

KYTC Intersection Control Evaluation Forms

Stage 1: Screening

Complete the following form and append all supporting documentation. Submit completed forms to the Location Engineer for the project's district.

Project Information

District	1	County	Ballard	Item No.		No. of Intersection Legs	4
	Prefix and Number	Functional Classification	Current AADT	No. of Lanes	Existing Multimodal Facilities		
Mainline Route	US 51	Arterial	6600	2	Sidewalk		
Secondary Route	US 60	Arterial	3800	2	Sidewalk		
Project Purpose and Need	Improving mobility and safety along US 51 between Fulton and Wickliffe						
Existing Intersection Control	All-Way Stop-Controlled						

Context and Equity

Context Classification	Rural Town	Likely Travel Needs	Freight between IL/KY/TN, Local traffic , Local cyclists				
Land Use Northwest Quadrant	residential			Land Use Northeast Quadrant	commercial		
Land Use Southwest Quadrant	undeveloped / residential			Land Use Southeast Quadrant	commercial		

Intersection Control Alternative Screening

Intersection or Interchange Alternative	Screening Criteria									Justification:
	a.) CAP-X v/c ratio *	b.) CAP-X Pedestrian Accommodation Score	c.) CAP-X Bicycle Accommodation Score	d.) SSI Score **	e.) Impractical to implement (considering cost, potential r/w and environmental impacts)?	f.) Meets the transportation purpose and need?	g.) Addresses the key system performance criteria (safety, all roadway users, operations, etc.)?	h.) Alternative is selected to advance to Stage 2 for further evaluation.		
Signalized Control	0.71	5.1	4.54	99	No	Yes	Yes	Yes		
Quadrant Roadway	0.54	4.81	4.6	99	Yes	Yes	Yes	No		Impractical due to ROW
Displaced Left-Turn	0.45	3.01	3.36	99	Yes	Yes	Yes	No		Impractical due to ROW
Bowtie	0.83	4.86	4.46	100	Yes	Yes	Yes	No		Impractical due to ROW
Roundabout (1-lane)	0.62	5.39	4.5	100	Not Sure	Yes	Yes	Yes		ROW concern to support heavy trucks

*Attachments: CAP-X and SSI Files, last 5 years crash data for the existing intersection (if applicable)

**If evaluating interchanges and using the Interchange Configuration Safety Tool, note the Expected KABC crash frequency.

Comments:											
Prepared By:	Steven Trevino (Qk4)					Reviewed By:					

Results Summary

Existing alternative (drop down): Trad_AllStop

Alt	Exposure (Relative to Existing)			Average P (FSI)			Average Complexity			SSI Score	SSI Conflict Type Score		
	Crossing	Merging	Diverging	Crossing	Merging	Diverging	Crossing	Merging	Diverging	Score	Crossing	Merging	Diverging
RAB1x1	0.86	2.44	2.43	0.00	0.00	0.00	0.27	0.27	1.00	100	100	100	100
RAB2x1	0.86	2.44	2.43	0.00	0.00	0.00	0.40	0.37	1.00	100	100	100	100
Trad_AllStop	1.00	1.00	1.00	0.01	0.00	0.00	0.85	0.32	1.00	99	98	100	100
MUT	0.52	5.81	4.16	0.02	0.00	0.00	0.22	0.22	1.00	100	100	100	100
RAB2x2	0.86	2.44	2.43	0.00	0.00	0.00	0.54	0.47	1.00	100	100	100	100
RCUT_Sig	0.02	5.12	3.64	0.05	0.00	0.00	0.22	0.22	1.00	100	100	100	100
Bowtie	0.70	5.69	4.09	0.02	0.00	0.00	0.45	0.37	1.00	100	99	100	100
QR	1.59	4.52	3.48	0.02	0.00	0.00	0.45	0.27	1.00	99	97	100	100
Jughandle	1.03	1.77	1.05	0.02	0.00	0.00	0.55	0.39	1.00	99	98	100	100
Trad_Sig	1.00	1.00	1.00	0.02	0.00	0.00	0.59	0.22	1.00	99	97	100	100
RCUT_Unsig	0.02	5.12	3.64	0.03	0.00	0.00	0.32	0.32	1.00	100	100	100	100
Trad_MinorStop	1.00	1.00	1.00	0.02	0.00	0.00	0.89	0.32	1.00	99	96	100	100
FDLT	0.73	1.00	1.00	0.02	0.00	0.00	0.37	0.45	1.00	100	99	100	100
PDLT	1.00	1.00	1.00	0.02	0.00	0.00	0.48	0.34	1.00	99	99	100	100

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Complete the following form and append all supporting documentation. Submit completed forms to the Location Engineer for the project's district.

Project Information							
District	1	County	Ballard	Item No.		No. of Intersection Legs	4
	Prefix and Number	Functional Classification	Current AADT	No. of Lanes	Existing Multimodal Facilities		
Mainline Route	US 51	Arterial	5300	2	Sidewalk		
Secondary Route	KY 121 / Court St	Arterial	5000	2	Sidewalk		
Project Purpose and Need	Improving mobility and safety along US 51 between Fulton and Wickliffe						
Existing Intersection Control	Signalized Control						

Context and Equity			
Context Classification	Rural Town	Likely Travel Needs	Freight between IL/KY/TN, Local traffic , Local cyclists
Land Use Northwest Quadrant	commercial	Land Use Northeast Quadrant	courthouse
Land Use Southwest Quadrant	commerical	Land Use Southeast Quadrant	commercial

Intersection Control Alternative Screening										
Intersection or Interchange Alternative	a.) CAP-X V/c ratio *	b.) CAP-X Pedestrian Accommodation Score	c.) CAP-X Bicycle Accommodation Score	d.) SSI Score **	e.) Impractical to implement (considering cost, potential r/w and environmental impacts)?	f.) Meets the transportation purpose and need?	g.) Addresses the key system performance criteria (safety, all roadway users, operations, etc.)?	h.) Alternative is selected to advance to Stage 2 for further evaluation.	Justification:	
Signalized Control	0.58	5.40	4.46	98	No	Yes	Yes	Yes		
All-Way Stop-Controlled	0.69	4.00	4.46	99	No	Yes	Yes	Yes		
Roundabout (1-lane)	0.45	5.43	4.50	100	Yes	Yes	Yes	No	ROW restricted; esp for heavy truck radius needs	

*Attachments: CAP-X and SSI Files, last 5 years crash data for the existing intersection (if applicable)
 **If evaluating interchanges and using the Interchange Configuration Safety Tool, note the Expected KABC crash frequency.

Comments:	
Prepared By:	Steven Trevino (Qk4)
Reviewed By:	

Results Summary

Existing alternative (drop down): Trad_Sig

Alt	Exposure (Relative to Existing)			Average P (FSI)			Average Complexity			SSI Score	SSI Conflict Type Score		
	Crossing	Merging	Diverging	Crossing	Merging	Diverging	Crossing	Merging	Diverging	Score	Crossing	Merging	Diverging
RAB1x1	0.94	2.17	1.37	0.00	0.00	0.00	0.27	0.27	1.00	100	100	100	100
RAB2x1	0.94	2.17	1.37	0.00	0.00	0.00	0.40	0.37	1.00	100	100	100	100
Trad_AllStop	1.00	1.00	1.00	0.01	0.00	0.00	0.85	0.32	1.00	99	98	100	100
MUT	0.57	4.20	2.89	0.02	0.00	0.00	0.22	0.22	1.00	100	99	100	100
RAB2x2	0.94	2.17	1.37	0.00	0.00	0.00	0.54	0.47	1.00	100	100	100	100
RCUT_Sig	0.57	3.66	2.68	0.05	0.00	0.00	0.22	0.22	1.00	100	99	100	100
Bowtie	0.90	3.79	2.78	0.02	0.00	0.00	0.45	0.37	1.00	99	98	100	100
QR	1.29	2.76	1.56	0.02	0.00	0.00	0.52	0.27	1.00	99	98	100	100
Jughandle	1.14	2.45	1.70	0.02	0.00	0.00	0.67	0.39	1.00	99	98	100	100
Trad_Sig	1.00	1.00	1.00	0.02	0.00	0.00	0.73	0.22	1.00	98	96	100	100
RCUT_Unsig	0.57	3.66	2.68	0.03	0.00	0.00	0.32	0.32	1.00	99	99	100	100
Trad_MinorStop	1.00	1.00	1.00	0.02	0.00	0.00	0.89	0.32	1.00	98	95	100	100
FDLT	0.86	1.00	1.00	0.02	0.00	0.00	0.37	0.45	1.00	100	99	100	100
PDLT	1.00	1.00	1.00	0.02	0.00	0.00	0.48	0.34	1.00	99	98	100	100

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Complete the following form and append all supporting documentation. Submit completed forms to the Location Engineer for the project's district.

Project Information

District	1	County	Ballard	Item No.		No. of Intersection Legs	3
	Prefix and Number	Functional Classification	Current AADT	No. of Lanes	Existing Multimodal Facilities		
Mainline Route	US 51	Arterial	3400	2	n/a		
Secondary Route	Administration Rd	Local	1000	2	n/a		
Project Purpose and Need	Improving mobility and safety along US 51 between Fulton and Wickliffe						
Existing Intersection Control	Two-Way Stop-Controlled						

Context and Equity

Context Classification	Rural	Likely Travel Needs	Freight between IL/KY/TN, Local traffic , Local cyclists				
Land Use Northwest Quadrant	undeveloped			Land Use Northeast Quadrant	undeveloped		
Land Use Southwest Quadrant	undeveloped			Land Use Southeast Quadrant	undeveloped		

Intersection Control Alternative Screening

Intersection or Interchange Alternative	a.) CAP-X V/c ratio *	b.) CAP-X Pedestrian Accommodation Score	c.) CAP-X Bicycle Accommodation Score	d.) SSI Score **	e.) Impractical to implement (considering cost, potential r/w and environmental impacts)?	f.) Meets the transportation purpose and need?	g.) Addresses the key system performance criteria (safety, all roadway users, operations, etc.)?	h.) Alternative is selected to advance to Stage 2 for further evaluation.	Justification:
Signalized Control	0.20	5.00	4.50	99	No	Yes	Yes	Yes	
Roundabout (1-lane)	0.13	5.70	4.67	100	No	Yes	Yes	Yes	Restricts mainline continuous flow
Two-Way Stop-Controlled	0.28	2.91	3.91	99	No	Yes	Yes	Yes	

*Attachments: CAP-X and SSI Files, last 5 years crash data for the existing intersection (if applicable)

**If evaluating interchanges and using the Interchange Configuration Safety Tool, note the Expected KABC crash frequency.

Comments:	
Prepared By:	Steven Trevino (Qk4)
Reviewed By:	

Results Summary

Existing alternative (drop down): Trad_MinorStop

Alt	Exposure (Relative to Existing)			Average P (FSI)			Average Complexity			SSI Score	SSI Conflict Type Score		
	Crossing	Merging	Diverging	Crossing	Merging	Diverging	Crossing	Merging	Diverging	Score	Crossing	Merging	Diverging
RAB1x1	0.98	1.26	1.06	0.00	0.00	0.00	0.27	0.27	1.00	100	100	100	100
RAB2x1	0.98	1.26	1.06	0.00	0.00	0.00	0.40	0.37	1.00	100	100	100	100
Trad_AllStop	1.00	1.00	1.00	0.01	0.00	0.00	1.67	0.64	1.00	100	100	100	100
MUT	0.67	2.61	2.38	0.08	0.02	0.01	0.44	0.44	1.00	100	100	100	100
RAB2x2	0.98	1.26	1.06	0.00	0.00	0.00	0.54	0.47	1.00	100	100	100	100
RCUT_Sig	0.45	3.96	3.06	0.16	0.02	0.02	0.44	0.44	1.00	100	99	100	100
Bowtie	1.16	1.92	1.60	0.08	0.01	0.01	0.89	0.74	1.00	99	98	100	100
QR	1.21	1.60	1.06	0.07	0.01	0.01	1.03	0.53	1.00	99	98	100	100
Jughandle	1.18	1.46	1.20	0.07	0.01	0.01	1.32	0.78	1.00	99	98	100	100
Trad_Sig	1.00	1.00	1.00	0.06	0.01	0.01	1.44	0.44	1.00	99	98	100	100
RCUT_Unsig	0.45	3.96	3.06	0.13	0.02	0.02	0.64	0.64	1.00	100	99	100	100
Trad_MinorStop	1.00	1.00	1.00	0.06	0.01	0.01	1.76	0.64	1.00	99	97	100	100
FDLT	0.98	1.00	1.00	0.08	0.01	0.01	0.74	0.88	1.00	100	99	100	100
PDLT	1.00	1.00	1.00	0.07	0.01	0.01	0.95	0.66	1.00	99	99	100	100

KYTC Intersection Control Evaluation Forms

Stage 1: Screening

Complete the following form and append all supporting documentation. Submit completed forms to the Location Engineer for the project's district.

Project Information

District	1	County	Carlisle	Item No.		No. of Intersection Legs	4
	Prefix and Number	Functional Classification	Current AADT	No. of Lanes	Existing Multimodal Facilities		
Mainline Route	US 51	Arterial	3000	2	N/A		
Secondary Route	US 62	Arterial	2200	2	N/A		
Project Purpose and Need	Improving mobility and safety along US 51 between Fulton and Wickliffe						
Existing Intersection Control	Two-Way Stop-Controlled						

Context and Equity

Context Classification	Rural Town	Likely Travel Needs	Freight between IL/KY/TN, Local traffic , Local cyclists				
Land Use Northwest Quadrant	commercial			Land Use Northeast Quadrant	commercial		
Land Use Southwest Quadrant	commercial			Land Use Southeast Quadrant	commercial		

Intersection Control Alternative Screening

Intersection or Interchange Alternative	a.) CAP-X V/c ratio *	b.) CAP-X Pedestrian Accommodation Score	c.) CAP-X Bicycle Accommodation Score	d.) SSI Score **	e.) Impractical to implement (considering cost, potential r/w and environmental impacts)?	f.) Meets the transportation purpose and need?	g.) Addresses the key system performance criteria (safety, all roadway users, operations, etc.)?	h.) Alternative is selected to advance to Stage 2 for further evaluation.	Justification:
Signalized Control	0.38	5.40	4.54	100	No	Yes	Yes	Yes	
Roundabout (1-lane)	0.25	5.51	4.58	100	Not Sure	Yes	Yes	Yes	ROW concern for heavy truck needs
All-Way Stop-Controlled	0.48	4.00	4.54	100	No	Yes	Yes	Yes	

*Attachments: CAP-X and SSI Files, last 5 years crash data for the existing intersection (if applicable)

**If evaluating interchanges and using the Interchange Configuration Safety Tool, note the Expected KABC crash frequency.

Comments:							
Prepared By:	Steven Trevino (Qk4)			Reviewed By:			

Results Summary

Existing alternative (drop down): Trad_MinorStop

Alt	Exposure (Relative to Existing)			Average P (FSI)			Average Complexity			SSI Score	SSI Conflict Type Score		
	Crossing	Merging	Diverging	Crossing	Merging	Diverging	Crossing	Merging	Diverging	Score	Crossing	Merging	Diverging
RAB1x1	1.04	1.59	1.37	0.00	0.00	0.00	0.27	0.27	1.00	100	100	100	100
RAB2x1	1.04	1.59	1.37	0.00	0.00	0.00	0.40	0.37	1.00	100	100	100	100
Trad_AllStop	1.00	1.00	1.00	0.01	0.00	0.00	0.85	0.32	1.00	100	99	100	100
MUT	0.60	3.20	3.72	0.02	0.00	0.00	0.22	0.22	1.00	100	100	100	100
RAB2x2	1.04	1.59	1.37	0.00	0.00	0.00	0.54	0.47	1.00	100	100	100	100
RCUT_Sig	0.34	3.79	4.08	0.05	0.00	0.00	0.22	0.22	1.00	100	100	100	100
Bowtie	1.10	2.63	2.74	0.02	0.00	0.00	0.45	0.37	1.00	100	99	100	100
QR	1.43	1.60	1.51	0.02	0.00	0.00	0.52	0.27	1.00	100	99	100	100
Jughandle	1.05	1.35	1.27	0.02	0.00	0.00	0.67	0.39	1.00	100	99	100	100
Trad_Sig	1.00	1.00	1.00	0.02	0.00	0.00	0.73	0.22	1.00	100	99	100	100
RCUT_Unsig	0.34	3.79	4.08	0.03	0.00	0.00	0.32	0.32	1.00	100	100	100	100
Trad_MinorStop	1.00	1.00	1.00	0.02	0.00	0.00	0.89	0.32	1.00	100	99	100	100
FDLT	0.86	1.00	1.00	0.02	0.00	0.00	0.37	0.45	1.00	100	99	100	100
PDLT	1.00	1.00	1.00	0.02	0.00	0.00	0.48	0.34	1.00	100	99	100	100

KYTC Intersection Control Evaluation Forms

Stage 1: Screening

Complete the following form and append all supporting documentation. Submit completed forms to the Location Engineer for the project's district.

Project Information

District	1	County	Hickman	Item No.		No. of Intersection Legs	4
	Prefix and Number	Functional Classification	Current AADT	No. of Lanes	Existing Multimodal Facilities		
Mainline Route	US 51	Arterial	4200	2	sidewalks		
Secondary Route	KY 58	Arterial	2300	2	sidewalks		
Project Purpose and Need	Improving mobility and safety along US 51 between Fulton and Wickliffe						
Existing Intersection Control	Two-Way Stop-Controlled						

Context and Equity

Context Classification	Rural Town	Likely Travel Needs	Freight between IL/KY/TN, Local traffic , Local cyclists				
Land Use Northwest Quadrant	commercial			Land Use Northeast Quadrant	commercial		
Land Use Southwest Quadrant	commercial			Land Use Southeast Quadrant	residential		

Intersection Control Alternative Screening

Intersection or Interchange Alternative	a.) CAP-X V/C ratio *	b.) CAP-X Pedestrian Accommodation Score	c.) CAP-X Bicycle Accommodation Score	d.) SSI Score **	e.) Impractical to implement (considering cost, potential r/w and environmental impacts)?	f.) Meets the transportation purpose and need?	g.) Addresses the key system performance criteria (safety, all roadway users, operations, etc.)?	h.) Alternative is selected to advance to Stage 2 for further evaluation.	Justification:
Signalized Control	0.50	4.94	4.46	99	No	Yes	Yes	Yes	
Roundabout (1-lane)	0.47	5.43	4.50	100	Not Sure	Yes	Yes	Yes	ROW restricted; heavy truck radius needed
Two-Way Stop-Controlled	0.94	2.91	4.08	99	No	Yes	Not Sure	Not Sure	
All-Way Stop-Controlled	0.72	3.87	4.46	100	No	Yes	Yes	Yes	

*Attachments: CAP-X and SSI Files, last 5 years crash data for the existing intersection (if applicable)

**If evaluating interchanges and using the Interchange Configuration Safety Tool, note the Expected KABC crash frequency.

Comments:			
Prepared By:	Steven Trevino (Qk4)	Reviewed By:	

Results Summary

Existing alternative (drop down): Trad_MinorStop

Alt	Exposure (Relative to Existing)			Average P (FSI)			Average Complexity			SSI Score	SSI Conflict Type Score		
	Crossing	Merging	Diverging	Crossing	Merging	Diverging	Crossing	Merging	Diverging	Score	Crossing	Merging	Diverging
RAB1x1	0.98	1.52	1.36	0.00	0.00	0.00	0.27	0.27	1.00	100	100	100	100
RAB2x1	0.98	1.52	1.36	0.00	0.00	0.00	0.40	0.37	1.00	100	100	100	100
Trad_AllStop	1.00	1.00	1.00	0.01	0.00	0.00	0.85	0.32	1.00	100	99	100	100
MUT	0.51	2.78	2.88	0.02	0.00	0.00	0.22	0.22	1.00	100	100	100	100
RAB2x2	0.98	1.52	1.36	0.00	0.00	0.00	0.54	0.47	1.00	100	100	100	100
RCUT_Sig	0.43	2.98	3.10	0.05	0.00	0.00	0.22	0.22	1.00	100	100	100	100
Bowtie	1.21	2.14	2.18	0.02	0.00	0.00	0.45	0.37	1.00	100	99	100	100
QR	1.42	1.56	1.53	0.02	0.00	0.00	0.52	0.27	1.00	100	99	100	100
Jughandle	1.12	1.35	1.28	0.02	0.00	0.00	0.67	0.39	1.00	100	99	100	100
Trad_Sig	1.00	1.00	1.00	0.02	0.00	0.00	0.73	0.22	1.00	99	98	100	100
RCUT_Unsig	0.43	2.98	3.10	0.03	0.00	0.00	0.32	0.32	1.00	100	100	100	100
Trad_MinorStop	1.00	1.00	1.00	0.02	0.00	0.00	0.89	0.32	1.00	99	98	100	100
FDLT	0.88	1.00	1.00	0.02	0.00	0.00	0.37	0.45	1.00	100	99	100	100
PDLT	1.00	1.00	1.00	0.02	0.00	0.00	0.48	0.34	1.00	100	99	100	100