GG)
 - Easement at Bridges A1076 & A1276 – December 31, 2022
 - C&M Agreement with UPRR – December 31, 2022

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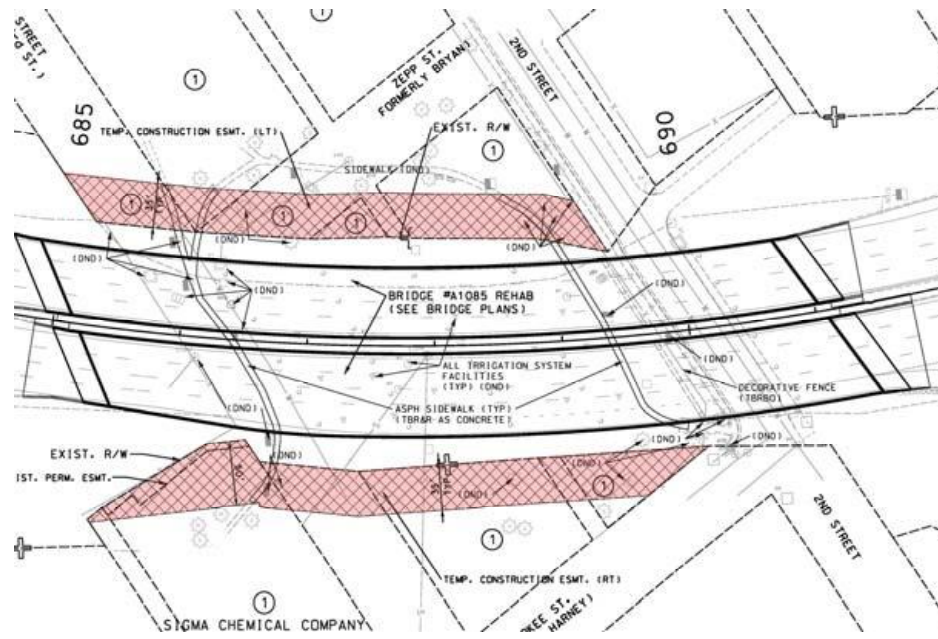
Right of Way

- Loughborough Commons Easement



Right of Way

▪ Sigma Aldrich



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Right of Way

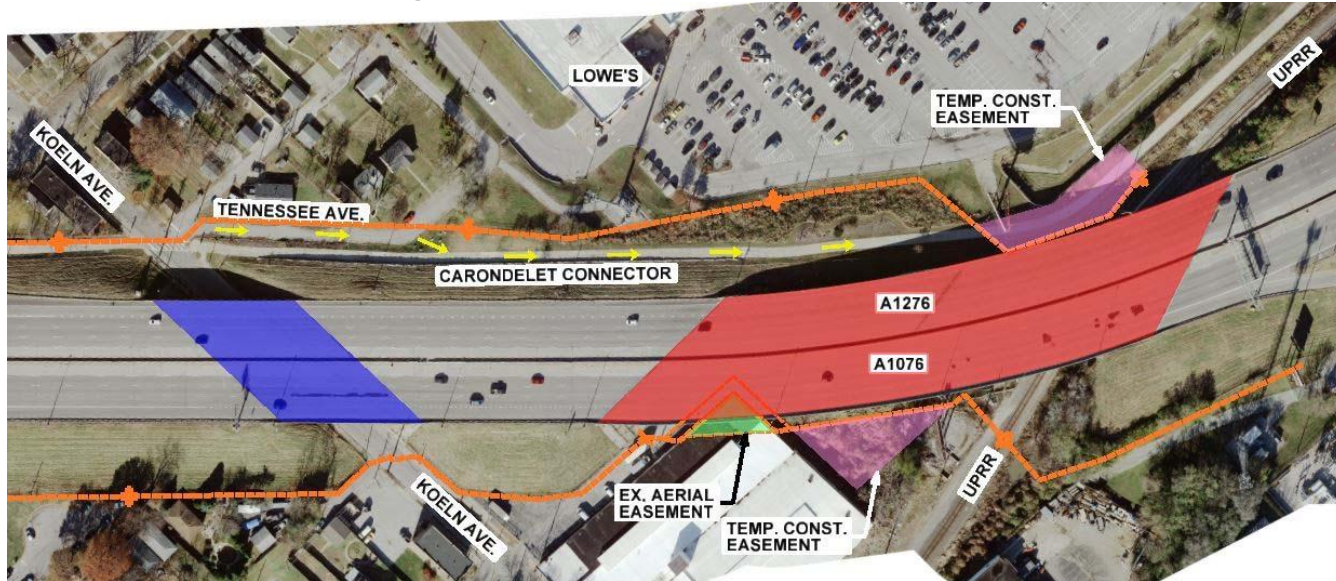
▪ Sigma Aldrich

- Only access is from 2nd Street under Bridge A1085
- Install 8'-tall chain link fence along 2nd Street
- Private irrigation under bridge - contractor responsible for damage



Right of Way

- Construction Access Bridges A1076/A1276 from Tennessee Avenue



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Utilities

Ron Leible

Utilities

- JSP H – Utilities
- JSP N – MoDOT ITS Facility Temporary Relocation
- JSP U – Maintain Existing MoDOT Lighting
- JSP DD – Inspection of 54" RCP Sanitary Sewer Adjacent to Gravois Creek under I-55 NB and SB Bridges

Job Special Provisions

Rod Riley, Rich Baum, Jack Blakemore, Aaron Groff

Bridge Job Special Provisions

- Construction Requirements for Bridge Deck Removal
- Demo of Ped Bridge A0619
- Deflection and Haunching – Survey existing bridge deck elevations
- Special Change Order and Value Engineering Consideration

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Roadway Job Special Provisions

- JSP C – Workzone Traffic Management
 - Demo/hydro may only occur between 7 a.m. and 8 p.m.
 - River Des Peres Greenway may only be closed Monday-Friday
- JSP I – Liquidated Damages Specified

WORK	Completion Date	Closure Date Allowed	Liquidated Damages
Begin Traffic Switch for Stage 1		March 15, 2022	
Pedestrian Bridge (A0619) Demolition	July 1, 2022		\$11,400 per day
Stages 1 thru 2 Complete / All lanes of I-55 open to traffic	December 1, 2022		\$11,400 per day
Begin Traffic Switch for Stage 3		March 15, 2023	
Stages 3 thru 4 Complete / All lanes of I-55 open to traffic	December 1, 2023		\$11,400 per day
Carondelet Connector trail open to public	December 31, 2023		\$1000 per day

Roadway Job Special Provisions

- JSP T – Union Pacific Railroad Requirements
- JSP X – Concrete Curb Under Guardrail
- JSP Z – Traffic Signal Maintenance and Programming

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Roadway Job Special Provisions

- JSP KK – Grants Trail Construction Requirements
 - Trail/Bypass must be open *at all times*
(Trail is in operation 30 minutes before sunrise to 30 minutes after sunset)
 - Provide Bypass when trail is closed
 - Provide 2-10' wide asphalt connectors from trail to Green Park Road
 - Any damage to the trail is the responsibility of the contractor to resolve



Schedule

Aaron Groff

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Schedule

- Advertisement – November 10, 2021
- Letting – December 17, 2021
- Award – January 5, 2022
- Notice to Proceed – February 7, 2022
- Completion – July 1, 2024

Questions ?