



Muegge Road Rehabilitation

Presenters: Bob Gummersheimer, P.E. / Brad Burnworth, P.E.

Outline

- MoDOT PMC / Cost Share
- Contract Items
- Project Details
- Project Goals
 - *Partnering*
 - *Communication*
 - *Quality Concrete*
- Issues
- Utility Delays
- Total Shut Down
- Project Completion



MoDOT PMC / Cost Share / Award

Rank	Vendor ID	Vendor Name	Total Bid	Percent of Low Bid
1	0010583	Gershenson Construction Co., Inc.	\$20,572,414.09	100.00
2	0010205	KCI Construction Company	\$22,326,364.94	108.526
3	0018106	Millstone Weber, LLC	\$23,318,243.08	113.347

Total Cost All
Improvements
\$20.5 M

Muegge Interchange Funding



Rt 94 Widening Funding



Rt 94 Resurfacing Funding



Construction Responsibilities (PMC)

— Construction (RE & 3 Inspectors)

- Estimates (Discrepancies average around 8 per estimate)
- Safety Meetings
- Change Orders
- Stockpile Reports
- Pipe Inspections by Video (94 runs reviewed)
- Borrow Material Locations (approved)
- Structural Steel Certs and Drawings
- Materials Summary every two weeks
- Line Items Adjustment report
- FINAL PLANS SUBMITTAL

— Civil Rights / Payroll (Clerk)

- Wage Rates
- CUF Reports
- Pay Roll Review
- Bulletin Board Inspections
- SWPPP Inspections
- Contractor Performance Review
- Final As Built Plans (Rdwy & Bridge)
- Trainees – 3 each for 1000 hrs
- Monthly Workforce Reports

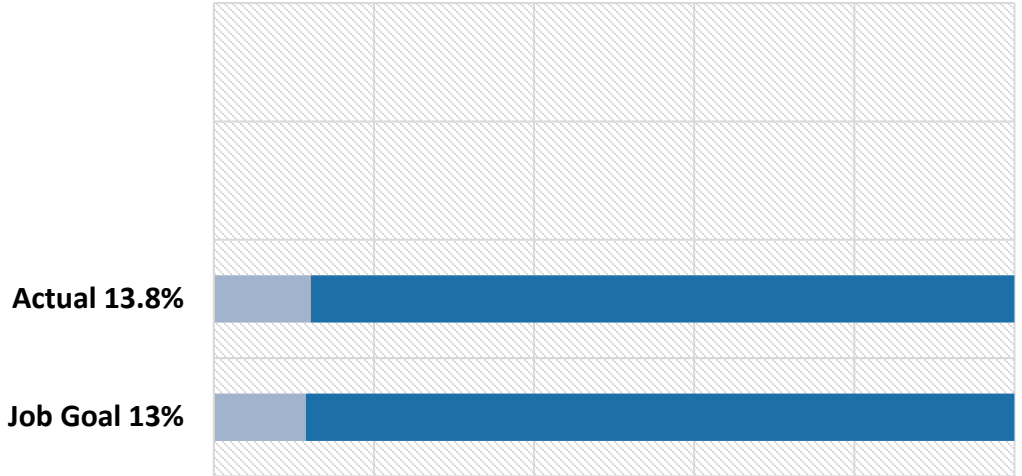
Project Details

- 3 Projects
 - *J6P3418- Muegge Road, EB 94 Widening*
 - *J6S3600- WB 94 Concrete Widening*
 - *J6S3304- Asphalt Overlay*
- Initial Cost: \$20,572,414.09
- Final Cost: \$20,523,247.60 (**2.4% Savings**)
- **4 Value Engineering Proposals** for Cost Savings of \$262,510
- 355 Bid Items
- 51 Continent Items Added to the Project



DBE Participation on the Job

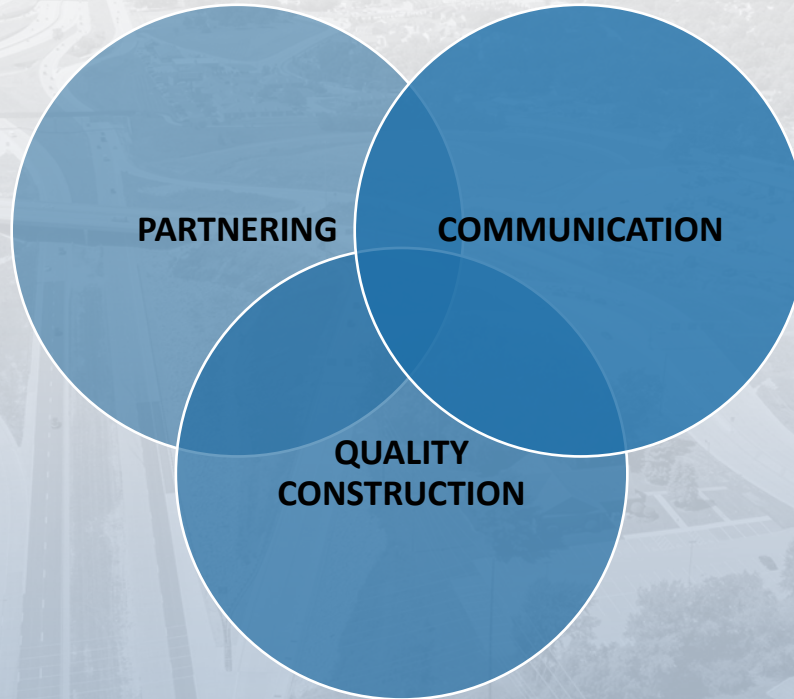
- Tramar – Traffic Control
- D&K Welding
- Schrimpf Landscaping
- D&S Fencing
- Blue Diamond Trucking
- Petro Logistics
 - New Frontier
 - Phillip 66



Contract Value Engineering

- VE No 01: Cost Savings \$103,344 (MSE wall switched to Barrier Wall and realign ramp 14)
- VE No 02: Cost Savings \$63,767 (Replace a soil nail wall with a CIP concrete wall for Ramp 10.)
- VE No 03: Cost Savings \$56,148 (WB94 Pavement Preservation)
- VE No 04: Cost Savings \$39,808 (Jacked Pipe)
- **TOTAL of \$260,000+ SAVINGS** (after 50/50 split)

Keys to Project Success



Communication

- Weekly Meetings / Safety / Schedule / % Complete
- Memos for all STAKEHOLDERS
- Pre-activity Meetings / Hold Points— EXPECTATIONS IN FIELD
- News Releases – HELPING MODOT / ST CHARLES COUNTY / CITY
- Customer Service Calls – ONLY A FEW IN TWO YEARS
- FHWA – FROM FIELD TO OFFICE – WE HAD A CLEAR UNDERSTANDING
- Materials – WORKED CLOSE WITH MODOT MATERIALS REPRESENTATIVES'S
- UTILITY ISSUES AND ITS Lines with MoDOT / St Charles / Utility Companies
- QC / QA Testing (Cochran, SCI, Gonzalez)



Partnering

- Field Individuals Working Together
- Contractor / QA worked on VE's
- Partnering Helped - Fun Project
- Weekly Meetings Were Two-fold –
Work / Socialized



Jacobs



Building Communities.
Improving Lives.



PMC / COST SHARE
TOTAL SHUT DOWN

CONTRACT ITEMS
PROJECT COMPLETION

PROJECT DETAILS

PROJECT GOALS

STATS

Quality - Construction / Project Overall

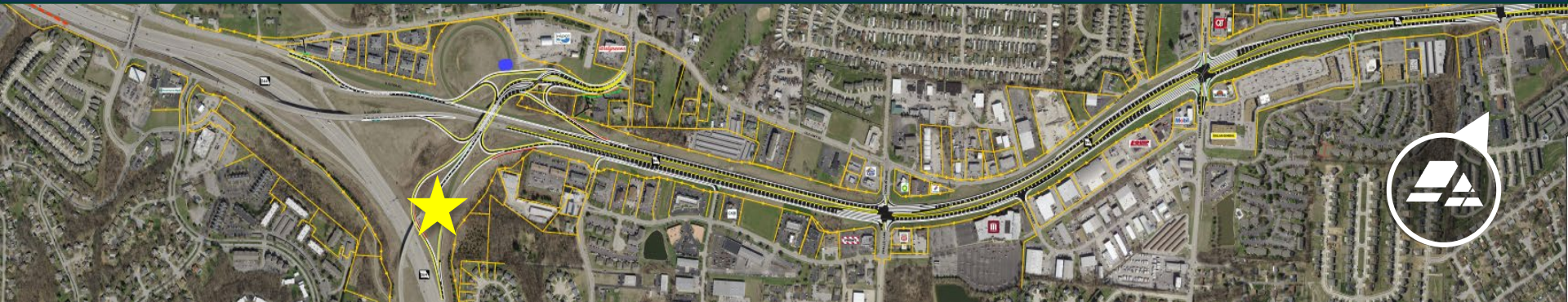
- Concrete Paving
 - *Paver – Pave with lower W/C Ratio*
 - *Quality Work / Received near **Maximum Bonuses***
 - *Jointing of Concrete / Layout*
 - *Settlement Stakes / Monitored all Fills weekly for Paving*
- Structures / Worked Close with Jacobs / Gershenson
- Worked Close with HRG and their Subcontractors
- VE –an IDEA became a very good cost savings alternative

Concrete Paving Stats

- OPTION PAVEMENT : Asphalt or **Concrete**
- **20,560 Cubic Yards** of Concrete Paving
- Bonus for 9 ½ Inch Concrete Thickness: \$19,124
- Bonus for 9 Inch Concrete Thickness: \$18,386
- Bonus for Strength of Concrete: \$38,516
- Total Bonus = \$76,026**
- **One area** was corrected for smoothness

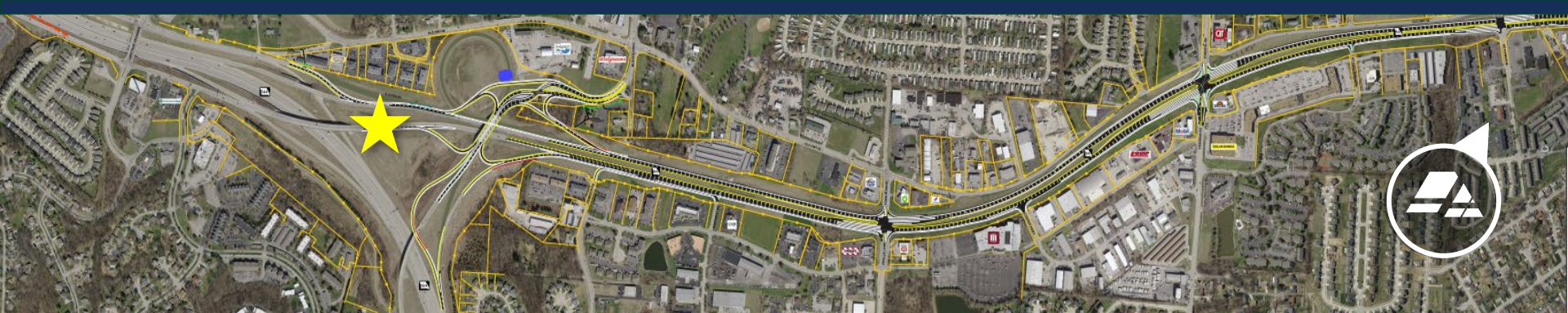
Ramp 12 Release / Startup

News release date: December 20, 2021, Ramp to close weather permitting.



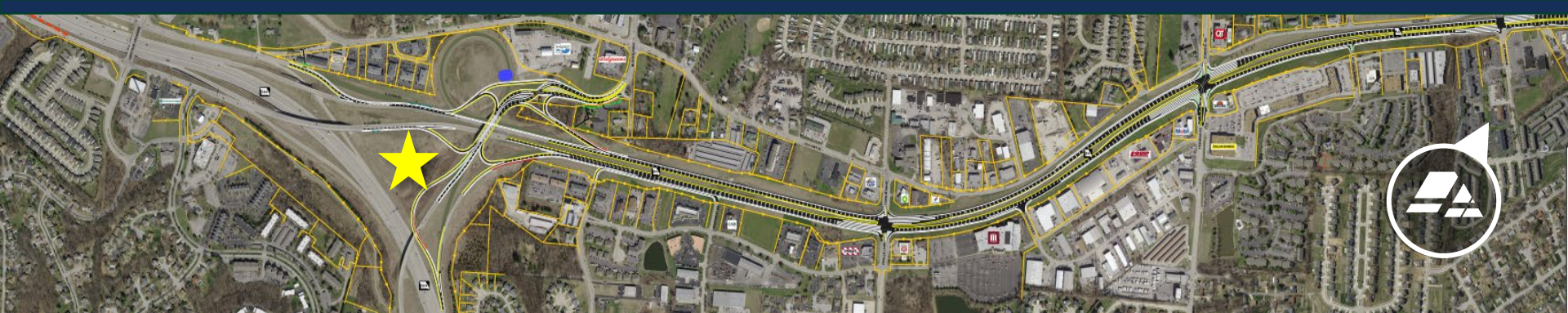
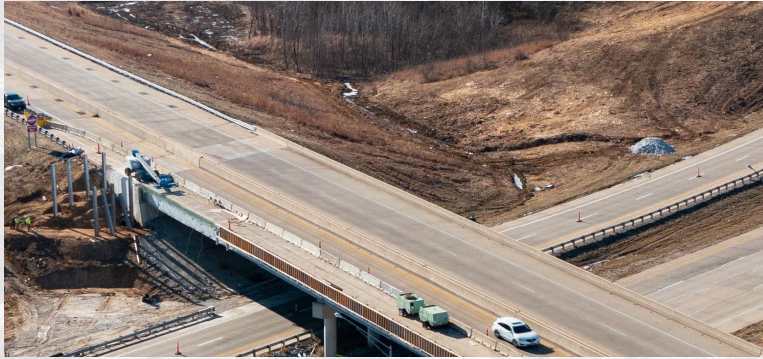
Clearing and Bridge Demo

Clearing of All Locations and startup of bridge widening with SWPPP Maintenance



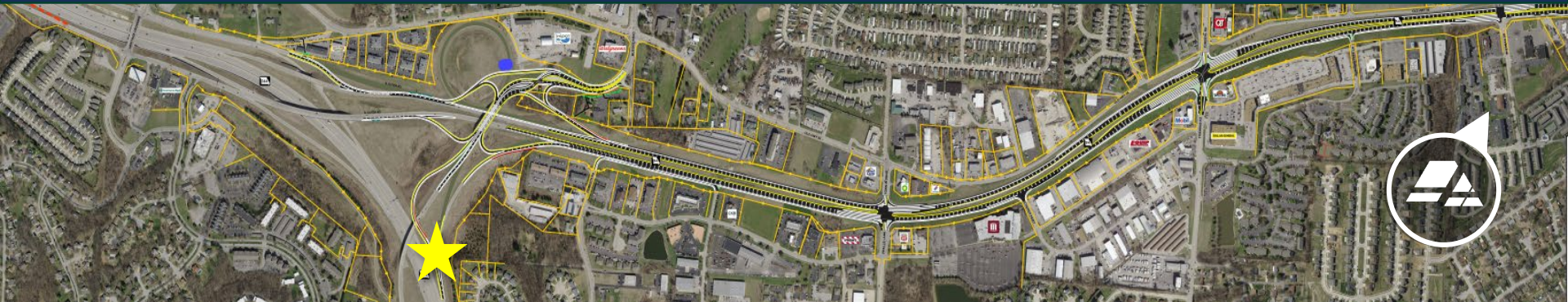
Ramp 10 Mitigation – Swamp Area

Low area along base of Ramp 10 Fill, utilized broken pavement to stabilize.



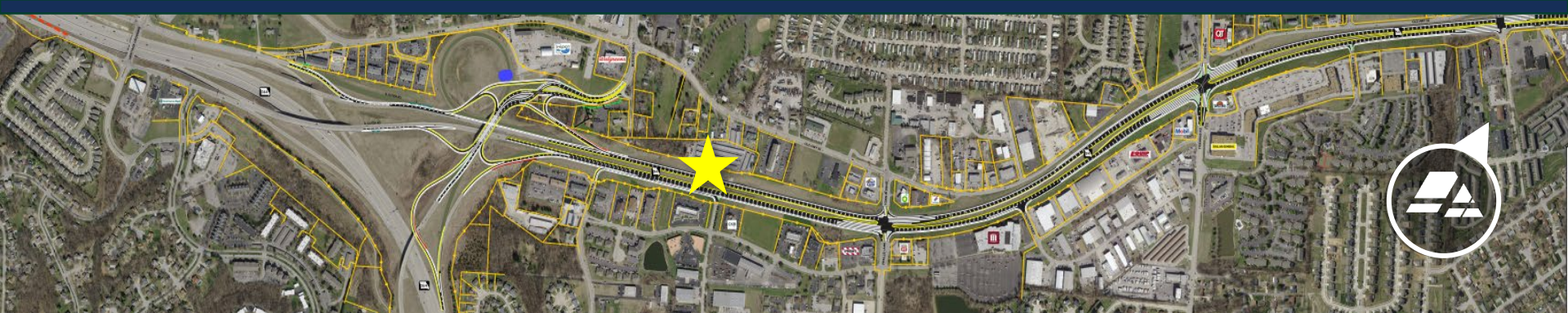
Connection at Ramp 10 and 12

WB 364 to Muegge Road and EB 94, with the addition of Rmp 10 and new Rmp 12



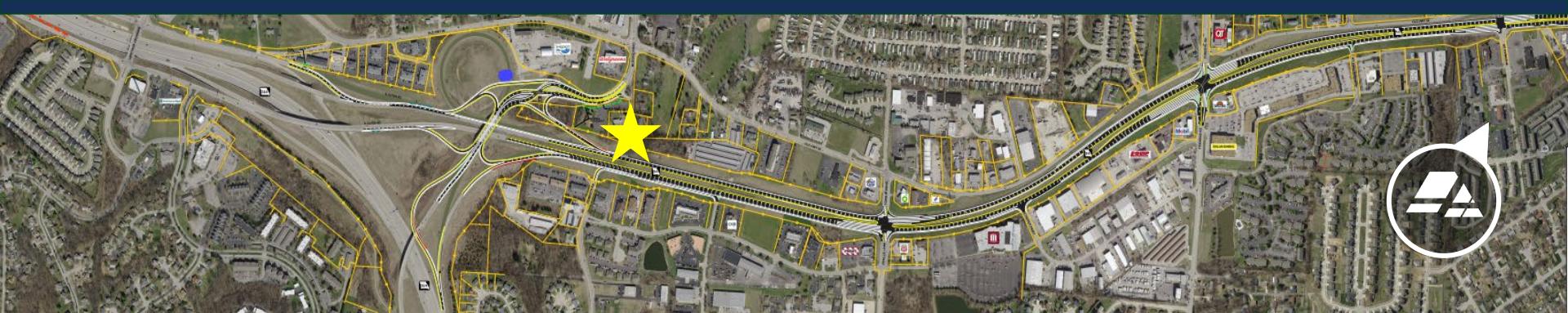
Closure of Portwest Drive / Rte 94 Widening

Closure of Portwest Drive Crossover in April 2022



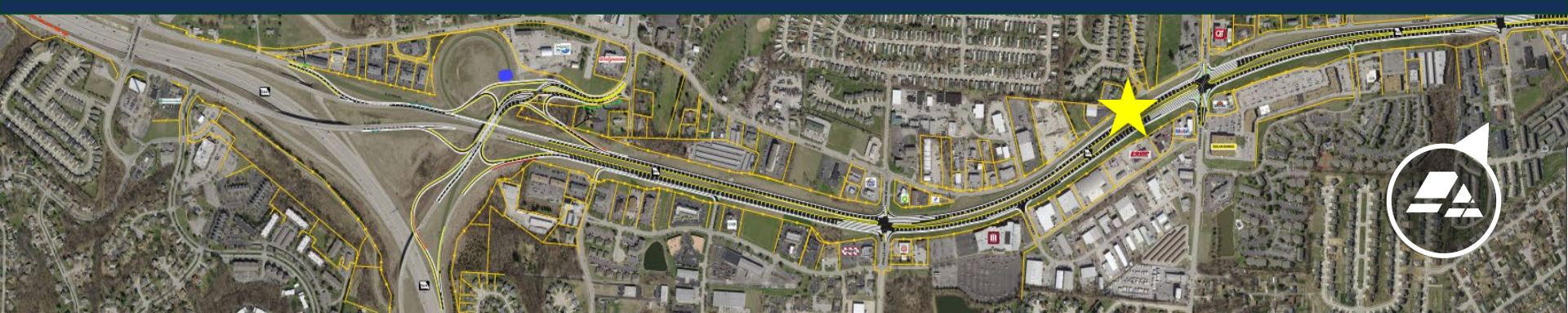
Relocation of ITS Line and ATT Delay

Ramp 14 – ATT relocate delay causing startup on ramp, effected STAGE 2 & 3.



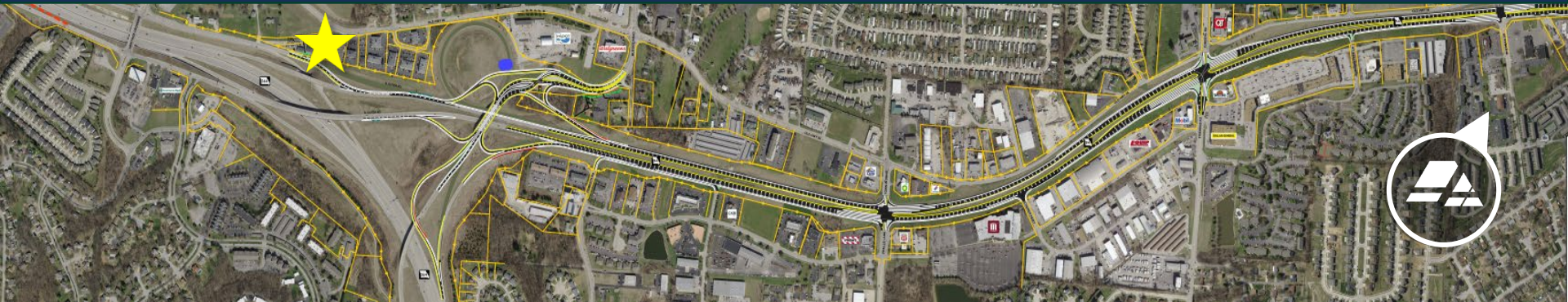
Drainage Along Ramps and Route 94

Use of Under Drains and Rock Fill for Cost and Time Savings



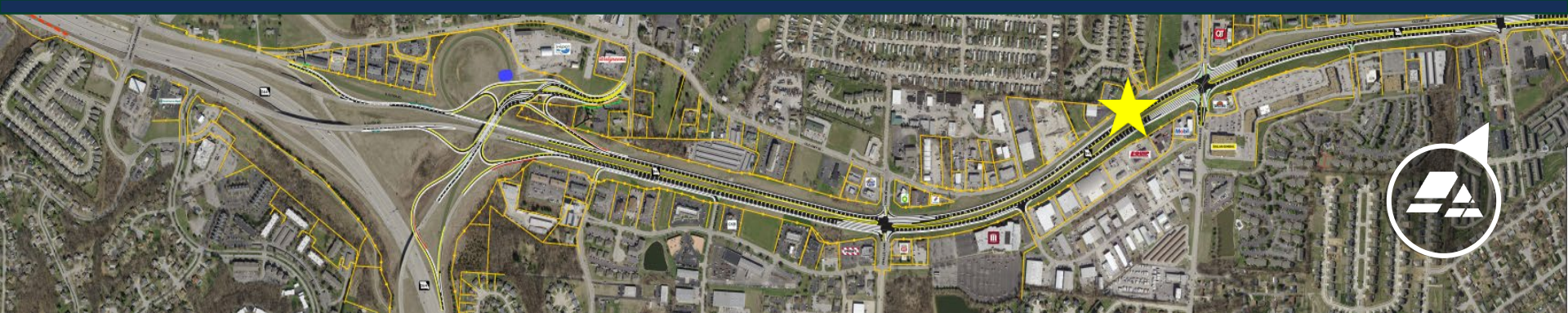
Relocation of Property Access

- *New ramp alignment*
- *Line of site improvements*
- *Exchange of Parcels*
- *Entrance was relocated*



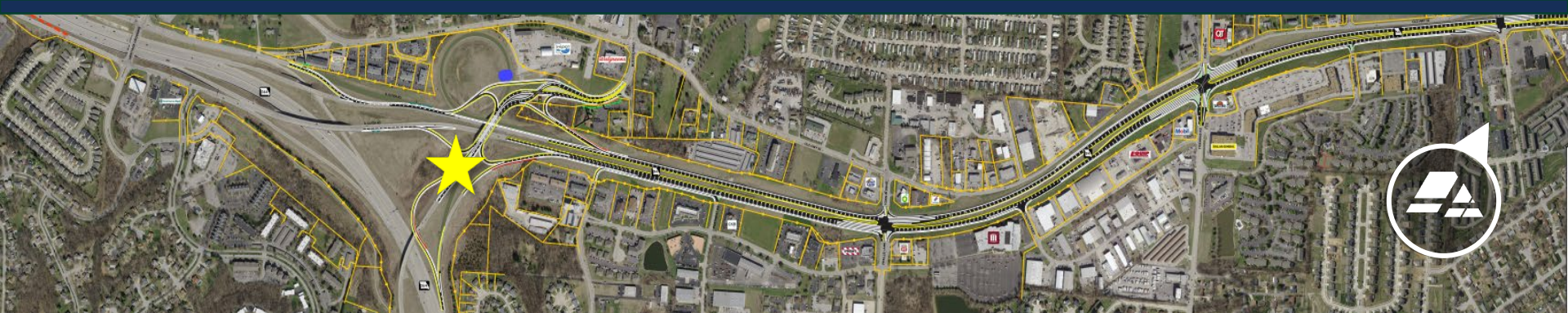
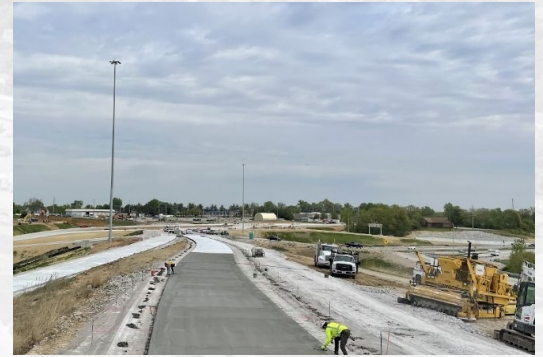
Paving on Route 94

EB and WB RTE 94 were widened with 9 ½" Non-Reinforced Concrete / 18" Rock Fill



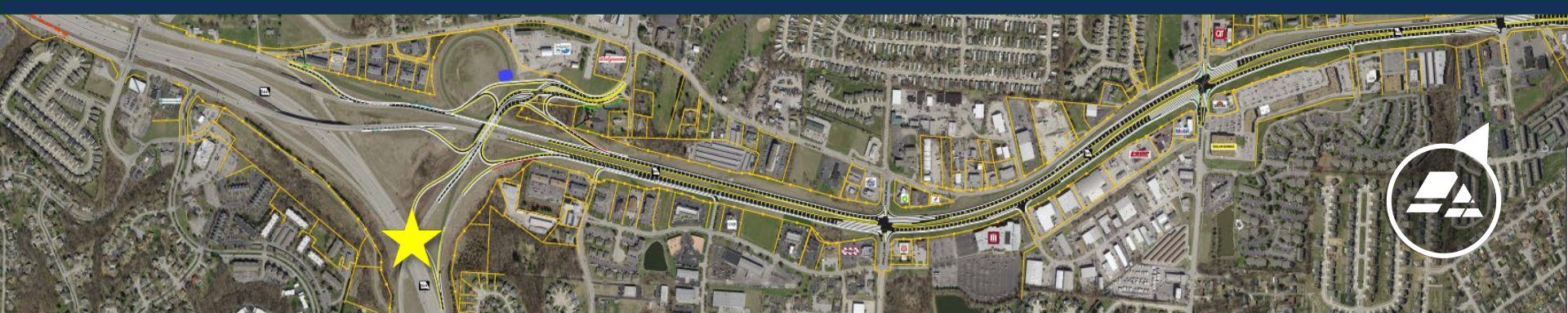
Muegge Road Paving and Tower Lighting

Muegge Road Pavement - 9" Non-Reinforced Concrete / 12" Rock Fill Base



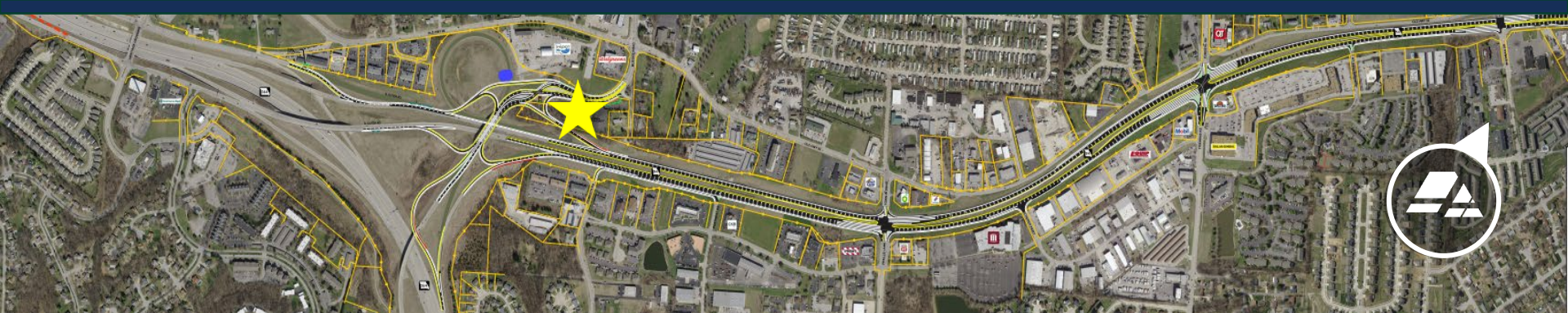
Retaining Wall VE / Eliminated Soil Nail Wall

\$63,767 Savings / Substitution of Soil Nail Wall for Modified Gravity Retaining Wall



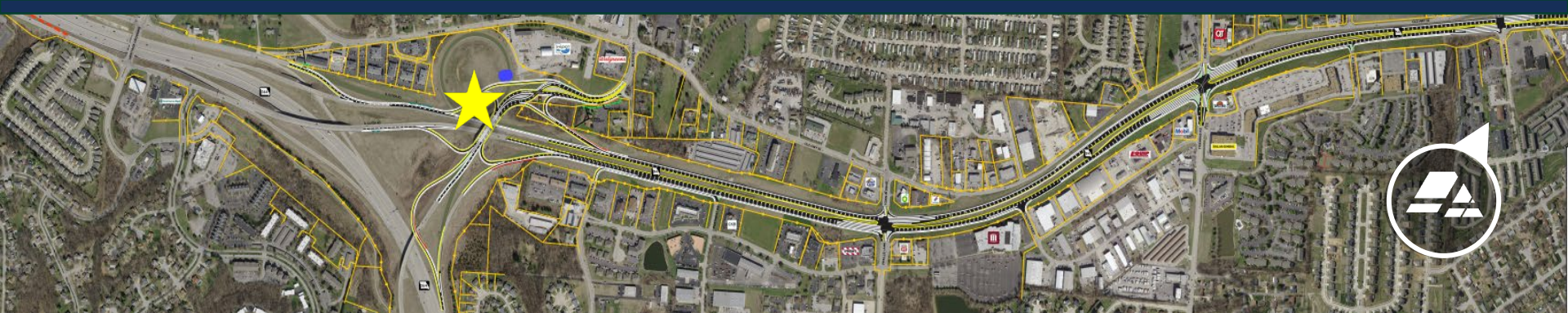
Ramp 14 Retaining Wall VE

\$103,344 Realized Savings / MSE Wall Substitution for Gravity Retaining Wall/ ATT Line Relocate



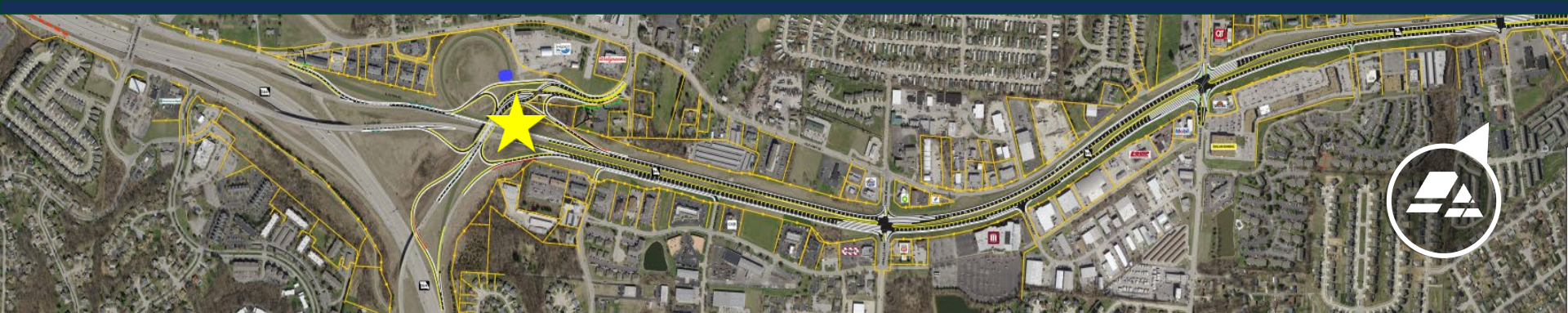
VE Pavement Left in Place / Combined Stages

\$56,148 realized VE Savings reincorporating existing 11 Inch PCC Pavement



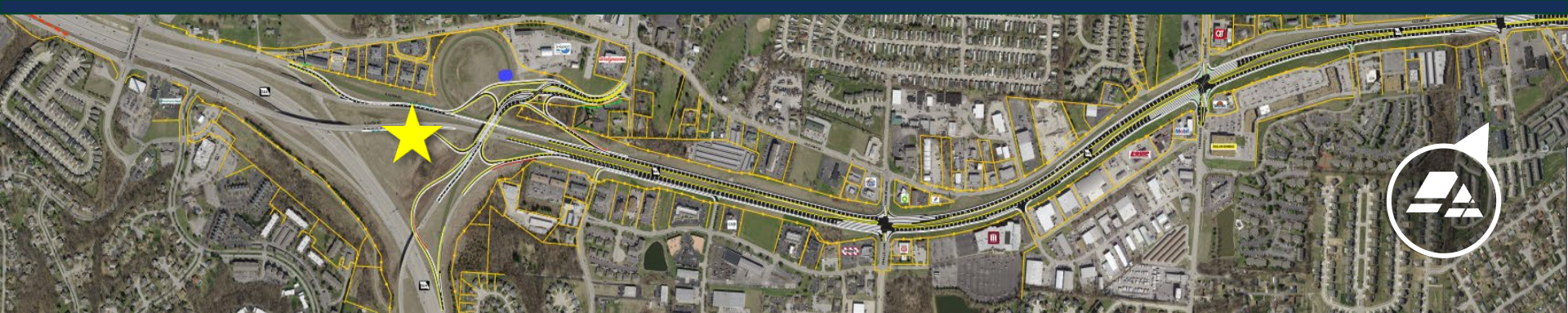
Rock was Utilized Majority of Job for Slope Maintenance

Rock was used not only for subgrade but through out for liners / basins.



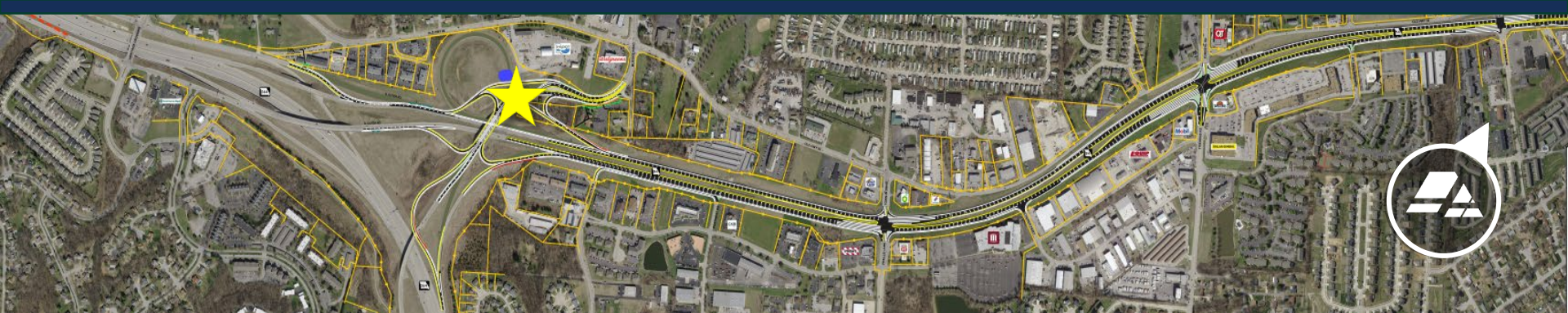
RCP was Utilized Throughout Project

Project Consisted of **4,500 Linear Feet of RCP** of Various Sizes (0.85 miles of RCP)



DDI / Muegge Rd Closure

Closed April 10th, 2023 / Completed June 16th, 2023

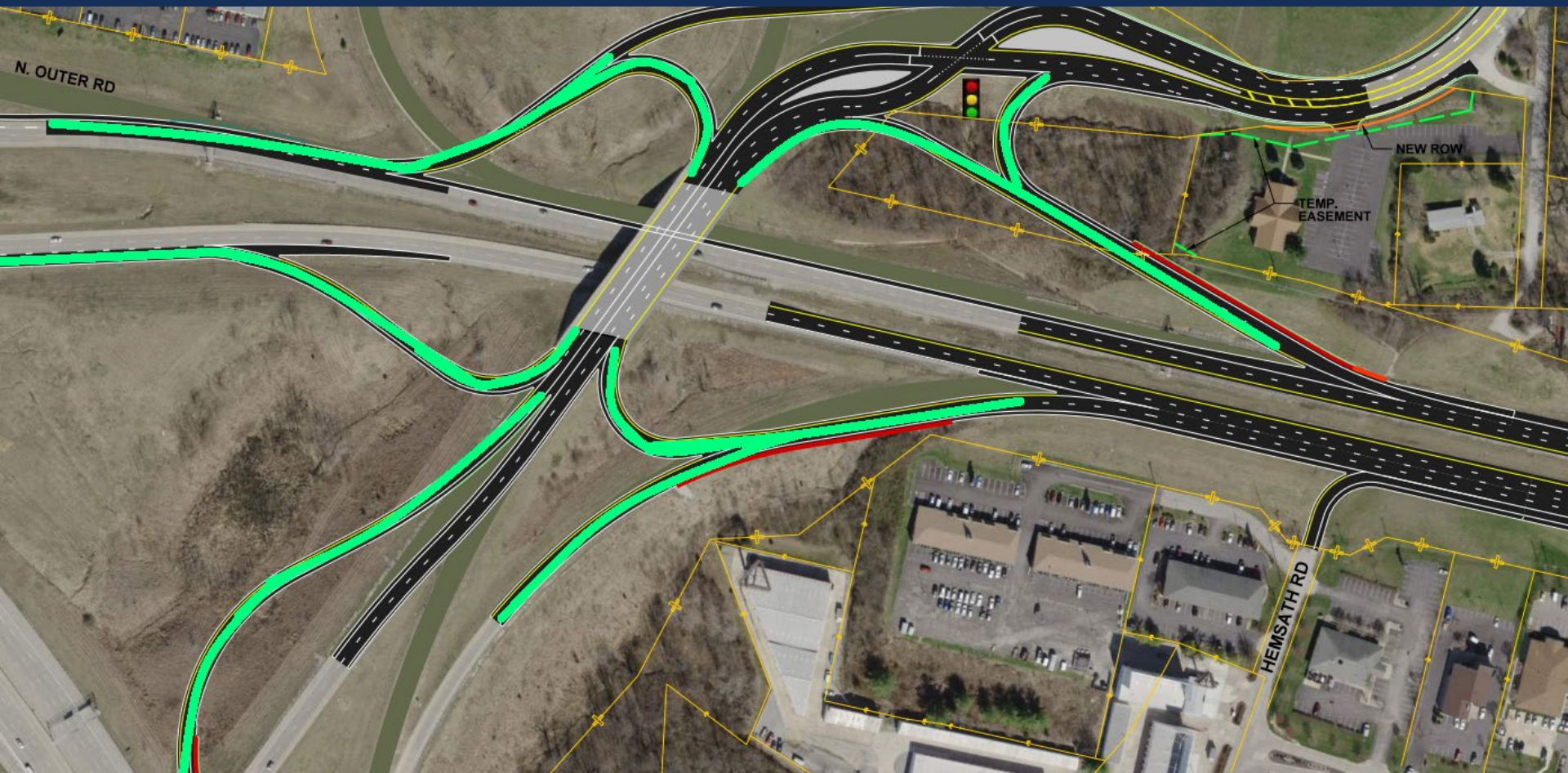


DDI Construction (Closure of 90 days)

- News Releases and use of CMS boards
- Fills
- Drainage tie ins
- MoDOT transmission lines
- Concrete Staging
- Signal and Pavement Marking
- Signing
- **Concrete Pavement**
- Ribbon Cutting June 21, 2023



PROGRESS LEADING UP TO THE CLOSURE



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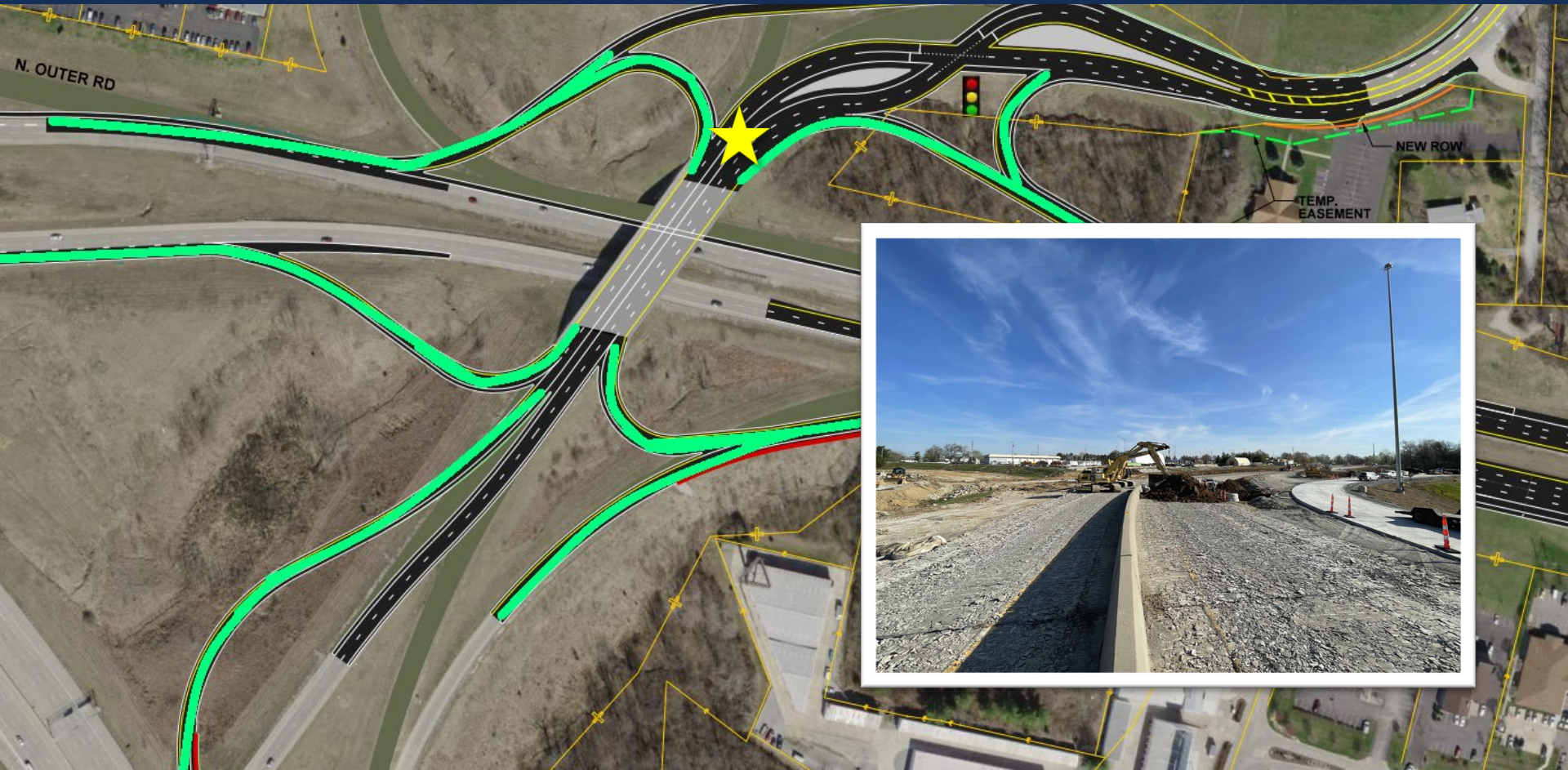


DAY 1 = CLOSURE AND DEMO DAY



DAY 1 = CLOSURE AND DEMO DAY

8:30am



DAY 1 = CLOSURE AND DEMO DAY

10:30am



DAY 1 = CLOSURE AND DEMO DAY

1:30pm



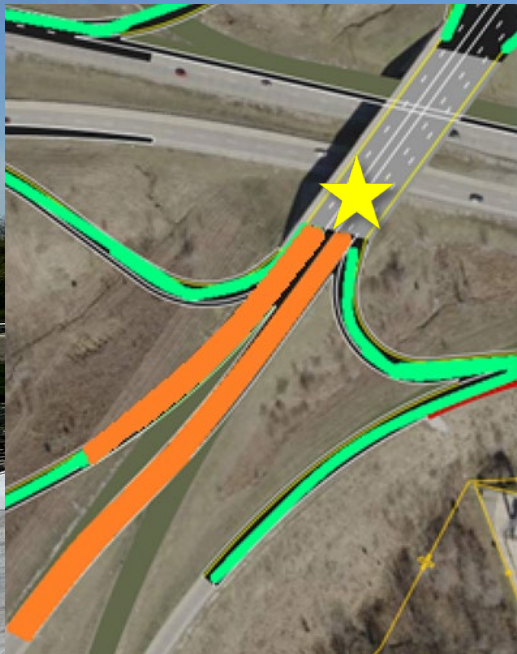
WEEK 1 OF 10



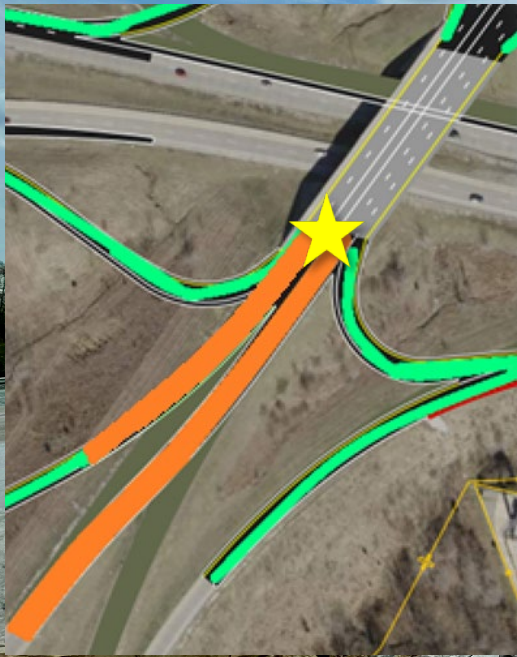
WEEK 1 OF 10



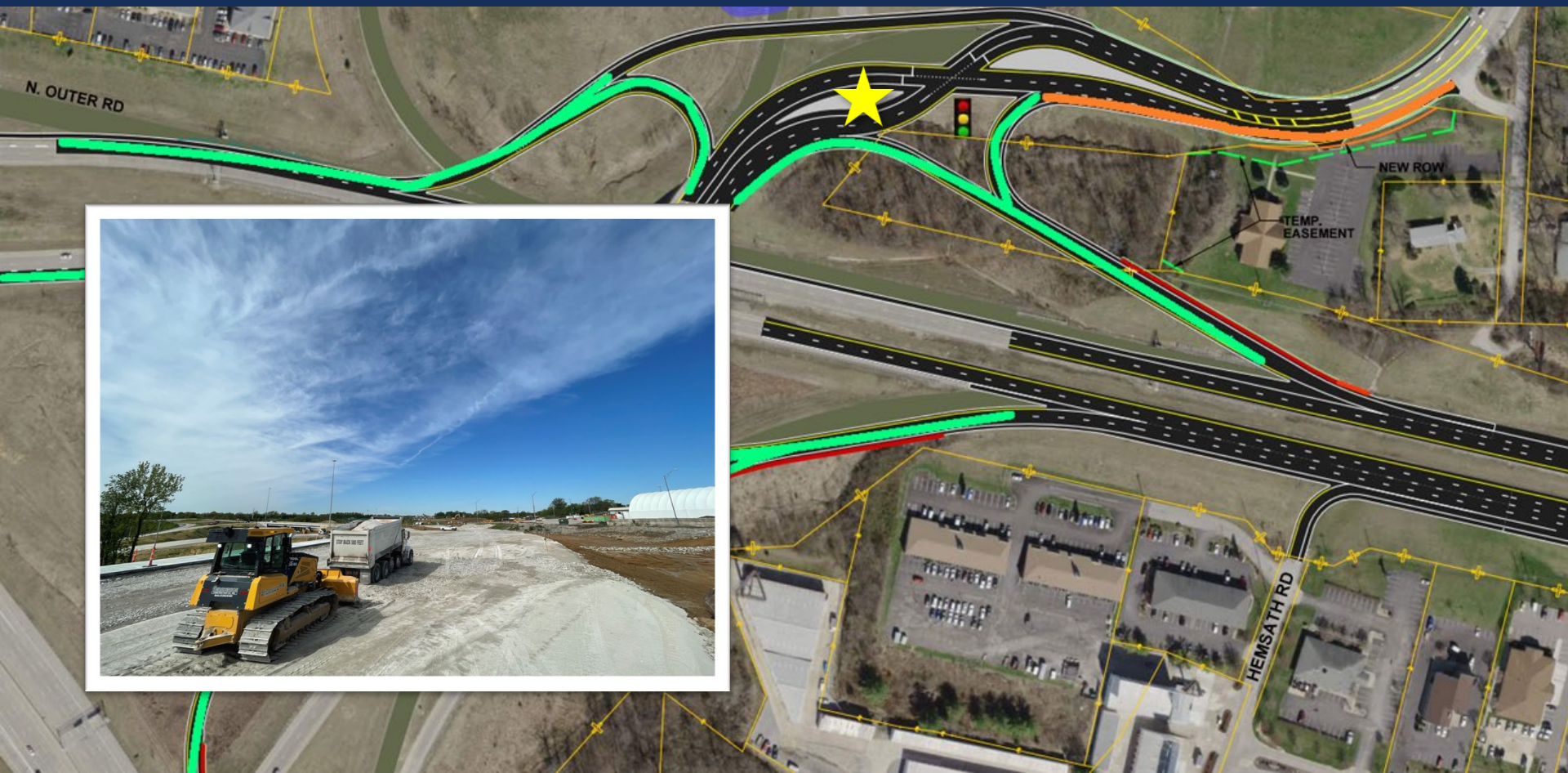
WEEK 2 OF 10



WEEK 2 OF 10



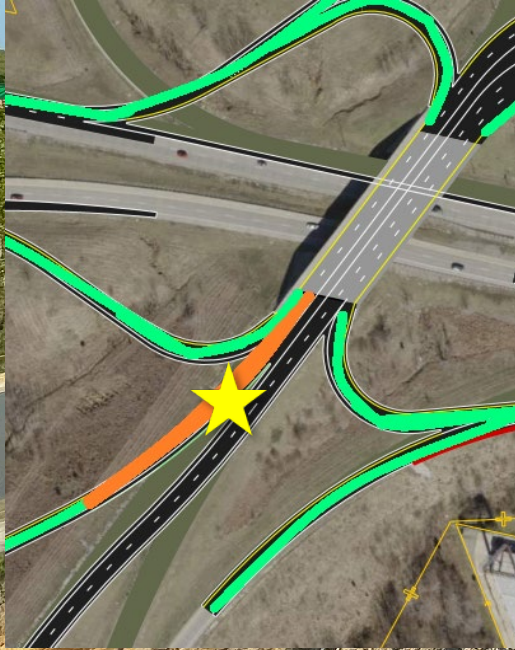
WEEK 2 OF 10



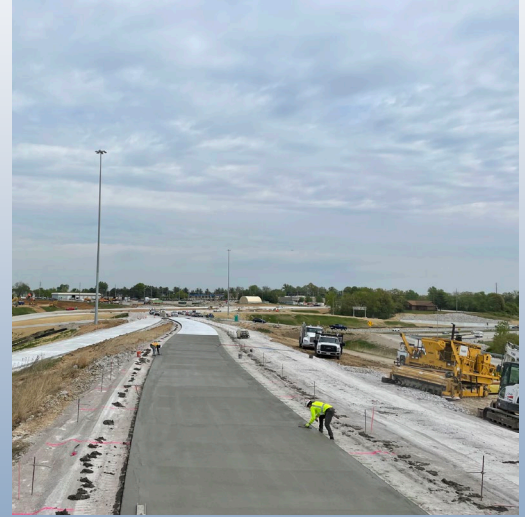
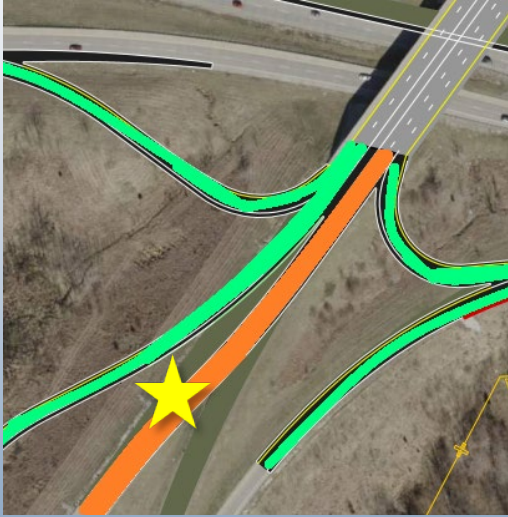
WEEK 2 OF 10



WEEK 3 OF 10 / *First Pave and Tie In!*

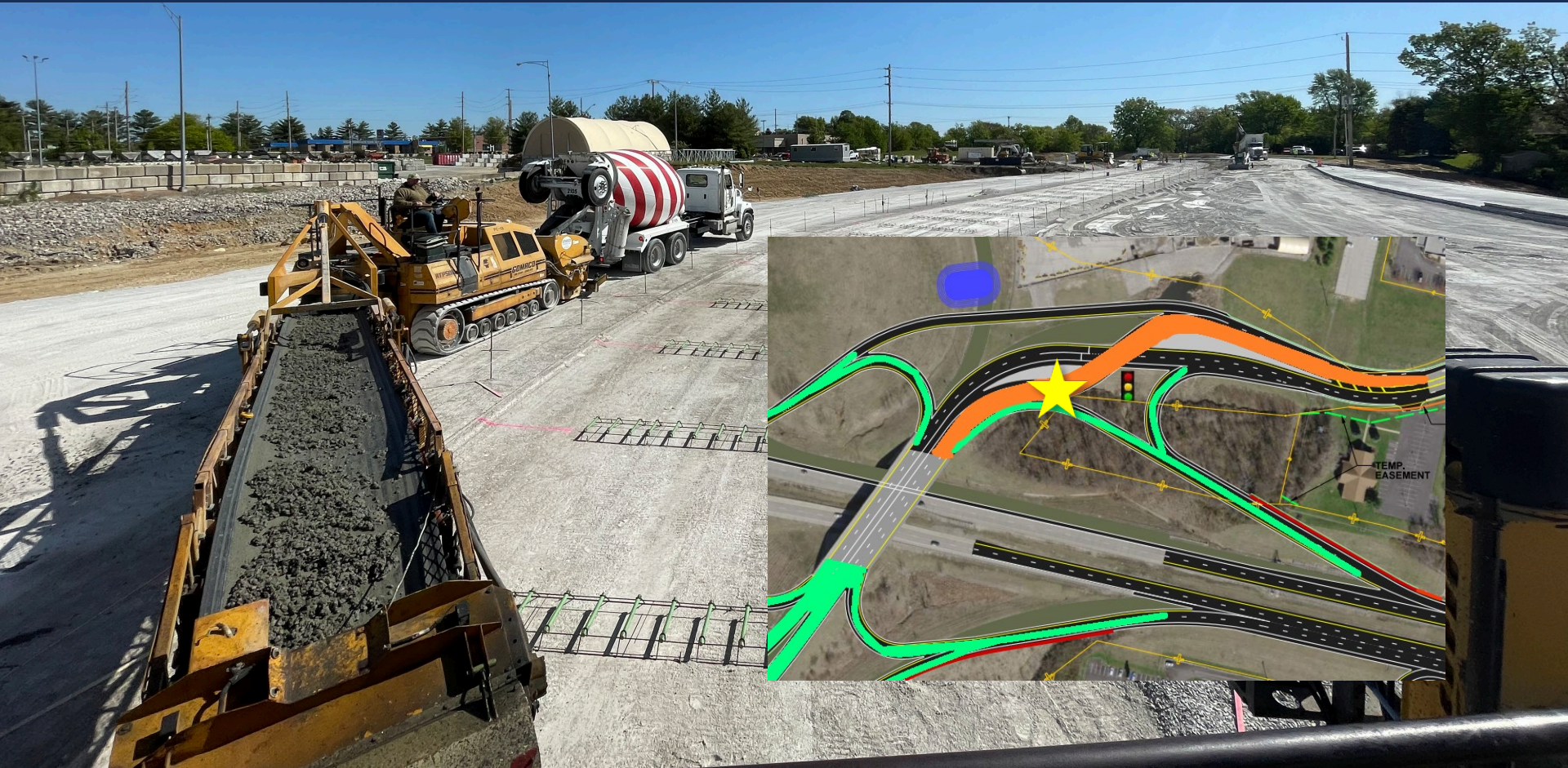


WEEK 3 OF 10 / *Second Pave and Tie In!*





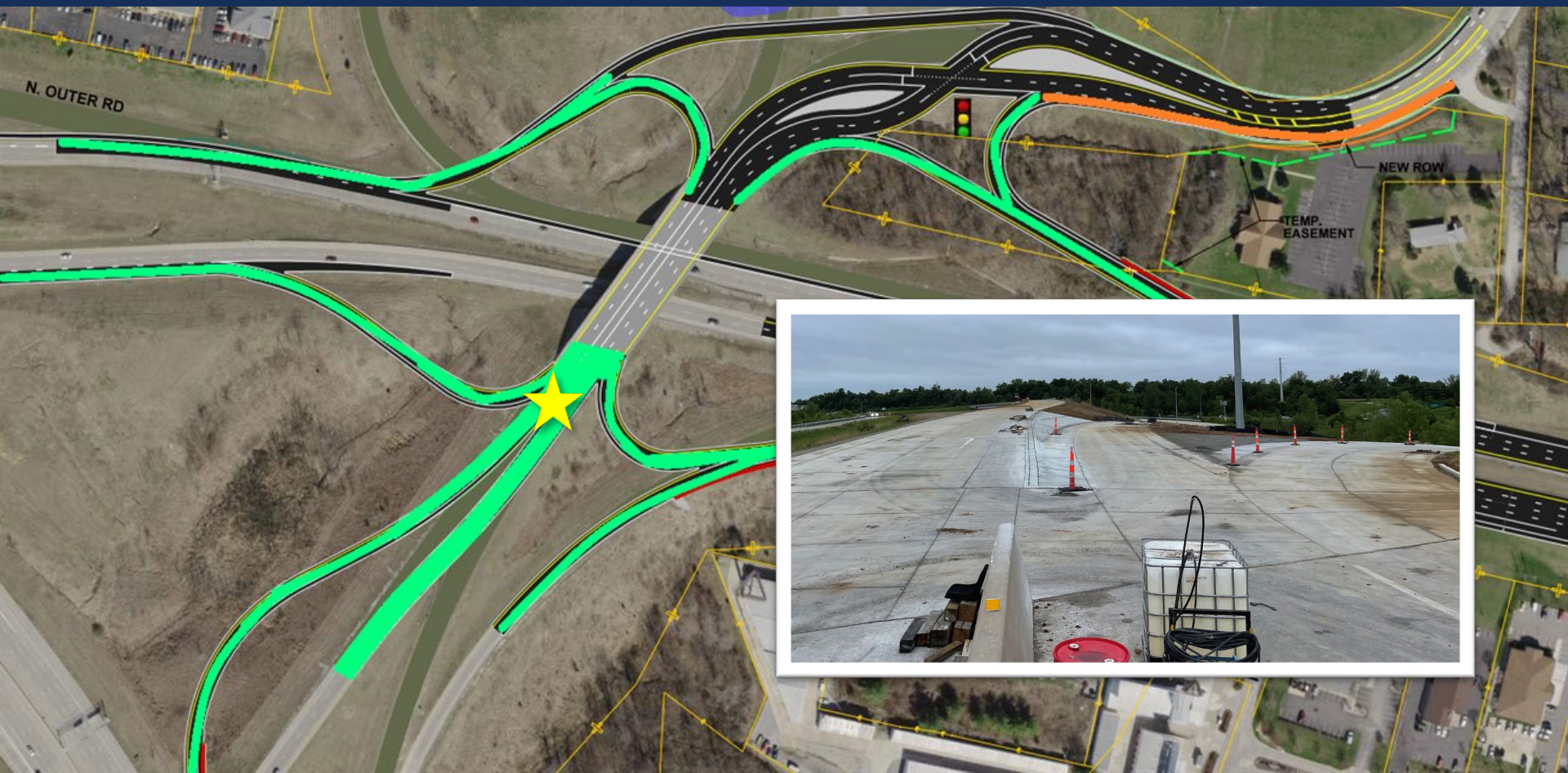
WEEK 4 OF 10 / *Focus on the North End*







WEEK 5 OF 10 / *Finish the South End*



WEEK 6 OF 10 / *Pave the NB Travel Lanes*





WEEK 8 OF 10 / Energize the DDI



WEEK 8 OF 10 / *Set Sign Trusses*



WEEK 9 OF 10 / *PCC Barrier*



WEEK 9 OF 10 / *Traffic Signals, Seed & Straw*



WEEK 10 OF 10 / *Final Striping and Signing*





Ribbon Cutting

Public, Stakeholders, Design & Construction in Attendance



Opening of Roadway June 21, 2023

DDI Was Open, But Work Continued Throughout The Project



VIDEO FROM MODOT

VIDEO OF CLOSURE

