



**Tennessee Highway Safety and Operations Conference
November 16, 2022**

**Blue Oval City
SR-194 Extension I-40 Exit 39**

Steve Sellers P.E. – Blue Oval City Program Manager

AGENDA

- INTRODUCTION
- BLUE OVAL CITY DEVELOPMENT TEAM
- BLUE OVAL CITY STAKEHOLDERS
- MEGASITE HISTORY
- ANNOUNCEMENT
- APPROACH
- PROJECT INFORMATION
- ADDITIONAL STUDIES

← Tweet



Gov. Bill Lee ✓

@GovBillLee

🏛️ Governor candidate, TN

This single-largest investment in state history marks a tremendous win for rural Tennessee & will strengthen our workforce for generations. I thank the General Assembly for their legislative action.



tn.gov

Special Session on Historic Megasite Investment Comes to a Close
NASHVILLE, Tenn. – Today, Tennessee Governor Bill Lee and the Tennessee General Assembly closed a special session to address funding and oversight of ...

INTRODUCTION

Steve Sellers, P.E. – Blue Oval City Program Manager

Headquarters Project Management & Construction Division
615-741-0786
steve.sellers@tn.gov

EDUCATION

BSCE TN Technological University May 1995

PROFESSIONAL STATUS

Registered Professional Engineer in TN

WORK EXPERIENCE

TN Department of Transportation

March 2001 – Present

Blue Oval City Program Manager

Deputy Director of Construction – State Innovative Delivery

Special Assignment Project Manager I-440 Design Build Jan. 2019

Asst. Director of Construction (Headquarters Construction Division Nashville)

Operations District Engineer / Operations District Manager (Region 4 Jackson).

Operations District Supervisor / Operations Spec. Supervisor 1 / Operations Spec. 2 (Bethel Springs)

Contractors

June 1995 – January 2001

Harper Construction	Jones Brothers Inc.	WMC Contracting Inc.	Hubbs Construction Company
Construction Manager	Group Manager	Manager	Project Manager

Blue Oval City Current Development Team

Steve Sellers, P.E. – Blue Oval City Program Manager

615-741-0786

Steve.Sellers@tn.gov

Brandon Akins, P.E. - Civil Engineering Manager 2

901-537-1178

Brandon.Akins@tn.gov

James Kelley, P.E. - Director Project Management

615-253-7604

James.D.Kelley@tn.gov

TDOT Divisional Representation

STID, Geotechnical, Environmental, Traffic, Design, Survey, Operations,
Right of Way, Structures, many others.....

Consultant Representation

HDR, Inc., Benesh, Arcadis & Avenue Consultants

Blue Oval City Stakeholders

FORD / Walbridge (CM) / SSOE (Design)

SK Innovation / Ghafari (Design)

FHWA – IAR / NEPA

Corp of Engineers – 404 Permit

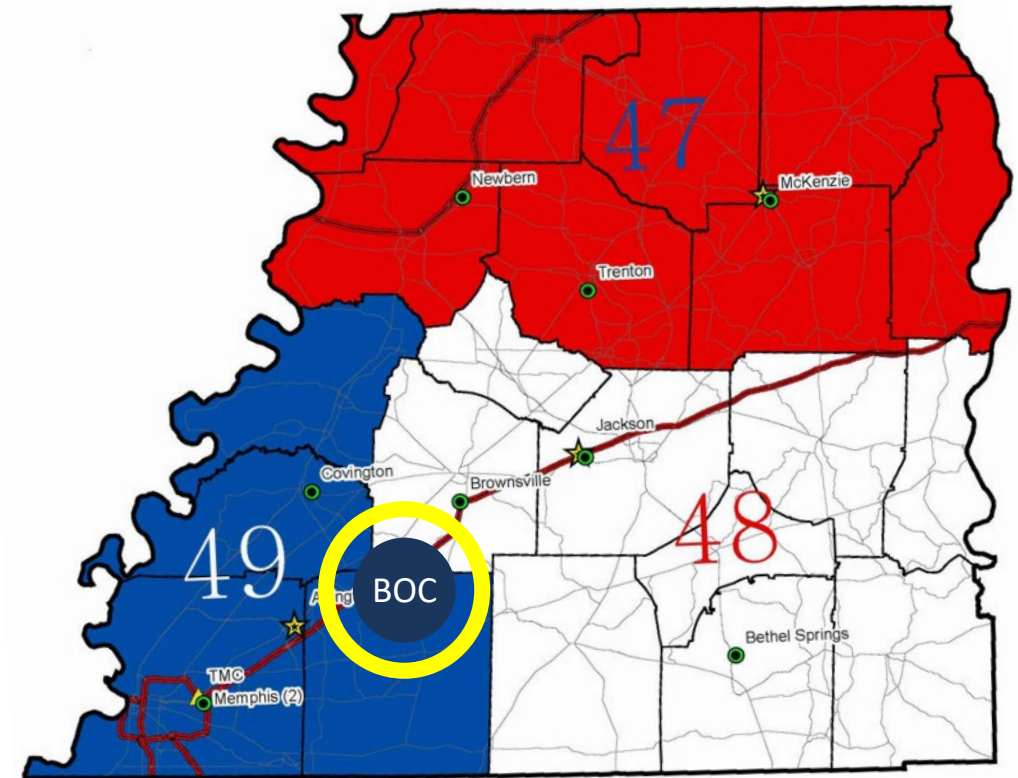
TVA & Local Utility Owners

County Mayors and County Road Superintendents

TDOT Region 4 & Blue Oval City (BOC)

Region 4 Map

- 21-County Area
- Bordered by the Tennessee and Mississippi Rivers
- 2 Metropolitan Planning Organization (MPO) Areas
- 3 Rural Planning Organization (RPO) Areas



Blue Oval City – Memphis Regional Megasite

Memphis Regional Megasite (MRM) History

- Megasite Size – 4100 Acres
- Initiated by Governor Bredesen in 2006 as a center for solar panel production
- 2009 – State officials purchased the six square mile plot for \$40 million
- Solar Farm opened in 2012
- Governor Haslam requested and was awarded \$27 million to re-route SR-222
 - Included realignment and widening of SR-222 from I-40 to Keeling Road
 - 4 lane boulevard typical section
 - Bridge widening over I-40
 - Ramp widening and signalization
- Investment in MRM prior to Ford Announcement – \$174 million



Blue Oval City – Memphis Regional Megaproject

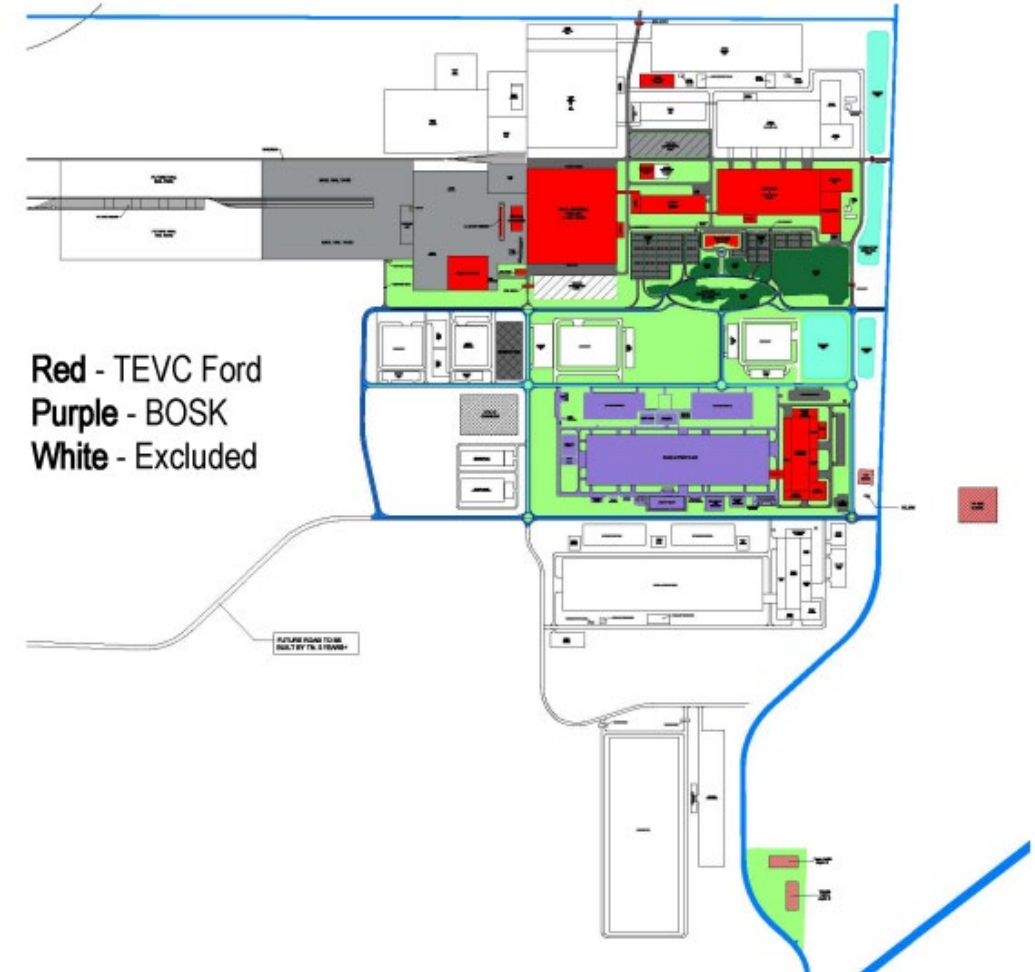
Pre-Announcement

- Meeting occurred with Ford, ECD, and TDOT to determine needs
- STID initiated early development of concepts for roadway network and new interchange to portray to Ford what TDOT could do
- Determination of Roadway
 - New interchange at I-40, with north-south roadway north of I-40 to a connector interchange for east-west route serving the MRM
 - Extension of SR-194 from SR-59 to the new I-40 interchange, and extension of SR-194 to the north to intersect SR-1
- Interstate Access Request (IAR) initiated September 22, 2021, with WSP

Blue Oval City – Memphis Regional Megaproject

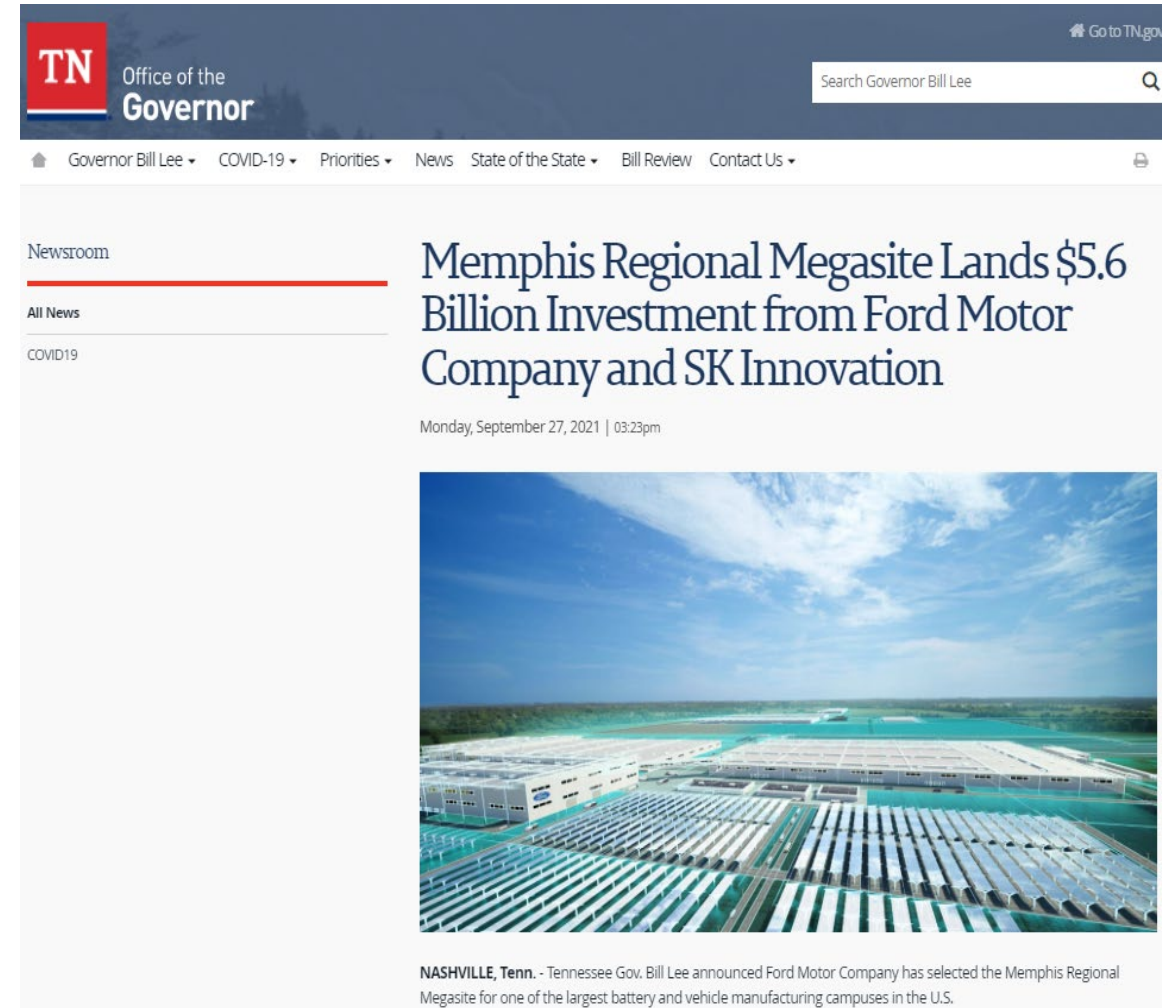
Traffic History

- Projections before Ford
 - AADT for SR-222 (2014/2034) – 10% Trucks
 - 2014 – 7,740 vpd
 - 2034 – 10,320 vpd
- Blue Oval City Projections
 - AADT for SR-222 (2025/2045) – 22% Trucks
 - 2025 – 10,860 vpd
 - 2045 – 16,740 vpd



Blue Oval City – Memphis Regional Megasite

- Ford announced Blue Oval City **September 27, 2021**
 - 5.6 billion investment
 - \$2.5 billion Ford Motor Company
 - \$3.1 billion SK Innovation Company
 - **5,760 full time jobs**
 - Anticipated to generate more than 27,000 new jobs, both directly and indirectly, to support the site's operations. This will result in more than **\$1.02 billion** in annual earnings.
 - This project is anticipated to contribute **\$3.5 billion** each year to Tennessee's gross state product.



Memphis Regional Megasite Lands \$5.6 Billion Investment from Ford Motor Company and SK Innovation

Monday, September 27, 2021 | 03:23pm

NASHVILLE, Tenn. - Tennessee Gov. Bill Lee announced Ford Motor Company has selected the Memphis Regional Megasite for one of the largest battery and vehicle manufacturing campuses in the U.S.

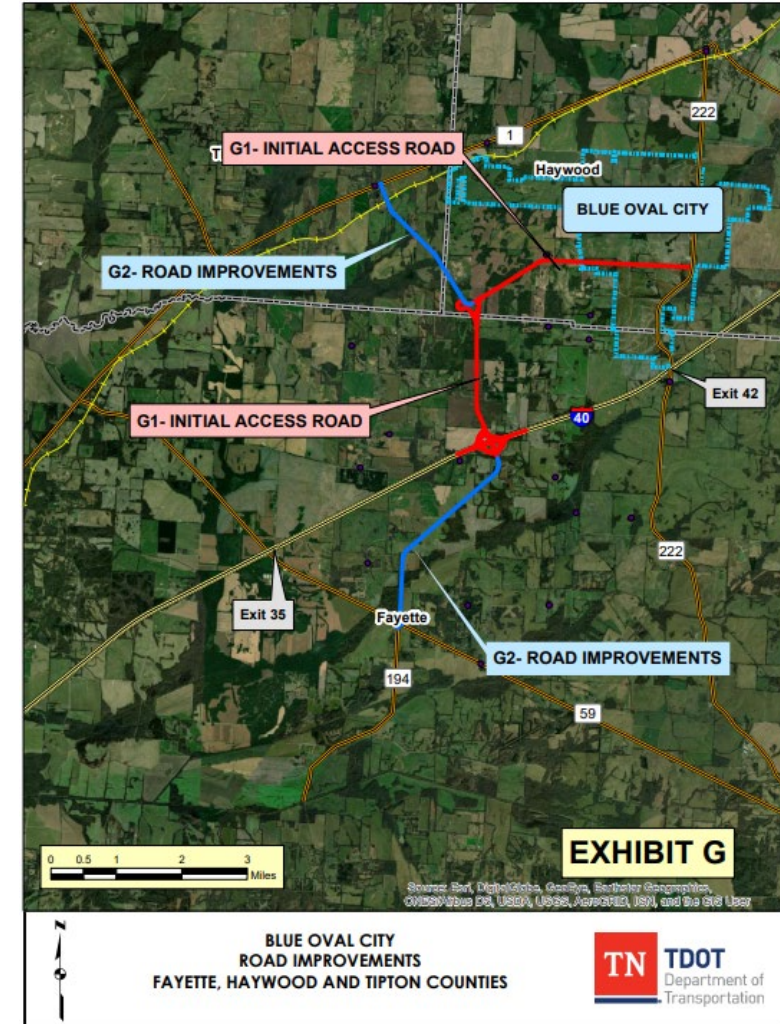
Blue Oval City impacts to Transportation

- The development of the site is expected to fundamentally change both passenger and freight traffic volumes and patterns in this otherwise rural portion of southwest Tennessee.
- Consequently, the project is intended to address the projected increase of traffic while generally improving the multimodal transportation network within the region.

Blue Oval City – Memphis Regional Megaproject

TNECD & Ford MOU Agreement

- Employment thresholds for Blue Oval City and repayment for jobs shortfall
- State to construct potable water infrastructure by March 2023
- Priority for TDOT to construct initial access road (**G1-Initial Access Road**)
- Remaining road improvements (**G2 Sections North & South**)

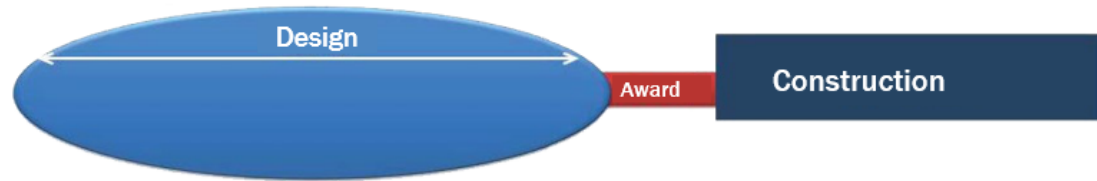


Project Delivery Approach & Why CMGC Process for G1?

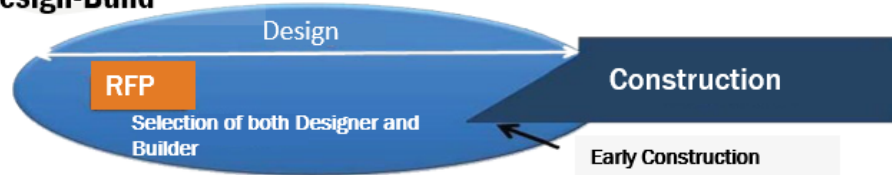
Priority for TDOT to construct **G1- Initial Access Road**

1. G1 Project Delivery Method – CMGC

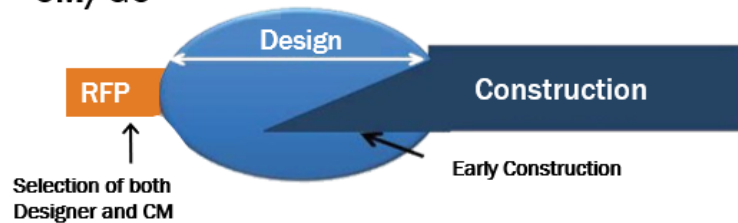
Traditional Design Bid Build



Design-Build



CM/GC



- Expedite complex project delivery
- Early Work Packages / Early Material Procurement
- Design based on contractor capabilities and DOT expectations
- Mutually agreed distribution of risk
- Provide the best product in the shortest timeframe at an agreed-upon price (one contractor, one price)
- Owner retains greater control of design vs. design-build
- Early involvement of third parties during design (utilities, railroad, cities, major stakeholders)
- Daily peer exchange

Project Delivery Approach & Why CMGC Process for G1?

Priority for TDOT to construct **G1 - Initial Access Road**

1. G1 Project Delivery Method – CMGC

- 3 pilot projects:
 - Project 1: TDOT Fast Fix 8 Accelerated Bridge Construction Project (Davidson County)
 - **Project 2: TDOT I-240 MemFix4 (Shelby County)**
 - Project 3: I-24 Bridges over South Germantown Road and Belvoir Avenue (Hamilton County)
- Active CMGC Projects
 - CMGC4 Broadway Bridge (Davidson Co.)

<https://www.tn.gov/tdot/tdot-construction-division/transportation-construction-alternative-contracting/construction-cm-gc-services.html>



CMGC05 – SR-194 Extension I-40 Exit 39

Owner – TDOT



Construction Manager – Kiewit Infrastructure South Co.



Independent Cost Estimator – Innovative Contracting and Engineering



Design Consultant – HDR



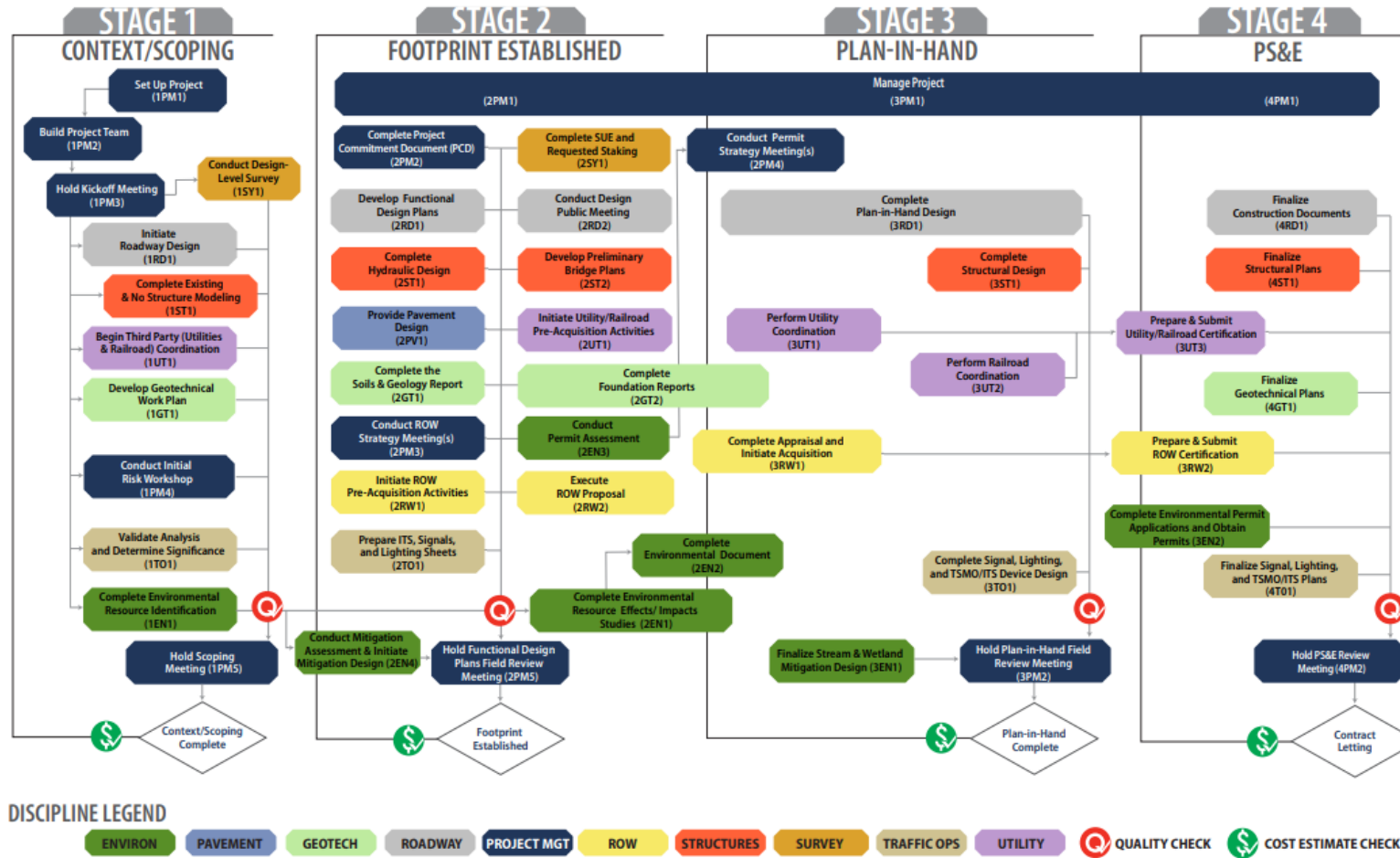
Project Delivery Approach

Priority for TDOT to construct **G1 - Initial Access Road**

2. TDOT decided to utilize **Project Delivery Network (PDN)** - PDN was developed to provide consistency and transparency throughout the project delivery process, enabling project teams to improve reliability and efficiency

- Maintain consistency via a logical progression of activities throughout the planning, environmental, and design phases.
- Clearly define the construction scope of work and programmed amount at the beginning of the project.
- Streamline steps and procedures throughout the project development process.
- Define key project deliverables and activities to build an MS Project schedule that a Project Manager and team follow to deliver the project.
- Identify opportunities for multidisciplinary collaboration throughout each stage of the process.
- Provide a systematic quality process for key deliverables.

Project Delivery Approach



CHALLENGES

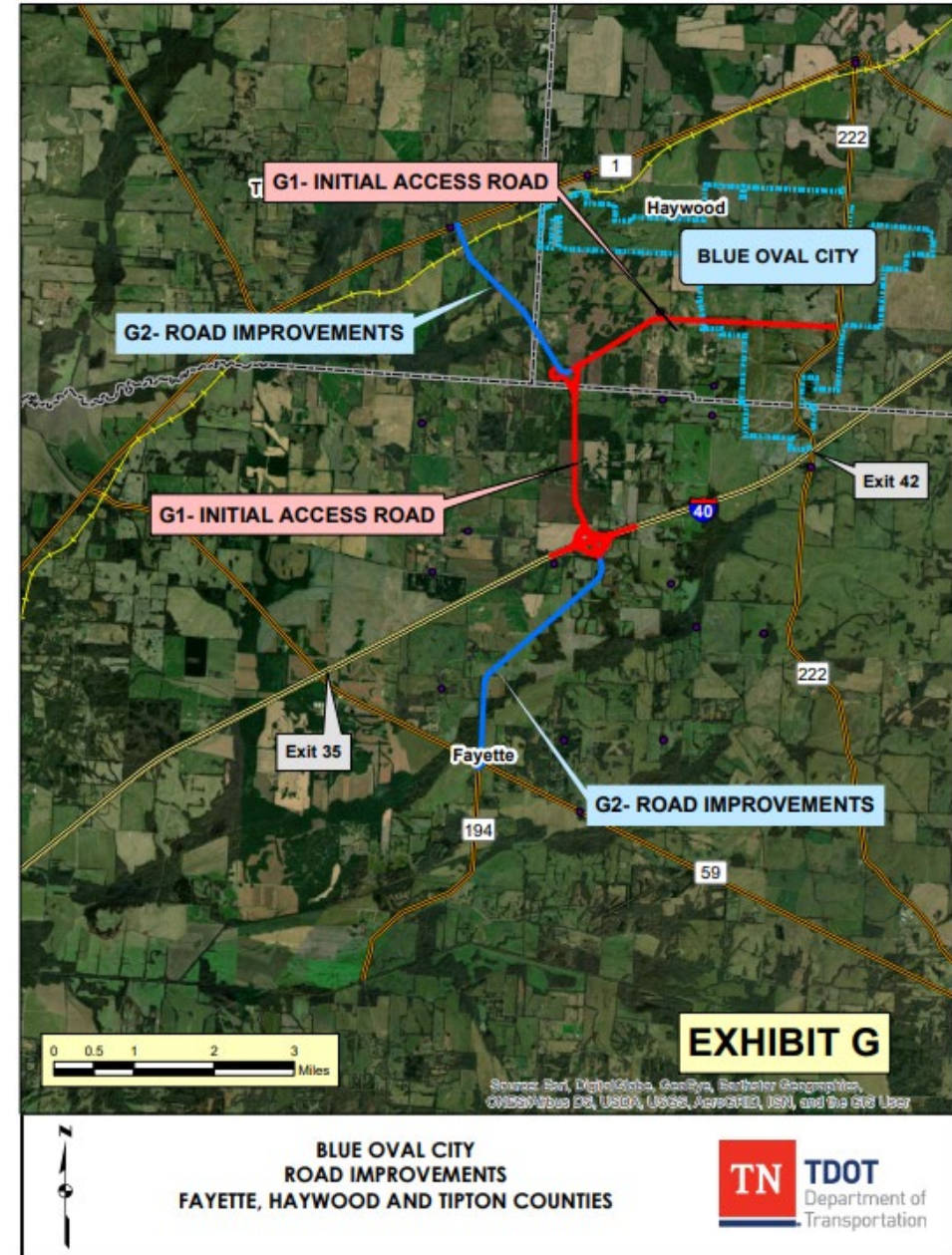
- Initial IAR assumed nearly all Blue Oval City traffic to utilize proposed I-40 Exit 39 Interchange
 - Ford's Traffic numbers utilized exit 42 resulting in a revised IAR submittal
- ROW for access road through Megasite restricted due to Ford/SK Innovations
- Alignment of proposed access road through Megasite shifted due to further needs
- G1 Schedule Impacts
 - **Geotechnical issues & escalating prices** – (Undercutting & Graded Solid Rock)
- G2 Design
 - G2 North – CSX Rail Crossing
 - G2 South – Approx. 2700' Bridge

G1& G2 - Project Progress

- Interchange Access Request (IAR)
- Bi-weekly meetings with Ford, Walbridge, TDOT, and HDR Design Team
- G1 and G2 Technical Studies - (Archaeology, Historic, Air, Noise, Hazmat, & Ecology)
- NEPA – Public Outreach
- G1 -ROW Appraisals and Acquisitions in Progress
- Design - I-40 Interchange, Line and Grade plans, and coordination with Environmental (Utilizing Open Roads-Bentley)
 - Held Public Design Meeting for G1 July 7th
 - G1 Advanced Functional Set of Plans August 18th
- G1 and G2 Utilities – Early Notice and On-going Coordination
 - Public Design Meeting for G2 November 17th

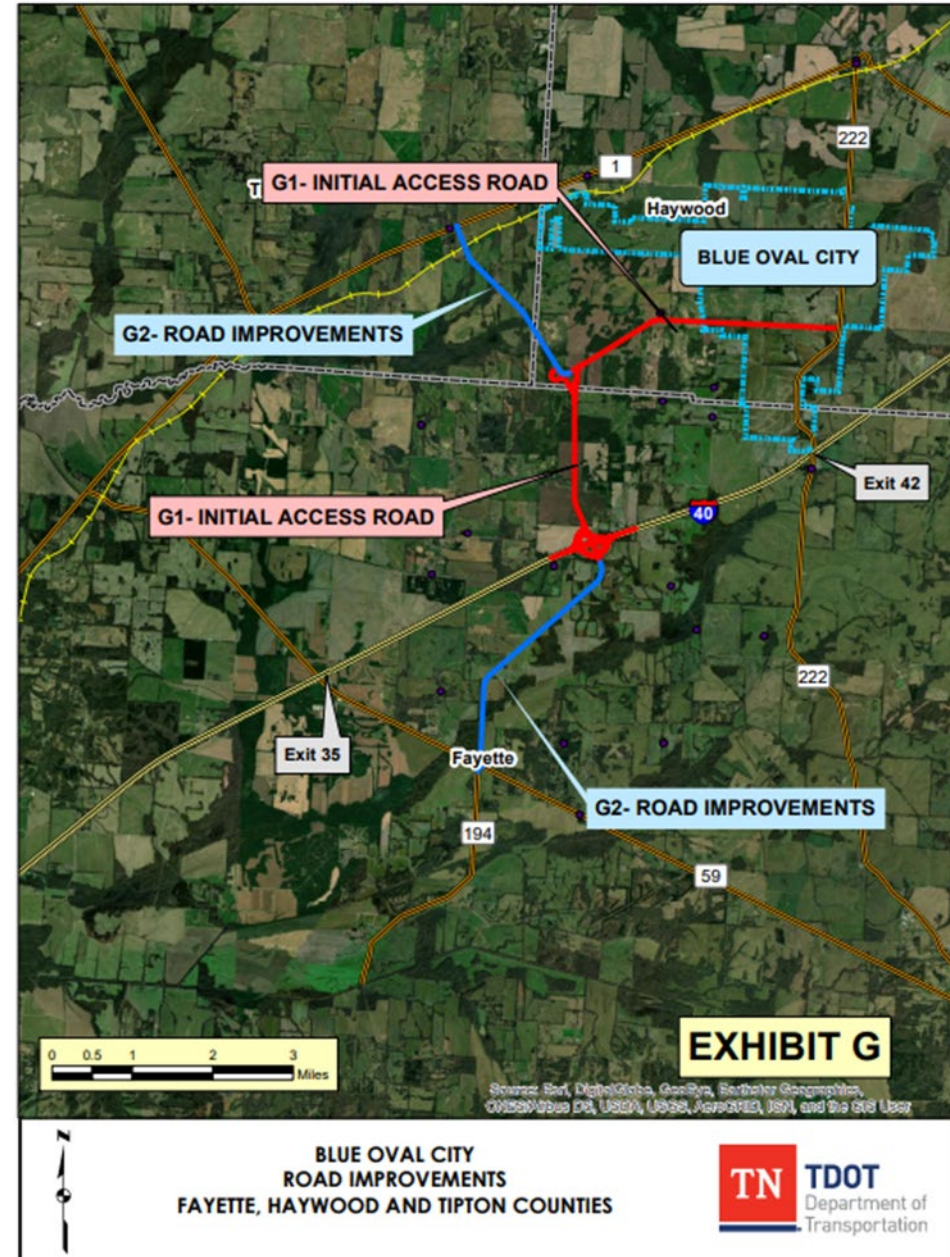
SR-194 Extension (G1 Section)

- New Interchange to and from I-40 to Blue Oval City (Exit 39)
- SR-194 Extension from I-40 to Connector Road – 2.0 Miles
- SR-468 Extension to SR-222 – 3.6 Miles
- Full Build out 4-lane Median Divided Roadway Section to Blue Oval City
- Delivery Method - **Construction Manager/General Contractor (CM/GC)**



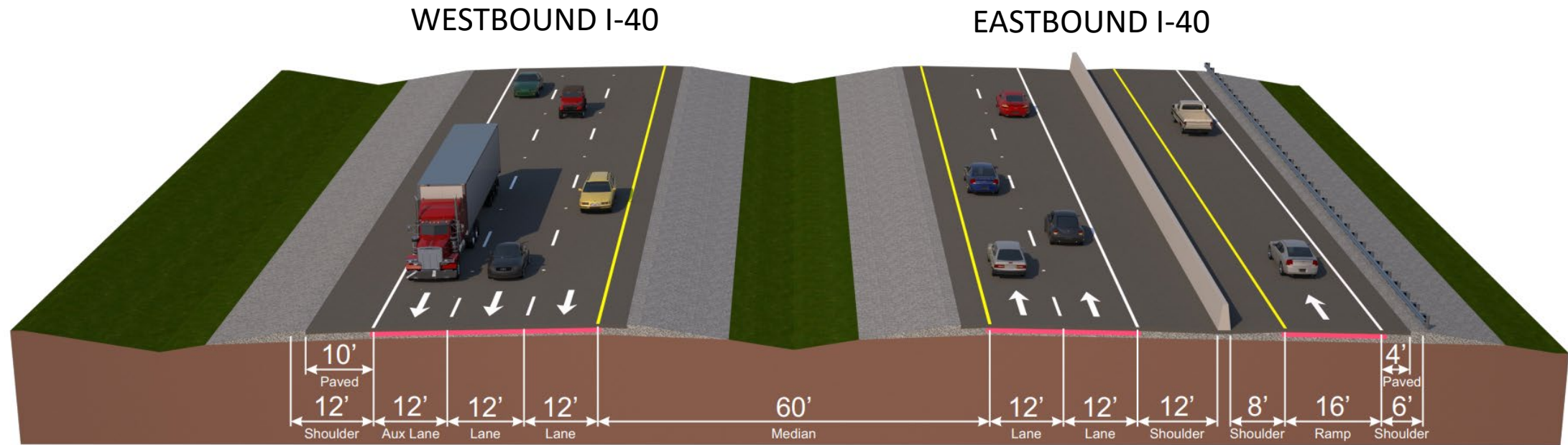
SR-194 Extension (G2 Section)

- SR-194 Extension from Connector Road to SR-1 – 2.3 Miles
- SR-194 Extension from I-40 to SR-59 – 3.5 Miles
- 2-lane Rural Roadway Section
- Delivery Method-
Traditional Design-Bid-Build



PROPOSED TYPICAL SECTION

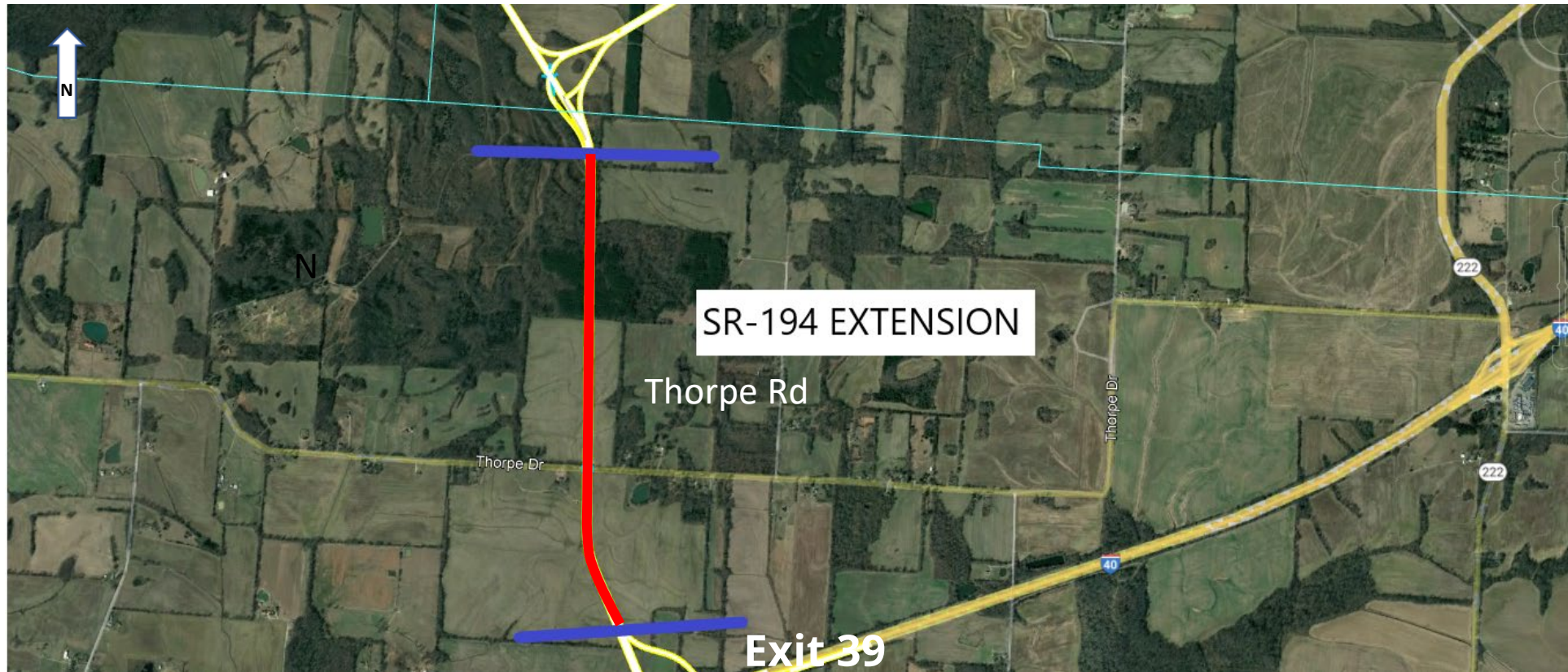
I-40 at Exit 39



Interstate 40
Widening at State Route 194 Ext. Interchange

PROPOSED SR-194 EXTENSIONS

From I-40 Exit 39 Interchange to Northern Connector (SR-468)

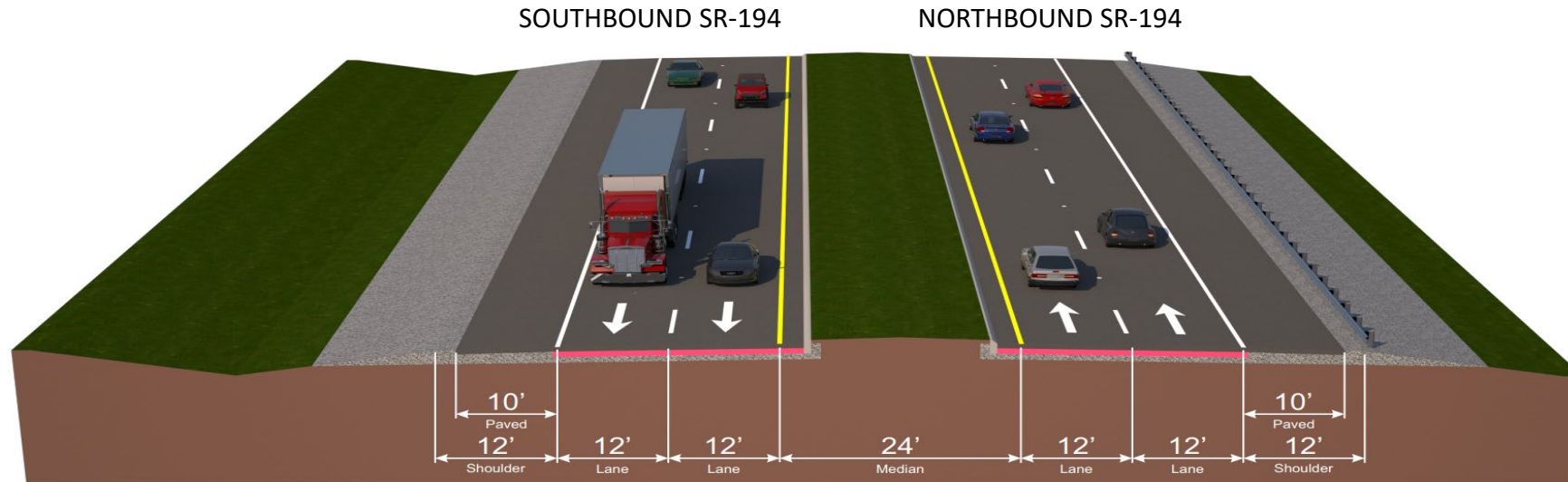


PROPOSED TYPICAL SECTION

SR-194 Extension from I-40 Exit 39 Interchange to Northern Connector (SR-468)

Proposed SR-194 extension between proposed Exit 39 at I-40 and the Northern Connector Interchange

This portion of the proposed SR-194 extension would consist of four 12-foot travel lanes (two lanes in each direction), 12-foot shoulders on either side of the roadway and a 24-foot inside median separating the travel lanes. The design speed would be 55 mph. Full access control would be provided for this portion of the project. A bridge would be constructed over Thorpe Drive to allow continued access by local traffic.

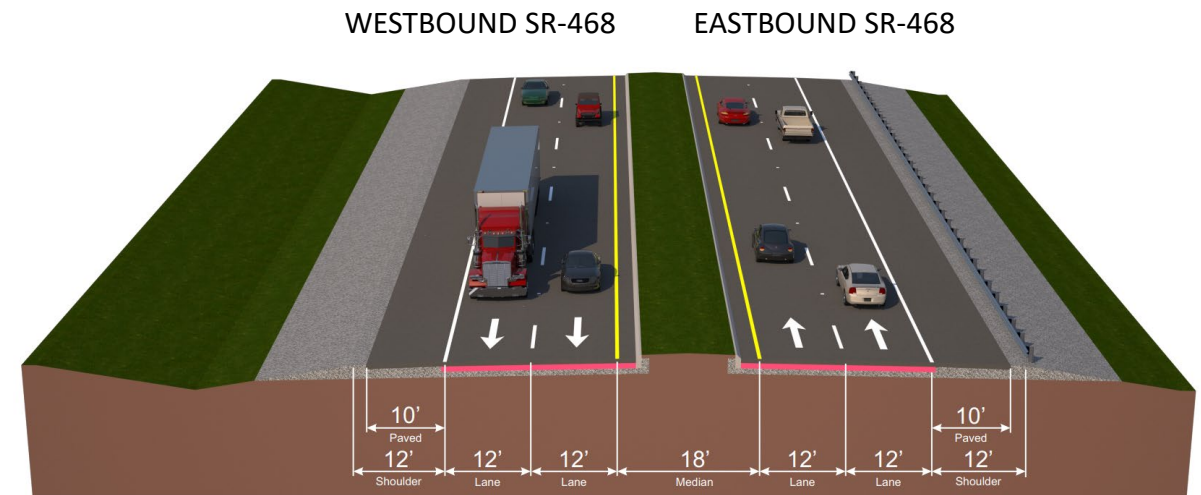
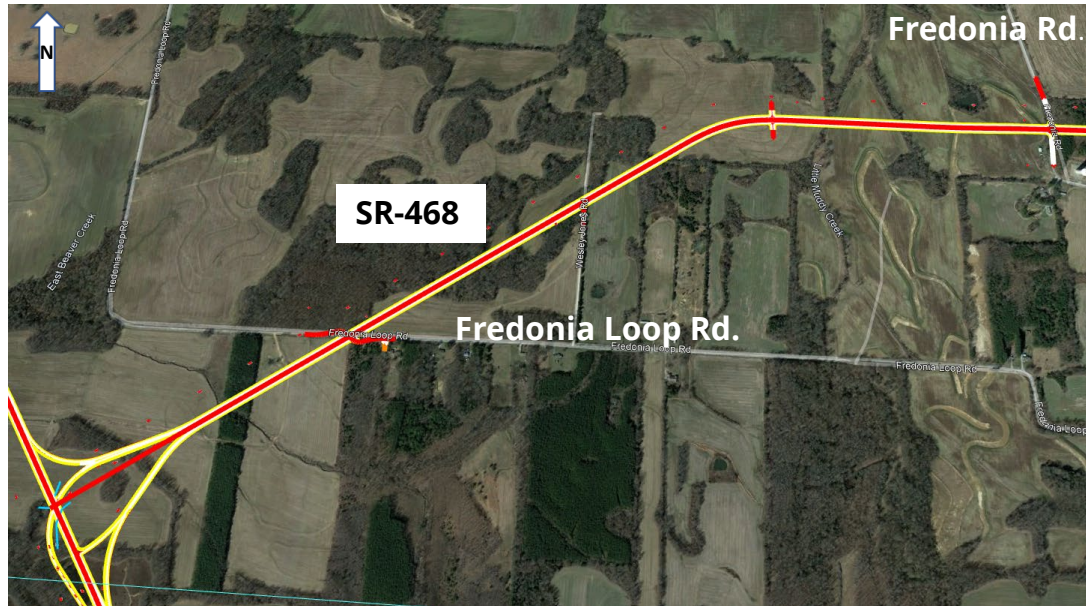


State Route 194 Extension
From Interstate 40 to new State Route 468

PROPOSED TYPICAL SECTION

SR-468 from Northern Connector to Fredonia Rd

SR-468 would consist of four 12-foot travel lanes (two lanes in each direction) separated by an 18-foot median (14-foot raised median and two-foot inside shoulders) and 12-foot outside shoulders. The proposed SR-468 would be a limited access-controlled facility to the MRM boundary (Fredonia Rd.).

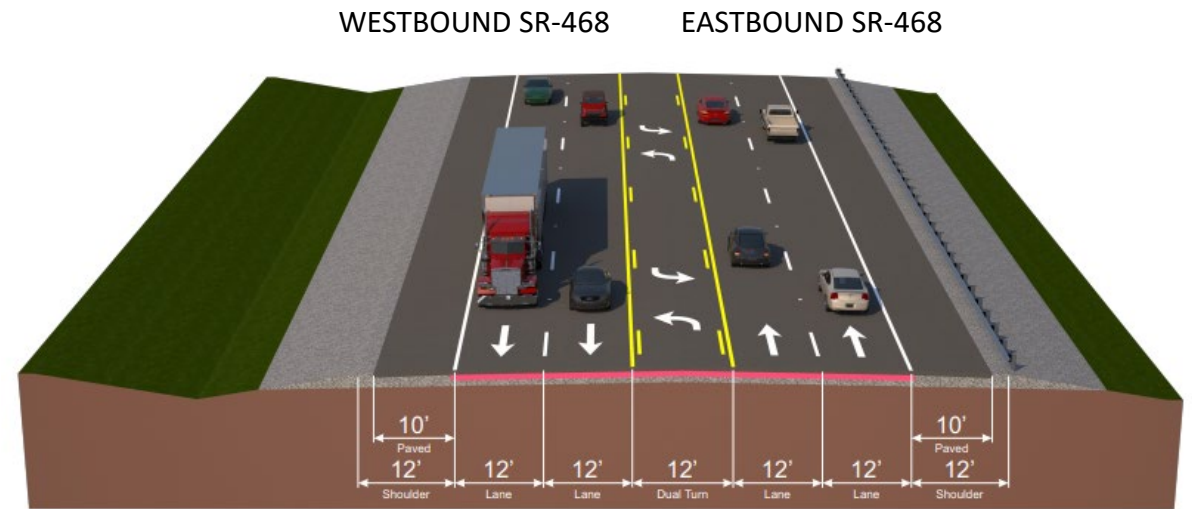
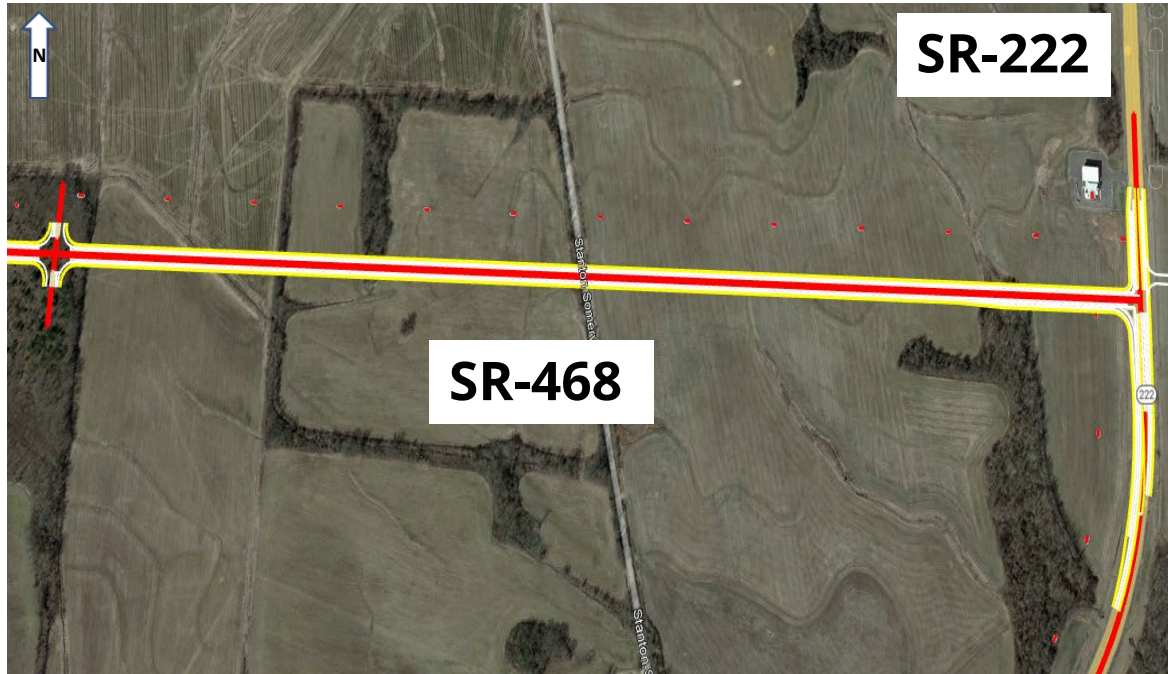


State Route 468
from State Route 194 Ext. to Fredonia Road

SR-468 TYPICAL SECTION

FROM FREDONIA ROAD TO INTERSECTION OF SR-222

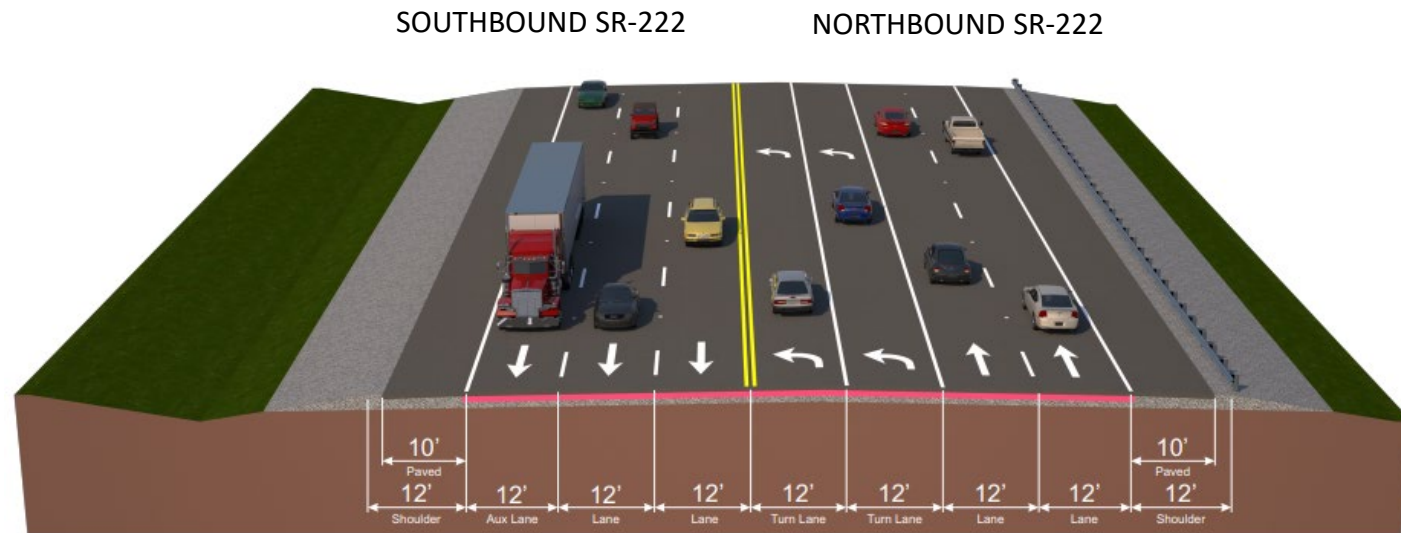
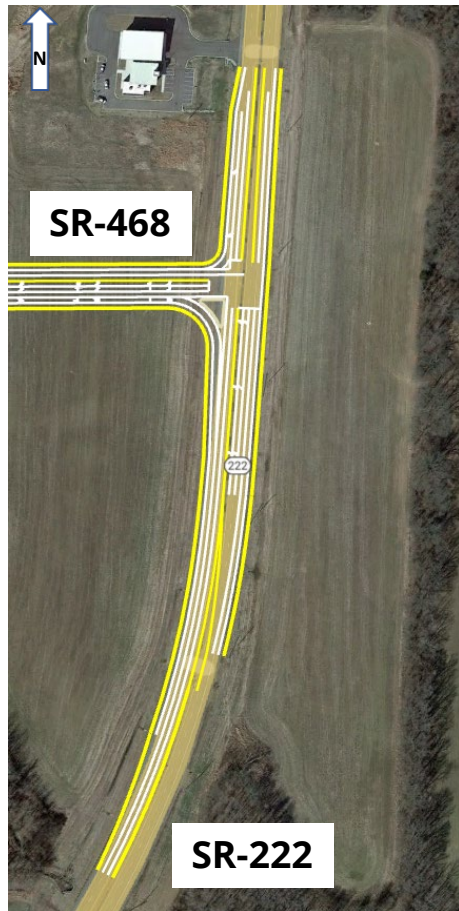
From the boundary of the MRM (Fredonia Rd.) to the intersection of SR-222, SR-468 would consist of four 12-foot travel lanes (two lanes in each direction) separated by a 12-foot two-way center turn lane.



State Route 468
from Fredonia Road to State Route 222

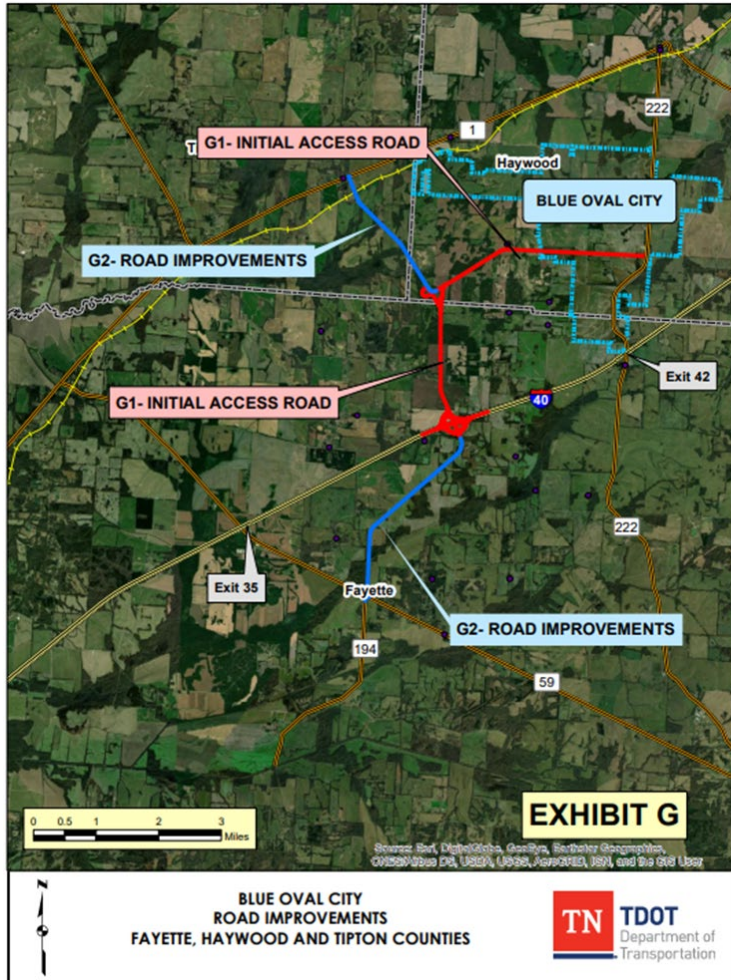
SR-222 Typical Section at Intersection of SR-468

At the intersection of the SR-468 and SR-222 a signalized intersection is proposed.

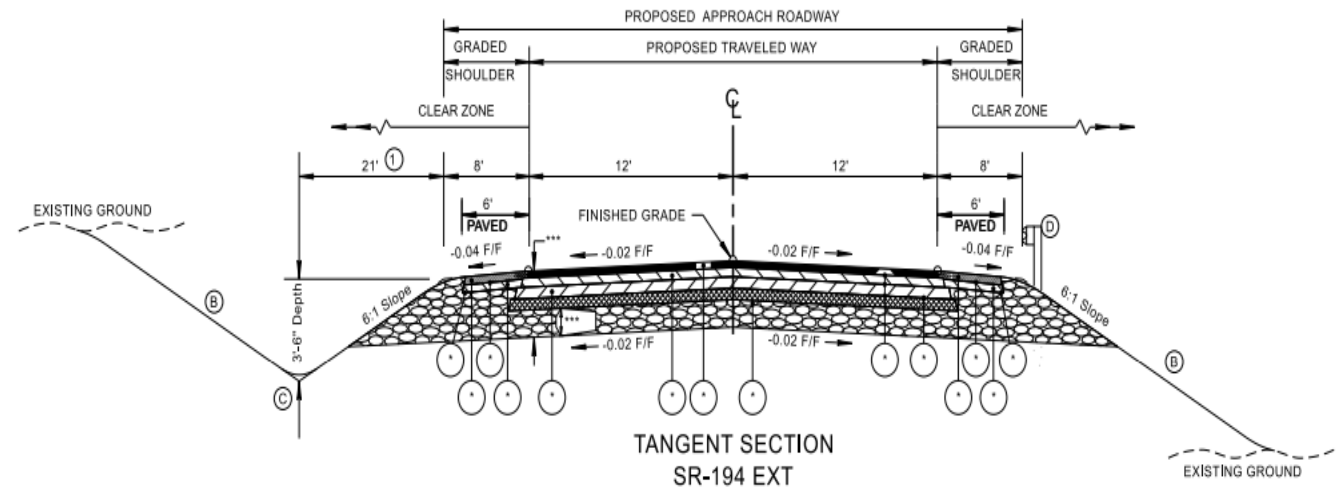


State Route 222
Widening at new State Route 468

SR-194 G2 North and South – Typical Section



Delivery Method- Traditional Design-Bid-Build



SR-194 Ext. I-40 Exit 39 Project Recourses

- **State Route 194 Extension / Exit 39 (tn.gov)** - <https://www.tn.gov/tdot/projects/region-4/sr-194-extension-exit-39.html>
- **Memphis Regional Megasite - Tennessee Department of Economic and Community Development (tnecd.com)** - <https://tnecd.com/sites/memphis-megasite/>
- **Blue Oval City Community Information (tn.gov)** - <https://www.tn.gov/ecd/rural-development/blue-oval-city-resources.html>



R4 Major Construction Projects

The screenshot shows the TDOT website's 'Projects in Region 4' page. The header includes the TDOT logo, a search bar, and navigation links. A left sidebar lists various transportation projects, with 'State Route 194 Extension / Exit 39' circled in blue. The main content area features a map of Region 4, a list of counties, and a 'Transportation Projects' button.

TN TDOT
Department of Transportation

Go to TN.gov

Search TDOT

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Region 4

- Interstate 40 Hernando DeSoto Bridge
- Interstate 40 Interchanges (Jackson)
- Interstate 55 / Crump Boulevard Interchange
- Interstate 69 Corridor
- Interstate 69 - Segment 7
- Interstate 69 - Segment 8
- Interstate 69 - Segment 9
- State Route 4 (US 78) Lamar Avenue
- State Route 18 from Bolivar to SR 100
- State Route 18 from SR 100 to SR 5
- State Route 76 (US 79)
- State Route 128
- State Route 186 (US 45 Bypass) Southern Extension
- State Route 194 Extension / Exit 39**
- State Route 459 (US 412) Lexington Bypass
- State Route 460 (US 64) Somerville Beltway
- North Second Street Corridor Improvements
- Proposed Kirby-Whitten Parkway

Projects in Region 4

Projects located in *Region 4* are located in the menu labeled *Transportation Projects* to the left.

Transportation Projects

Counties that make up Region 4

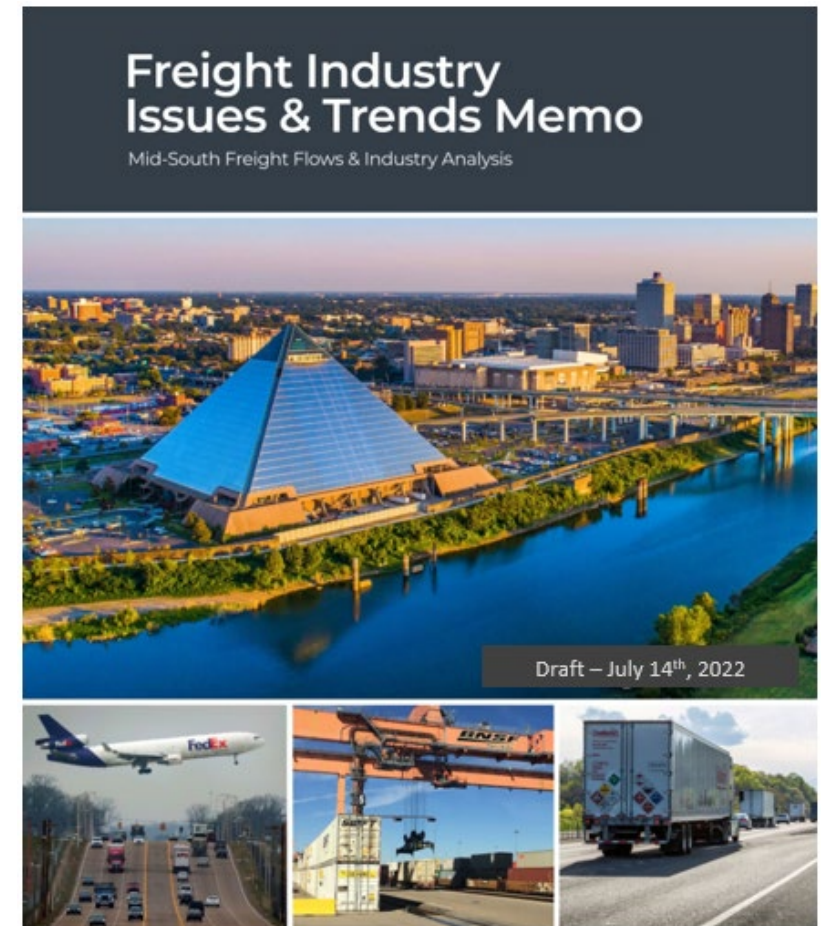
Benton • Carroll • Chester • Crockett • Decatur • Dyer • Fayette • Gibson • Hardeman • Hardin • Haywood • Henderson • Henry • Lake • Lauderdale • Madison • McNairy • Obion • Shelby • Tipton • Weakley

TDOT – Various Studies

- **Freight Industry Issues & Trends Memo**
 - Mid-South Freight Flows & Industry Analysis
- **Transit Study**
 - Study to assess the feasibility of various transit options from Memphis, Tennessee to the future Ford Blue Oval facility in Haywood County, Tennessee, and eventually connecting to Jackson, Tennessee.
- **Office of Community Transportation (OCT)**
 - OCT's mission is to coordinate the state's transportation planning, local land use decisions, and community visions to guide the development of a safe and efficient statewide transportation system.

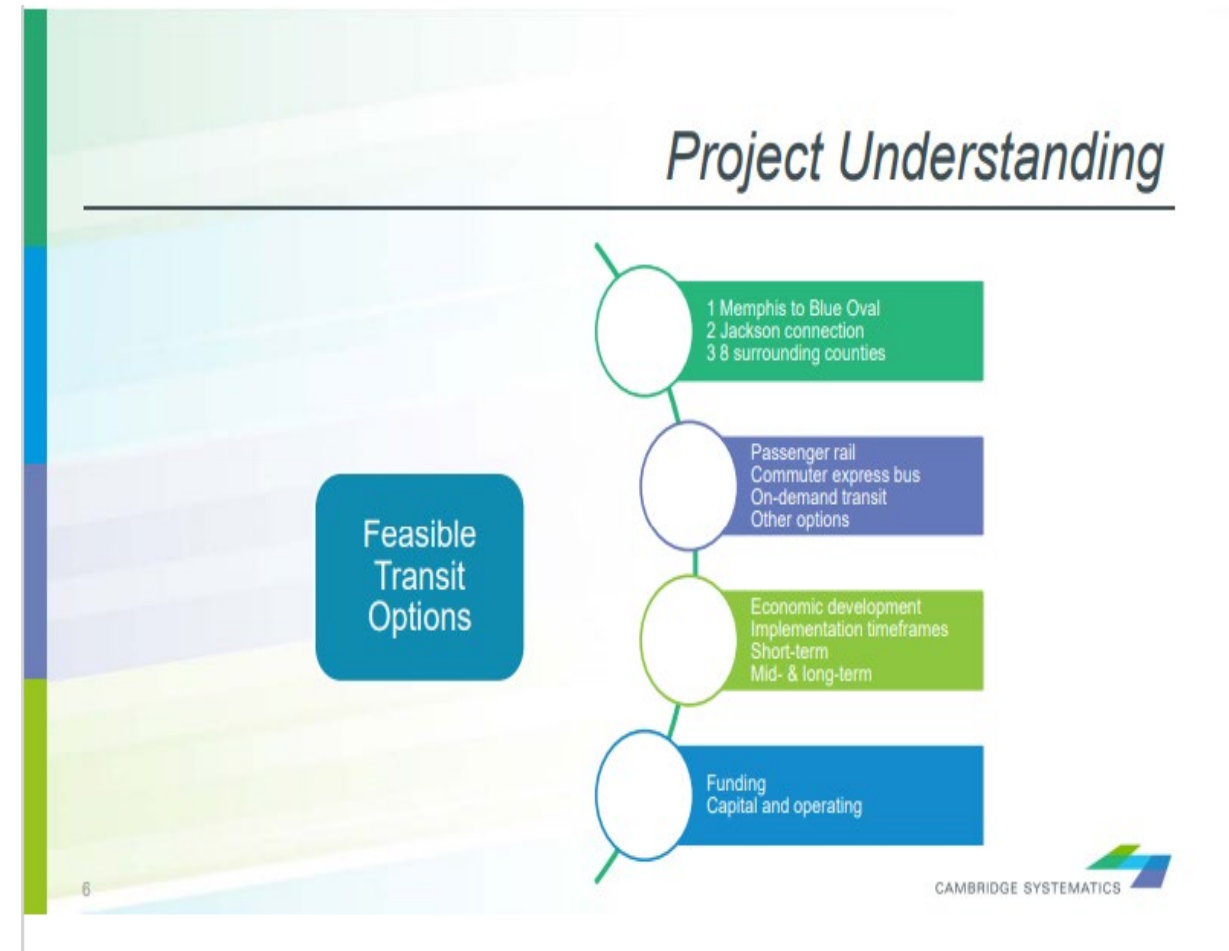
Freight Industry Issues & Trends Memo

- **MULTIMODAL TRENDS AND ISSUES**
 - E-Commerce, COVID-19 Pandemic & Distributed Manufacturing
- **TRUCKING TRENDS AND ISSUES**
 - Congestion, Safety, Pavements and Structures, Parking, Electrification, Vehicle Automation, & Driver Shortage
- **RAIL TRENDS AND ISSUES**
 - Network Bottlenecks/Intermodal Accessibility, Precision Scheduled Railroading, Intermodal Network Restructuring, Technology, Bridges and Structures, At-Grade Crossings, & Rail and Economic Development
- **WATER TRENDS AND ISSUES**
 - Multimodal Access, Condition of Facilities and Assets, Industrial Land Development, Container-on-Barge Growth Opportunities, & Industry Growth Opportunities
- **AIR CARGO TRENDS AND ISSUES**
 - Parcel Industry Developments & Accessibility
- **WAREHOUSING AND DISTRIBUTION TRENDS AND ISSUES**
 - Growth, Diversification, & Automation and Multi-Story Technologies
- **PIPELINE TRENDS AND ISSUES**



Transit Study

- The study will address providing any form of transit alternatives from the following counties to and from the Haywood County facility: Shelby, Fayette, Hardeman, Chester, Madison, Haywood, Tipton, Lauderdale, Dyer, Crockett, Gibson, and Madison





TDOT

QUESTIONS?