

KY 32 Alternatives Study Level 2 Screening Evaluation Matrix

LEVEL 2 SCREENING SUMMARY									
Alternative	Distance (miles)	Purpose and Need/Project Goals	Traffic Operations	Potential Community Impacts	Potential Environmental Resource Impacts	Potential Cultural Resource Impacts	Potential Geotechnical Impacts	Constructability	Total Cost Estimate (\$ millions)
No Build	13.7	Least Desirable	Least Desirable	No Impact	No Impact	No Impact	Low	NA	\$0
Alternative 1P	12.1	Satisfactory	Average	High	Low	Medium	Low	Average	\$6.1
Alternative 1P	13.7	Satisfactory	Average	Medium	Low	Medium	Low	Average	\$3.8
Alternative 2 (Option A)	11.8	Average	Average	Medium	Medium	Medium	Medium	Average	\$7.6
Alternative 2 (Option B)	11.4	Average	Average	Medium	High	Medium	Medium	Average	\$8.0
Alternative 3 (Option A)	12.1	Satisfactory	Satisfactory	Medium	Medium	High	Medium	Average	\$7.7
Alternative 3 (Option B)	11.8	Average	Satisfactory	Medium	High	High	Medium	Least Desirable	\$6.1

KEY:
 Low/Satisfactory: Lowest likely impacts; Satisfactory for this measure.
 Medium/Average: Mid-range of impacts; Somewhat unsatisfactory for this measure.
 High/Least Desirable: High likely impacts; Least Desirable for this measure.

Alternative	Distance (miles)	Addressing Purpose and Need			Addressing Other Project Goals	Traffic Operations		Potential Community Impacts					Potential Environmental Impacts				Potential Cultural Resource Impacts			Potential Geotechnical Impacts		
		Travel Time (minutes)	Travel Conditions at High Crash Locations (on existing KY 32)	Travel Conditions for Emergency Medical Services and School Buses		Support, Preserve, and Enhance Economic Development Opportunities and Tourism and Incorporate Context Sensitive Design Features, as appropriate, to Preserve and/or Complement the Existing Character and Context of the KY 32 Study Area	Estimated 2030 Traffic Volume on Existing KY 32 (KY 7 - KY 173 / KY 173 - KY 504)	Estimated 2030 Traffic Volume on Proposed Alternative	Possible Relocations Homes/ Businesses	Possible Impacts to Churches	Possible Impacts to Known Cemeteries	Potential Impact to Laurel Gorge Walking Trail	Environmental Justice Communities	Streams	Threatened and Endangered Species - Mammals	Threatened and Endangered Species - Mollusks	Hazardous Materials/Underground Storage Tanks	National Register Historic Properties	Likelihood of additional National Register of Historic Properties	Known Archaeological Sites	Likelihood of Additional Archaeological Sites	Potential Impact to Known Wells/Potential for Mines
No Build	13.7	18.3	Least Desirable	Least Desirable	Least Desirable	730 to 3750	NA	00	0	0	0	No Impact	None	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact
Alternative 1	12.1	13.2	Satisfactory	Satisfactory	Satisfactory	1400 to 4100 (approximately 300 vpd diverted from KY 173 & approximately 360 new trips)	132	1	4	0	No Impact	None	No Impact	Wooded areas in this corridor are suitable for bat habitats. Three bat species, the Indiana gray and Virginia big-eared bat, are known to occur within both Elliott and Rowan Counties. It is estimated that approximately 8 vpd sites should be considered for bat habitats. First sites will be determined when preliminary design sites are determined and in consultation with the KYTC Division of Environmental Analysis.	Wooded areas in this corridor are suitable for bat habitats. Three bat species, the Indiana gray and Virginia big-eared bat, are known to occur within both Elliott and Rowan Counties. It is estimated that approximately 10 sites should be considered for bat habitats. First sites will be determined when preliminary design sites are determined and in consultation with the KYTC Division of Environmental Analysis.	Northern Riffleshell and Pink Mucket mussels have been known to exist in Elliott County, but not Rowan County.	A total of two sites exist - a gas station in Elizabethtown along existing KY 32 in the western terminus; the second site is located in Newholland north of the eastern terminus where KY 32 junctions with KY 7.	0	Medium	1	High	1 water well, 1 dry and abandoned well
Alternative 1P	13.7	16.4	Satisfactory	Satisfactory	Satisfactory	1100 to 4000 (approximately 150 vpd diverted from KY 173 & approximately 250 new trips)	60	0	2	0	No Impact	None	Same as 1	Fewer impacts than Alternative 1	Same as 1	Same as 1	0	Low	1	High	1 water well, 1 dry and abandoned well	
Alternative 2 (Option A)	11.8	12.9	Average	Average	Satisfactory	200 to 2700 (1600 to 2400 (2400 on Option A segment))	5/1	0	2	0	No Impact	None	None	Wooded areas in this corridor are suitable for bat habitats. Three bat species, the Indiana gray and Virginia big-eared bat, are known to occur within both Elliott and Rowan Counties. It is estimated that approximately 10 sites should be considered for bat habitats. First sites will be determined when preliminary design sites are determined and in consultation with the KYTC Division of Environmental Analysis.	Wooded areas in this corridor are suitable for bat habitats. Three bat species, the Indiana gray and Virginia big-eared bat, are known to occur within both Elliott and Rowan Counties. It is estimated that approximately 10 sites should be considered for bat habitats. First sites will be determined when preliminary design sites are determined and in consultation with the KYTC Division of Environmental Analysis.	Northern Riffleshell and Pink Mucket mussels have been known to exist in Elliott County, but not Rowan County.	A total of two sites exist - a gas station in Elizabethtown along existing KY 32 in the western terminus; the second site is located in Newholland north of the eastern terminus where KY 32 junctions with KY 7.	0	Medium	0	Medium	1 water well, potential for mines
Alternative 2 (Option B)	11.4	12.5	Least Desirable	Least Desirable	Satisfactory	200 to 2700 (1600 to 2100 (2100 on Option B segment))	7/0	0	2	Medium	None	None	None	Wooded areas in this corridor are suitable for bat habitats. Three bat species, the Indiana gray and Virginia big-eared bat, are known to occur within both Elliott and Rowan Counties. It is estimated that approximately 10 sites should be considered for bat habitats. First sites will be determined when preliminary design sites are determined and in consultation with the KYTC Division of Environmental Analysis.	Wooded areas in this corridor are suitable for bat habitats. Three bat species, the Indiana gray and Virginia big-eared bat, are known to occur within both Elliott and Rowan Counties. It is estimated that approximately 10 sites should be considered for bat habitats. First sites will be determined when preliminary design sites are determined and in consultation with the KYTC Division of Environmental Analysis.	Northern Riffleshell and Pink Mucket mussels have been known to exist in Elliott County, but not Rowan County.	A total of two sites exist - a gas station in Elizabethtown along existing KY 32 in the western terminus; the second site is located in Newholland north of the eastern terminus where KY 32 junctions with KY 7.	0	Medium	1	Medium	2 water wells, potential for mines
Alternative 3 (Option A)	12.1	13.2	Satisfactory	Satisfactory	Satisfactory	200 (1400 to 4300 (2400 on Option A segment))	5/1	0	1	No Impact	None	None	None	Wooded areas in this corridor are suitable for bat habitats. Three bat species, the Indiana gray and Virginia big-eared bat, are known to occur within both Elliott and Rowan Counties. It is estimated that approximately 10 sites should be considered for bat habitats. First sites will be determined when preliminary design sites are determined and in consultation with the KYTC Division of Environmental Analysis.	Wooded areas in this corridor are suitable for bat habitats. Three bat species, the Indiana gray and Virginia big-eared bat, are known to occur within both Elliott and Rowan Counties. It is estimated that approximately 10 sites should be considered for bat habitats. First sites will be determined when preliminary design sites are determined and in consultation with the KYTC Division of Environmental Analysis.	Northern Riffleshell and Pink Mucket mussels have been known to exist in Elliott County, but not Rowan County.	There are 3 Hazardous Materials sites in this Alternative Corridor. A gas station in Elizabethtown along existing KY 32, the second site is located in Newholland where KY 32 junctions with KY 7, and an oil spill that was reported by the EPA within their database website located North of KY 32 and Rocky Creek between two cemeteries.	0	Medium	3	High	2 water wells, 1 gas well, 1 dry abandoned well
Alternative 3 (Option B)	11.8	12.8	Least Desirable	Least Desirable	Satisfactory	200 (1400 to 4300 (2400 on Option B segment))	7/0	0	1	Medium	None	None	None	Wooded areas in this corridor are suitable for bat habitats. Three bat species, the Indiana gray and Virginia big-eared bat, are known to occur within both Elliott and Rowan Counties. It is estimated that approximately 10 sites should be considered for bat habitats. First sites will be determined when preliminary design sites are determined and in consultation with the KYTC Division of Environmental Analysis.	Wooded areas in this corridor are suitable for bat habitats. Three bat species, the Indiana gray and Virginia big-eared bat, are known to occur within both Elliott and Rowan Counties. It is estimated that approximately 10 sites should be considered for bat habitats. First sites will be determined when preliminary design sites are determined and in consultation with the KYTC Division of Environmental Analysis.	Northern Riffleshell and Pink Mucket mussels have been known to exist in Elliott County, but not Rowan County.	There are 2 Hazardous Materials sites in this Alternative Corridor. A gas station in Elizabethtown along existing KY 32 and an oil spill that was reported by the EPA within their database website located North of KY 32 and Rocky Creek between two cemeteries.	0	Medium	4	High	3 water wells, 1 gas well, 1 dry and abandoned well

Alternative	Distance (miles)	Constructability		Cost Estimates					
		Maintenance of Traffic	Phasing/Scheduling	Design (\$ millions)	ROW (\$ millions)	Utility (\$ millions)	Construction (\$ millions)	Total Cost (\$ millions)	Cost/Mile (\$ millions)
No Build	13.7	NA	NA	\$0	\$0	\$0	\$0	\$0	\$0
Alternative 1	12.1	Least Desirable	Satisfactory	\$6.4	\$16.5	\$10.9	\$63.7	\$97.5	\$8.1
Alternative 1P	13.7	Least Desirable	Satisfactory	\$2.7	\$11.4	\$10.9	\$26.5	\$51.5	\$3.8
Alternative 2 (Option A)	11.8	Average	Satisfactory	\$6.1	\$12.3	\$9.4	\$61.3	\$89.1	\$7.6
Alternative 2 (Option B)	11.4	Average	Satisfactory	\$6.4	\$11.9	\$8.1	\$63.9	\$91.3	\$8.0
Alternative 3 (Option A)	12.1	Average	Average	\$6.5	\$12.8	\$9.7	\$64.6	\$93.4	\$7.7
Alternative 3 (Option B)	11.8	Average	Least Desirable	\$6.7	\$12.2	\$9.4	\$67.2	\$95.5	\$8.1