District 4 2021 Project Scores - Expansion

EXPANSION

Legend ● High Need/Score ◑ Medium Need/Score ○ Low Need/Score

Projects for Discussion Today					Engineering Factors					Economic Factors			Local Input	Other Factors		
Map ID	Project Description	Scope	Miles	FY-25 Cost $M	Current Congestion (20 pts)	Future Congestion (15 pts)	Truck Traffic (7.5 pts)	Safety (7.5 pts)	Engineer Score (50 pts)	GRP* / Cost	Traveler Benefit** / Cost	Economic Score (25 pts)	Local Input (25 pts)	Route Continuity	Previous Investment	Notes
415	**US-69 Bourbon County:** Fort Scott Bypass	4-lane Freeway, Bypass	9	$135[v]	○	○	◑	◑	18	○	○	6		✓	✓	
411	**US-69 Crawford County:** Cherokee County Line North to K-126 (Southern Half of the Crawford County Corridor)	4-lane Freeway, Bypass	5	$117[v]	◑	◑	◑	●	40	◑	◑	16		✓	✓	
477	**US-69 Crawford County:** K-126 North to US-160 and US-160 improvements between US-69 and existing US-69 (Two parts of the Crawford County Corridor)	Upgrades w/ 4-lane Freeway, Bypass	8	$91	●	●	◑	◑	37	◑	◑	15		✓	✓	Scopes updated after the 2019 Local Consult meetings to better reflect constructable phases.
478	**US-69 Crawford County:** K-126 North to 3.5 miles North of Arma and US-160 improvements between US-69 and existing US-69 (Northern Half of the Crawford County Corridor)	Upgrades w/ 4-lane Freeway, Bypass	17	$191	●	●	◑	◑	45	◑	◑	16		✓	✓	
419p	***US-169 Allen County:*** *Neosho County Line to Humboldt†*	Passing Lanes	8	$7	◑	◑	●	○	35	●	●	21				
431p	***US-169 Allen County:*** *US-54 (Iola) to Anderson County Line†*	Passing Lanes	8	$7	◑	◑	◑	○	35	●	●	20				
422	***US-169 Anderson County:*** *Garnett to Franklin County Line†*	4-lane expressway	8	$49	●	●	◑	●	50	◑	◑	13				
422p	***US-169 Anderson County:*** *Garnett to Franklin County Line†*	Passing Lanes	8	$7	●	●	◑	●	50	●	●	22				
416p	***US-169 Anderson County:*** *Allen County Line to Welda†*	Passing Lanes	10	$13	●	●	◑	●	44	◑	◑	17				
442	**US-169 Montgomery County:** North Junction US-160 to US-400	4-lane expressway	9	$63[v]	●	●	●	◑	46	○	○	11				

†New project not presented in 2019. New projects came from statewide passing lane review or from KDOT District staff.

[v]Updated cost estimate

2019 Projects Selected for the Development or Construction Pipeline	
K-68 Miami County: US-169, east to .8 mi west of US-69 west of Louisburg	4-lane expressway
US-169 Neosho County: Between K-47 and Earlton	Passing lanes
US-169 Neosho County: Between Wilson-Montgomery county line and Thayer	Passing lanes
US-400 Cherokee County: East of Cherokee	Passing lanes
US-400 Greenwood County: Between Piedmont and Severy	Passing lanes

Projects presented in 2019; not scored this year	
US-69 Cherokee County: Oklahoma to Cherokee/Crawford Co. Line - other sections of the bypass need constructed first	4-lane freeway
US-75 Montgomery County: US-160 to North of Independence (RS 5034) – specific location not feasible	Construct New Alignment with Passing lanes
US-75 Montgomery County: North of Independence (RS 5034) to US-400 – specific location not feasible	Passing lanes
US-169 Montgomery County: North Junction US-160 to US-400 - specific location not feasible	Passing Lanes
US-169 Montgomery County: North of Coffeyville to South junction US-160 – score in '23	4-Lane expressway
US-169 Montgomery County: North of Coffeyville to South junction US-160 – specific location not feasible	Passing Lanes
US-400 Greenwood County: Severy to Greenwood-Wilson County Line – selected passing lanes further to the west to improve corridor; re-evaluate once complete	Passing lanes
US-400 Montgomery County: US-75 to US-169 – score in '23	4-lane expressway
TBD Miami County: I-35 east to US-69 – score in '23	New Outer Loop

Because of the time and cost required, KDOT doesn't score every project from every year, but that doesn't mean it's fallen off our radar. These projects weren't scored this year because their 2019 engineering need score was low, sequencing shows other project phases need to be selected before this phase, or because further analysis found passing lanes aren't feasible in that specific location.

Engineering Factor Weights		
	Urban	Rural
Current Congestion	20	15
Future Congestion	15	10
Safety	7.5	12.5
Total Points Possible	50	50

Economic Factors

Gross Regional Product (GRP)* - The value of goods and services produced minus the cost of inputs. GRP impact is calculated based on travel time and reliability savings for business-related and freight travel as well as vehicle operations and maintenance cost changes from a project divided by cost.

Traveler Benefit ** - The value of non-business benefits, including personal travel time and reliability benefits (e.g., for shopping, visiting family, doctor visits, etc.) and emissions reductions benefits divided by cost.

**GRP impacts are calculated using county-level economic data.*
***All travelers' time is valued equally regardless of where they live.*

District 4 2021 Project Scores - Modernization

Legend ● High Need/Score ◑ Medium Need/Score ○ Low Need/Score

MODERNIZATION

Projects for Discussion Today					Engineering Factors					Local Input	Other Factors		
Map ID	Project Description	Scope	Miles	FY-25 Cost $M	Geometrics/ Safety	Capacity	Pavement Structure	Pavement Surface	Engineer Score (80 pts)	Local Input (20 pts)	Route Continuity	Previous Investment	Notes
461	**K-31 Coffey County:** Osage County Line to Anderson County Line	Re-surface, Add Shoulders	9	$9	◑	○	○	○	26				Scope updated to include resurfacing
483	***K-33 Franklin County:*** *I-35 to Douglas County Line†*	Reconstruct	3	$12	○	◑	○	◑	29				
473	**K-47 Neosho County:** US-169 to US-59	Reconstruct	11	$34	◑	●	○	○	39		✓		
466	**K-99 Chautauqua County:** Oklahoma State Line North to Sedan	Re-surface, Add Shoulders	9	$9	◑	◑	○	◑	41				Scope updated to include resurfacing
470	**K-99 Elk County:** Chautauqua County Line North to Howard	Reconstruct	12	$29	○	◑	●	●	50		✓		
485	***K-99 Greenwood County:*** *US-54/K-99 Jct. to Lyon County Line†*	Reconstruct Add Shoulders	24	$74	○	◑	●	●	56				
471	**US-160 Elk County:** Cowley County Line to Montgomery County line	Resurface, Add Shoulders	35	$35	◑	○	○	○	42				Scope updated to include resurfacing
472	**US-160 Labette County:** Altamont to US-169	Resurface, Add Shoulders	17	$17	●	◑	◑	○	48				Scope updated to include resurfacing

†New project not presented in 2019. New projects came from KDOT's priority formula or from KDOT District staff.

2019 Projects Selected for the Development or Construction Pipeline	
K-7 Bourbon County: Crawford/Bourbon County Line to US-69 Jct	Widen and add shoulders
K-7 Crawford County: Girard to Crawford/Bourbon county line	Widen and add shoulders

Projects presented in 2019; not scored this year	
US-75 Coffey County: Woodson/Coffey County Line to Coffey/Osage County Line – moved to Preservation+	Pave shoulders, add turn lanes
K-47 Wilson County: US-400 to US-75 – previous low score	Reconstruct

Because of the time and cost it takes we don't score every project, but that doesn't mean it's fallen off our radar. These projects weren't scored this year because the first will be addressed through KDOT's Preservation+ program and the second had a low engineering need.

High scoring projects in these engineering categories are likely to have:

- **Geometrics/Safety** – Narrow shoulders, an intersection that needs improved or a curve that needs straightened.
- **Capacity** – Traffic congestion.
- **Pavement Structure** – subsurface pavement issue.
- **Pavement Surface** – Rough pavement surfaces.

Other factors in selection:

- **Route Continuity** – Complete or continue a corridor.
- **Previous Investment** – Preliminary engineering work already underway or another phase of the project constructed.

System Compositions & Usage by Region						
	Northeast	North Central	Northwest	Southeast	South Central	Southwest
Current Population (2018)	48%	7%	3%	9%	28%	5%
Population Projection (2044)	55%	6%	2%	7%	26%	4%
State Highway Miles	19%	16%	16%	16%	19%	15%
Total Roadway Miles	16%	16%	17%	15%	23%	14%
Daily Vehicle Miles Traveled SHS	39%	11%	8%	12%	23%	6%
Daily Truck Miles Traveled on SHS	26%	15%	14%	13%	21%	11%
Daily Vehicle Miles Traveled All Roads	42%	10%	6%	10%	26%	6%

Selection Process by Highway Program

	Preservation+	Modernization	Expansion
Engineering Data	100%	80%	50%
Local Input		20%	25%
Economic Analysis*			25%

**Urban and Rural Projects evaluated separately*