The Benefits of the PEL Process for the Feasibility Evaluation of a New Tennessee River Crossing at Decatur, Alabama

MANUFACTURE ALABAMA

2025 HR, Safety and Environmental Conference

July 30, 2025

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Safety Moment – Watch where you step!

West Alabama Highway Project
Work Segment 9
State Route 69
June 2, 2025

Safety Moment – Watch where you step!

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Traffic Congestion into and out of Decatur

- There are three things everyone from the Decatur area knows:
  - Traffic congestion between Decatur and Huntsville is common
  - The Tennessee River is wide
  - The existing bridge is old and functionally obsolete

What are the major causes of traffic congestion?

Predictable Congestion (Bottlenecks)	40%
Traffic Accidents	25%
Bad Weather	15%
Work Zones	10%
Poor Signal Timing	5%
Special Events/Other	5%

Source: FHWA Traffic Congestion and Fatality Report

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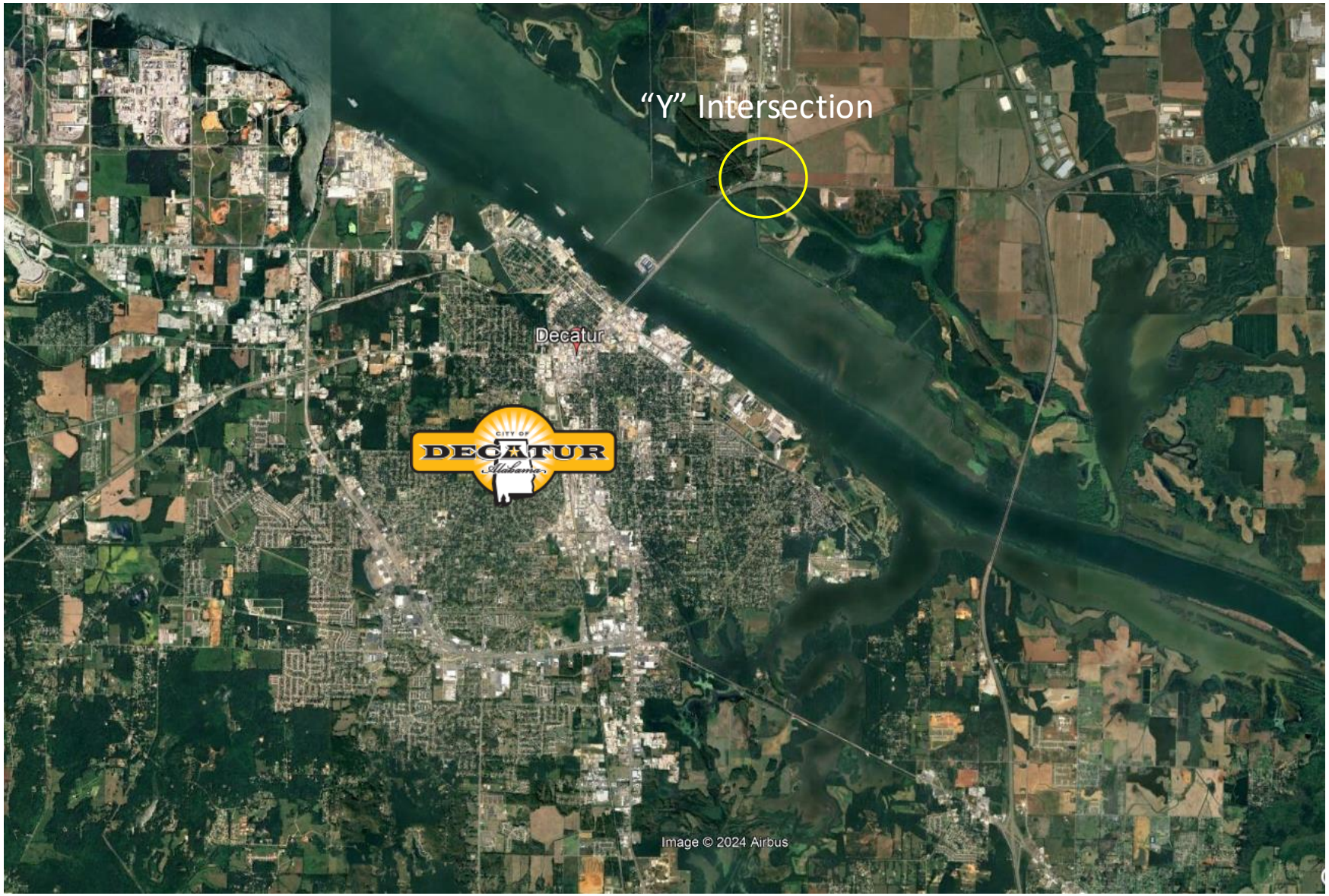
Tennessee River
U.S. Highway 31/72 ALT and SR20
Decatur
I-65
Image © 2024 Airbus

Huntsville

Traffic Congestion into and out of Decatur

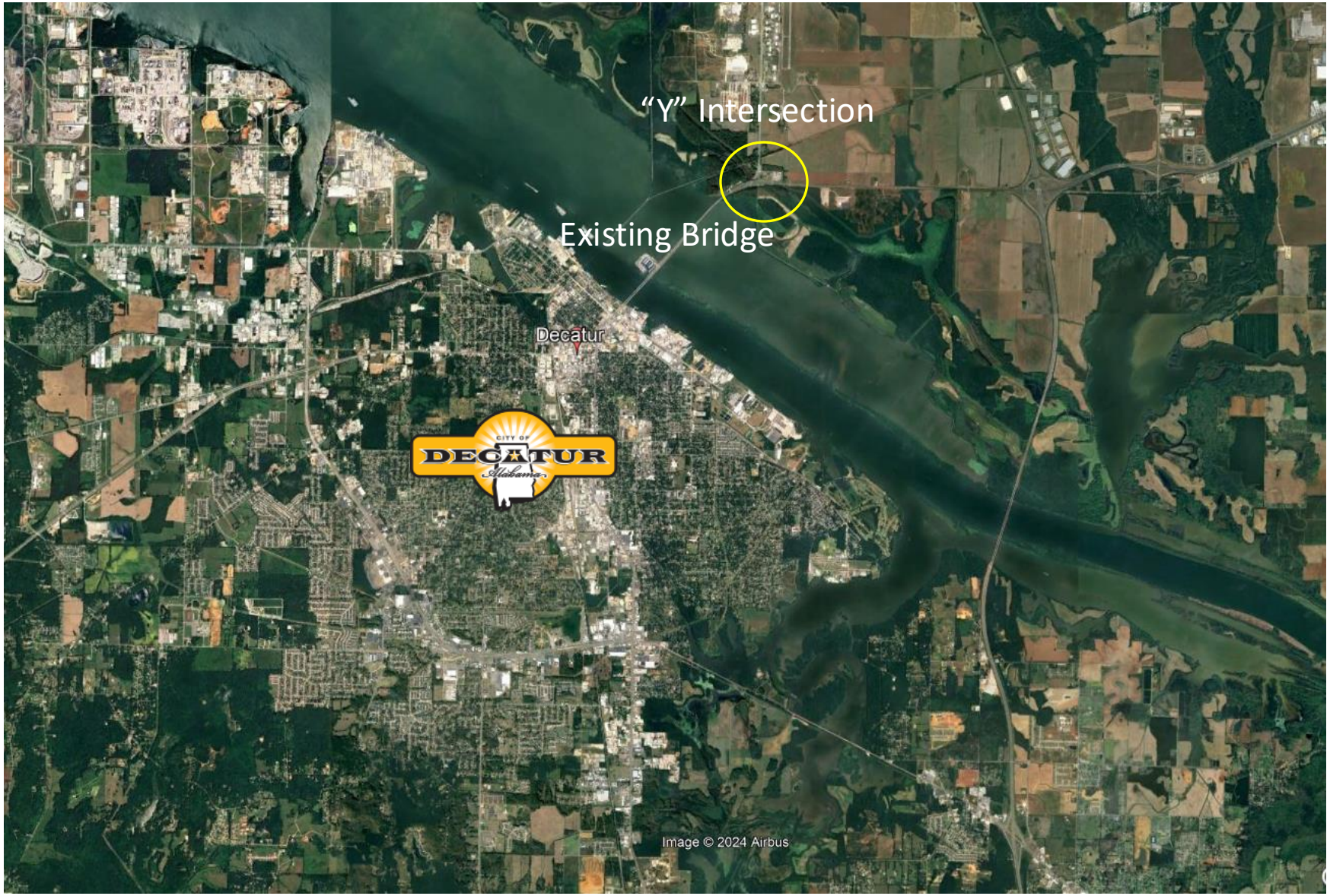
- The “Y” intersection of U.S. Highway 31 and Alternate U.S. Highway 72/SR 20



Huntsville

Traffic Congestion into and out of Decatur

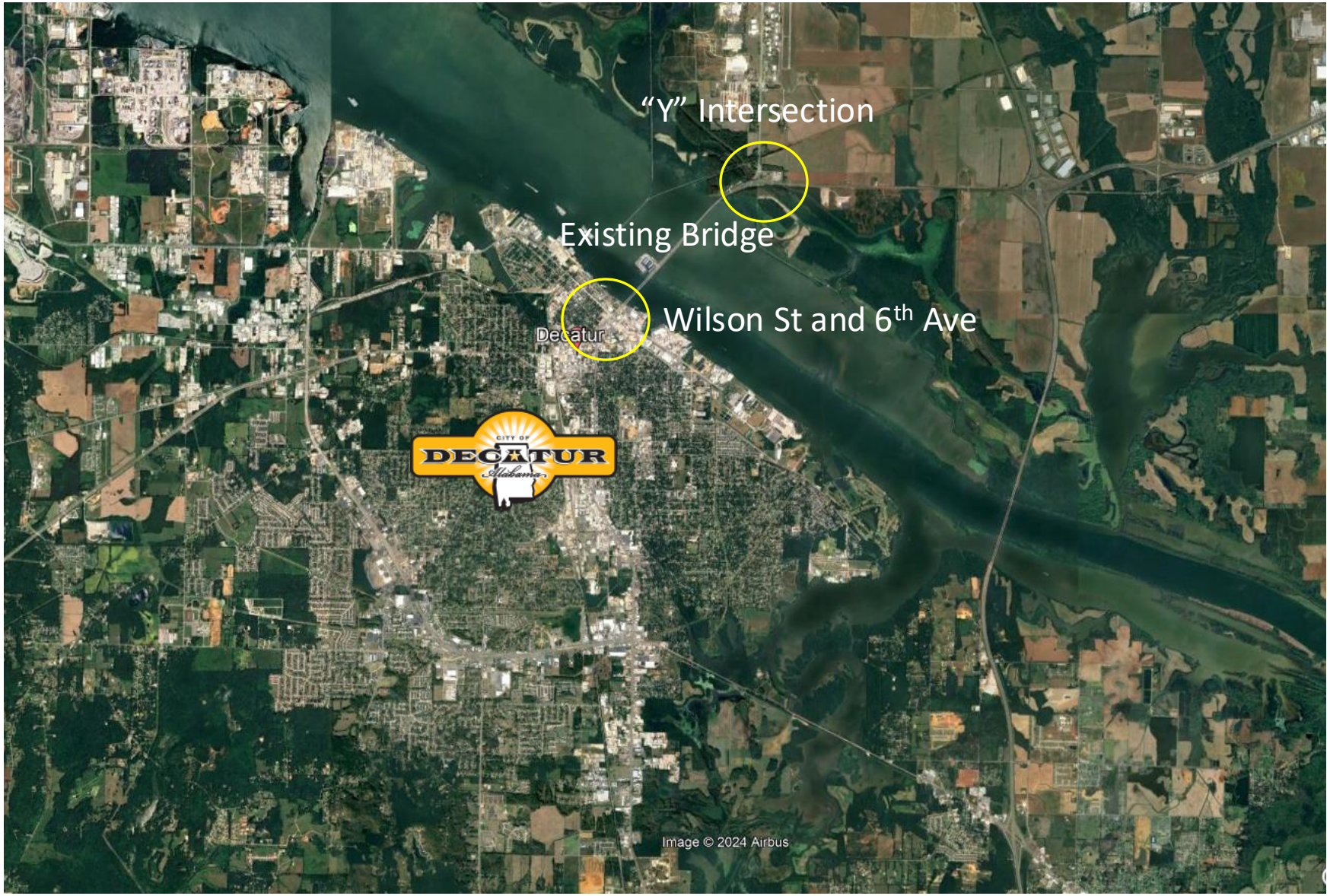
- The “Y” intersection of U.S. Highway 31 and Alternate U.S. Highway 72/SR 20
- Built in 1963, the inbound 2-lane steel truss bridge has exceeded its functional life and is approaching its structural life



Huntsville

Traffic Congestion into and out of Decatur

- The “Y” intersection of U.S. Highway 31 and Alternate U.S. Highway 72/SR 20
- Built in 1963, the inbound 2-lane steel truss bridge has exceeded its functional life and is approaching its structural life
- Intersection of Wilson Street NE and 6th Avenue NE


“Y” Intersection
Existing Bridge
Wilson St and 6th Ave
Decatur
Image © 2024 Airbus

Huntsville

ALDOT…

- In 2014, proposed an alternative delivery for this project – Design-Build-Finance-Operate-Maintain (DBFOM)
- For DBFOM to be viable, tolling was necessary
- Tolling was a major obstacle from the residential and industrial stakeholders
- Project terminated
- The need remained…

The City of Decatur…

- Recognized the urgent need to address predictable traffic congestion at the Tennessee River crossing and took the initiative to get this project going again
- Appointed Mr. Dewayne Hellums, MPO Director, as the City's project manager
- Received $1 million grant from the Appalachian Regional Commission
- Provided the $1 million match
- Qualifications-based selection process
- Selected the TTL Team

The TTL Team

- **TTL is the lead consultant**
  - Founded in Tuscaloosa in 1964
  - Decatur Office for over 20 years
  - Provided overall management, transportation planning, design services and environmental services
- **Jacobs Engineering**
  - 2024 Ranking of No. 1 in the ENR Top 500 Design Firms (No. 2 in Transportation, roadways and bridges)
  - Considerable experience with transportation planning and design
  - Streetlight data is part of Jacobs
- **Pugh Wright McAnally Civil Engineers**
  - Decatur firm
  - Significant experience with Decatur-area civil engineering, utilities and surveying projects

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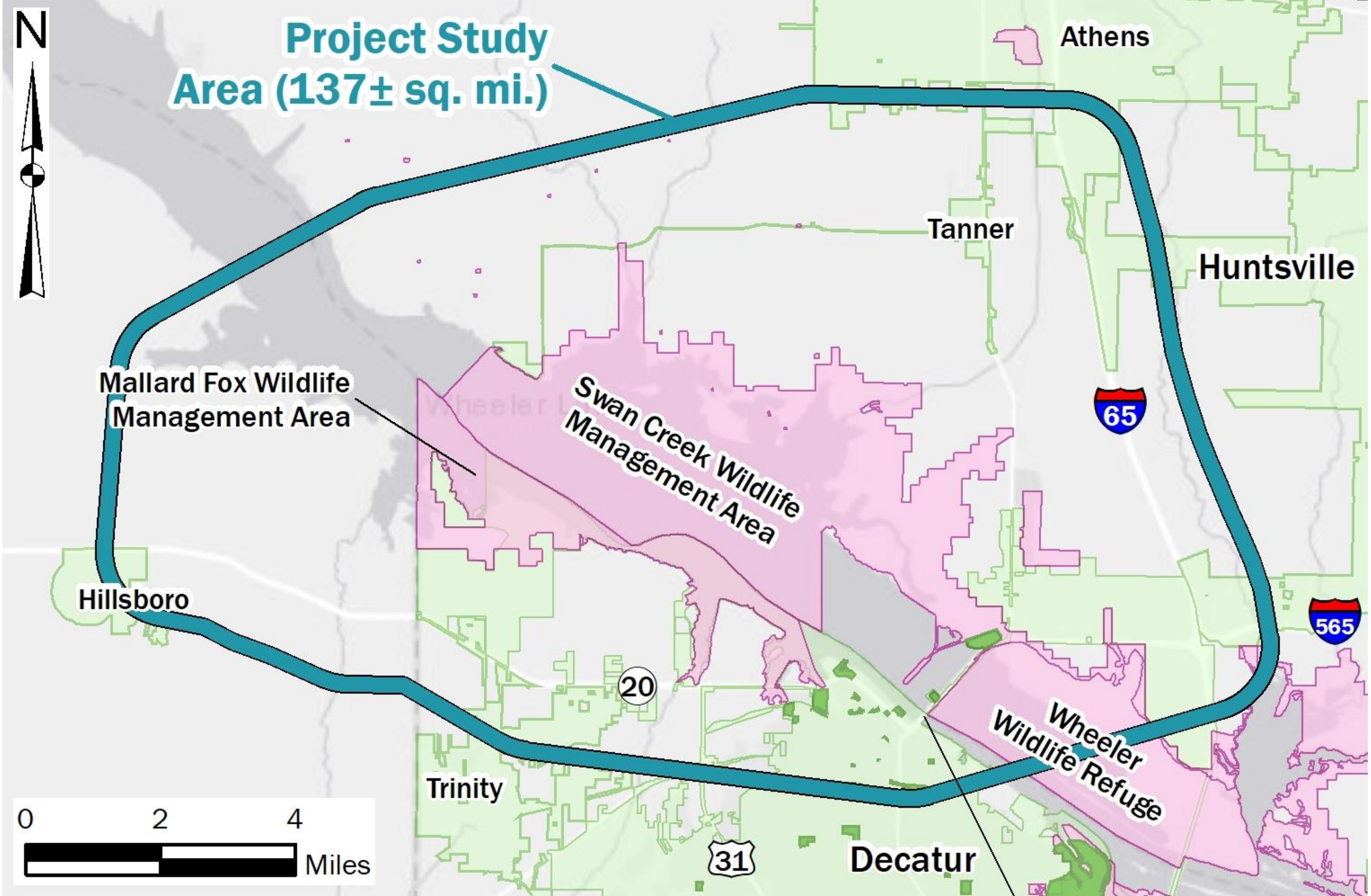
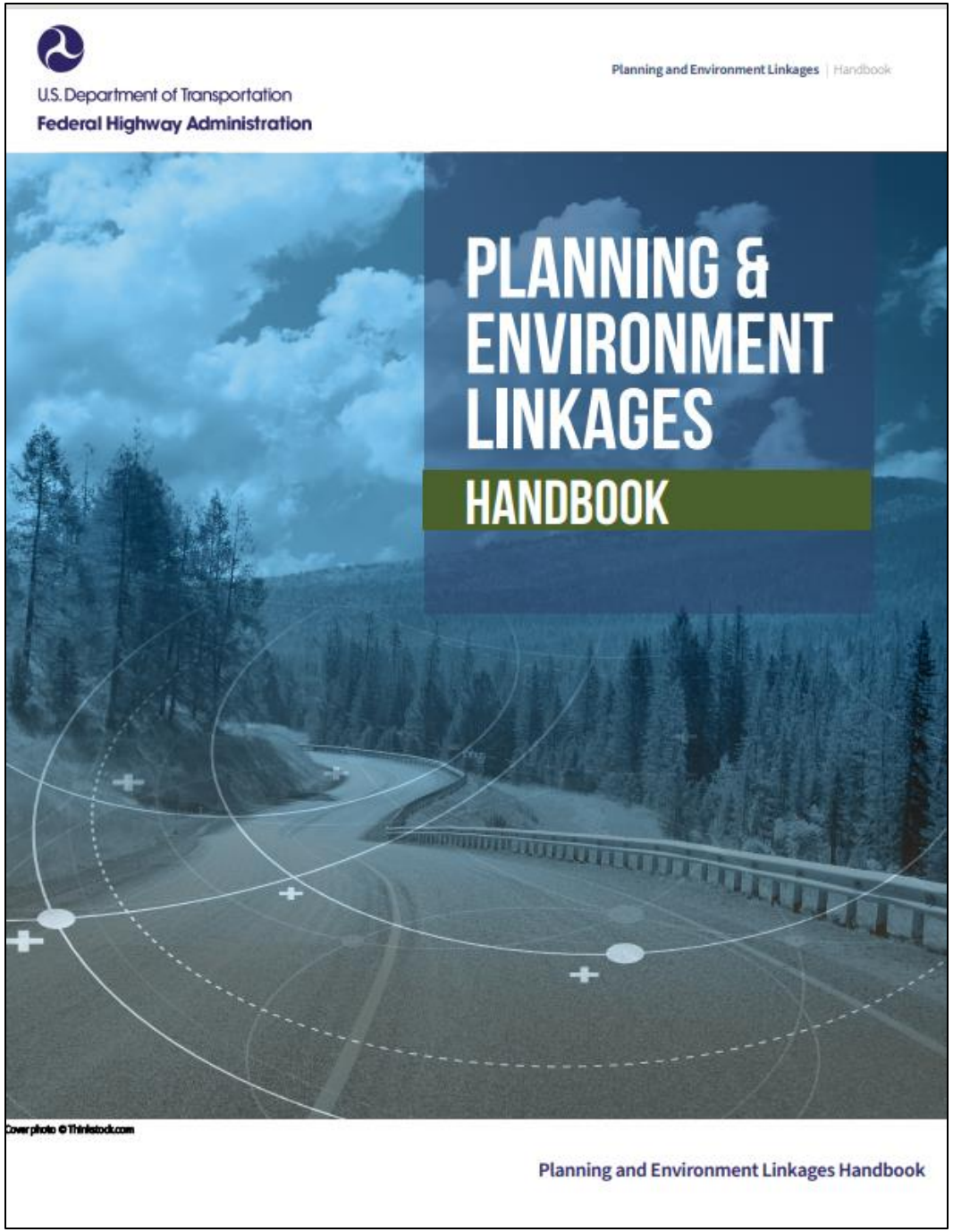

N
Project Study Area (137± sq. mi.)
Athens
Tanner
Huntsville
Mallard Fox Wildlife Management Area
Swan Creek Wildlife Management Area
65
Hillsboro
565
20
Wheeler Wildlife Refuge
Trinity
31
Decatur
0
2
4
Miles


U.S. Department of Transportation
Federal Highway Administration
Planning and Environment Linkages | Handbook
PLANNING & ENVIRONMENT LINKAGES
HANDBOOK
Cover photo © Thinkstock.com
Planning and Environment Linkages Handbook

Federal Highway Administration
Planning and Environmental Linkages (PEL) Process

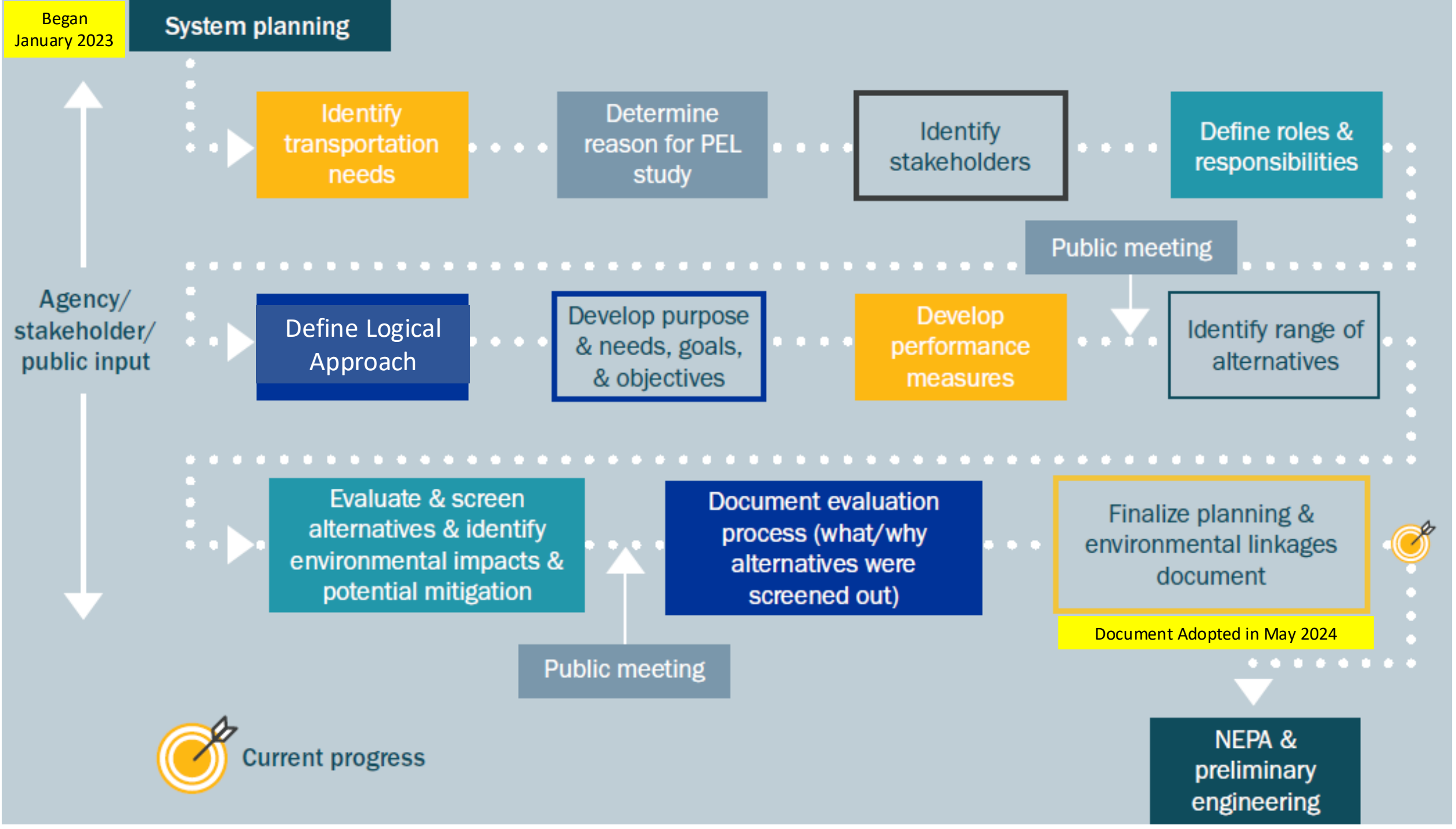
- PEL represents a collaborative and integrated approach to transportation decision-making that considers environmental, community, and economic goals early in the transportation planning process

- PEL uses the information, analysis, and products developed during planning to inform the environmental review process to facilitate the transition from planning to a National Environmental Policy Act (NEPA) analysis.

Federal Highway Administration
Planning and Environmental Linkages (PEL) Process

- PEL is a bridge (or “link”) between transportation planning and environmental studies so that the history of decisions made in the planning phase is not lost.

- Improves the efficiency by minimizing duplication between the planning and NEPA processes through all major steps of the project.


Began January 2023
System planning
Identify transportation needs
Determine reason for PEL study
Identify stakeholders
Define roles & responsibilities
Public meeting
Agency/ stakeholder/ public input
Define Logical Approach
Develop purpose & needs, goals, & objectives
Develop performance measures
Identify range of alternatives
Evaluate & screen alternatives & identify environmental impacts & potential mitigation
Document evaluation process (what/why alternatives were screened out)
Finalize planning & environmental linkages document
Document Adopted in May 2024
Public meeting
NEPA & preliminary engineering
Current progress

First Public Meeting

- The Project included hosting two Public Meetings
- Scheduled in the evenings
- Significant public outreach
- Multi-station, forum approach
- Large maps and markers were provided for public input which resulted in 32 public preferred new bridge
- Comment cards

Potential Corridor Alignments

- Revisited the project goals and incorporated public input to develop the Purpose and Need Statement.
- Initiated the new corridor alignment screening process – 32 public alignments, 8 alignments from past studies, and 17 TTL generated alignments for a total of 57.
- The alignments were then evaluated for fatal flaws in categories which included:
  - Significant land use impacts
  - Impacts to river navigation
  - Constructability concerns
  - Meeting the Project's Purpose and Need Statement.
- Alignments with significant problematic or unmitigable impacts or those which did not meet the Purpose and Need Statement were eliminated from further consideration.
- Ten corridor alignments were carried forward into further planning discussions with the project team subject matter experts

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Second Public Meeting

- A map showing the feasible alignments were prepared for the second public meeting
- Additional feedback from the public was encouraged
- Project website was implemented to facilitate public comments

Desktop Screening Analysis of Environmental Resources

Hazardous Materials

Reviewed existing federal and state resources:

- NPL List
- SEMS List
- US Brownfield List
- CORRACTS List
- UST List
- LUST List
- PFAS Facilities List
- State Landfill List

Wildlife *Protected/ Sensitive Species*

Reviewed the USFWS ECOS Information for Planning and Consulting (IPaC) to determine federally protected species within the Project Study Area.

Wetlands and Waters/ FEMA

Reviewed existing data sources:

- USGS National Hydrography
- USDA Web Soil Survey
- USFWS National Wetlands Inventory
- Google Earth
- FEMA FIRM Maps

Land Use/ Farmland/ Noise

Utilized the National Land Use/Cover data to gather information on land use patterns.

Reviewed the NRCS Web Soil Survey to determine areas of prime farmland.

Integrated FHWA noise activity categories with the county zoning and the national land use/cover data.

Historic and Recreational

Conducted a Desktop Screening for Archaeological Resources.

Identified Section 4(f) and 6(f) properties by using Decatur's "parks" layer, WMA boundaries, and wildlife refuge boundary.

Air & Water Quality

Utilized the EPA's Motor Vehicle Emission Simulator to estimate impacts to Air Quality.

Utilized the Alabama Surface Water Classifications Map to estimate impacts to Water Quality.

EJ / Climate Change

Utilized EPS's EJ Screen to determine areas of concern.

Reviewed climate change data and existing weather models to estimate average temperatures and rainfall in the area.

Traffic Analysis

Previous Work Performed/Related Transportation Studies

TTL reviewed previous work performed and the related transportation studies and projects in order to better serve the City of Decatur during the Study process.

Origin and Destination

An analysis of 2020 weekday traffic from StreetLight depicted the preferred routes for both northbound and southbound trips.

Traffic Data Analysis

Studied existing traffic counts and travel patterns to determine the level of services for each segment of the roadway along the existing corridor.

Roadway Analysis

Existing Structures/Navigation

Reviewed existing data resources from the USCG, AASHTO, and ALDOT to examine the existing structures and determine navigational concerns associated with a new or replacement structure spanning the Tennessee River.

Safety

The corridor was reviewed to evaluate the existing conditions with respect to any safety concerns from a roadway and vehicle perspective.

Geological and Geotechnical Conditions

Studied existing geologic maps previous boring logs to determine the underlying subsurface formations.

Public Engagement Summary

Federal Agency Coordination

- **Federal Highway Administration (6)**
- Tennessee Valley Authority (4)
- US Army Corps of Engineers (4)
- US Coast Guard (4)
- US Fish and Wildlife Service (3)

State Agency Coordination

- Alabama Department of Transportation (5)
- Alabama Historical Commission (1)
- Alabama Department of Conservation and Natural Resources (1)

2 Rounds of Large Group Stakeholder Coordination

- 43 Industrial Facilities
- 20 Special Interest Groups & tribal
- 13 Utility Companies
- 4 Counties
- 8 Cities
- 6 AL House Districts
- 3 AL Senate Districts
- 1 AL Congressman District

Individual Stakeholder Meetings

Coordinated and held 14 individual stakeholder meetings (property owners, business owners, advocacy groups, etc.).

2 Public Involvement Meetings

- 275 attendees between both meetings
- 187 comments

2 Additional Stakeholder Meeting

- Ducks Unlimited, the Delta Waterfowl Foundation, and ADCNR
- ALDOT

Feasibility Decision Matrix

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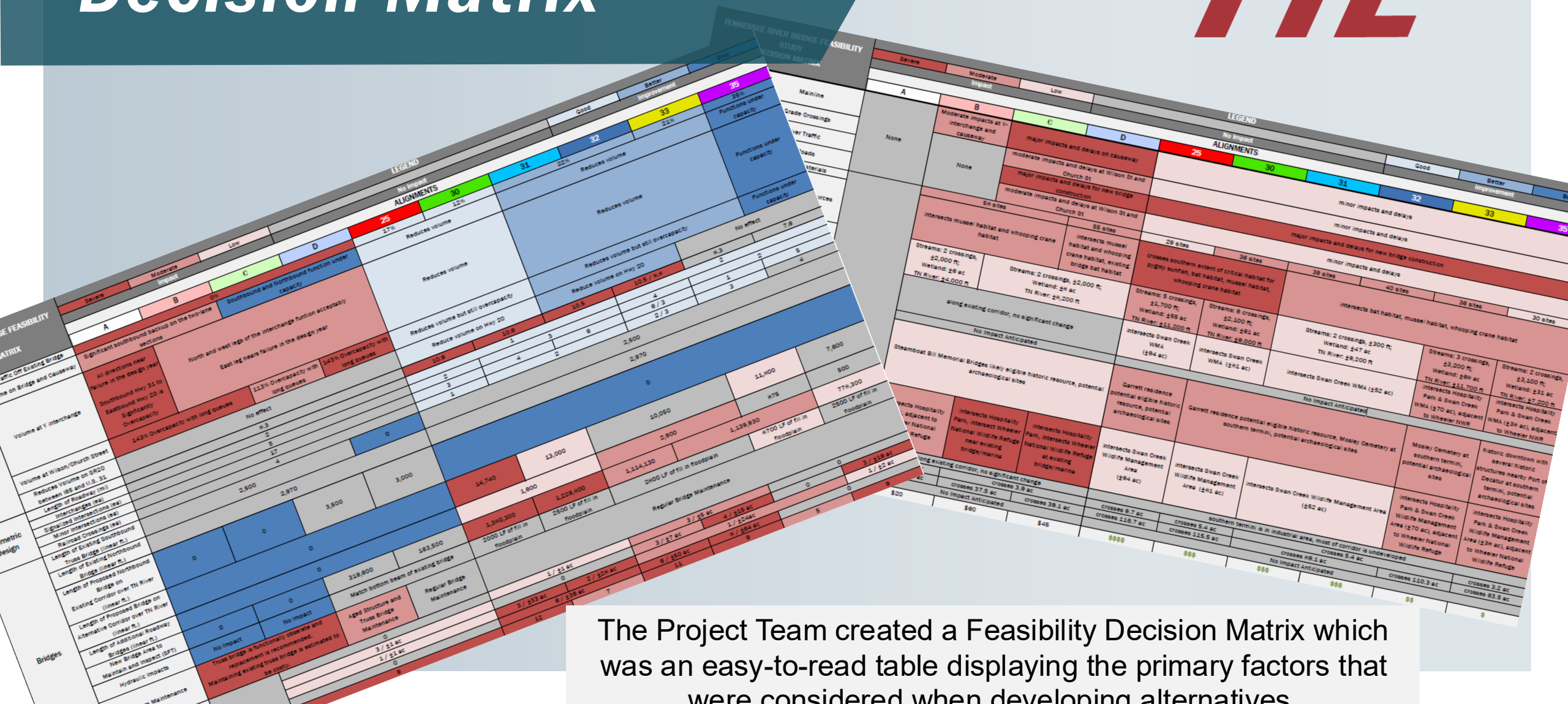
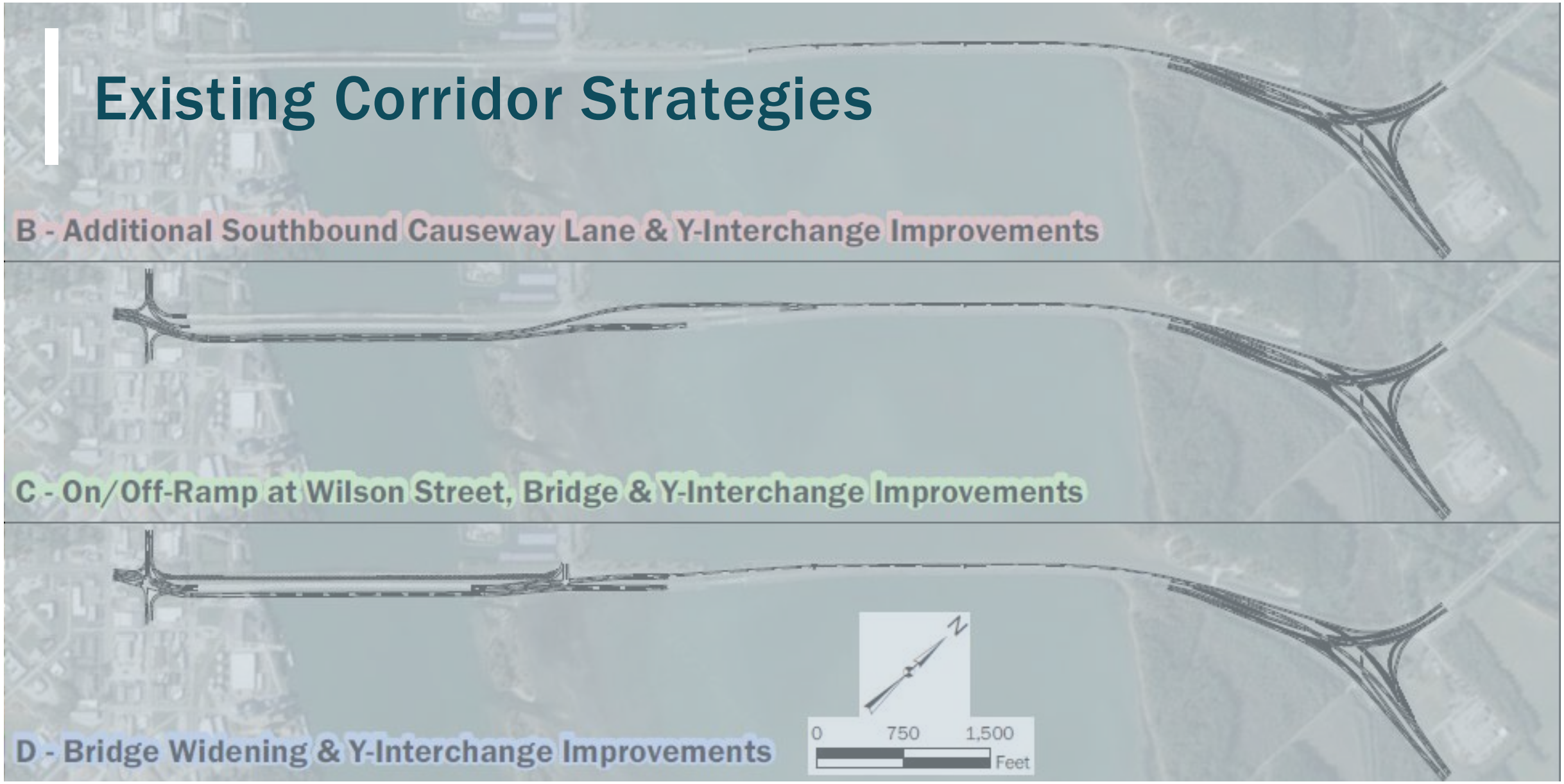
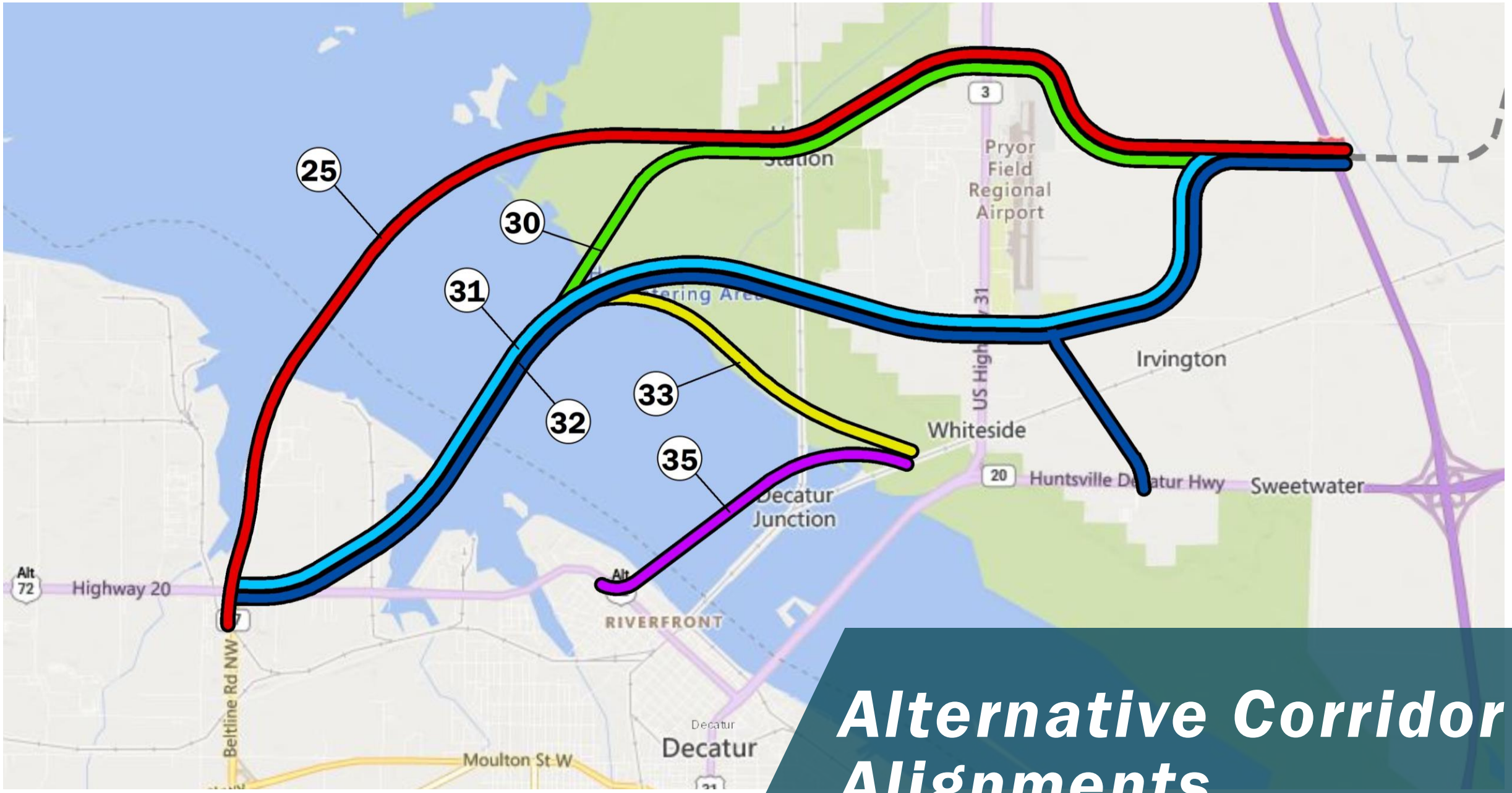


The Project Team created a Feasibility Decision Matrix which was an easy-to-read table displaying the primary factors that were considered when developing alternatives.

Existing Corridor Strategies





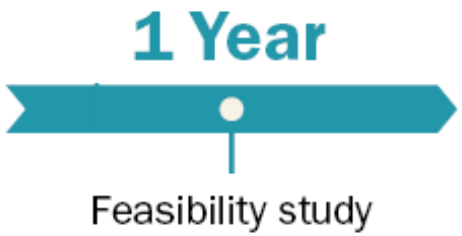
Alternative Corridor Alignments

Benefits of the PEL Approach…

PEL planning approach facilitated:

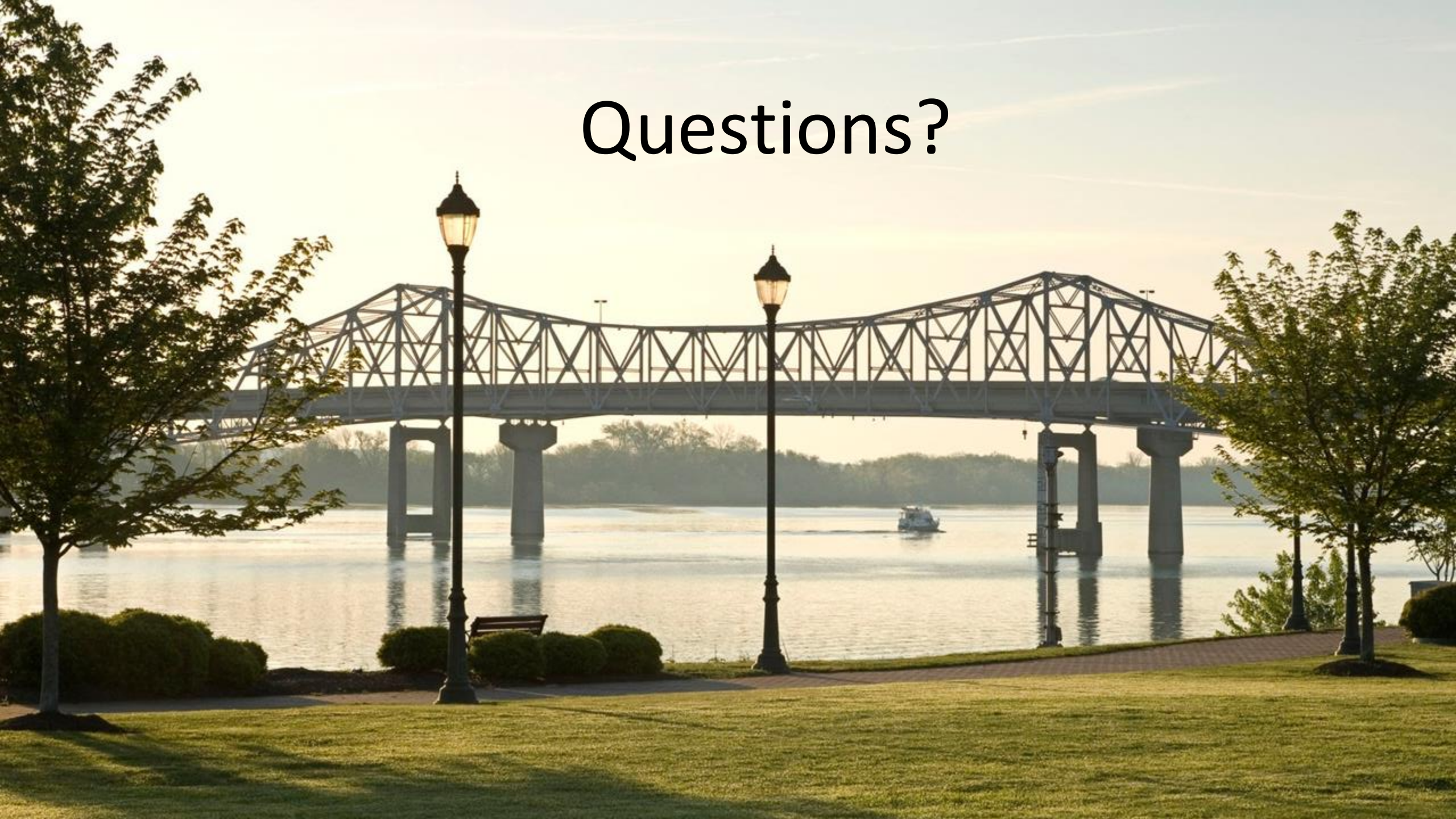
- Agencies' coordination
- Public input
- Establish and maintain rationale and decision documentation
- Planning products:
  - Purpose and need
  - Range of alternatives
  - Eliminate unreasonable alternatives
  - Baseline for the affected environment
- Developing information to facilitate the NEPA process

Typical Federal-aid Project Schedule



Summary

- The Decatur traffic congestion occurs frequently and is getting worse
- Addressing predictable congestion is needed to maintain regional connectivity between the Decatur MSA and the Huntsville MSA
- An additional bridge will provide redundancy for vehicles crossing the Tennessee River
- Input from the agencies and community has been very helpful
- Prepare to meet the challenges from regional growth


Questions?

Thank you!