

STAKEHOLDER MEETING AGENDA

PROJECT: SH-51 Connection to Muskogee Turnpike, Wagoner Co.

Meeting Agenda

PROJECT NUMBER:	DESCRIPTION:	DATE:
J/P 33806(04); EC-2197	Stakeholder Meeting	April 9, 2021

- Introductions
- Present PowerPoint for Project
 - a. Purpose of Meeting
 - b. Purpose of Project
 - c. Existing Roadway
 - d. Options for Consideration
 - e. Considerations to be Discussed
 - i. Traffic Safety & Operations
 - ii. Constructability
 - iii. Construction Time
 - iv. R/W Impacts
 - v. Utility Impacts
 - vi. Environmental Constraints
 - vii. Compatibility with Community Development Plans
 - viii. Construction Cost
 - f. Comparison Discussion
 - g. Moving Forward
 - h. Next Steps
 - i. Request Input
- Attendee Questions/Input



OKLAHOMA
Transportation
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Turnpike Authority

**DEPARTMENT OF
TRANSPORTATION**

TURNPIKE AUTHORITY

SH-51 Connection with Muskogee Turnpike (SH-351)

JP 33806(04)

Wagoner County, Oklahoma

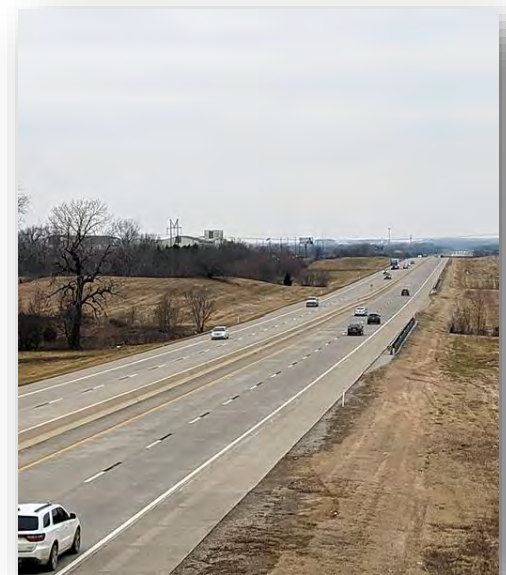
Purpose of Meeting

To present the findings of the preliminary alternative evaluation to connect SH-51 with the Muskogee Turnpike (SH-351)



Purpose of the Project

- The purpose and need for this project is to connect the Muskogee Turnpike (SH-351) to SH-51 in the Broken Arrow and Coweta area
 - Consistent with Long Range Plans for area
 - Provide interchange that best serves the needs of the traveling public while minimizing impacts
 - Provide capacity for connecting local road network



Existing Roadway System

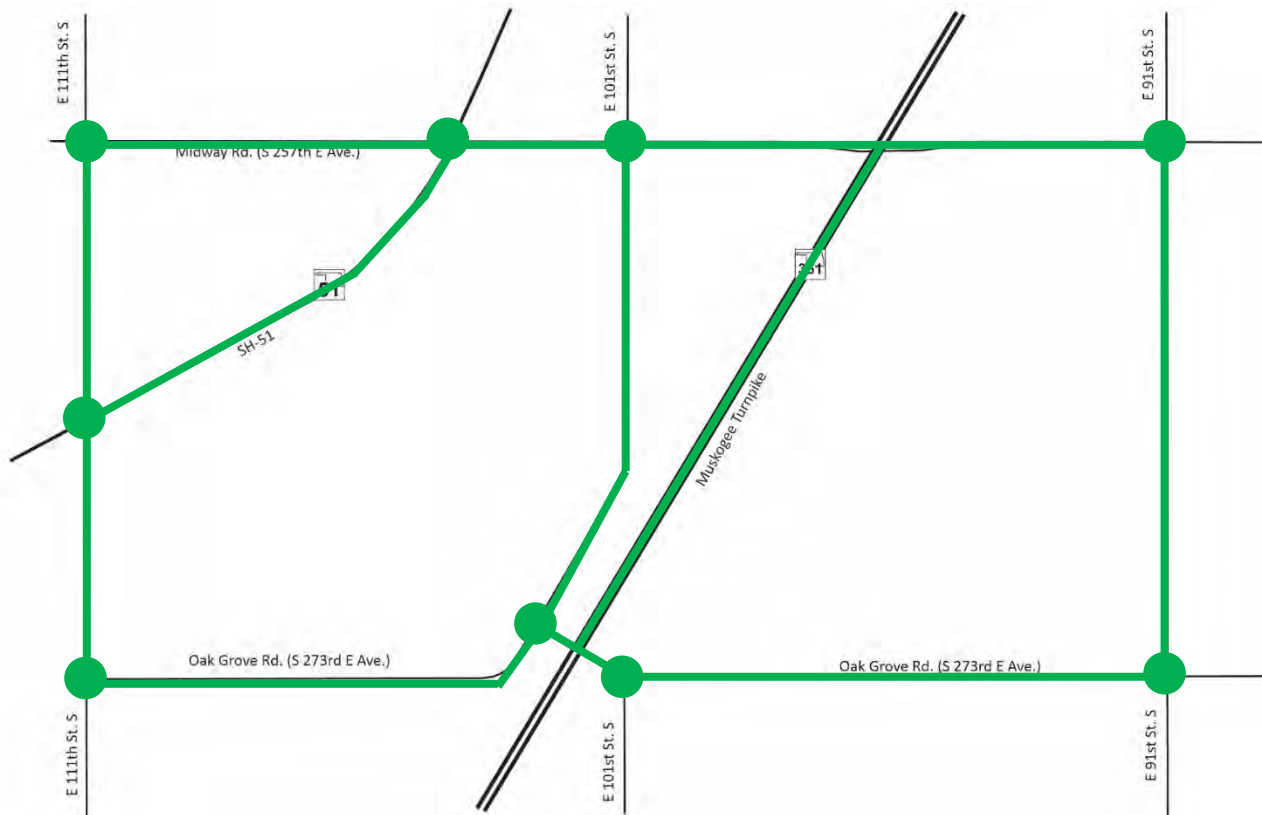
□ Intersections



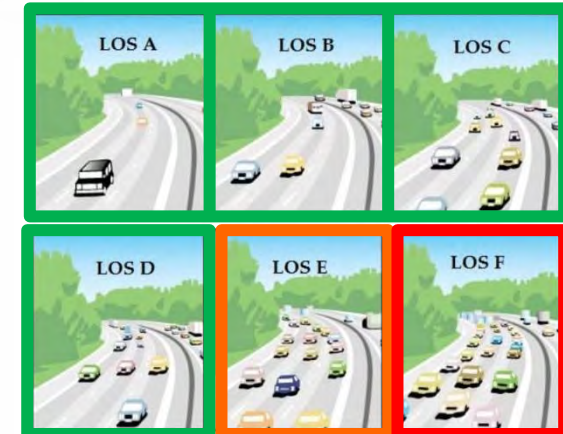
Existing Roadway System

□ Level of Service

- Qualitative measure of capacity and operating conditions, directly related to vehicle delay



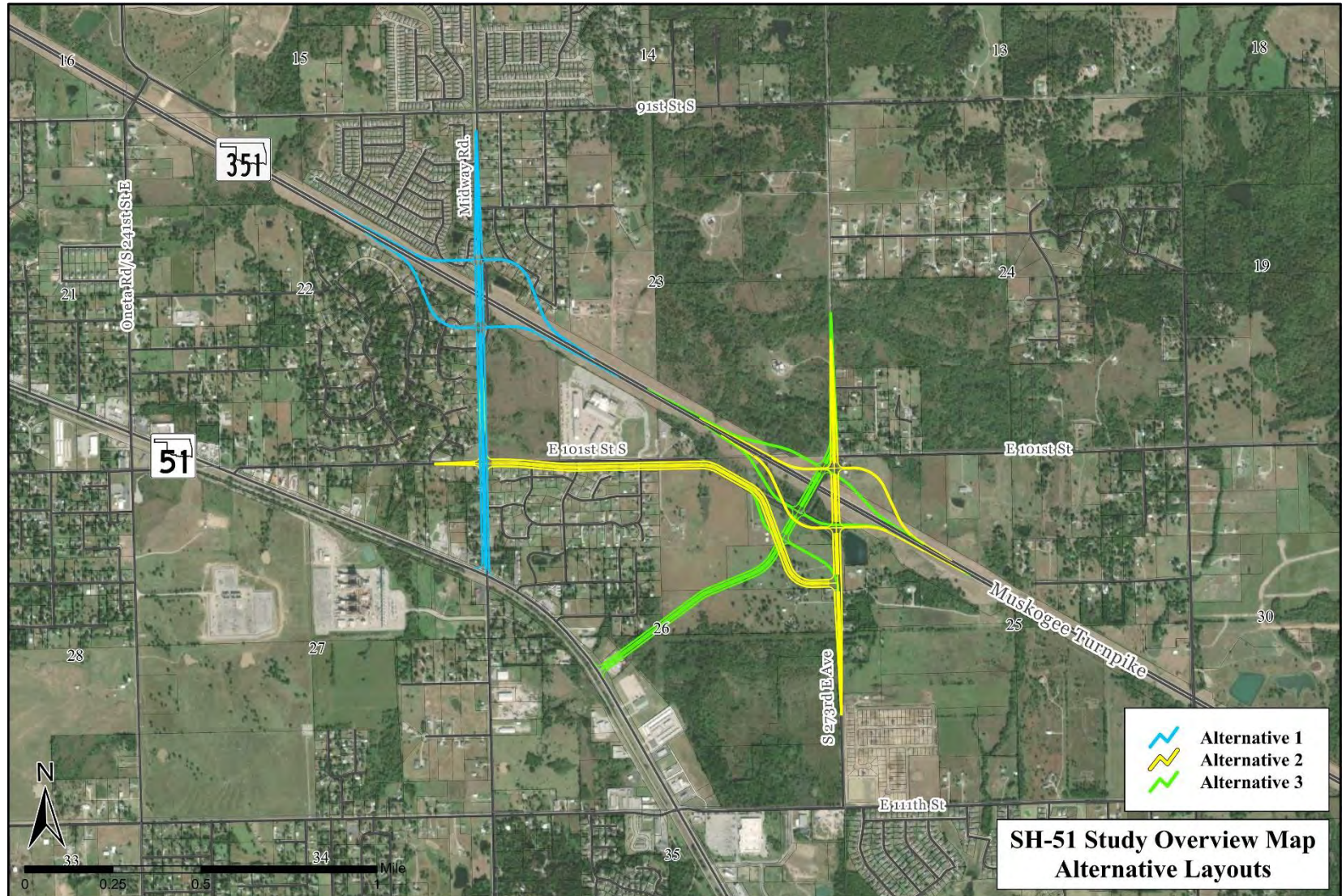
LEGEND



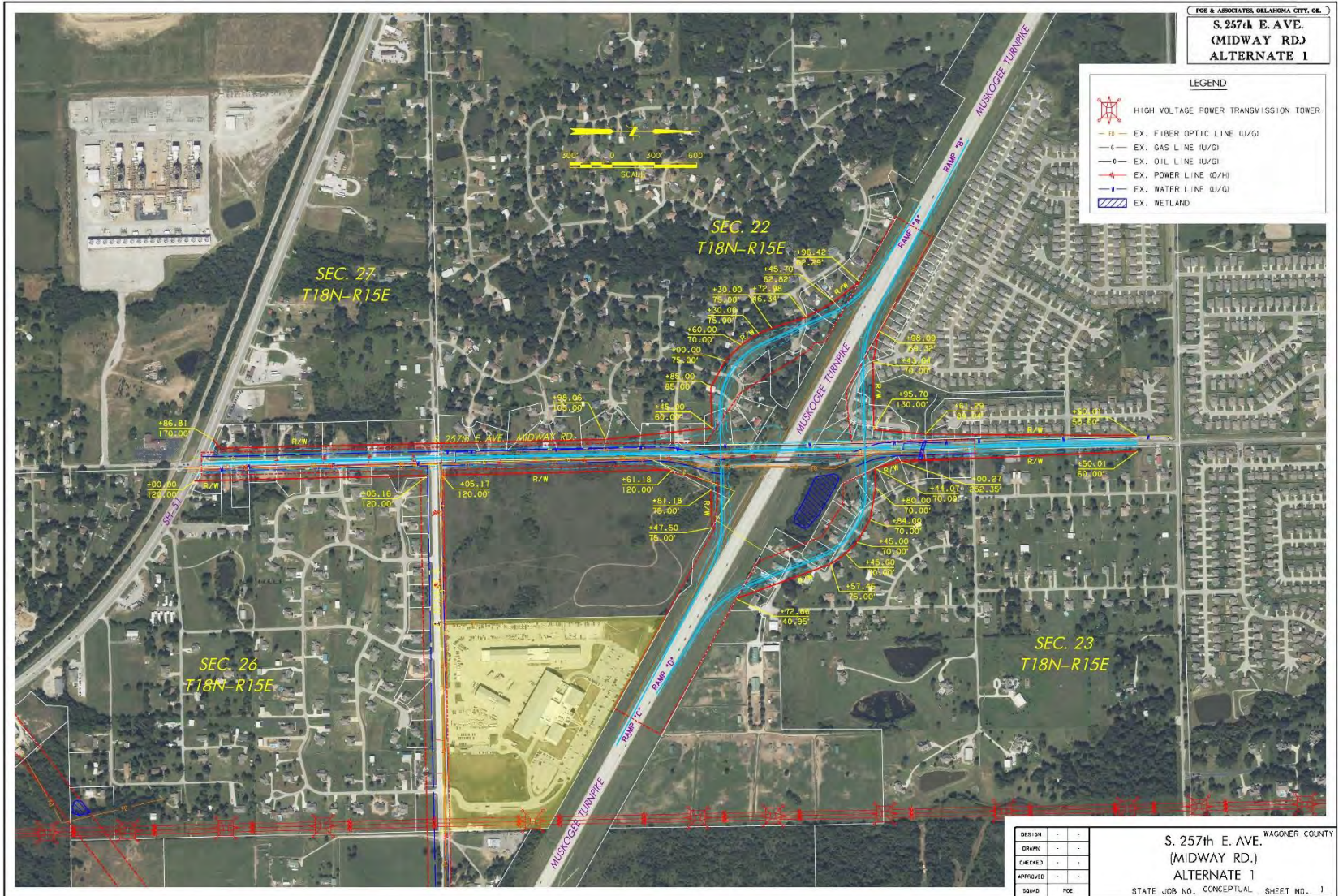
Design Options being Considered

- Alternative 1 – Midway
 - ▣ Turnpike interchange located at Midway
 - ▣ Ramps accomplish all four directional movements
 - ▣ Improvements on Midway to provide 4 lane divided connection from SH-51 to Muskogee Turnpike (SH-351)
- Alternative 2 – S 273rd E. Option 1
 - ▣ Turnpike interchange located at S. 273rd
 - ▣ New bridge located in line with section line
 - ▣ Ramps accomplish all four directional movements
 - ▣ Improvements on Midway and E. 101st to provide 4 lane divided connection from SH-51 to Muskogee Turnpike (SH-351)
- Alternative 3 – S 273rd E. Option 2
 - ▣ Turnpike interchange located at S. 273rd
 - ▣ New bridge located very near current location
 - ▣ Ramps accomplish all four directional movements
 - ▣ New connection on virgin alignment to provide 4 lane divided connection from SH-51 to Muskogee Turnpike (SH-351)

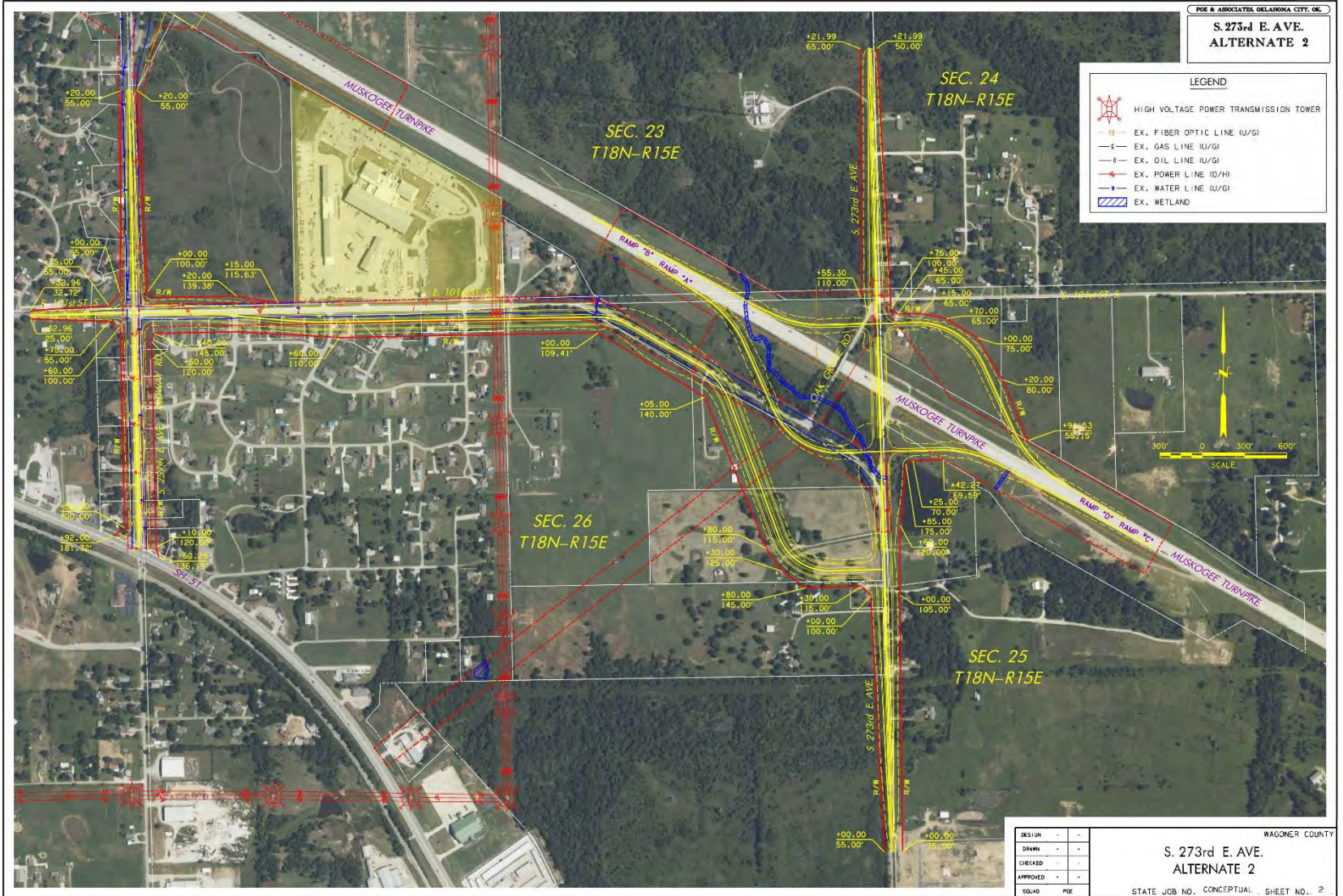
Design Options being Considered



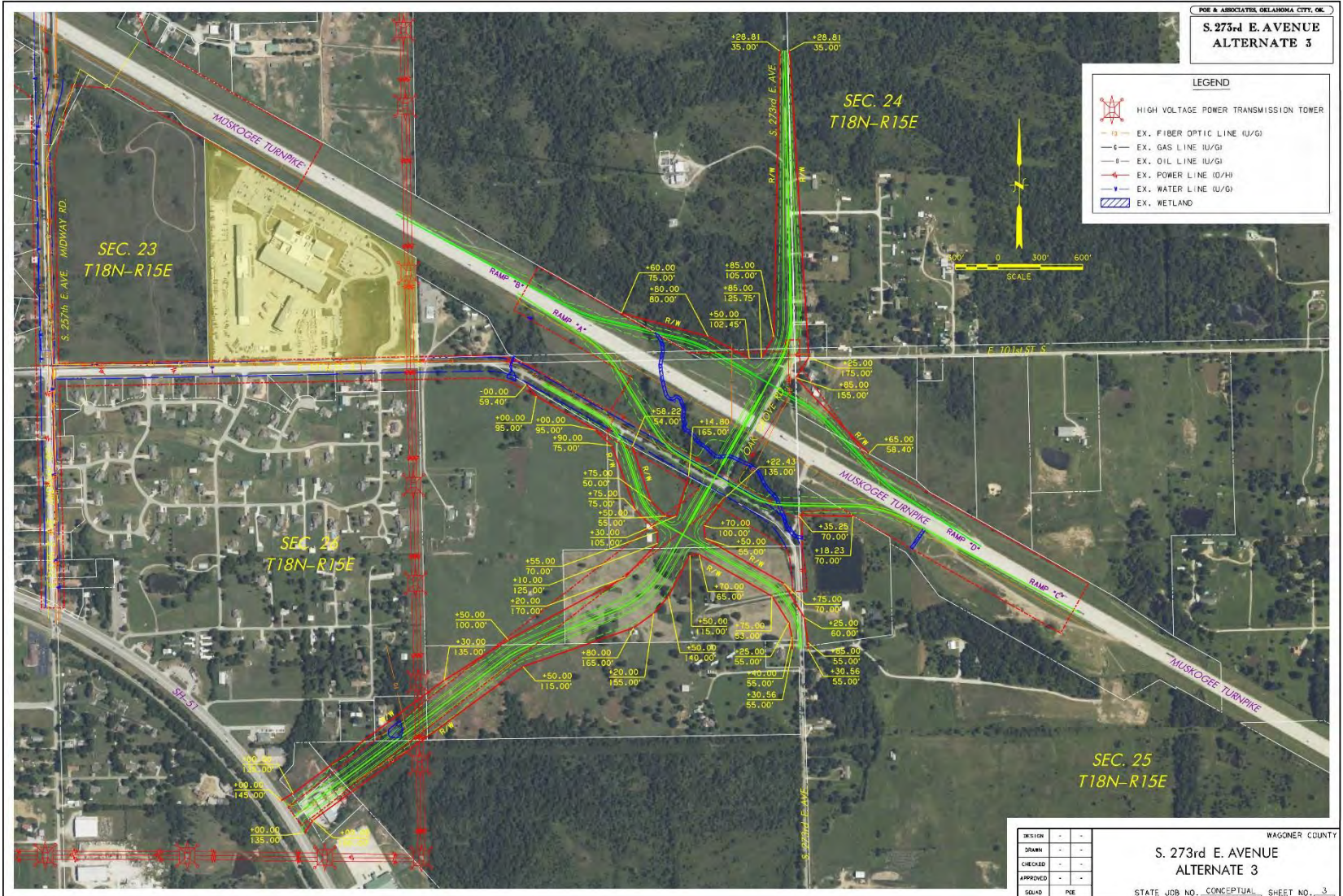
Alternative 1 - Midway



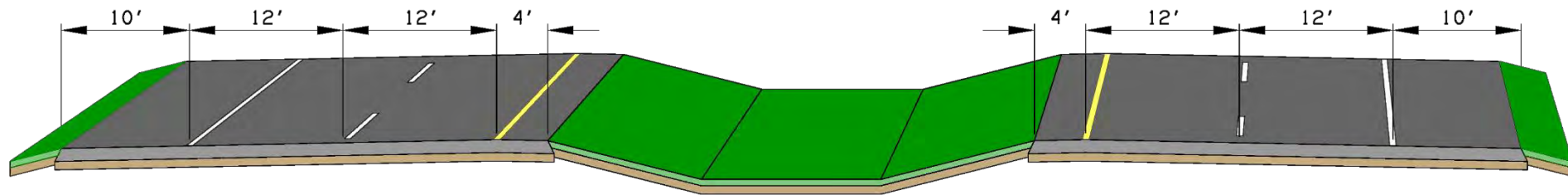
Alternative 2 – S. 273rd E. Option 1



Alternative 3 – S. 273rd E. Option 2



Typical Connector Roadway



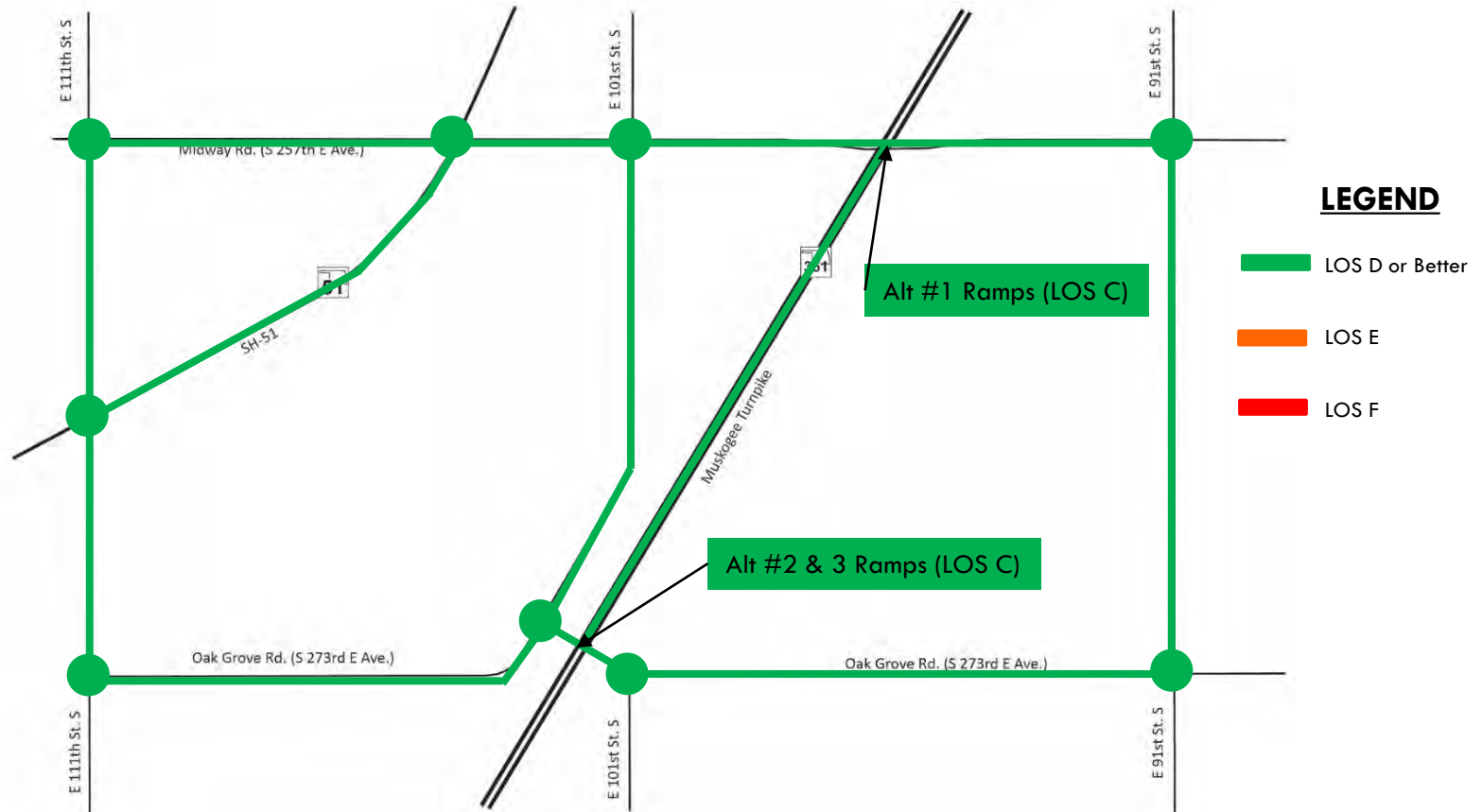
Considerations to be Discussed

- ❑ Traffic Safety & Operations
- ❑ Constructability
- ❑ Construction Time
- ❑ Right-of-Way Impacts
- ❑ Utility Impacts
- ❑ Environmental Constraints
- ❑ Compatibility with Community Development Plans
- ❑ Construction Cost



Future Roadway System

- Year 2045 Level of Service
 - ▣ LOS D or better for all alternatives



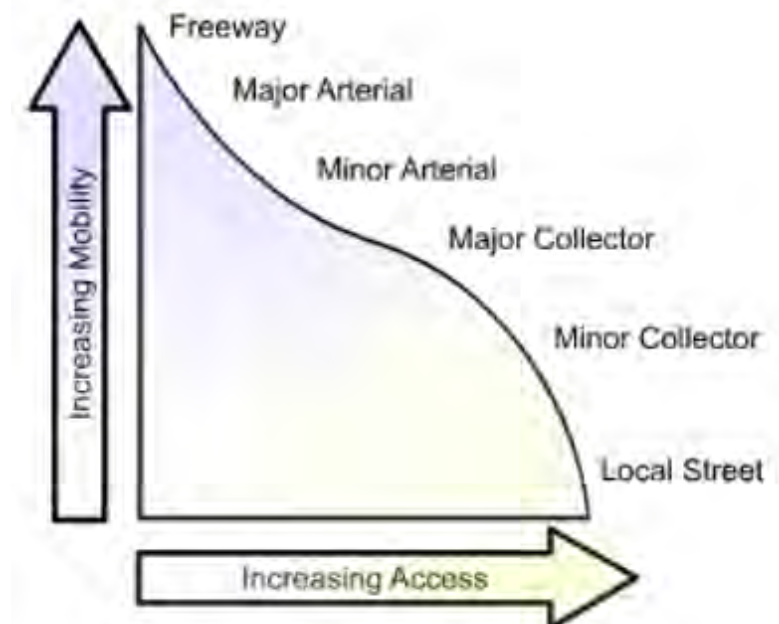
Future Roadway System

- Traffic Safety & Operations Comparison
 - ▣ All alternatives are predicted to accommodate future traffic volumes with similar results



Future Roadway System

- Access Review
 - ▣ Access spacing
 - ▣ Turn lanes
 - ▣ Median treatments
 - ▣ Right-of-way management



Future Roadway System



- Access Management
 - Prohibit new driveways or roadways near interchange
 - Provide dedicated left-turn lanes to entrance ramps
 - Provide dedicated left- or right-turn lanes on exit ramps
 - Develop access management guidelines for future developments

Considerations Reviewed – *Constructability*

- Each Design Alternative Has -
 - Local Access Facility over Turnpike
 - All 4 Movements are Addressed with Each Alternative

Alternate	Location	Total Rank
Alternate 1	Midway	
Alternate 2	S 273rd Option 1	
Alternate 3	S 273rd Option 2	



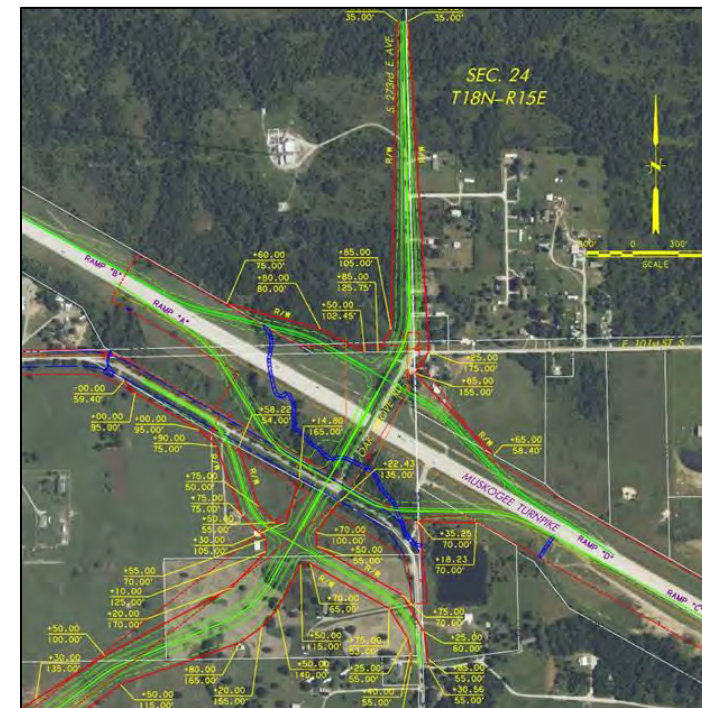
Considerations Reviewed – *Constructability*

- Alternative 2 – S. 273rd E. Option 1
 - New 273rd bridge alignment
 - Most easily constructed while maintaining traffic
 - Because of an offset alignment
 - Turnpike closure necessary for bridge demolition
 - Temporary closures and rolling roadblocks for bridge construction



Considerations Reviewed – *Constructability*

- Alternative 3 – S. 273rd E. Option 2
 - New 273rd bridge in close proximity to existing 273rd bridge alignment
 - Requires closure of 273rd during construction
 - Phased construction of half of the bridge at a time
 - Would allow single lane traffic
 - Turnpike closure necessary for bridge demolition
 - Temporary closures and rolling roadblocks for bridge construction



Considerations Reviewed – *Construction Time*

- Alternative 1 – Midway
 - 375 calendar days (bridge constructed half at a time)
- Alternative 2 – S. 273rd E. Option 1
 - 465 calendar days
- Alternative 3 – S. 273rd E. Option 2
 - 340 calendar days

Alternate	Location	Construction Days	Total Rank
Alternate 1	Midway	375	
Alternate 2	S 273rd Option 1	465	
Alternate 3	S 273rd Option 2	340	

Considerations Reviewed – *Right-of-Way Impacts*

- This information is still being developed & numbers are approximate
 - Alternative 1 – Midway
 - Approx. 135 parcels to be acquired, 2 Muscogee (Creek) Nation properties, with 1 potential wetland
 - Significantly high costs
 - 69 relocations estimated
 - Alternative 2 – S. 273rd E. Option 1
 - Approx. 80 parcels to be acquired, with 1 potential wetland
 - High cost
 - 37 relocations estimated
 - Alternative 3 – S. 273rd E. Option 2
 - Approx. 26 parcels to be acquired, with 1 potential wetland
 - Low cost
 - 6 relocations estimated

Alternate	Location	Number of Parcels	Total Rank
Alternate 1	Midway	135	
Alternate 2	S 273rd Option 1	80	
Alternate 3	S 273rd Option 2	26	

Considerations Reviewed – *Utility Impacts*

- Alternative 1 – Midway
 - ▣ Substantial impacts on both sides of roadway
 - ▣ \$4.7 Million
- Alternative 2 – S. 273rd E. Option 1
 - ▣ Impacts on part of Midway & part of 101st will be substantial
 - ▣ \$2.6 Million
- Alternative 3 – S. 273rd E. Option 2
 - ▣ Avoids large transmission line poles
 - ▣ Relatively minor utility impacts for crossing
 - ▣ No parallel utility impacts identified
 - ▣ \$300,000

Alternate	Location	Number of Utility Impacts	Total Rank
Alternate 1	Midway	9	
Alternate 2	S 273rd Option 1	9	
Alternate 3	S 273rd Option 2	5	

Considerations Reviewed – *Environmental Constraints*

- Known environmental constraints were gathered using available “desktop” data from Local, State and Federal Agencies.
- Once a preferred alignment is selected, detailed environmental studies will be completed and the appropriate regulatory agencies will be contacted.



Considerations Reviewed – *Traffic Noise*

- Alternative 1 - Midway
 - The land surrounding the Alternative 1 project action area is mainly composed of high-density residential subdivisions.
 - The Alternative 1 potential noise-impact area includes an estimated ninety-two (92) single-family homes; therefore, it is likely to result in the greatest impacts on noise sensitive properties.



Considerations Reviewed – *Traffic Noise*

- Alternative 2 – S. 273rd E. Option 1
 - The land surrounding the Alternative 2 project action area is mainly composed of rangeland and woodland with residential properties interspersed
 - The Alternative 2 potential noise impact area includes an estimated four (4) single-family homes; therefore, it is likely to result in the least impacts on noise-sensitive properties



Considerations Reviewed – *Traffic Noise*

- Alternative 3 – S. 273rd E. Option 2
 - The land surrounding the Alternative 3 project action area is mainly composed of rangeland and woodland with residential properties interspersed and commercial properties and places of worship. The Alternative 3 potential noise-impact area includes an estimated ten (10) single-family homes.



Considerations Reviewed – *Environmental Constraints / Considerations*

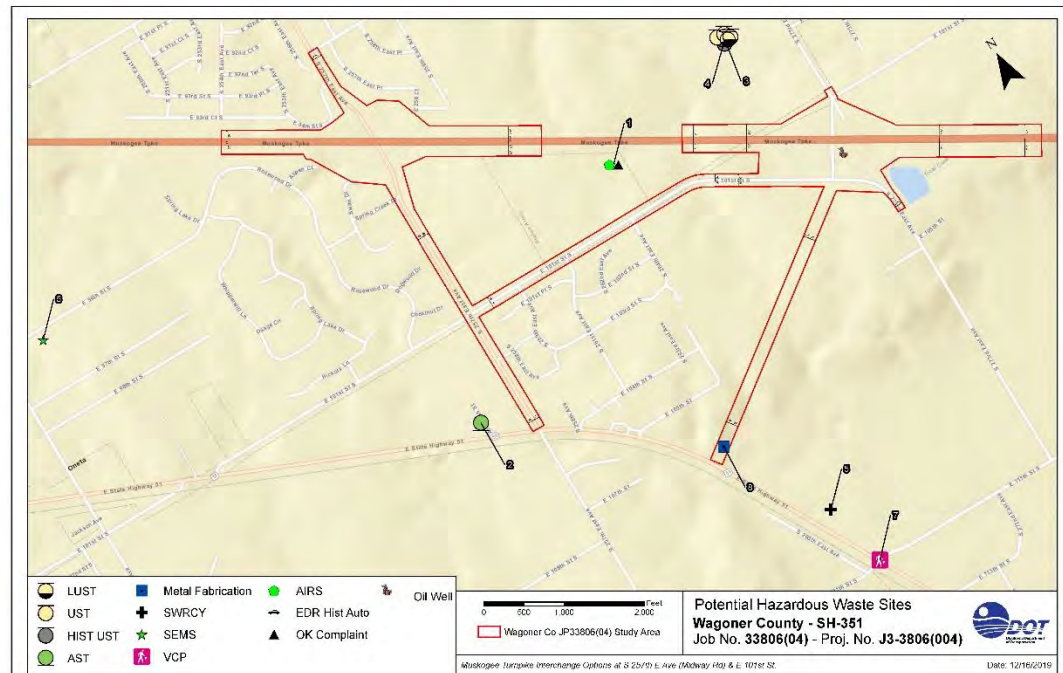
- Cultural Resources (Historic and Archeological) – Regarding All 3 Alternatives
 - No eligible National Register of Historic Places (NRHP) structures or properties
 - No previously listed NRHP properties
 - No known archaeological sites
 - No cemeteries



Considerations Reviewed – *Environmental Constraints / Considerations*

- Hazardous Waste and Petroleum Storage Tank Facilities
 - No above ground storage tank (AST), underground storage tank (UST), or leaking underground storage tank (LUST) sites
 - One - oil well located near Turnpike Authority right-of-way
 - One - Permitted AIRS facility & OK Complaint site located within ¼ mile of the project area
 - One - Superfund Enterprise Management System site located within ½ mile of the project area.

Alternative 1 has the least potential impacts, while alternative 2 and 3 have similar potential impacts.



Considerations Reviewed – *Environmental Constraints / Considerations*

- Threatened and Endangered Species – All 3 Alternatives
 - American Burying Beetle (ABB) (Endangered)*
 - Interior Least Turn (Endangered)
 - Piping Plover (Threatened)
 - Red Knot (Threatened)
 - Gray Bat (Endangered)*
 - Northern Long-Eared Bat (Threatened)*
 - Whooping Crane (Endangered)
 - Neosho Mucket (Endangered)
 - Rabbitsfoot (Threatened)
 - Arkansas River Shiner (Threatened)

Alternative 3 would disturb a significantly greater amount of potential habitat than Alternatives 1 & 2. Most of the land surrounding the Alternative 1 project action area has already been disturbed by residential subdivisions and the existing transportation corridors, and is therefore less likely to impact species of concern.

** Mitigation likely*

Regarding



Considerations Reviewed – *Environmental Constraints / Considerations*

- Jurisdictional Waters and Wetlands
 - Impacts to Waters and Wetlands will be coordinated with the US Army Corps of Engineers.
 - The appropriate Clean Water Act Section 404 permit will be obtained for the project.

The blue line stream impact is similar for Alternatives 2 and 3: approximately 2,164 linear feet of Coal Creek transects the project action area. Alternative 1 would impact one unnamed blue line stream, of which approximately 137 linear feet transect the project action area.



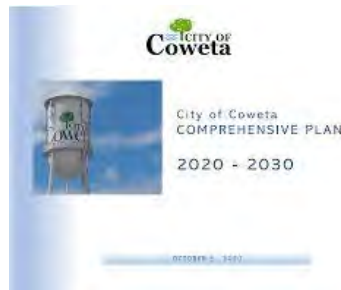
Considerations Reviewed – *Environmental Constraints / Considerations*

- Floodplains – Regarding All 3 Alternatives
 - ▣ The project is not located within a regulatory floodway
- Parks, Recreational Areas, Refuges, and Management Areas – Regarding All 3 Alternatives
 - ▣ None



Considerations Reviewed – *Compatibility with Community Development Plans*

- ❑ Wagoner County: Beginning stages of plan update
- ❑ City of Broken Arrow: Broken Arrow Next Comprehensive Plan (2019)
- ❑ City of Coweta: Coweta 2020-2030 Comprehensive Plan (2020)
- ❑ INCOG: Connected 2045 Regional Transportation Plan (2017)



Alternate	Location	Compatible with Wagoner Co Plan	Compatible with Broken Arrow Plan	Compatible with Coweta Plan	Compatible with INCOG Plan	Total Rank
Alternate 1	Midway	N/A				
Alternate 2	S 273rd Option 1	N/A				
Alternate 3	S 273rd Option 2	N/A				

Considerations Reviewed – *Construction Cost*

- ▣ Alternative 1 – Midway
 - Anticipated cost = \$21,975,494
 - Of this, approx. \$16.9M is attributed to the interchange
- ▣ Alternative 2 – S. 273rd E. Option 1
 - Anticipated cost = \$38,933,415
 - Of this, approx. \$21.1M is attributed to the interchange
- ▣ Alternative 3 – S. 273rd E. Option 2
 - Anticipated cost = \$30,748,022
 - Of this, approx. \$18M is attributed to the interchange

***The above costs do not include r/w,
utility, noise wall, or tolling costs*

Alternate	Location	Construction Cost	Total Rank
Alternate 1	Midway	\$21,975,494	
Alternate 2	S 273rd Option 1	\$38,933,415	
Alternate 3	S 273rd Option 2	\$30,748,022	

Overall Alternative Comparison

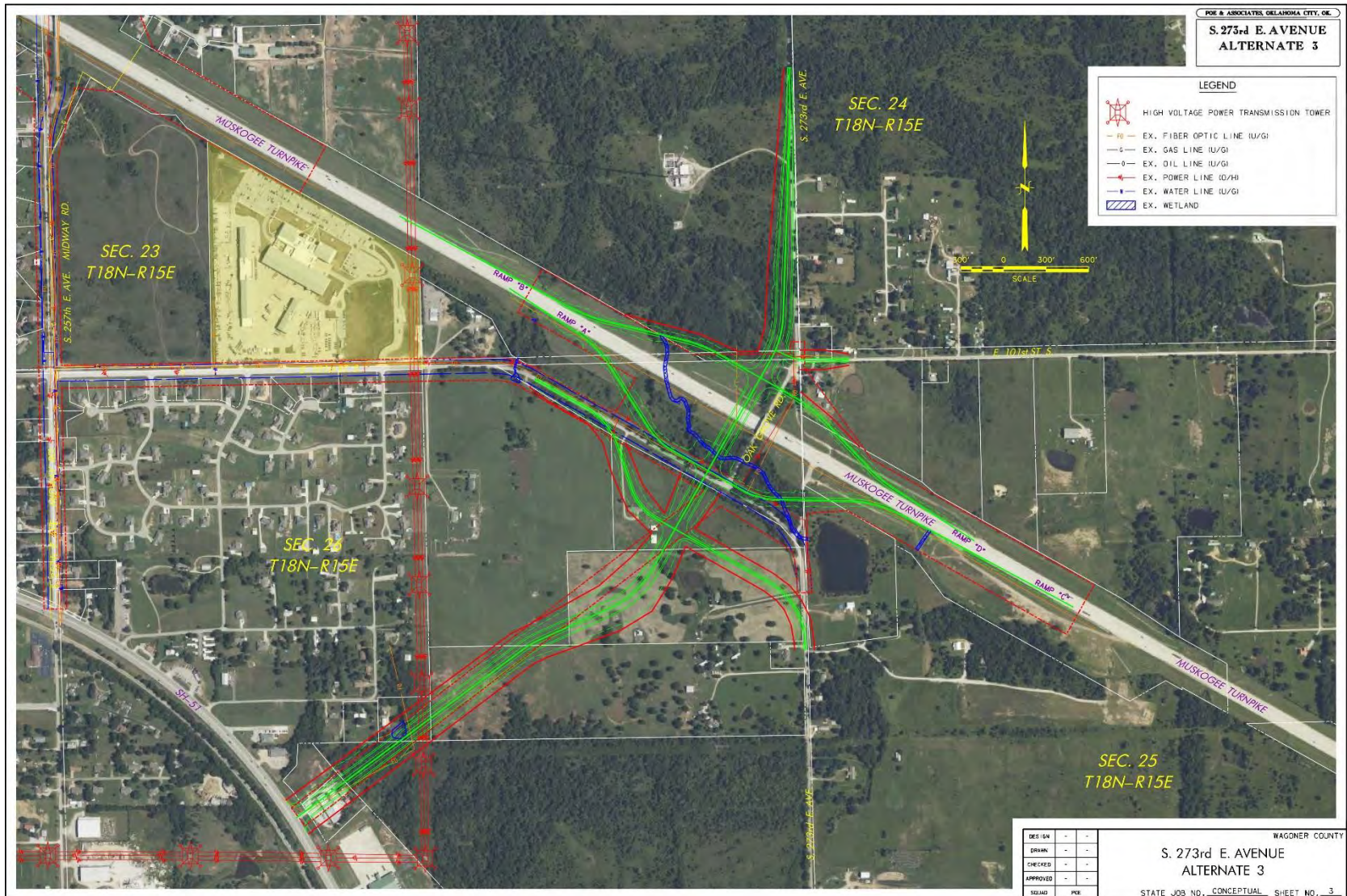
Alternate	Location	Traffic Safety and Operations	Constructability	Construction Time	Right-of-Way	Utilities	Noise	Future Development Compatibility	Natural and Built Env Impacts	Cost	Total Rank
Alternate 1	Midway	2	3	2	3	3	3	3	2	1	
Alternate 2	S 273rd Option 1	1	1	3	2	2	1	2	1	3	
Alternate 3	S 273rd Option 2	1	2	1	1	1	2	1	3	2	



Moving Forward

- Due to the significant impacts of Alternatives 1 and 2, we recommend these alternatives receive no further consideration.
 - ▣ Utility and Right-of-Way Costs
 - ▣ Potential Relocations
 - ▣ Noise Impacts
 - ▣ Community Disruption
- Alternative 3 becomes the preferred alternative.

Refined Alternative 3



Next Steps

- ❑ Accept Input from Stakeholders
- ❑ Address Needed Adjustments
- ❑ Hold Public Meeting
- ❑ Produce Draft Alignment Study Report (if needed)
- ❑ Conduct 2nd Stakeholder Meeting (if needed)
- ❑ Produce Final Alignment Study Report with Recommendations
- ❑ Design Phase
- ❑ OTA has set aside \$7.5 Million for an interchange project



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Thank you for your participation.

Please provide input within 7 days to:

environment@odot.org



Poe & Associates, Inc.
Consulting Engineers