Traffic Noise

Sound is anything that we hear. Sound that is undesirable or unwanted is considered noise.

Traffic noise is not consistent. Noise levels change with the number, type and speed of vehicles.

Traffic noise must be analyzed during the environmental review process when a roadway would be constructed in a new location. For the Kansas Extension project, we followed FHWA and MoDOT noise policy guidance that included:

- Measuring current noise at specified locations along the corridor
- Developing a model to predict future noise levels
- Identifying locations where noise abatement evaluations should be performed
- Identifying areas that qualify for a noise wall, per MoDOT policy

Measuring Current Noise

A series of noise levels were measured at representative receptors in October 2015. A receptor is a location that would be sensitive to noise (e.g., houses, churches, daycares, hospitals, etc.).

Feasibility

- For a noise wall to be considered feasible, MoDOT requires the wall to provide at least a 5 dBA reduction for at least 67% of the first-row, impacted receptors.
- The wall must also be feasible from an engineering standpoint, which takes into account physical and constructibility constraints, such as topography, access, drainage, safety, maintenance, and presence of other noise sources.

Reasonableness

- For a noise wall to be considered reasonable, it must provide at least a 7 dBA reduction for 100% of benefited first-row receptors.
- The noise wall cannot exceed 1,300 square feet per benefited receptor.
- Owners and residents of benefited receptors will be consulted for noise walls that meet the feasibility criteria and other reasonableness criteria.

Predicting Future Noise

A model was developed to predict what the future noise levels would be in 2040, after the road is built. The Federal Highway Administration's Traffic Noise Model was used. Any representative receptor that was modeled to experience 66+ decibels or showed an increase of 15 decibels or more between current and predicted noise levels is considered to be impacted, as defined by MoDOT policy.

Noise Study Results

At the previous public hearing two walls were identified as feasible and reasonable.

- Based on feedback, certain areas of the alignment were shifted either vertically or horizontally, which reduced the modeled sound levels at nearby by receptors. Because of this change, updated modeling was completed and the area does not meet the MoDOT criteria to be considered impacted.
- With the revised roadway profile adjustments to Weaver Road and Kansas Expressway, future traffic noise levels will be reduced in the area east of Kansas Expressway near Weaver Road. Because of the changes in the roadway profile, updated modeling was completed and the area does not meet the MoDOT criteria to be considered impacted.

Contact Us

For questions or comments email: **KansasExtension@greenecountymo.gov**

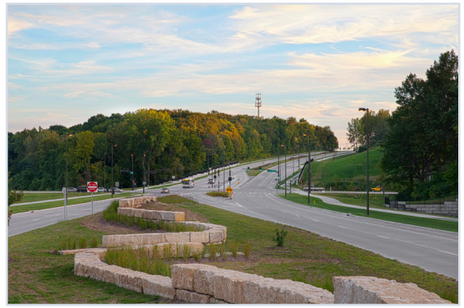
KANSAS EXTENSION
GREENE COUNTY, MISSOURI

Project Overview

30 years of planning to provide an additional north-south corridor in southern Greene County. Plans are to extend the Kansas Expressway 2.3 miles south and connect with Cox Road (FR 141).

Parkway-like design.

- Maximum speeds of 40 mph
- Ultimate condition will include two lanes in each direction
- Phased construction approach will be used and initially one lane in each direction will be built
- Intersection improvements and turning lanes
- Grass medians
- Bicycle paths



Example of a parkway design

Builds on existing right of way

- Conceptual planning for this project began in the 1980s
- Public outreach and roadway alignment studies in the 1990s
- Right of way along the proposed corridor was purchased by Greene County
- 90% of the needed right of way is owned and preserved
- Preliminary design and environmental screenings were conducted in the 2000s

Environmental findings incorporated

- Greene County is working with federal and state agencies as part of the NEPA process
- In-depth environmental studies were done, including: historical and cultural resources, wetland delineations, noise analysis, habitat assessments, and geotechnical surveying
- Roadway design will be engineered to address environmental resources
- A Finding of No Significant Impact was issued by the Federal highway Administration in August 2017

We Want To Hear From You

You can leave comments at the meeting tonight, or you can email comments directly to: **KansasExtension@greenecountymo.gov**.

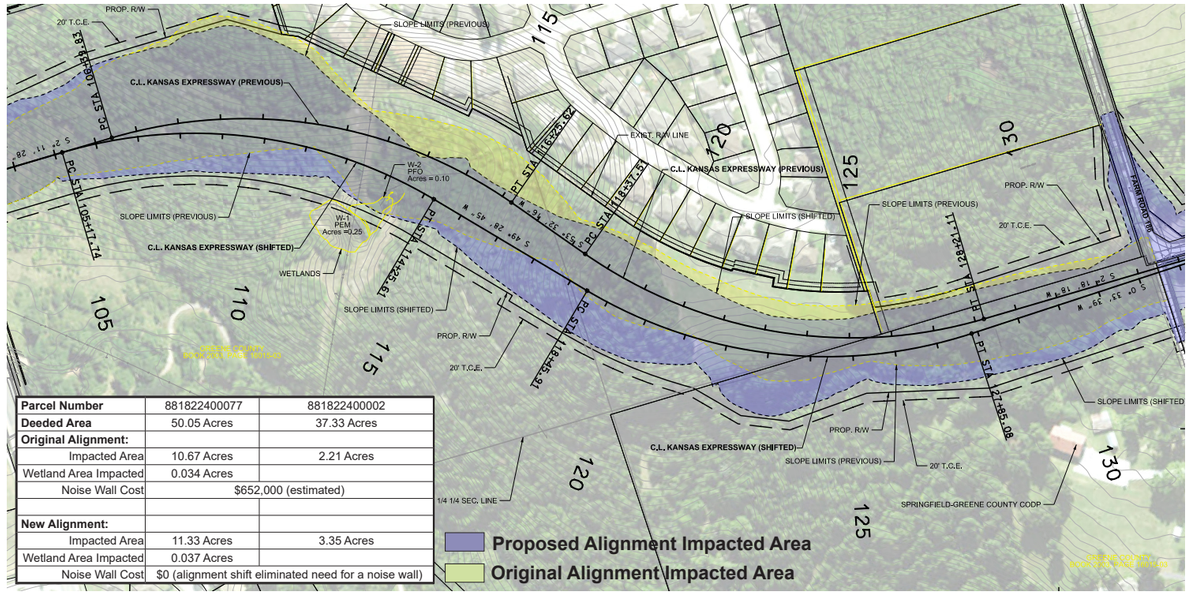
You can also mail comments to Adam Humphrey, PE, Greene County Highway Department, 2065 N. Clifton, Springfield, MO 65803. ***Comments will be accepted through April 13, 2018.***

COUNTY OF GREENE

March 2018

Proposed Alignment Shift

The proposed alignment shift is a result of feedback received from property owners. The roadway will be moved further away from homes, reducing future noise levels in the area.

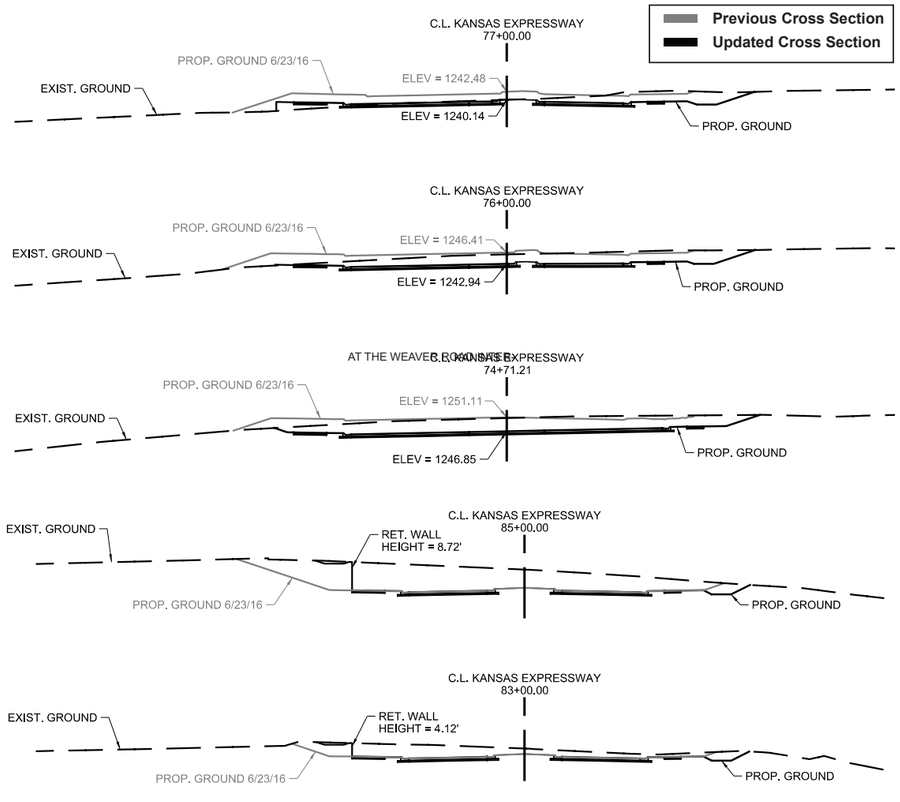


Parcel Number	881822400077	881822400002
Deeded Area	50.05 Acres	37.33 Acres
Original Alignment:		
Impacted Area	10.67 Acres	2.21 Acres
Wetland Area Impacted	0.034 Acres	
Noise Wall Cost	$652,000 (estimated)	
New Alignment:		
Impacted Area	11.33 Acres	3.35 Acres
Wetland Area Impacted	0.037 Acres	
Noise Wall Cost	$0 (alignment shift eliminated need for a noise wall)	

Cross Sections

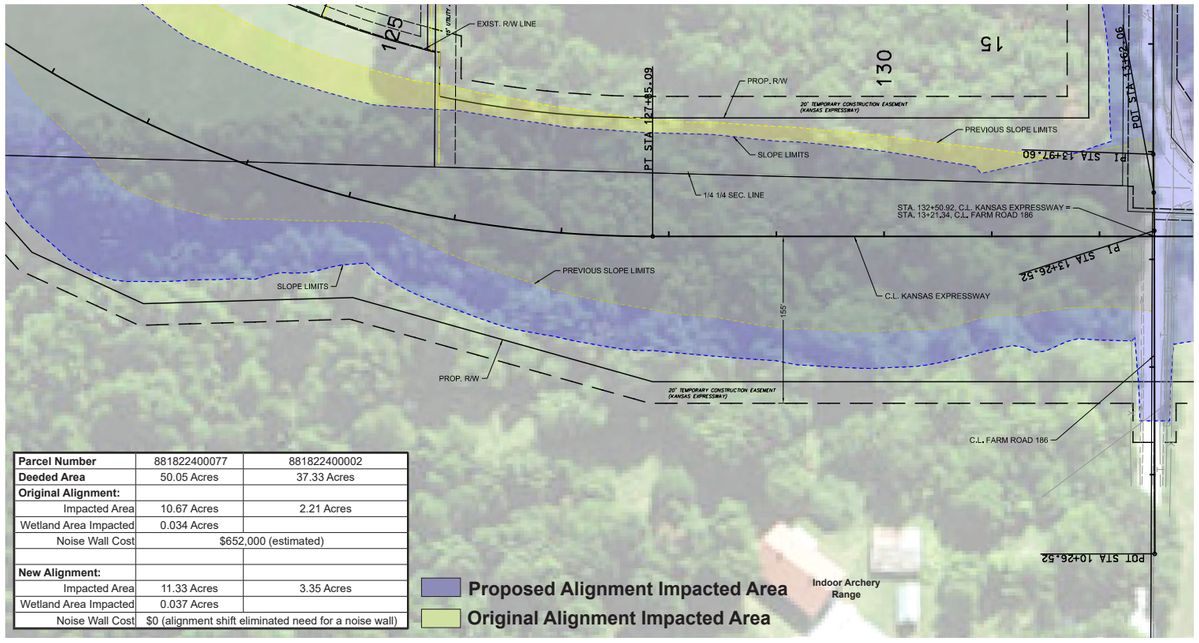
The cross section view of the proposed Kansas Expressway illustrates adjustments made to the roadway elevation near Weaver Road. The elevation of Kansas Expressway crossing Weaver Road has been lowered nearly 5-feet to improve the sight lines at the intersection, addressing comments received at previous public meetings.

Other adjustments, such as grading requirements for the project and the use of a retaining wall to minimize dirt moving are also shown. Beyond reducing the amount of grading required, the updated grading and vertical adjustments have reduced the amount of noise propagated to nearby residences below impacted levels, per MoDOT policy.



Archery Range

The archery range will be impacted to allow the roadway to be realigned to reduce noise impacts on properties east of Kansas Expressway. While a portion of the property will be utilized for the roadway, the property required for realignment does not impact the current use. Future improvements can be accommodated on the available property remaining.



Parcel Number	881822400077	881822400002
Deeded Area	50.05 Acres	37.33 Acres
Original Alignment:		
Impacted Area	10.67 Acres	2.21 Acres
Wetland Area Impacted	0.034 Acres	
Noise Wall Cost	$652,000 (estimated)	
New Alignment:		
Impacted Area	11.33 Acres	3.35 Acres
Wetland Area Impacted	0.037 Acres	
Noise Wall Cost	$0 (alignment shift eliminated need for a noise wall)	

Anticipated Project Timeline

October 2015 – December 2015
Conducted environmental surveying

February 2016
Public information meeting

Spring - Fall 2016
- Coordinated with federal and state agencies
- Reviewed comments from public meeting
- Finished environmental analyses

March 2017
- Published draft Environmental Assessment
- Public hearing

Summer 2017
Finding of No Significant Impact signed by the Federal Highway Administration in August 2017

TODAY
Public Hearing

Summer 2018
Preliminary plans and right of ways plans finalized

End of 2018/Start of 2019
Construction could begin

March 2018