

K-10 Corridor Project

Johnson County Commission

KDOT Job Number: 10-46 KA-6549-01

Publication Number: KA-6949.PR.2023.11

November 9, 2023

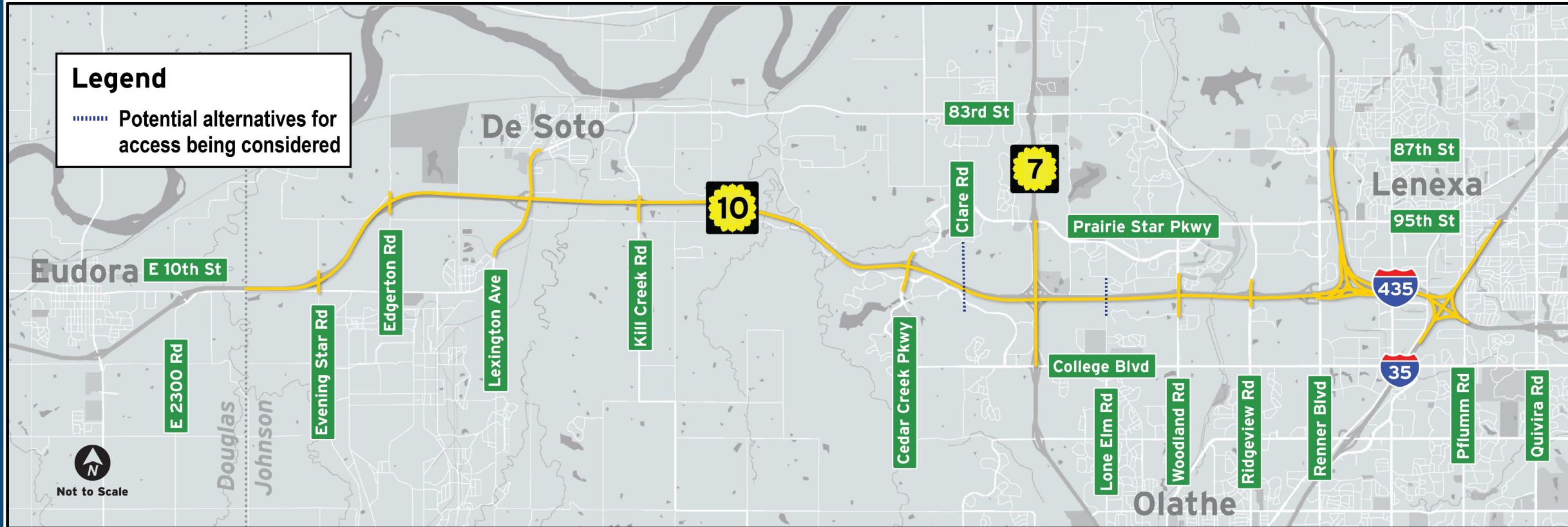
**Thank you for the
opportunity!**

Agenda

- Project Overview
- Project Schedule
- Existing Conditions
- Future Conditions
- Project Purpose & Need
- Ongoing Work
 - Environmental Analysis
 - Traffic Analysis
 - Access Alternatives
- Express Lanes, Community Input, & Approval Process
- Planned Outreach & Public Engagement

Project Overview

Project Area



Previous Studies

May 2005
K-10
Transportation
Study

**November
2006**
K-10
Interchanges
Study


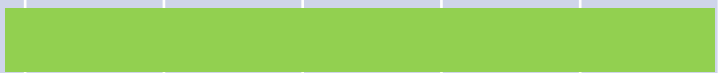


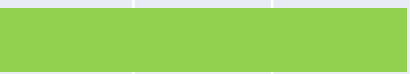




June 2009
K-10/Lone Elm
Road BIA
Report
(City of Lenexa)

May 2011
I-435/I-35/K-10
Interchange
Concept Study

Project Scope – Discovery Phase

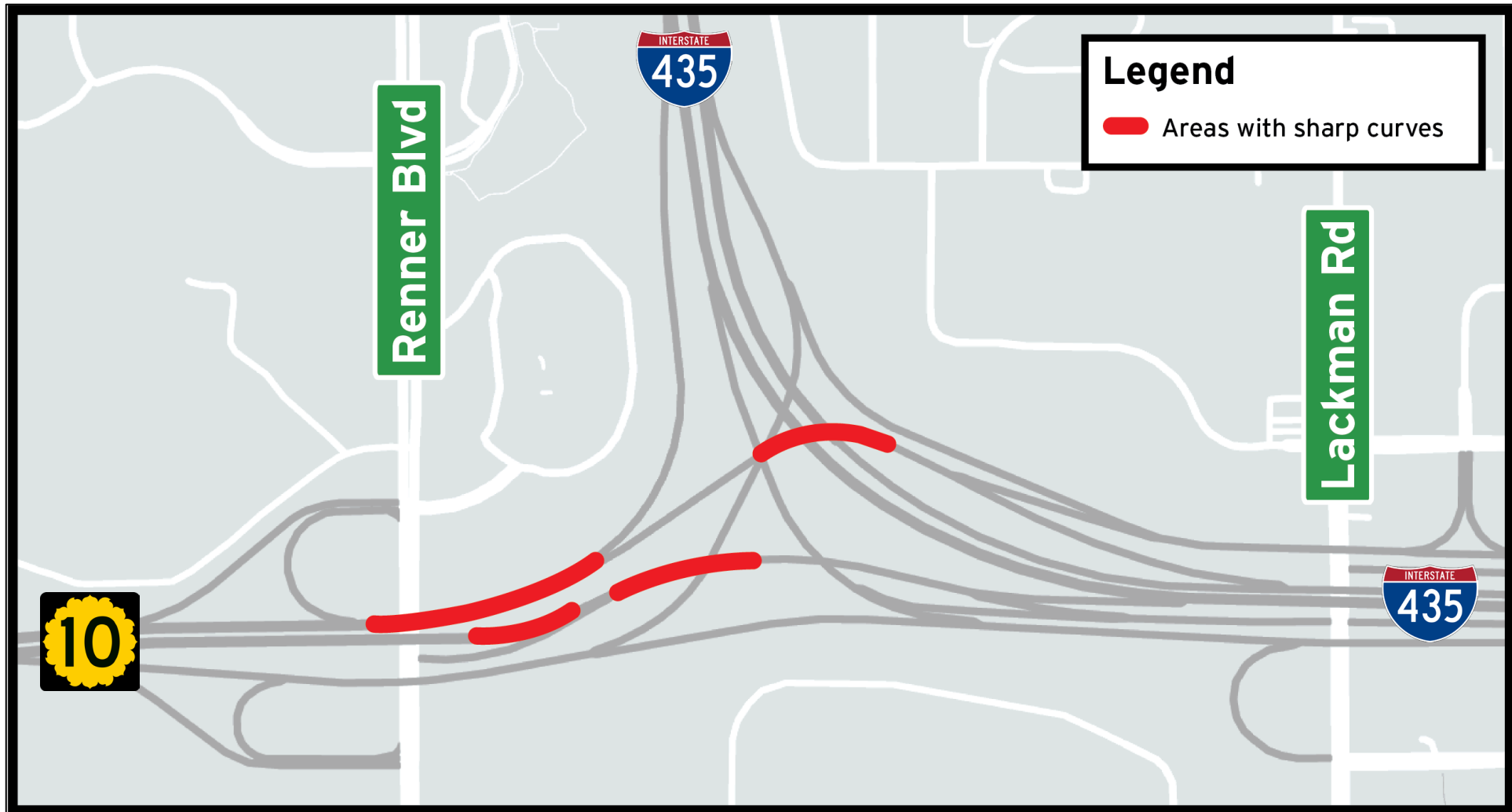
- Identify current and future corridor problems and needs
- Evaluate various improvements alternatives
- Select a Preferred Alternative
- Secure Federal Approvals
 - NEPA (Environmental Assessment)
 - Break-in-Access (Traffic)
- Develop Implementation Plan
 - Near, medium, long-term improvements
 - Delivery model(s) recommendations
 - Proposed schedule

Discovery Phase Schedule

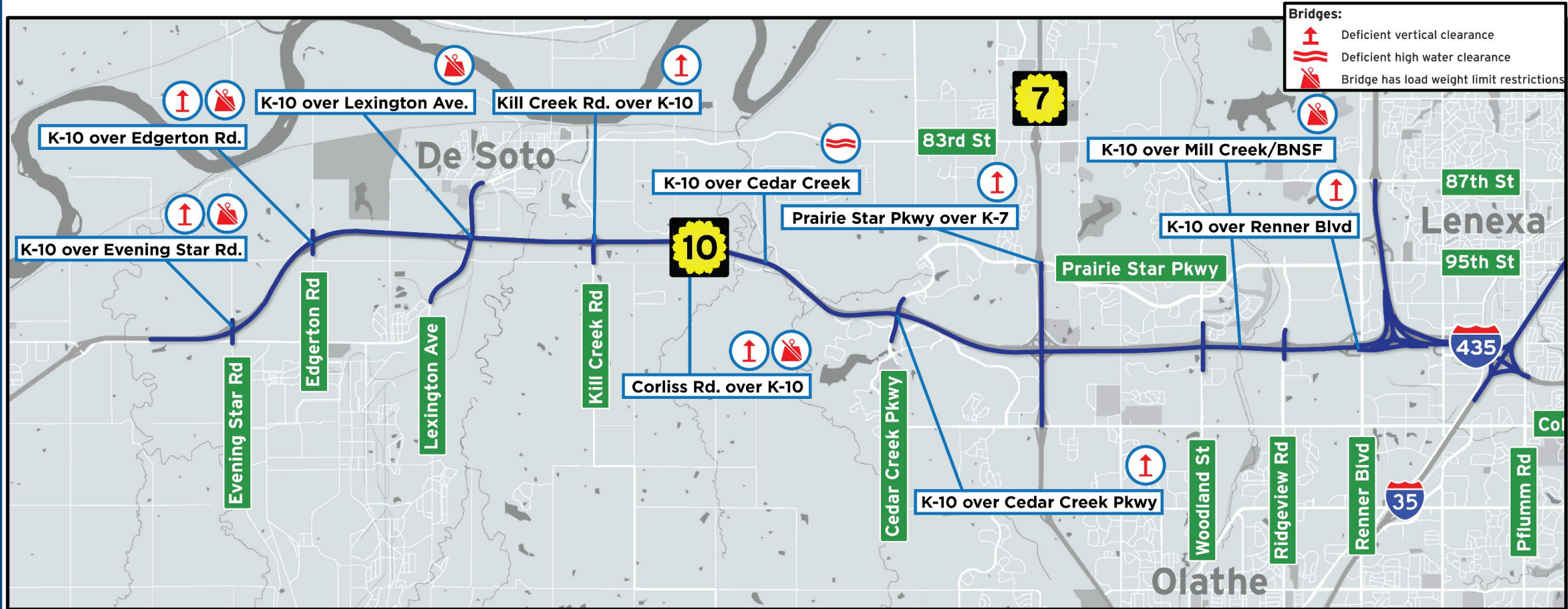
Activity	2022				2023				2024			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Project Initiation												
Survey/Data Collection												
Existing Conditions												
Initial Alternatives Development												
Tolling Studies												
Reasonable Alternatives												
Environmental Analysis/Approval												
Stakeholder/Public Engagement												

Existing & Future Conditions

Existing Conditions Roadway Deficiencies



Existing Conditions Bridge Deficiencies



Existing Conditions Average Daily Traffic (ADT)

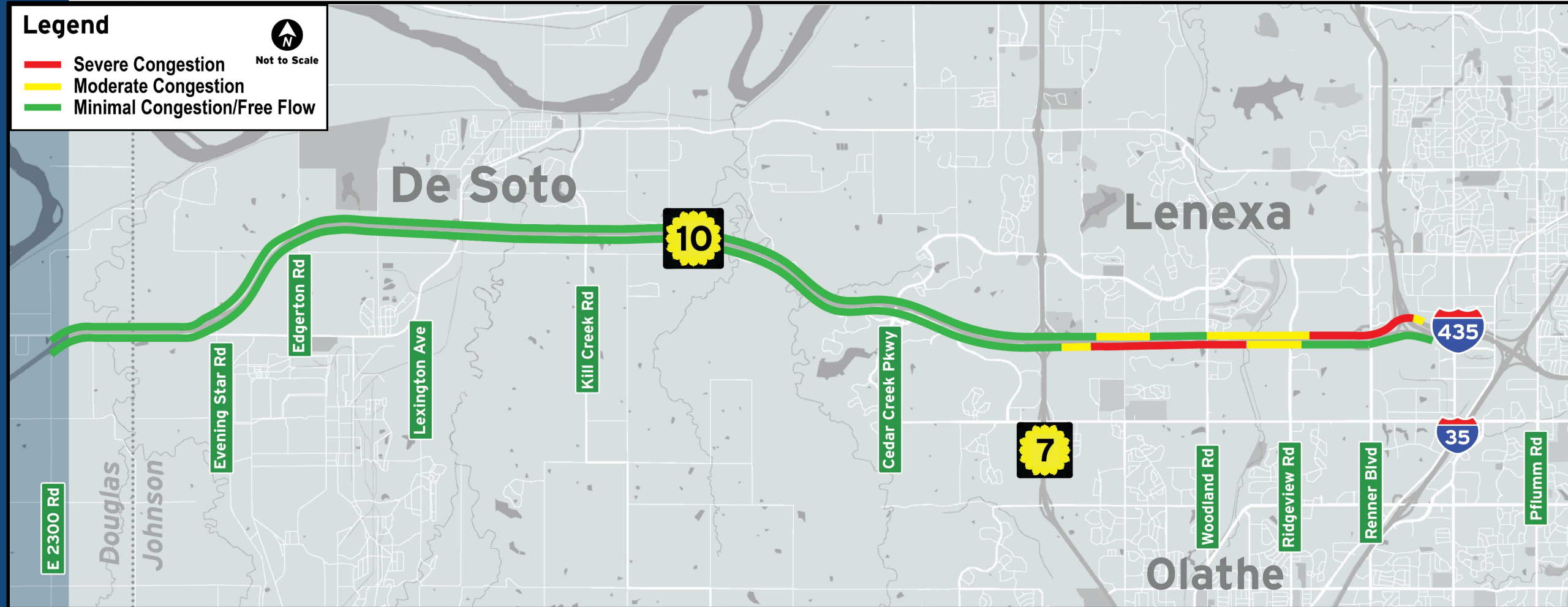


Existing Conditions Areas of Congestion

Legend

- Severe Congestion
- Moderate Congestion
- Minimal Congestion/Free Flow

Not to Scale



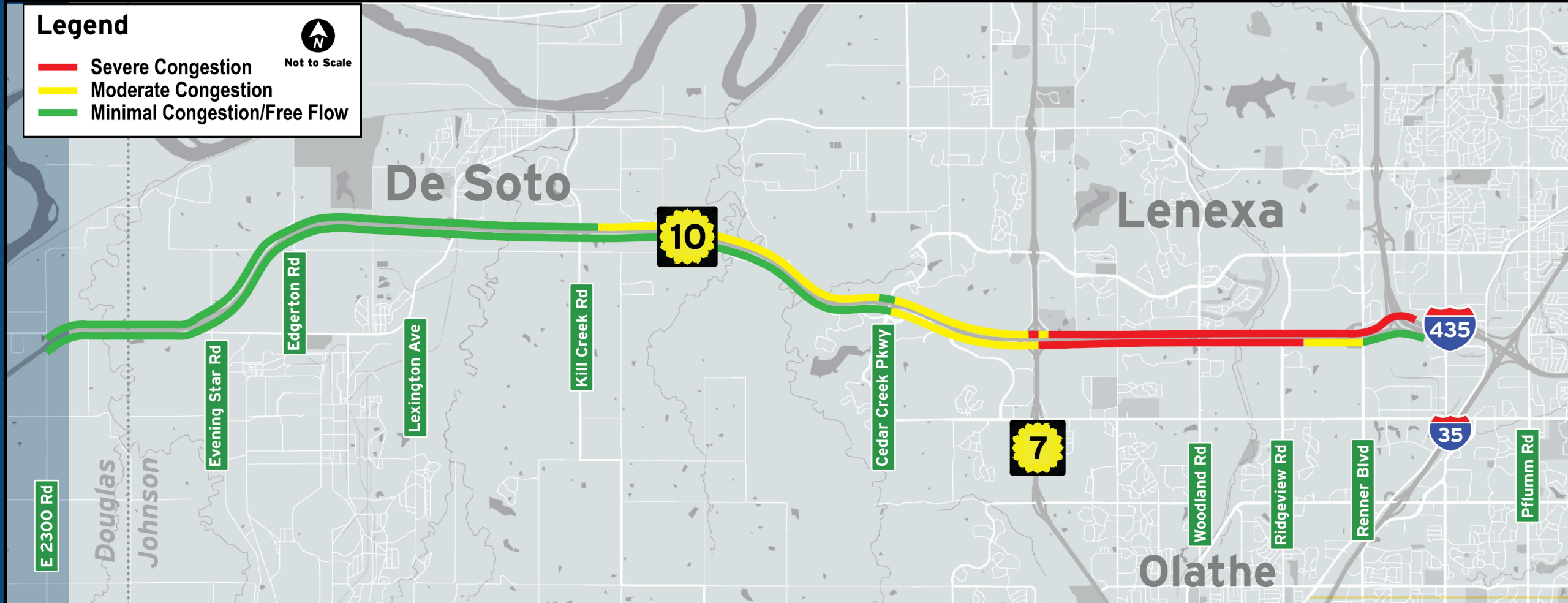
Future 2050 NO-BUILD Conditions Areas of Congestion

Legend

-  Severe Congestion
-  Moderate Congestion
-  Minimal Congestion/Free Flow



Not to Scale



Safety Focus Locations

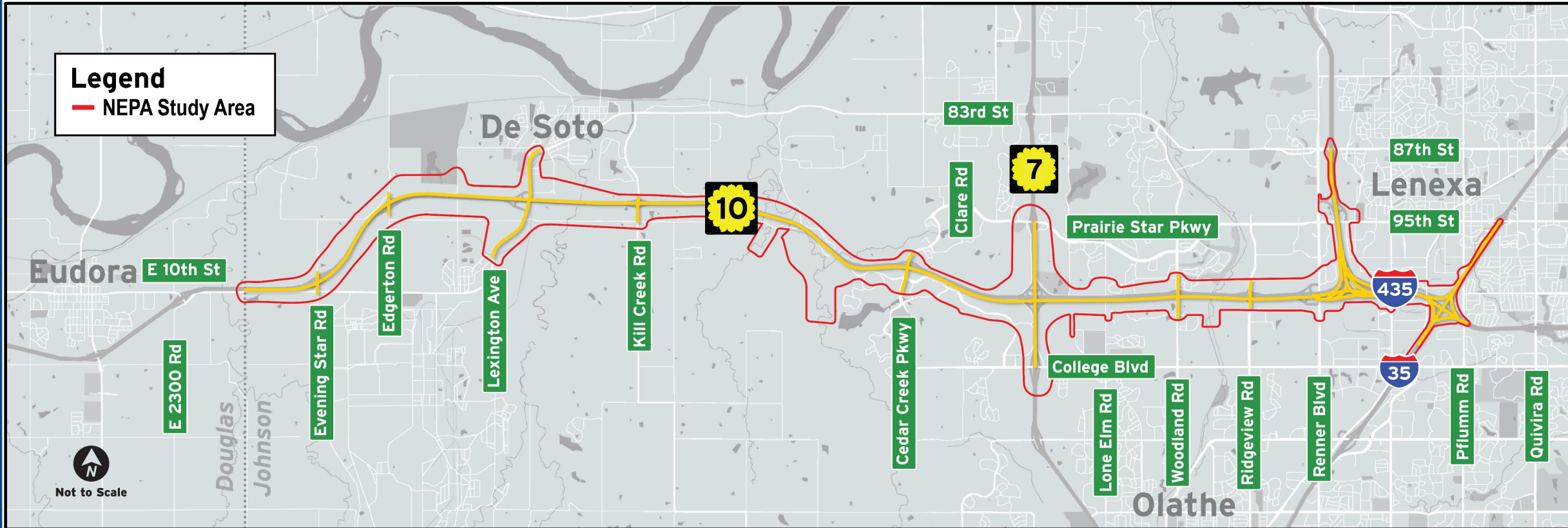


Purpose & Need

- **Enhance safety performance** to address high crash areas and congestion related crashes.
- **Improve traffic operations** by reducing congestion and delay within the corridor to meet existing and future travel demands.
- **Improve infrastructure condition** and address ongoing operations and maintenance needs impacting long-term travel reliability and life-cycle costs.
- **Provide flexible transportation choices** by accommodating the needs of all users and modes.
- **Support** local and regional growth through coordinated transportation improvements consistent with current and future land use.

Ongoing Work

Environmental Assessment Study Area



Environmental Assessment Options for Improving K-10

- No-Build
- Improve Alternate Routes
- Existing Capacity Management
 - Transportation System Management (TSM)
 - Transportation Demand Management (TDM)
- Multimodal
- Add Capacity – Traditional Widening
- Add Capacity – Express Toll Lanes



Environmental Assessment Process

2. ALTERNATIVE DEVELOPMENT AND SCREENING

Late Fall 2023

Which of the ideas for improvements are the most feasible?

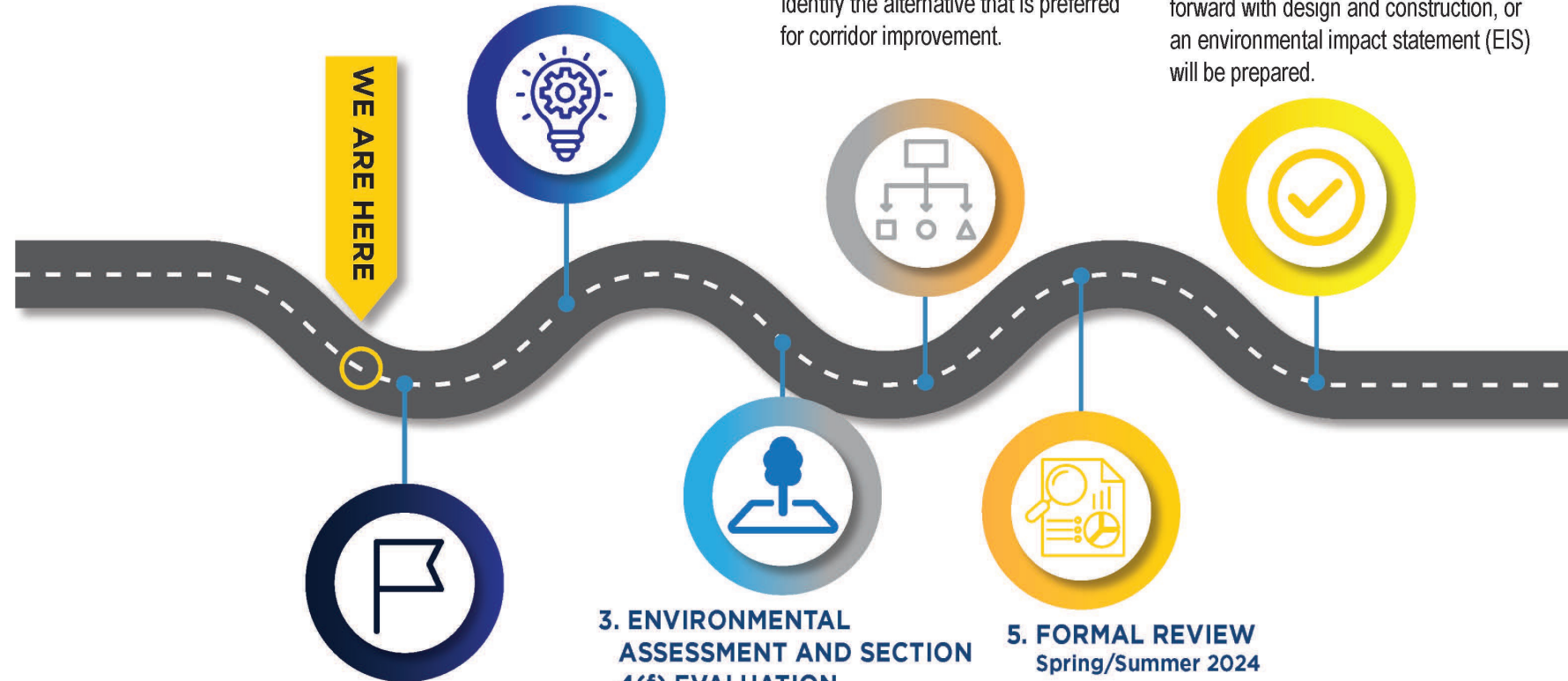
4. PREFERRED ALTERNATIVE

Spring 2024
Identify the alternative that is preferred for corridor improvement.

6. FINALIZE EA AND FHWA DECISION

Fall 2024

The EA is finalized. The FHWA determines if a Finding of No Significant Impact (FONSI) will be granted to move forward with design and construction, or an environmental impact statement (EIS) will be prepared.



1. PURPOSE AND NEED

Fall 2023

Identify purpose, needs and project goals.

3. ENVIRONMENTAL ASSESSMENT AND SECTION 4(f) EVALUATION

Fall/Winter/Spring 2023-2024

What are the social, economic and environmental impacts of the alternatives carried forward?

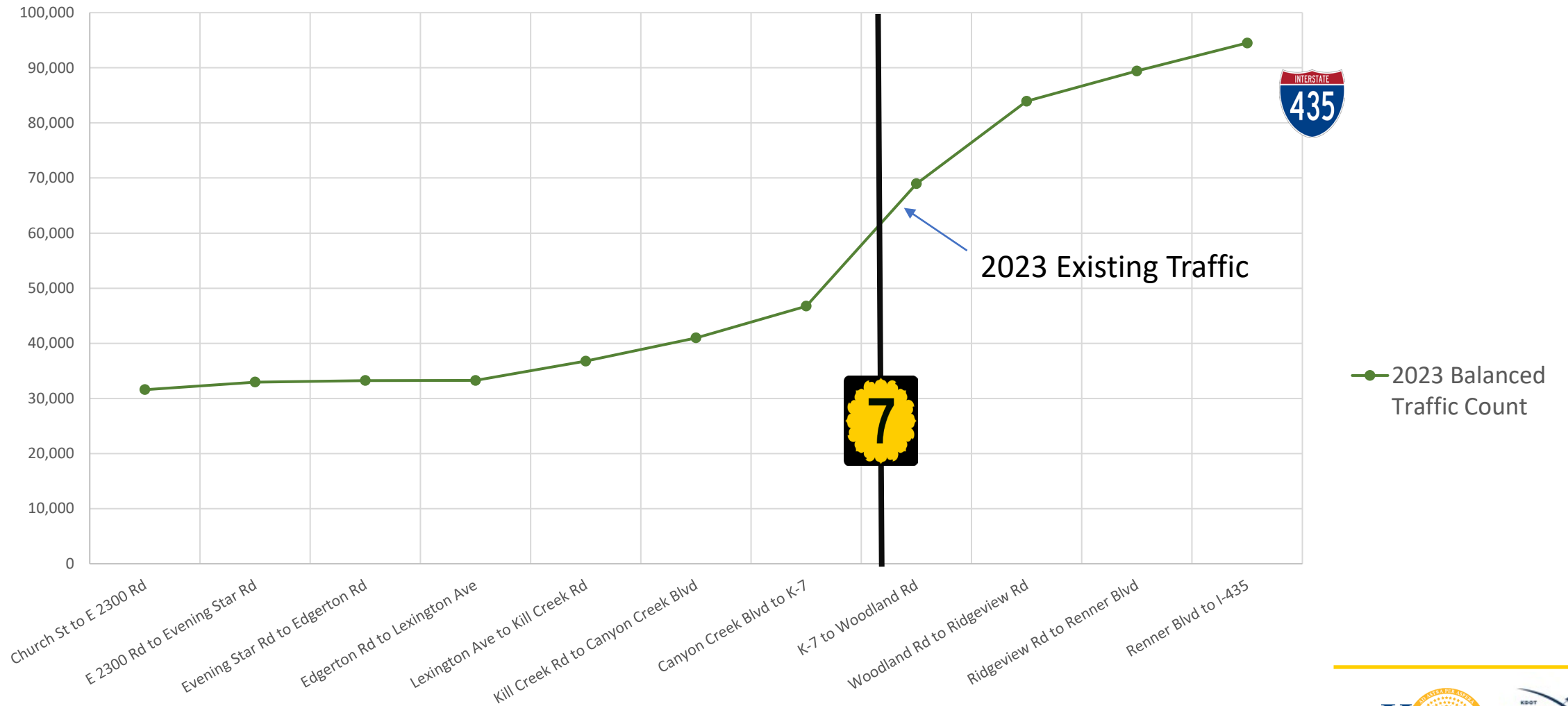
5. FORMAL REVIEW

Spring/Summer 2024

What do the resource agencies and the public think of the proposed solution? Have we missed anything?

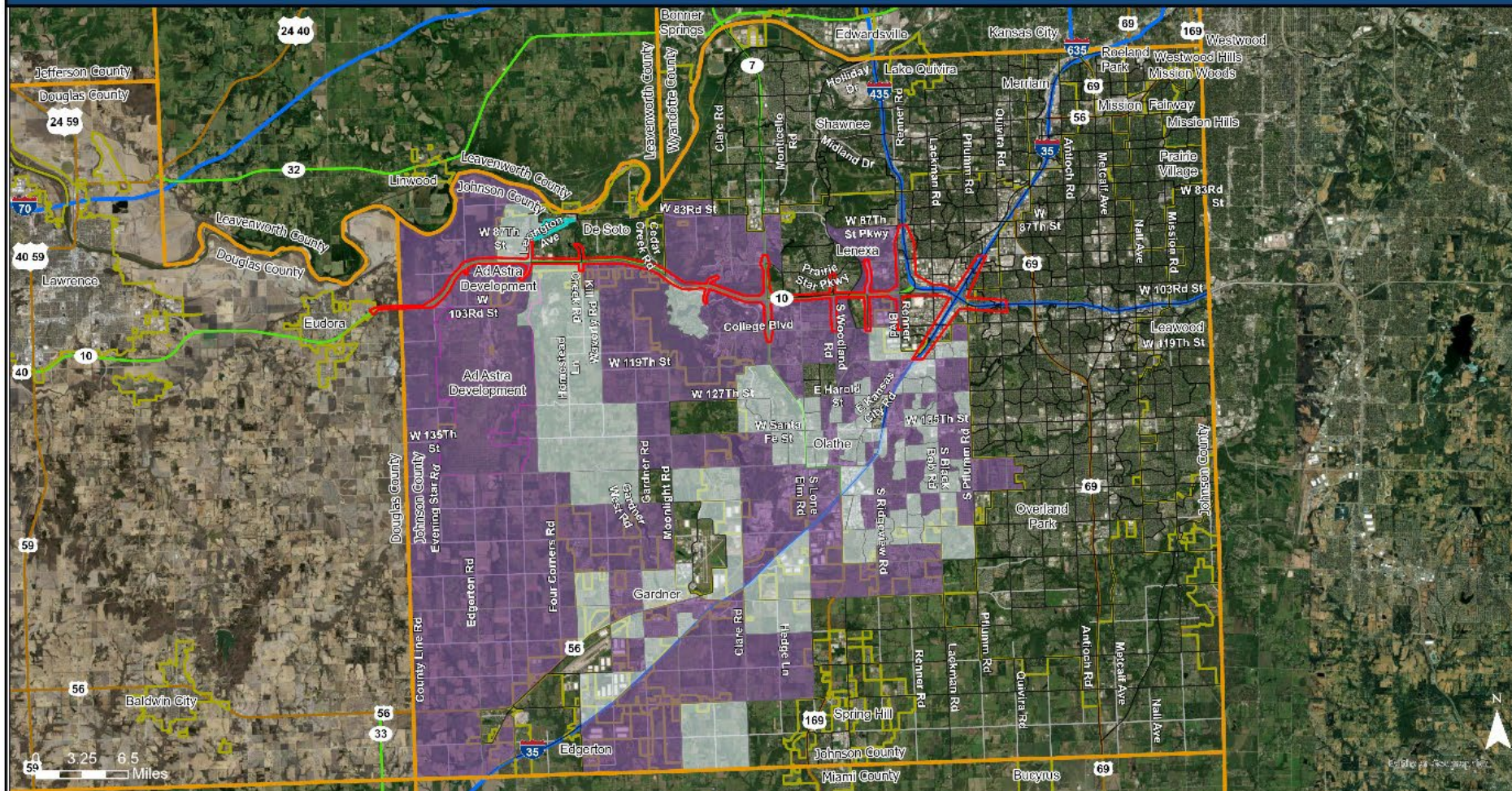
Traffic Analysis 2023 – Existing Traffic

Two-Way 2023 Existing Volume Profile



Traffic Analysis Future Land Use – MARC vs. Community Input

2050 Difference in Population From MARC

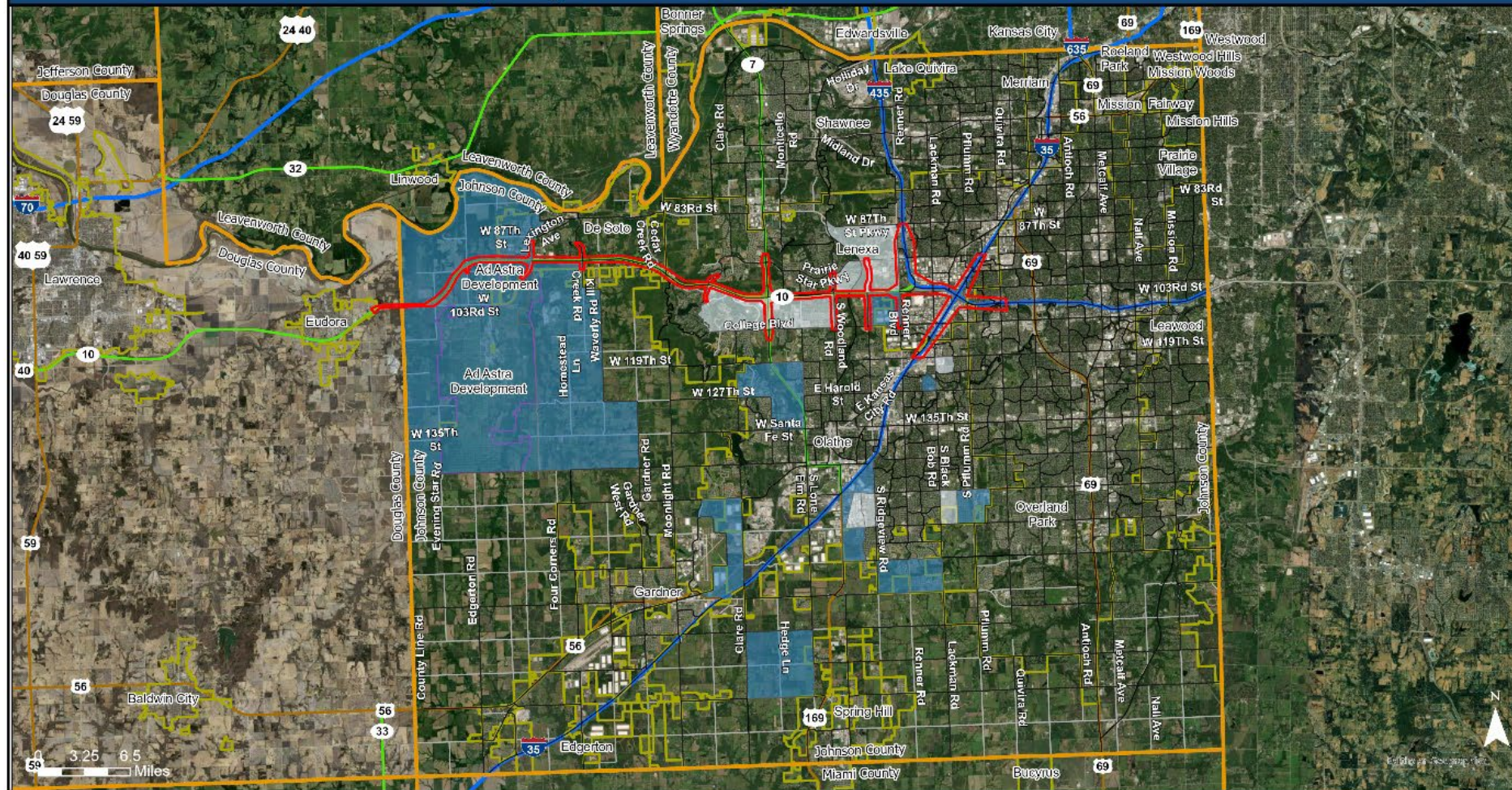


K-10 Capacity Improvements
 KDOT # 10-46 KS-6549-01

- City Boundaries
- Ad Astra Development
- Difference in Population from MARC
- Increase
- Decrease
- No Change

Traffic Analysis Future Land Use – MARC vs. Community Input

2050 Difference in Employment From MARC



K-10 Capacity Improvements
 KDOT # 10-46 KS-6549-01

- City Boundaries
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- Difference in Employment from MARC
- Increase
- Decrease
- No Change

Traffic Analysis Future Land Use – MARC vs. Community Input

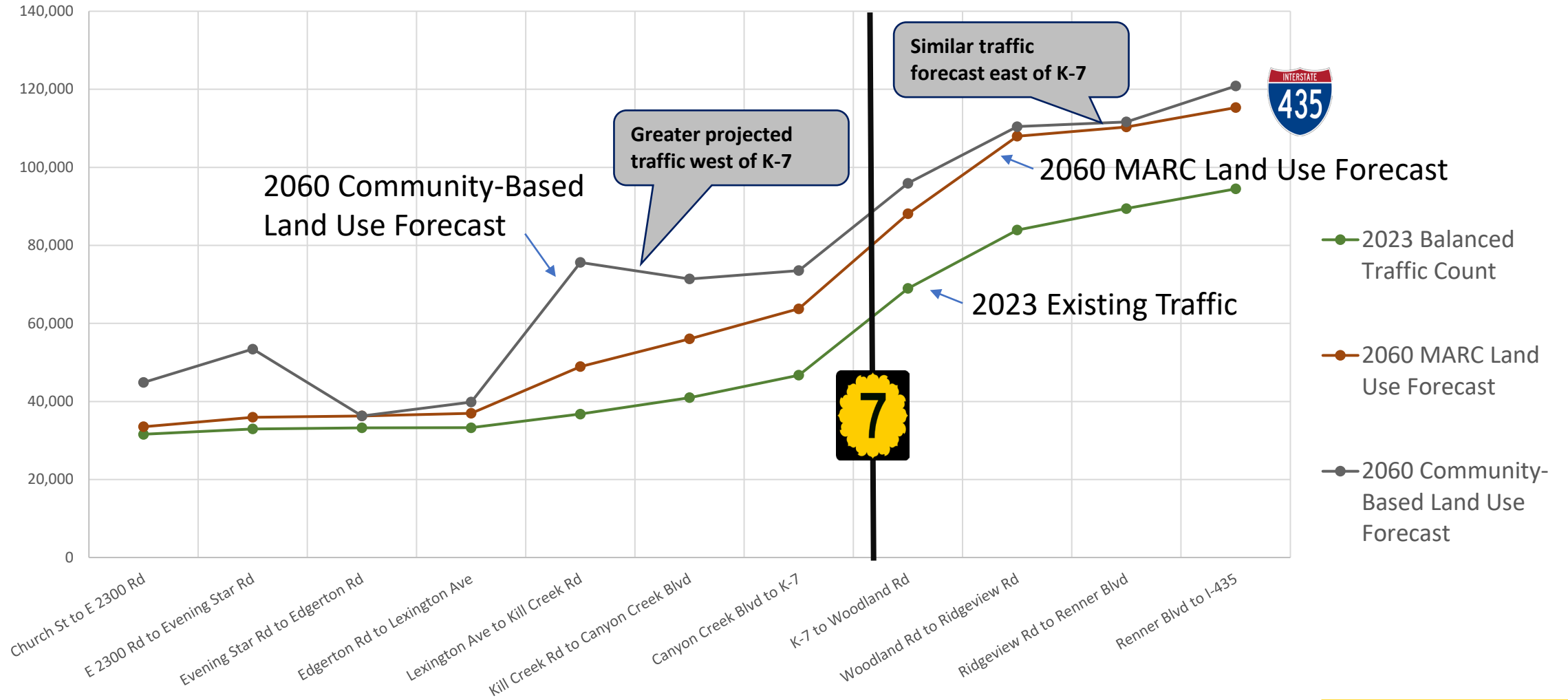
	Population				
	MARC / Douglas Co. 2019 Population	2050			
		MARC / Douglas Co.	Community Updated Above MPO	Total	Percent Change
Johnson County Unincorporated	5,007	17,741	0	17,741	0%
Franklin County	25,403	26,975	0	26,975	0%
Douglas County MPO/ Eudora	143,848	158,319	0	158,319	0%
Leavenworth County/ Tonganoxie	81,886	99,991	5,755	105,746	6%
Olathe	141,280	182,708	10,723	193,431	6%
Lenexa	59,316	83,579	32,688	116,267	39%
De Soto	6,950	19,386	0	19,386	0%
Edgerton	1,789	6,156	8,844	15,000	144%
Gardner	22,727	30,515	15,966	46,481	52%
Astra Enterprise Park	1,572	4,662	-3,090	1,572	-66%
Total	489,778	630,032	70,886	700,918	11%

Traffic Analysis Future Land Use – MARC vs. Community Input

	Employment				
	MARC / Douglas Co. 2019 Employment	2050			
		MARC / Douglas Co.	Community Updated Above MPO	Total	Percent Change
Johnson County Unincorporated	2,502	5,165	0	5,165	0%
Franklin County	9,608	15,066	0	15,066	0%
Douglas County MPO/ Eudora	51,682	61,430	0	61,430	0%
Leavenworth County/ Tonganoxie	22,801	26,397	0	26,397	0%
Olathe	69,437	100,783	38,311	139,094	38%
Lenexa	59,096	77,986	1,650	79,636	2%
De Soto	3,020	5,192	4,650	9,842	90%
Edgerton	1,121	6,630	0	6,630	0%
Gardner	4,587	15,979	0	15,979	0%
Astra Enterprise Park	411	827	15,488	16,315	1873%
Total	224,265	315,455	60,099	375,554	19%

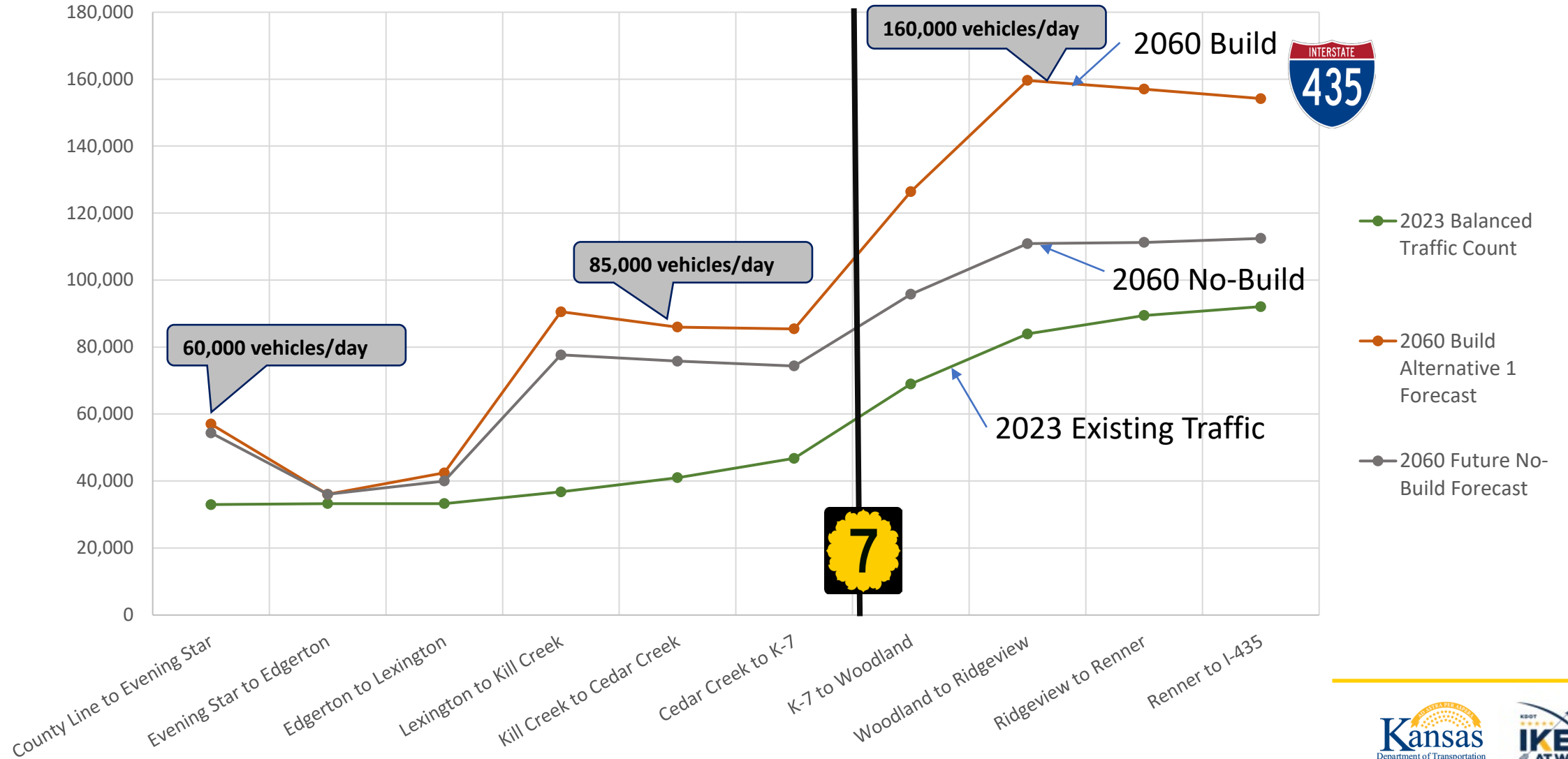
Traffic Forecast 2060 – NO-BUILD MARC vs. Community Input

Two-Way 2060 No-Build Volume Profile Comparison



Traffic Forecast 2060 – BUILD (6-lane K-10)

Two-Way 2060 No-Build vs. Build Volume Profile Comparison



Access Alternatives:

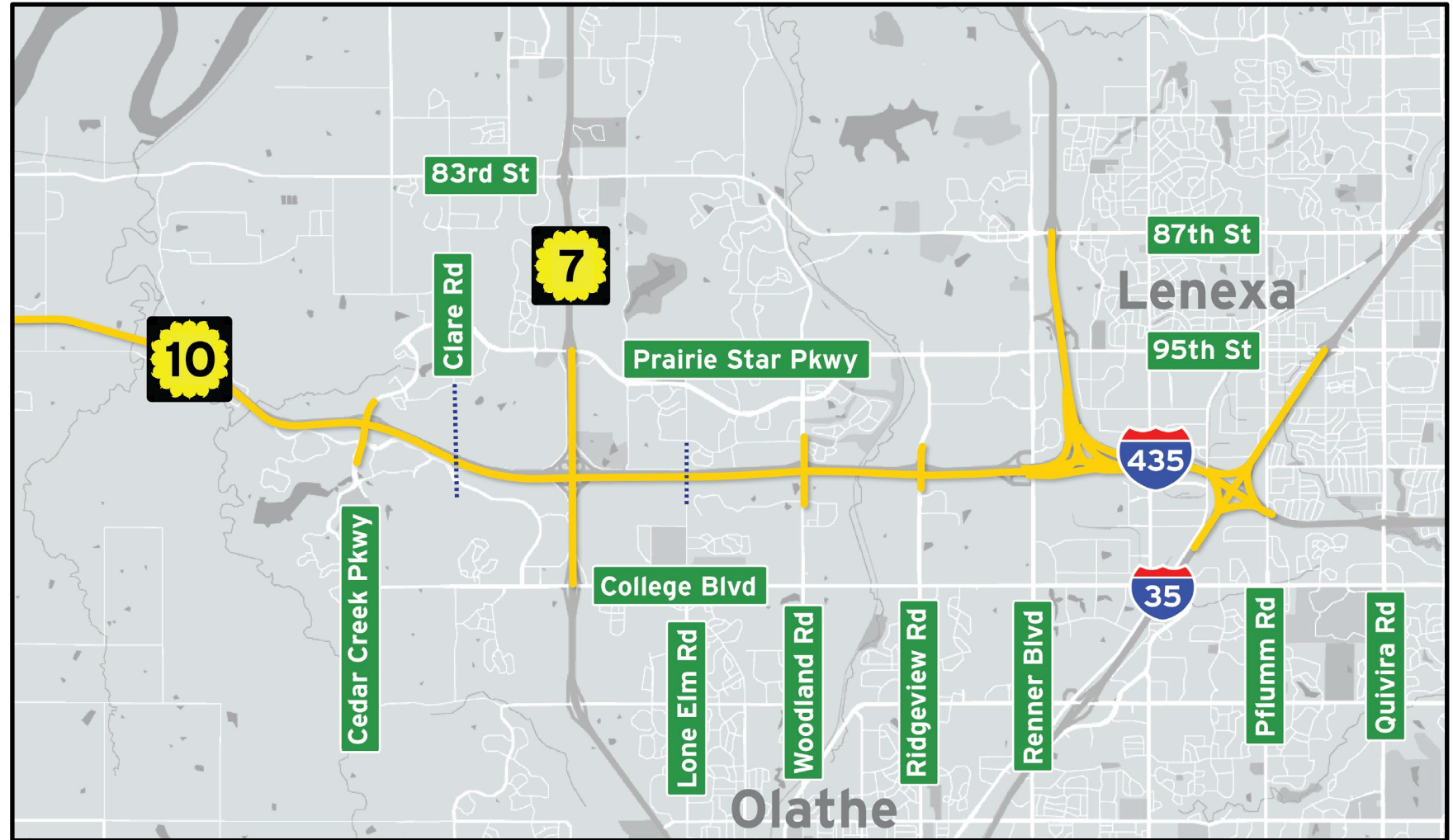
Clare Road

Lone Elm Road

I-35 to K-10 to I-35 Connector (Outer Loop)

Alternatives at Clare Rd. & Lone Elm Rd.

- No-Build
- Overpass
- Interchange



Clare Road



Lone Elm Road



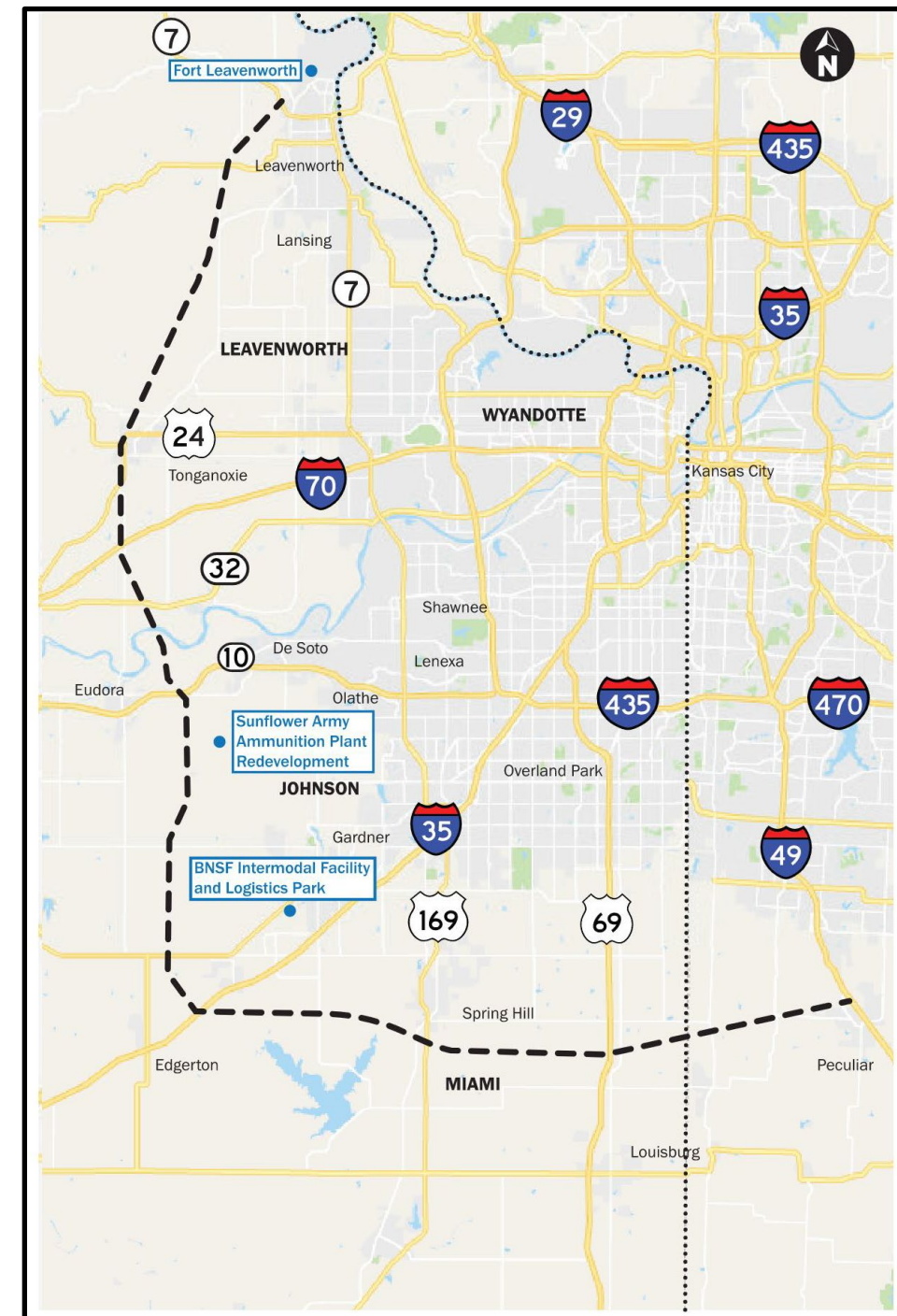
Evaluation Considerations

- Engineering
- Traffic & Safety
- Environmental impact
- Impact or benefit to the local street network
- Cost
- Economic benefit
- Public input
- Input from local staff & elected leaders

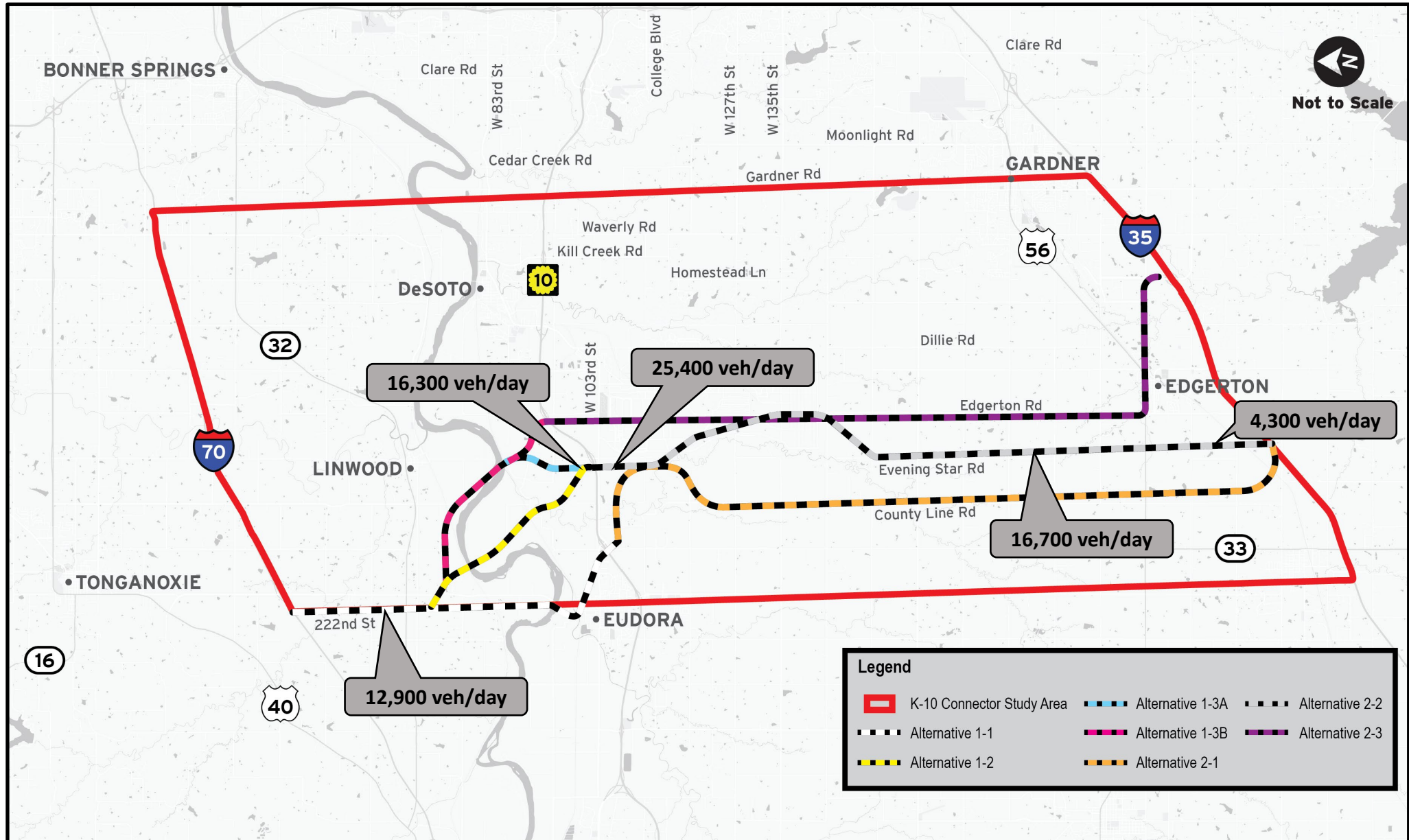
I-35 to K-10 to I-70 Connections (Outer Loop)

Key Questions:

- If constructed, what traffic would it serve?
From where? How much?
- If constructed, where should it connect to K-10?
- If constructed, what is the impact to K-10 traffic?

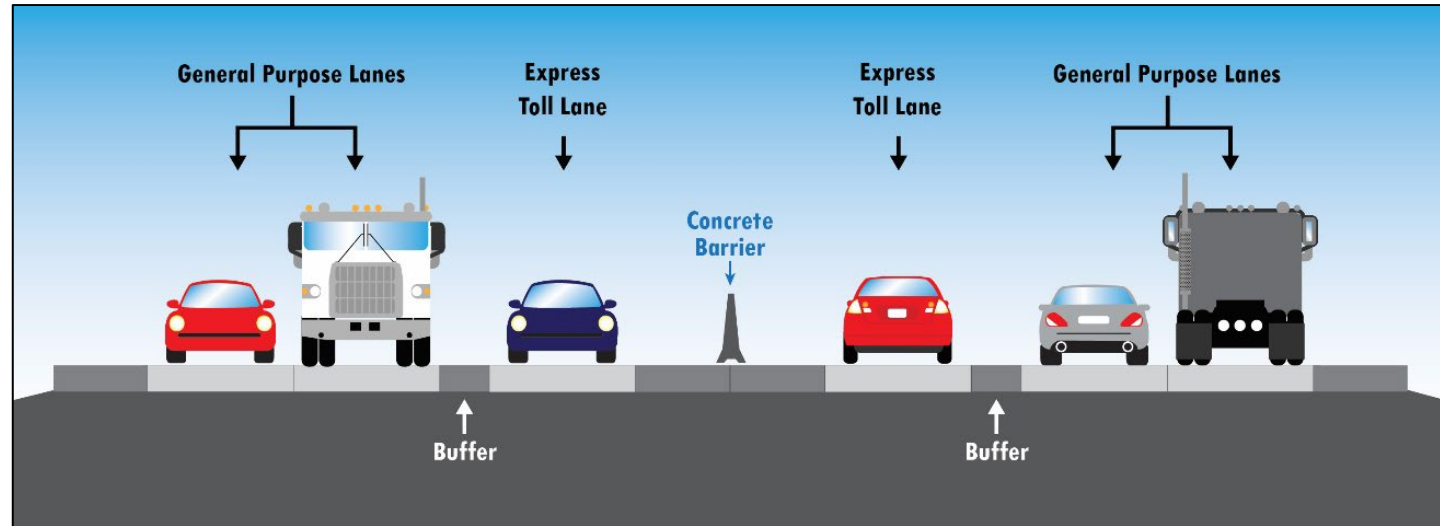
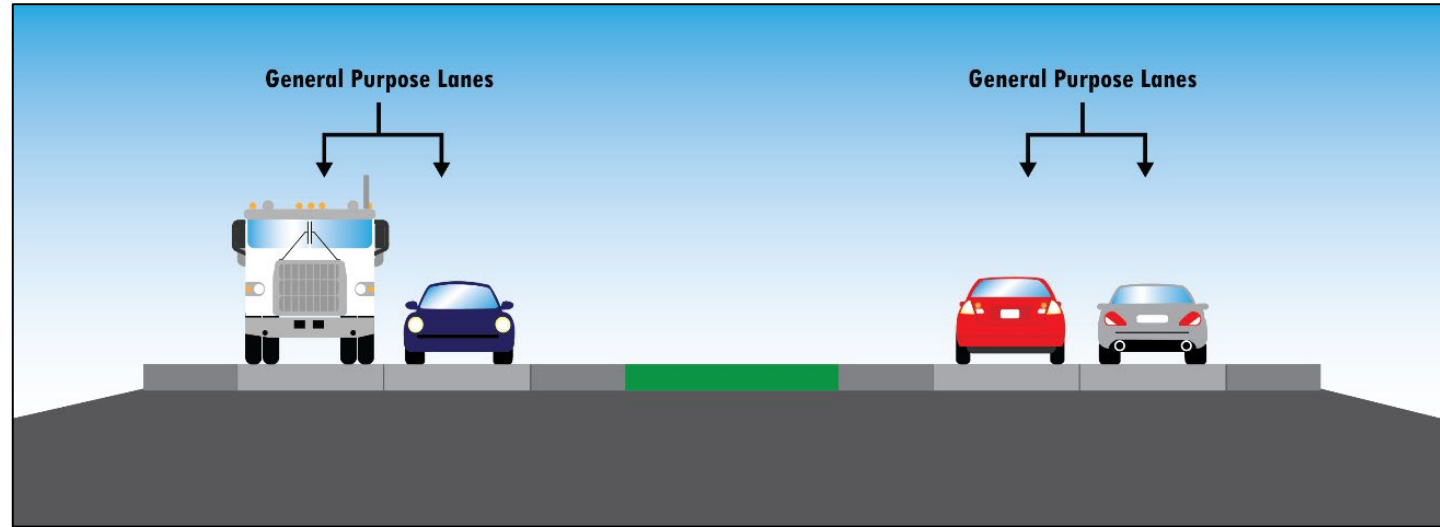


I-35 to K-10 to I-70 Connections (Outer Loop)



Express Lanes, Community Input, & Approval Process

Express Lanes Concept



Scan for ETL Video

Why Evaluate Express Lanes?

- Evaluated on projects where adding capacity (new lanes) is likely
- A better way to address congestion
- A tool for funding local contribution



Limits of Potential Express Lanes



Toll Project Requirements

KSA 68-20, 120

KSA 68-20, 120 grants authority to KDOT to develop toll projects

- No existing lane of any state highway can be tolled
- Tolls shall be charged on all users of the toll facility regardless of class, size, or kind of traffic
- Must include at least 1 public meeting
- All toll revenue must remain with that roadway

Toll Project Approval Process

KSA 68-20, 120



If technical results and community support are positive

Step 1

KDOT & Communities develop Joint Proposal for implementation



Step 2

Joint Proposal to KTA Board for review



Step 3

Final review by State Finance Council



Planned Outreach

Planned Outreach Public & Stakeholder Engagement Program

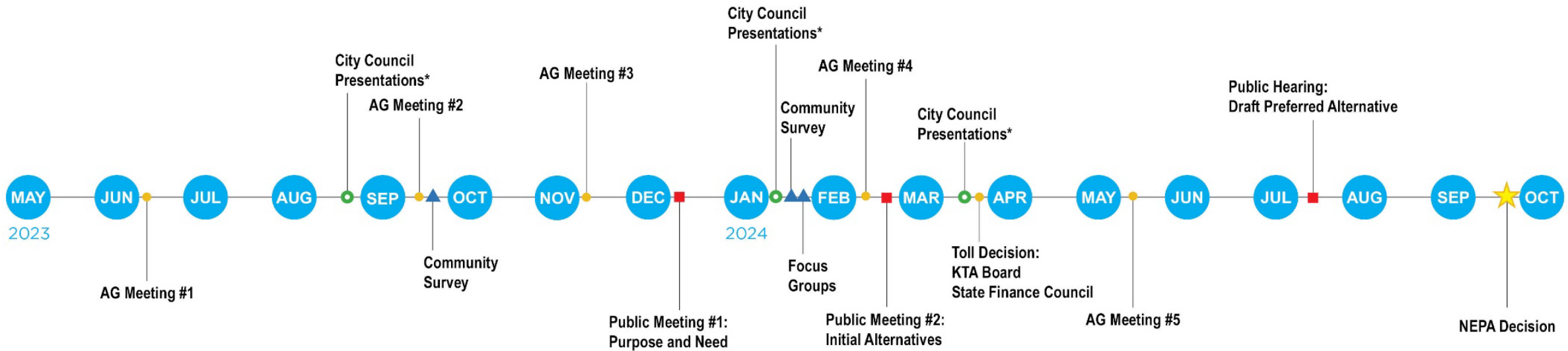
Extensive Engagement Opportunities

- 5 Advisory Group Meetings
- 3 Public Information Meetings (PIMs)
- Community organization presentations
- Electronic newsletters
- Community surveys
- Focus groups
- Specific social media accounts for K-10

Project webpage

www.K10.ksdot.gov

Planned Outreach Engagement Schedule



Dates are not yet set for many of these meeting and will occur in the general timeframe.

Legend

- Advisory Group (AG) Meetings
- Partner Consultation
- Public Meetings (PM)
- ▲ Survey or Focus Groups

Questions?

Thank you!

www.K10.ksdot.gov