

Phone: Fax:  
 E-mail:

-----Operational Analysis-----

Analyst:  
 Agency or Company: Qk4  
 Date Performed: 4/4/2014  
 Analysis Time Period: AM Design Hour  
 Freeway/Direction: Edward T Breathitt Pkwy  
 From/To: Interstate 24 to Lovers Ln  
 Jurisdiction: KYTC  
 Analysis Year: 2013  
 Description: Interstate 69 Conversion

-----Flow Inputs and Adjustments-----

Volume, V	460	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	128	v
Trucks and buses	22	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.901	
Driver population factor, fp	1.00	
Flow rate, vp	284	pc/h/ln

-----Speed Inputs and Adjustments-----

Lane width	12.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	0.39	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	1.5	mi/h
Free-flow speed, FFS	73.9	mi/h

-----LOS and Performance Measures-----

Flow rate, vp	284	pc/h/ln
Free-flow speed, FFS	73.9	mi/h
Average passenger-car speed, S	75.0	mi/h
Number of lanes, N	2	
Density, D	3.8	pc/mi/ln
Level of service, LOS	A	

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 Analysis Time Period: PM Design Hour  
 Freeway/Direction: Edward T Breathitt Pkwy  
 From/To: US 62 to I 69  
 Jurisdiction: KYTC  
 Analysis Year: 2040  
 Description: Interstate 69 Conversion

-----Flow Inputs and Adjustments-----

Volume, V	770	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	214	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.917	
Driver population factor, fp	1.00	
Flow rate, vp	466	pc/h/ln

-----Speed Inputs and Adjustments-----

Lane width	11.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	1.41	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	1.9	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	4.3	mi/h
Free-flow speed, FFS	69.2	mi/h

-----LOS and Performance Measures-----

Flow rate, vp	466	pc/h/ln
Free-flow speed, FFS	69.2	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	2	
Density, D	6.7	pc/mi/ln
Level of service, LOS	A	

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Freeway/Direction: Edward T Breathitt Pkwy  
From/To: US 62 to I 69  
Jurisdiction: KYTC  
Analysis Year: 2040 Build  
Description: Interstate 69 Conversion

-----Flow Inputs and Adjustments-----

Volume, V	770	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	214	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.917	
Driver population factor, fp	1.00	
Flow rate, vp	466	pc/h/ln

-----Speed Inputs and Adjustments-----

Lane width	11.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	1.41	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	1.9	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	4.3	mi/h
Free-flow speed, FFS	69.2	mi/h

-----LOS and Performance Measures-----

Flow rate, vp	466	pc/h/ln
Free-flow speed, FFS	69.2	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	2	
Density, D	6.7	pc/mi/ln
Level of service, LOS	A	

Overall results are not computed when free-flow speed is less than 55 mph.

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Freeway/Direction: Edward T Breathitt Pkwy  
From/To: US 62 to I 69  
Jurisdiction: KYTC  
Analysis Year: 2040  
Description: Interstate 69 Conversion

-----Flow Inputs and Adjustments-----

Volume, V	780	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	217	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.917	
Driver population factor, fp	1.00	
Flow rate, vp	472	pc/h/ln

-----Speed Inputs and Adjustments-----

Lane width	11.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	1.41	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	1.9	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	4.3	mi/h
Free-flow speed, FFS	69.2	mi/h

-----LOS and Performance Measures-----

Flow rate, vp	472	pc/h/ln
Free-flow speed, FFS	69.2	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	2	
Density, D	6.7	pc/mi/ln
Level of service, LOS	A	

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Jurisdiction: KYTC  
Analysis Year: 2040 Build  
Description: Interstate 69 Conversion

-----Flow Inputs and Adjustments-----

Volume, V	780	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	217	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.917	
Driver population factor, fp	1.00	
Flow rate, vp	472	pc/h/ln

-----Speed Inputs and Adjustments-----

Lane width	11.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	1.41	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	1.9	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	4.3	mi/h
Free-flow speed, FFS	69.2	mi/h

-----LOS and Performance Measures-----

Flow rate, vp	472	pc/h/ln
Free-flow speed, FFS	69.2	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	2	
Density, D	6.7	pc/mi/ln
Level of service, LOS	A	

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 Freeway/Direction: Edward T Breathitt Pkwy  
 From/To: US 62 to I 69  
 Jurisdiction: KYTC  
 Analysis Year: 2013  
 Description: Interstate 69 Conversion

----- Flow Inputs and Adjustments -----

Volume, V	610	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	169	v
Trucks and buses	15	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.930	
Driver population factor, fp	1.00	
Flow rate, vp	364	pc/h/ln

----- Speed Inputs and Adjustments -----

Lane width	11.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	1.41	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	1.9	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	4.3	mi/h
Free-flow speed, FFS	69.2	mi/h

----- LOS and Performance Measures -----

Flow rate, vp	364	pc/h/ln
Free-flow speed, FFS	69.2	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	2	
Density, D	5.2	pc/mi/ln
Level of service, LOS	A	



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Jurisdiction: KYTC  
Analysis Year: 2013 Build  
Description: Interstate 69 Conversion

-----Flow Inputs and Adjustments-----

Volume, V	610	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	169	v
Trucks and buses	15	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.930	
Driver population factor, fp	1.00	
Flow rate, vp	364	pc/h/ln

-----Speed Inputs and Adjustments-----

Lane width	11.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	1.41	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	1.9	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	4.3	mi/h
Free-flow speed, FFS	69.2	mi/h

-----LOS and Performance Measures-----

Flow rate, vp	364	pc/h/ln
Free-flow speed, FFS	69.2	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	2	
Density, D	5.2	pc/mi/ln
Level of service, LOS	A	

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From/To: US 62 to I 69  
Jurisdiction: KYTC  
Analysis Year: 2013  
Description: Interstate 69 Conversion

-----Flow Inputs and Adjustments-----

Volume, V	620	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	172	v
Trucks and buses	15	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.930	
Driver population factor, fp	1.00	
Flow rate, vp	370	pc/h/ln

-----Speed Inputs and Adjustments-----

Lane width	11.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	1.41	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	1.9	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	4.3	mi/h
Free-flow speed, FFS	69.2	mi/h

-----LOS and Performance Measures-----

Flow rate, vp	370	pc/h/ln
Free-flow speed, FFS	69.2	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	2	
Density, D	5.3	pc/mi/ln
Level of service, LOS	A	

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From/To: US 62 to I 69  
Jurisdiction: KYTC  
Analysis Year: 2013 Build  
Description: Interstate 69 Conversion

-----Flow Inputs and Adjustments-----

Volume, V	620	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	172	v
Trucks and buses	15	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.930	
Driver population factor, fp	1.00	
Flow rate, vp	370	pc/h/ln

-----Speed Inputs and Adjustments-----

Lane width	11.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	1.41	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	1.9	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	4.3	mi/h
Free-flow speed, FFS	69.2	mi/h

-----LOS and Performance Measures-----

Flow rate, vp	370	pc/h/ln
Free-flow speed, FFS	69.2	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	2	
Density, D	5.3	pc/mi/ln
Level of service, LOS	A	

Overall results are not computed when free-flow speed is less than 55 mph.

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Date Performed: 4/4/2014  
Analysis Time Period: PM Design Hour  
Freeway/Direction: Edward T Breathitt Pkwy  
From/To: US 41 to US 62  
Jurisdiction: KYTC  
Analysis Year: 2040  
Description: Interstate 69 Conversion

----- Flow Inputs and Adjustments -----

Volume, V	610	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	169	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.917	
Driver population factor, fp	1.00	
Flow rate, vp	369	pc/h/ln

----- Speed Inputs and Adjustments -----

Lane width	11.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	0.61	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	1.9	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	2.1	mi/h
Free-flow speed, FFS	71.4	mi/h

----- LOS and Performance Measures -----

Flow rate, vp	369	pc/h/ln
Free-flow speed, FFS	71.4	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	2	
Density, D	5.3	pc/mi/ln
Level of service, LOS	A	

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Freeway/Direction: Edward T Breathitt Pkwy  
From/To: US 41 to US 62  
Jurisdiction: KYTC  
Analysis Year: 2013  
Description: Interstate 69 Conversion

-----Flow Inputs and Adjustments-----

Volume, V	470	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	131	v
Trucks and buses	15	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.930	
Driver population factor, fp	1.00	
Flow rate, vp	281	pc/h/ln

-----Speed Inputs and Adjustments-----

Lane width	11.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	0.61	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	1.9	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	2.1	mi/h
Free-flow speed, FFS	71.4	mi/h

-----LOS and Performance Measures-----

Flow rate, vp	281	pc/h/ln
Free-flow speed, FFS	71.4	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	2	
Density, D	4.0	pc/mi/ln
Level of service, LOS	A	

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 Freeway/Direction: Edward T Breathitt Pkwy  
 From/To: US 41 to US 62  
 Jurisdiction: KYTC  
 Analysis Year: 2040 Build  
 Description: Interstate 69 Conversion

-----Flow Inputs and Adjustments-----

Volume, V	610	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	169	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.917	
Driver population factor, fp	1.00	
Flow rate, vp	369	pc/h/ln

-----Speed Inputs and Adjustments-----

Lane width	11.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	0.61	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	1.9	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	2.1	mi/h
Free-flow speed, FFS	71.4	mi/h

-----LOS and Performance Measures-----

Flow rate, vp	369	pc/h/ln
Free-flow speed, FFS	71.4	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	2	
Density, D	5.3	pc/mi/ln
Level of service, LOS	A	



Overall results are not computed when free-flow speed is less than 55 mph.

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 Freeway/Direction: Edward T Breathitt Pkwy  
 From/To: US 41 to US 62  
 Jurisdiction: KYTC  
 Analysis Year: 2013 Build  
 Description: Interstate 69 Conversion

-----Flow Inputs and Adjustments-----

Volume, V	460	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	128	v
Trucks and buses	15	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.930	
Driver population factor, fp	1.00	
Flow rate, vp	275	pc/h/ln

-----Speed Inputs and Adjustments-----

Lane width	11.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	0.61	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	1.9	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	2.1	mi/h
Free-flow speed, FFS	71.4	mi/h

-----LOS and Performance Measures-----

Flow rate, vp	275	pc/h/ln
Free-flow speed, FFS	71.4	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	2	
Density, D	3.9	pc/mi/ln
Level of service, LOS	A	

Overall results are not computed when free-flow speed is less than 55 mph.

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Freeway/Direction: Edward T Breathitt Pkwy  
From/To: US 41 to US 62  
Jurisdiction: KYTC  
Analysis Year: 2040  
Description: Interstate 69 Conversion

-----Flow Inputs and Adjustments-----

Volume, V	640	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	178	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.917	
Driver population factor, fp	1.00	
Flow rate, vp	388	pc/h/ln

-----Speed Inputs and Adjustments-----

Lane width	11.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	0.61	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	1.9	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	2.1	mi/h
Free-flow speed, FFS	71.4	mi/h

-----LOS and Performance Measures-----

Flow rate, vp	388	pc/h/ln
Free-flow speed, FFS	71.4	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	2	
Density, D	5.5	pc/mi/ln
Level of service, LOS	A	

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Analysis Time Period: AM Design Hour  
Freeway/Direction: Edward T Breathitt Pkwy  
From/To: US 41 to US 62  
Jurisdiction: KYTC  
Analysis Year: 2013  
Description: Interstate 69 Conversion

-----Flow Inputs and Adjustments-----

Volume, V	490	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	136	v
Trucks and buses	15	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.930	
Driver population factor, fp	1.00	
Flow rate, vp	293	pc/h/ln

-----Speed Inputs and Adjustments-----

Lane width	11.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	0.61	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	1.9	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	2.1	mi/h
Free-flow speed, FFS	71.4	mi/h

-----LOS and Performance Measures-----

Flow rate, vp	293	pc/h/ln
Free-flow speed, FFS	71.4	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	2	
Density, D	4.2	pc/mi/ln
Level of service, LOS	A	

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From/To: US 41 to US 62  
Jurisdiction: KYTC  
Analysis Year: 2040 Build  
Description: Interstate 69 Conversion

----- Flow Inputs and Adjustments -----

Volume, V	640	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	178	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.917	
Driver population factor, fp	1.00	
Flow rate, vp	388	pc/h/ln

----- Speed Inputs and Adjustments -----

Lane width	11.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	0.61	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	1.9	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	2.1	mi/h
Free-flow speed, FFS	71.4	mi/h

----- LOS and Performance Measures -----

Flow rate, vp	388	pc/h/ln
Free-flow speed, FFS	71.4	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	2	
Density, D	5.5	pc/mi/ln
Level of service, LOS	A	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:  
E-mail:

-----Operational Analysis-----

Analyst:  
Agency or Company: Qk4  
Date Performed: 4/4/2014  
Analysis Time Period: AM Design Hour  
Freeway/Direction: Edward T Breathitt Pkwy  
From/To: US 41 to US 62  
Jurisdiction: KYTC  
Analysis Year: 2013 Build  
Description: Interstate 69 Conversion

-----Flow Inputs and Adjustments-----

Volume, V	480	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	133	v
Trucks and buses	15	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.930	
Driver population factor, fp	1.00	
Flow rate, vp	287	pc/h/ln

-----Speed Inputs and Adjustments-----

Lane width	11.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	0.61	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	1.9	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	2.1	mi/h
Free-flow speed, FFS	71.4	mi/h

-----LOS and Performance Measures-----

Flow rate, vp	287	pc/h/ln
Free-flow speed, FFS	71.4	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	2	
Density, D	4.1	pc/mi/ln
Level of service, LOS	A	



Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:  
E-mail:

-----Operational Analysis-----

Analyst:  
Agency or Company: Qk4  
Date Performed: 4/4/2014  
Analysis Time Period: PM Design Hour  
Freeway/Direction: Edward T Breathitt Pkwy  
From/To: KY 800 to US 41  
Jurisdiction: KYTC  
Analysis Year: 2040  
Description: Interstate 69 Conversion

-----Flow Inputs and Adjustments-----

Volume, V	620	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	172	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.917	
Driver population factor, fp	1.00	
Flow rate, vp	375	pc/h/ln

-----Speed Inputs and Adjustments-----

Lane width	11.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	0.29	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	1.9	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	1.1	mi/h
Free-flow speed, FFS	72.4	mi/h

-----LOS and Performance Measures-----

Flow rate, vp	375	pc/h/ln
Free-flow speed, FFS	72.4	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	2	
Density, D	5.4	pc/mi/ln
Level of service, LOS	A	

Phone: Fax:  
 E-mail:

----- Operational Analysis -----

Analyst:  
 Agency or Company: Qk4  
 Date Performed: 4/4/2014  
 Analysis Time Period: PM Design Hour  
 Freeway/Direction: Edward T Breathitt Pkwy  
 From/To: KY 800 to US 41  
 Jurisdiction: KYTC  
 Analysis Year: 2013  
 Description: Interstate 69 Conversion

----- Flow Inputs and Adjustments -----

Volume, V	460	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	128	v
Trucks and buses	15	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.930	
Driver population factor, fp	1.00	
Flow rate, vp	275	pc/h/ln

----- Speed Inputs and Adjustments -----

Lane width	11.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	0.29	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	1.9	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	1.1	mi/h
Free-flow speed, FFS	72.4	mi/h

----- LOS and Performance Measures -----

Flow rate, vp	275	pc/h/ln
Free-flow speed, FFS	72.4	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	2	
Density, D	3.9	pc/mi/ln
Level of service, LOS	A	

Phone: Fax:  
E-mail:

-----Operational Analysis-----

Analyst:  
Agency or Company: Qk4  
Date Performed: 4/4/2014  
Analysis Time Period: PM Design Hour  
Freeway/Direction: Edward T Breathitt Pkwy  
From/To: KY 800 to US 41  
Jurisdiction: KYTC  
Analysis Year: 2040 Build  
Description: Interstate 69 Conversion

-----Flow Inputs and Adjustments-----

Volume, V	620	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	172	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.917	
Driver population factor, fp	1.00	
Flow rate, vp	375	pc/h/ln

-----Speed Inputs and Adjustments-----

Lane width	11.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	0.29	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	1.9	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	1.1	mi/h
Free-flow speed, FFS	72.4	mi/h

-----LOS and Performance Measures-----

Flow rate, vp	375	pc/h/ln
Free-flow speed, FFS	72.4	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	2	
Density, D	5.4	pc/mi/ln
Level of service, LOS	A	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:  
E-mail:

-----Operational Analysis-----

Analyst:  
Agency or Company: Qk4  
Date Performed: 4/4/2014  
Analysis Time Period: PM Design Hour  
Freeway/Direction: Edward T Breathitt Pkwy  
From/To: KY 800 to US 41  
Jurisdiction: KYTC  
Analysis Year: 2013 Build  
Description: Interstate 69 Conversion

-----Flow Inputs and Adjustments-----

Volume, V	460	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	128	v
Trucks and buses	15	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.930	
Driver population factor, fp	1.00	
Flow rate, vp	275	pc/h/ln

-----Speed Inputs and Adjustments-----

Lane width	11.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	0.29	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	1.9	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	1.1	mi/h
Free-flow speed, FFS	72.4	mi/h

-----LOS and Performance Measures-----

Flow rate, vp	275	pc/h/ln
Free-flow speed, FFS	72.4	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	2	
Density, D	3.9	pc/mi/ln
Level of service, LOS	A	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:  
 E-mail:

-----Operational Analysis-----

Analyst:  
 Agency or Company: Qk4  
 Date Performed: 4/4/2014  
 Analysis Time Period: AM Design Hour  
 Freeway/Direction: Edward T Breathitt Pkwy  
 From/To: KY 800 to US 41  
 Jurisdiction: KYTC  
 Analysis Year: 2040  
 Description: Interstate 69 Conversion

-----Flow Inputs and Adjustments-----

Volume, V	760	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	211	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.917	
Driver population factor, fp	1.00	
Flow rate, vp	460	pc/h/ln

-----Speed Inputs and Adjustments-----

Lane width	11.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	0.29	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	1.9	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	1.1	mi/h
Free-flow speed, FFS	72.4	mi/h

-----LOS and Performance Measures-----

Flow rate, vp	460	pc/h/ln
Free-flow speed, FFS	72.4	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	2	
Density, D	6.6	pc/mi/ln
Level of service, LOS	A	



Phone: Fax:  
E-mail:

-----Operational Analysis-----

Analyst:  
Agency or Company: Qk4  
Date Performed: 4/4/2014  
Analysis Time Period: AM Design Hour  
Freeway/Direction: Edward T Breathitt Pkwy  
From/To: KY 800 to US 41  
Jurisdiction: KYTC  
Analysis Year: 2013  
Description: Interstate 69 Conversion

-----Flow Inputs and Adjustments-----

Volume, V	550	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	153	v
Trucks and buses	15	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.930	
Driver population factor, fp	1.00	
Flow rate, vp	328	pc/h/ln

-----Speed Inputs and Adjustments-----

Lane width	11.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	0.29	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	1.9	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	1.1	mi/h
Free-flow speed, FFS	72.4	mi/h

-----LOS and Performance Measures-----

Flow rate, vp	328	pc/h/ln
Free-flow speed, FFS	72.4	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	2	
Density, D	4.7	pc/mi/ln
Level of service, LOS	A	

Phone: Fax:  
 E-mail:

-----Operational Analysis-----

Analyst:  
 Agency or Company: Qk4  
 Date Performed: 4/4/2014  
 Analysis Time Period: AM Design Hour  
 Freeway/Direction: Edward T Breathitt Pkwy  
 From/To: KY 800 to US 41  
 Jurisdiction: KYTC  
 Analysis Year: 2040 Build  
 Description: Interstate 69 Conversion

-----Flow Inputs and Adjustments-----

Volume, V	760	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	211	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.917	
Driver population factor, fp	1.00	
Flow rate, vp	460	pc/h/ln

-----Speed Inputs and Adjustments-----

Lane width	11.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	0.29	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	1.9	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	1.1	mi/h
Free-flow speed, FFS	72.4	mi/h

-----LOS and Performance Measures-----

Flow rate, vp	460	pc/h/ln
Free-flow speed, FFS	72.4	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	2	
Density, D	6.6	pc/mi/ln
Level of service, LOS	A	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:  
E-mail:

-----Operational Analysis-----

Analyst:  
Agency or Company: Qk4  
Date Performed: 4/4/2014  
Analysis Time Period: AM Design Hour  
Freeway/Direction: Edward T Breathitt Pkwy  
From/To: KY 800 to US 41  
Jurisdiction: KYTC  
Analysis Year: 2013 Build  
Description: Interstate 69 Conversion

-----Flow Inputs and Adjustments-----

Volume, V	550	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	153	v
Trucks and buses	15	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.930	
Driver population factor, fp	1.00	
Flow rate, vp	328	pc/h/ln

-----Speed Inputs and Adjustments-----

Lane width	11.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	0.29	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	1.9	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	1.1	mi/h
Free-flow speed, FFS	72.4	mi/h

-----LOS and Performance Measures-----

Flow rate, vp	328	pc/h/ln
Free-flow speed, FFS	72.4	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	2	
Density, D	4.7	pc/mi/ln
Level of service, LOS	A	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:  
 E-mail:

-----Operational Analysis-----

Analyst:  
 Agency or Company: Qk4  
 Date Performed: 4/4/2014  
 Analysis Time Period: PM Design Hour  
 Freeway/Direction: Edward T Breathitt Pkwy  
 From/To: KY 1682 to KY 800  
 Jurisdiction: KYTC  
 Analysis Year: 2040  
 Description: Interstate 69 Conversion

-----Flow Inputs and Adjustments-----

Volume, V	530	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	147	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.917	
Driver population factor, fp	1.00	
Flow rate, vp	321	pc/h/ln

-----Speed Inputs and Adjustments-----

Lane width	12.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	0.18	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	0.8	mi/h
Free-flow speed, FFS	74.6	mi/h

-----LOS and Performance Measures-----

Flow rate, vp	321	pc/h/ln
Free-flow speed, FFS	74.6	mi/h
Average passenger-car speed, S	75.0	mi/h
Number of lanes, N	2	
Density, D	4.3	pc/mi/ln
Level of service, LOS	A	

Phone: Fax:  
E-mail:

-----Operational Analysis-----

Analyst:  
Agency or Company: Qk4  
Date Performed: 4/4/2014  
Analysis Time Period: PM Design Hour  
Freeway/Direction: Edward T Breathitt Pkwy  
From/To: KY 1682 to KY 800  
Jurisdiction: KYTC  
Analysis Year: 2013  
Description: Interstate 69 Conversion

-----Flow Inputs and Adjustments-----

Volume, V	410	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	114	v
Trucks and buses	15	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.930	
Driver population factor, fp	1.00	
Flow rate, vp	245	pc/h/ln

-----Speed Inputs and Adjustments-----

Lane width	12.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	0.18	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	0.8	mi/h
Free-flow speed, FFS	74.6	mi/h

-----LOS and Performance Measures-----

Flow rate, vp	245	pc/h/ln
Free-flow speed, FFS	74.6	mi/h
Average passenger-car speed, S	75.0	mi/h
Number of lanes, N	2	
Density, D	3.3	pc/mi/ln
Level of service, LOS	A	

Phone: Fax:  
E-mail:

-----Operational Analysis-----

Analyst:  
Agency or Company: Qk4  
Date Performed: 4/4/2014  
Analysis Time Period: AM Design Hour  
Freeway/Direction: Edward T Breathitt Pkwy  
From/To: KY 1682 to KY 800  
Jurisdiction: KYTC  
Analysis Year: 2040  
Description: Interstate 69 Conversion

-----Flow Inputs and Adjustments-----

Volume, V	570	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	158	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.917	
Driver population factor, fp	1.00	
Flow rate, vp	345	pc/h/ln

-----Speed Inputs and Adjustments-----

Lane width	12.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	0.18	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	0.8	mi/h
Free-flow speed, FFS	74.6	mi/h

-----LOS and Performance Measures-----

Flow rate, vp	345	pc/h/ln
Free-flow speed, FFS	74.6	mi/h
Average passenger-car speed, S	75.0	mi/h
Number of lanes, N	2	
Density, D	4.6	pc/mi/ln
Level of service, LOS	A	



Phone: Fax:  
E-mail:

----- Operational Analysis -----

Analyst:  
Agency or Company: Qk4  
Date Performed: 4/4/2014  
Analysis Time Period: AM Design Hour  
Freeway/Direction: Edward T Breathitt Pkwy  
From/To: KY 1682 to KY 800  
Jurisdiction: KYTC  
Analysis Year: 2013  
Description: Interstate 69 Conversion

----- Flow Inputs and Adjustments -----

Volume, V	450	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	125	v
Trucks and buses	15	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.930	
Driver population factor, fp	1.00	
Flow rate, vp	269	pc/h/ln

----- Speed Inputs and Adjustments -----

Lane width	12.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	0.18	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	0.8	mi/h
Free-flow speed, FFS	74.6	mi/h

----- LOS and Performance Measures -----

Flow rate, vp	269	pc/h/ln
Free-flow speed, FFS	74.6	mi/h
Average passenger-car speed, S	75.0	mi/h
Number of lanes, N	2	
Density, D	3.6	pc/mi/ln
Level of service, LOS	A	

Phone: Fax:  
 E-mail:

-----Operational Analysis-----

Analyst:  
 Agency or Company: Qk4  
 Date Performed: 4/4/2014  
 Analysis Time Period: PM Design Hour  
 Freeway/Direction: Edward T Breathitt Pkwy  
 From/To: US 68 to KY 1682  
 Jurisdiction: KYTC  
 Analysis Year: 2040  
 Description: Interstate 69 Conversion

-----Flow Inputs and Adjustments-----

Volume, V	1020	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	283	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.917	
Driver population factor, fp	1.00	
Flow rate, vp	618	pc/h/ln

-----Speed Inputs and Adjustments-----

Lane width	12.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	0.85	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	2.8	mi/h
Free-flow speed, FFS	72.6	mi/h

-----LOS and Performance Measures-----

Flow rate, vp	618	pc/h/ln
Free-flow speed, FFS	72.6	mi/h
Average passenger-car speed, S	75.0	mi/h
Number of lanes, N	2	
Density, D	8.2	pc/mi/ln
Level of service, LOS	A	

Phone: Fax:  
 E-mail:

-----Operational Analysis-----

Analyst:  
 Agency or Company: Qk4  
 Date Performed: 4/4/2014  
 Analysis Time Period: PM Design Hour  
 Freeway/Direction: Edward T Breathitt Pkwy  
 From/To: US 68 to KY 1682  
 Jurisdiction: KYTC  
 Analysis Year: 2013  
 Description: Interstate 69 Conversion

-----Flow Inputs and Adjustments-----

Volume, V	780	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	217	v
Trucks and buses	15	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.930	
Driver population factor, fp	1.00	
Flow rate, vp	466	pc/h/ln

-----Speed Inputs and Adjustments-----

Lane width	12.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	0.85	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	2.8	mi/h
Free-flow speed, FFS	72.6	mi/h

-----LOS and Performance Measures-----

Flow rate, vp	466	pc/h/ln
Free-flow speed, FFS	72.6	mi/h
Average passenger-car speed, S	75.0	mi/h
Number of lanes, N	2	
Density, D	6.2	pc/mi/ln
Level of service, LOS	A	

Phone: Fax:  
 E-mail:

----- Operational Analysis -----

Analyst:  
 Agency or Company: Qk4  
 Date Performed: 4/4/2014  
 Analysis Time Period: AM Design Hour  
 Freeway/Direction: Edward T Breathitt Pkwy  
 From/To: US 68 to KY 1682  
 Jurisdiction: KYTC  
 Analysis Year: 2040  
 Description: Interstate 69 Conversion

----- Flow Inputs and Adjustments -----

Volume, V	1050	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	292	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.917	
Driver population factor, fp	1.00	
Flow rate, vp	636	pc/h/ln

----- Speed Inputs and Adjustments -----

Lane width	12.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	0.85	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	2.8	mi/h
Free-flow speed, FFS	72.6	mi/h

----- LOS and Performance Measures -----

Flow rate, vp	636	pc/h/ln
Free-flow speed, FFS	72.6	mi/h
Average passenger-car speed, S	75.0	mi/h
Number of lanes, N	2	
Density, D	8.5	pc/mi/ln
Level of service, LOS	A	

Phone: Fax:  
 E-mail:

-----Operational Analysis-----

Analyst:  
 Agency or Company: Qk4  
 Date Performed: 4/4/2014  
 Analysis Time Period: AM Design Hour  
 Freeway/Direction: Edward T Breathitt Pkwy  
 From/To: US 68 to KY 1682  
 Jurisdiction: KYTC  
 Analysis Year: 2013  
 Description: Interstate 69 Conversion

-----Flow Inputs and Adjustments-----

Volume, V	810	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	225	v
Trucks and buses	15	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.930	
Driver population factor, fp	1.00	
Flow rate, vp	484	pc/h/ln

-----Speed Inputs and Adjustments-----

Lane width	12.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	0.85	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	2.8	mi/h
Free-flow speed, FFS	72.6	mi/h

-----LOS and Performance Measures-----

Flow rate, vp	484	pc/h/ln
Free-flow speed, FFS	72.6	mi/h
Average passenger-car speed, S	75.0	mi/h
Number of lanes, N	2	
Density, D	6.5	pc/mi/ln
Level of service, LOS	A	

Phone: Fax:  
E-mail:

-----Operational Analysis-----

Analyst:  
Agency or Company: Qk4  
Date Performed: 4/4/2014  
Analysis Time Period: PM Design Hour  
Freeway/Direction: Edward T Breathitt Pkwy  
From/To: US 41 to US 68  
Jurisdiction: KYTC  
Analysis Year: 2040  
Description: Interstate 69 Conversion

-----Flow Inputs and Adjustments-----

Volume, V	1180	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	328	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.917	
Driver population factor, fp	1.00	
Flow rate, vp	715	pc/h/ln

-----Speed Inputs and Adjustments-----

Lane width	12.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	1.40	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	4.3	mi/h
Free-flow speed, FFS	71.1	mi/h

-----LOS and Performance Measures-----

Flow rate, vp	715	pc/h/ln
Free-flow speed, FFS	71.1	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	2	
Density, D	10.2	pc/mi/ln
Level of service, LOS	A	

Phone: Fax:  
E-mail:

----- Operational Analysis -----

Analyst:  
Agency or Company: Qk4  
Date Performed: 4/4/2014  
Analysis Time Period: PM Design Hour  
Freeway/Direction: Edward T Breathitt Pkwy  
From/To: US 41 to US 68  
Jurisdiction: KYTC  
Analysis Year: 2013  
Description: Interstate 69 Conversion

----- Flow Inputs and Adjustments -----

Volume, V	890	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	247	v
Trucks and buses	15	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.930	
Driver population factor, fp	1.00	
Flow rate, vp	532	pc/h/ln

----- Speed Inputs and Adjustments -----

Lane width	12.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	1.40	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	4.3	mi/h
Free-flow speed, FFS	71.1	mi/h

----- LOS and Performance Measures -----

Flow rate, vp	532	pc/h/ln
Free-flow speed, FFS	71.1	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	2	
Density, D	7.6	pc/mi/ln
Level of service, LOS	A	

Phone: Fax:  
E-mail:

-----Operational Analysis-----

Analyst:  
Agency or Company: Qk4  
Date Performed: 4/4/2014  
Analysis Time Period: AM Design Hour  
Freeway/Direction: Edward T Breathitt Pkwy  
From/To: US 41 to US 68  
Jurisdiction: KYTC  
Analysis Year: 2040  
Description: Interstate 69 Conversion

-----Flow Inputs and Adjustments-----

Volume, V	1160	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	322	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.917	
Driver population factor, fp	1.00	
Flow rate, vp	702	pc/h/ln

-----Speed Inputs and Adjustments-----

Lane width	12.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	1.40	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	4.3	mi/h
Free-flow speed, FFS	71.1	mi/h

-----LOS and Performance Measures-----

Flow rate, vp	702	pc/h/ln
Free-flow speed, FFS	71.1	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	2	
Density, D	10.0	pc/mi/ln
Level of service, LOS	A	



Phone: Fax:  
E-mail:

-----Operational Analysis-----

Analyst:  
Agency or Company: Qk4  
Date Performed: 4/4/2014  
Analysis Time Period: AM Design Hour  
Freeway/Direction: Edward T Breathitt Pkwy  
From/To: US 41 to US 68  
Jurisdiction: KYTC  
Analysis Year: 2013  
Description: Interstate 69 Conversion

-----Flow Inputs and Adjustments-----

Volume, V	870	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	242	v
Trucks and buses	15	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.930	
Driver population factor, fp	1.00	
Flow rate, vp	520	pc/h/ln

-----Speed Inputs and Adjustments-----

Lane width	12.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	1.40	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	4.3	mi/h
Free-flow speed, FFS	71.1	mi/h

-----LOS and Performance Measures-----

Flow rate, vp	520	pc/h/ln
Free-flow speed, FFS	71.1	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	2	
Density, D	7.4	pc/mi/ln
Level of service, LOS	A	

Phone: Fax:  
 E-mail:

-----Operational Analysis-----

Analyst:  
 Agency or Company: Qk4  
 Date Performed: 4/4/2014  
 Analysis Time Period: PM Design Hour  
 Freeway/Direction: Edward T Breathitt Pkwy  
 From/To: US 41A to US 41  
 Jurisdiction: KYTC  
 Analysis Year: 2040  
 Description: Interstate 69 Conversion

-----Flow Inputs and Adjustments-----

Volume, V	1060	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	294	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.917	
Driver population factor, fp	1.00	
Flow rate, vp	642	pc/h/ln

-----Speed Inputs and Adjustments-----

Lane width	12.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	1.84	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	5.4	mi/h
Free-flow speed, FFS	70.0	mi/h

-----LOS and Performance Measures-----

Flow rate, vp	642	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	2	
Density, D	9.2	pc/mi/ln
Level of service, LOS	A	

Phone: Fax:  
 E-mail:

----- Operational Analysis -----

Analyst:  
 Agency or Company: Qk4  
 Date Performed: 4/4/2014  
 Analysis Time Period: PM Design Hour  
 Freeway/Direction: Edward T Breathitt Pkwy  
 From/To: US 41A to US 41  
 Jurisdiction: KYTC  
 Analysis Year: 2013  
 Description: Interstate 69 Conversion

----- Flow Inputs and Adjustments -----

Volume, V	800	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	222	v
Trucks and buses	15	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.930	
Driver population factor, fp	1.00	
Flow rate, vp	478	pc/h/ln

----- Speed Inputs and Adjustments -----

Lane width	12.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	1.84	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	5.4	mi/h
Free-flow speed, FFS	70.0	mi/h

----- LOS and Performance Measures -----

Flow rate, vp	478	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	2	
Density, D	6.8	pc/mi/ln
Level of service, LOS	A	

Phone: Fax:  
 E-mail:

-----Operational Analysis-----

Analyst:  
 Agency or Company: Qk4  
 Date Performed: 4/4/2014  
 Analysis Time Period: AM Design Hour  
 Freeway/Direction: Edward T Breathitt Pkwy  
 From/To: US 41A to US 41  
 Jurisdiction: KYTC  
 Analysis Year: 2040  
 Description: Interstate 69 Conversion

-----Flow Inputs and Adjustments-----

Volume, V	1040	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	289	v
Trucks and buses	18	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.917	
Driver population factor, fp	1.00	
Flow rate, vp	630	pc/h/ln

-----Speed Inputs and Adjustments-----

Lane width	12.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	1.84	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	5.4	mi/h
Free-flow speed, FFS	70.0	mi/h

-----LOS and Performance Measures-----

Flow rate, vp	630	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	2	
Density, D	9.0	pc/mi/ln
Level of service, LOS	A	

Phone: Fax:  
 E-mail:

-----Operational Analysis-----

Analyst:  
 Agency or Company: Qk4  
 Date Performed: 4/4/2014  
 Analysis Time Period: AM Design Hour  
 Freeway/Direction: Edward T Breathitt Pkwy  
 From/To: US 41A to US 41  
 Jurisdiction: KYTC  
 Analysis Year: 2013  
 Description: Interstate 69 Conversion

-----Flow Inputs and Adjustments-----

Volume, V	780	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	217	v
Trucks and buses	15	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.930	
Driver population factor, fp	1.00	
Flow rate, vp	466	pc/h/ln

-----Speed Inputs and Adjustments-----

Lane width	12.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	1.84	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	5.4	mi/h
Free-flow speed, FFS	70.0	mi/h

-----LOS and Performance Measures-----

Flow rate, vp	466	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	2	
Density, D	6.7	pc/mi/ln
Level of service, LOS	A	

Phone: Fax:  
 E-mail:

-----Operational Analysis-----

Analyst:  
 Agency or Company: Qk4  
 Date Performed: 4/4/2014  
 Analysis Time Period: PM Design Hour  
 Freeway/Direction: Edward T Breathitt Pkwy  
 From/To: US 68B to US 41A  
 Jurisdiction: KYTC  
 Analysis Year: 2040  
 Description: Interstate 69 Conversion

-----Flow Inputs and Adjustments-----

Volume, V	770	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	214	v
Trucks and buses	20	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.909	
Driver population factor, fp	1.00	
Flow rate, vp	471	pc/h/ln

-----Speed Inputs and Adjustments-----

Lane width	12.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	1.87	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	5.4	mi/h
Free-flow speed, FFS	70.0	mi/h

-----LOS and Performance Measures-----

Flow rate, vp	471	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	2	
Density, D	6.7	pc/mi/ln
Level of service, LOS	A	

Phone: Fax:  
 E-mail:

-----Operational Analysis-----

Analyst:  
 Agency or Company: Qk4  
 Date Performed: 4/4/2014  
 Analysis Time Period: PM Design Hour  
 Freeway/Direction: Edward T Breathitt Pkwy  
 From/To: US 68B to US 41A  
 Jurisdiction: KYTC  
 Analysis Year: 2013  
 Description: Interstate 69 Conversion

-----Flow Inputs and Adjustments-----

Volume, V	720	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	200	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	432	pc/h/ln

-----Speed Inputs and Adjustments-----

Lane width	12.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	1.87	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	5.4	mi/h
Free-flow speed, FFS	70.0	mi/h

-----LOS and Performance Measures-----

Flow rate, vp	432	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	2	
Density, D	6.2	pc/mi/ln
Level of service, LOS	A	

Phone: Fax:  
 E-mail:

----- Operational Analysis -----

Analyst:  
 Agency or Company: Qk4  
 Date Performed: 4/4/2014  
 Analysis Time Period: AM Design Hour  
 Freeway/Direction: Edward T Breathitt Pkwy  
 From/To: US 68B to US 41A  
 Jurisdiction: KYTC  
 Analysis Year: 2040  
 Description: Interstate 69 Conversion

----- Flow Inputs and Adjustments -----

Volume, V	770	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	214	v
Trucks and buses	20	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.909	
Driver population factor, fp	1.00	
Flow rate, vp	471	pc/h/ln

----- Speed Inputs and Adjustments -----

Lane width	12.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	1.87	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	5.4	mi/h
Free-flow speed, FFS	70.0	mi/h

----- LOS and Performance Measures -----

Flow rate, vp	471	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	2	
Density, D	6.7	pc/mi/ln
Level of service, LOS	A	



Phone: Fax:  
 E-mail:

----- Operational Analysis -----

Analyst:  
 Agency or Company: Qk4  
 Date Performed: 4/4/2014  
 Analysis Time Period: AM Design Hour  
 Freeway/Direction: Edward T Breathitt Pkwy  
 From/To: US 68B to US 41A  
 Jurisdiction: KYTC  
 Analysis Year: 2013  
 Description: Interstate 69 Conversion

----- Flow Inputs and Adjustments -----

Volume, V	720	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	200	v
Trucks and buses	16	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.926	
Driver population factor, fp	1.00	
Flow rate, vp	432	pc/h/ln

----- Speed Inputs and Adjustments -----

Lane width	12.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	1.87	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	5.4	mi/h
Free-flow speed, FFS	70.0	mi/h

----- LOS and Performance Measures -----

Flow rate, vp	432	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	2	
Density, D	6.2	pc/mi/ln
Level of service, LOS	A	

Phone: Fax:  
E-mail:

-----Operational Analysis-----

Analyst:  
Agency or Company: Qk4  
Date Performed: 4/4/2014  
Analysis Time Period: PM Design Hour  
Freeway/Direction: Edward T Breathitt Pkwy  
From/To: Lovers Ln to US 68B  
Jurisdiction: KYTC  
Analysis Year: 2040  
Description: Interstate 69 Conversion

-----Flow Inputs and Adjustments-----

Volume, V	610	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	169	v
Trucks and buses	21	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.905	
Driver population factor, fp	1.00	
Flow rate, vp	374	pc/h/ln

-----Speed Inputs and Adjustments-----

Lane width	12.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	3.42	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	9.0	mi/h
Free-flow speed, FFS	66.4	mi/h

-----LOS and Performance Measures-----

Flow rate, vp	374	pc/h/ln
Free-flow speed, FFS	66.4	mi/h
Average passenger-car speed, S	65.0	mi/h
Number of lanes, N	2	
Density, D	5.8	pc/mi/ln
Level of service, LOS	A	

Phone: Fax:  
 E-mail:

----- Operational Analysis -----

Analyst:  
 Agency or Company: Qk4  
 Date Performed: 4/4/2014  
 Analysis Time Period: PM Design Hour  
 Freeway/Direction: Edward T Breathitt Pkwy  
 From/To: Lovers Ln US 68B  
 Jurisdiction: KYTC  
 Analysis Year: 2013  
 Description: Interstate 69 Conversion

----- Flow Inputs and Adjustments -----

Volume, V	520	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	144	v
Trucks and buses	17	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.922	
Driver population factor, fp	1.00	
Flow rate, vp	313	pc/h/ln

----- Speed Inputs and Adjustments -----

Lane width	12.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	3.42	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	9.0	mi/h
Free-flow speed, FFS	66.4	mi/h

----- LOS and Performance Measures -----

Flow rate, vp	313	pc/h/ln
Free-flow speed, FFS	66.4	mi/h
Average passenger-car speed, S	65.0	mi/h
Number of lanes, N	2	
Density, D	4.8	pc/mi/ln
Level of service, LOS	A	

Phone: Fax:  
E-mail:

-----Operational Analysis-----

Analyst:  
Agency or Company: Qk4  
Date Performed: 4/4/2014  
Analysis Time Period: AM Design Hour  
Freeway/Direction: Edward T Breathitt Pkwy  
From/To: Lovers Ln to US 68B  
Jurisdiction: KYTC  
Analysis Year: 2040  
Description: Interstate 69 Conversion

-----Flow Inputs and Adjustments-----

Volume, V	660	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	183	v
Trucks and buses	21	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.905	
Driver population factor, fp	1.00	
Flow rate, vp	405	pc/h/ln

-----Speed Inputs and Adjustments-----

Lane width	12.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	3.42	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	9.0	mi/h
Free-flow speed, FFS	66.4	mi/h

-----LOS and Performance Measures-----

Flow rate, vp	405	pc/h/ln
Free-flow speed, FFS	66.4	mi/h
Average passenger-car speed, S	65.0	mi/h
Number of lanes, N	2	
Density, D	6.2	pc/mi/ln
Level of service, LOS	A	

Phone: Fax:  
E-mail:

-----Operational Analysis-----

Analyst:  
Agency or Company: Qk4  
Date Performed: 4/4/2014  
Analysis Time Period: AM Design Hour  
Freeway/Direction: Edward T Breathitt Pkwy  
From/To: Lovers Ln US 68B  
Jurisdiction: KYTC  
Analysis Year: 2013  
Description: Interstate 69 Conversion

-----Flow Inputs and Adjustments-----

Volume, V	560	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	156	v
Trucks and buses	17	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.922	
Driver population factor, fp	1.00	
Flow rate, vp	338	pc/h/ln

-----Speed Inputs and Adjustments-----

Lane width	12.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	3.42	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	9.0	mi/h
Free-flow speed, FFS	66.4	mi/h

-----LOS and Performance Measures-----

Flow rate, vp	338	pc/h/ln
Free-flow speed, FFS	66.4	mi/h
Average passenger-car speed, S	65.0	mi/h
Number of lanes, N	2	
Density, D	5.2	pc/mi/ln
Level of service, LOS	A	

Phone: Fax:  
E-mail:

-----Operational Analysis-----

Analyst:  
Agency or Company: Qk4  
Date Performed: 4/4/2014  
Analysis Time Period: PM Design Hour  
Freeway/Direction: Edward T Breathitt Pkwy  
From/To: Interstate 24 to Lovers Ln  
Jurisdiction: KYTC  
Analysis Year: 2040  
Description: Interstate 69 Conversion

-----Flow Inputs and Adjustments-----

Volume, V	730	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	203	v
Trucks and buses	25	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.889	
Driver population factor, fp	1.00	
Flow rate, vp	456	pc/h/ln

-----Speed Inputs and Adjustments-----

Lane width	12.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	0.39	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	1.5	mi/h
Free-flow speed, FFS	73.9	mi/h

-----LOS and Performance Measures-----

Flow rate, vp	456	pc/h/ln
Free-flow speed, FFS	73.9	mi/h
Average passenger-car speed, S	75.0	mi/h
Number of lanes, N	2	
Density, D	6.1	pc/mi/ln
Level of service, LOS	A	

Phone: Fax:  
E-mail:

-----Operational Analysis-----

Analyst:  
Agency or Company: Qk4  
Date Performed: 4/4/2014  
Analysis Time Period: PM Design Hour  
Freeway/Direction: Edward T Breathitt Pkwy  
From/To: Interstate 24 to Lovers Ln  
Jurisdiction: KYTC  
Analysis Year: 2013  
Description: Interstate 69 Conversion

-----Flow Inputs and Adjustments-----

Volume, V	560	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	156	v
Trucks and buses	22	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.901	
Driver population factor, fp	1.00	
Flow rate, vp	345	pc/h/ln

-----Speed Inputs and Adjustments-----

Lane width	12.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	0.39	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	1.5	mi/h
Free-flow speed, FFS	73.9	mi/h

-----LOS and Performance Measures-----

Flow rate, vp	345	pc/h/ln
Free-flow speed, FFS	73.9	mi/h
Average passenger-car speed, S	75.0	mi/h
Number of lanes, N	2	
Density, D	4.6	pc/mi/ln
Level of service, LOS	A	

Phone: Fax:  
 E-mail:

----- Operational Analysis -----

Analyst:  
 Agency or Company: Qk4  
 Date Performed: 4/4/2014  
 Analysis Time Period: AM Design Hour  
 Freeway/Direction: Edward T Breathitt Pkwy  
 From/To: Interstate 24 to Lovers Ln  
 Jurisdiction: KYTC  
 Analysis Year: 2040  
 Description: Interstate 69 Conversion

----- Flow Inputs and Adjustments -----

Volume, V	610	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	169	v
Trucks and buses	25	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.889	
Driver population factor, fp	1.00	
Flow rate, vp	381	pc/h/ln

----- Speed Inputs and Adjustments -----

Lane width	12.0	ft
Right-side lateral clearance	6.0	ft
Total ramp density, TRD	0.39	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Base	
FFS or BFFS	75.4	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
TRD adjustment	1.5	mi/h
Free-flow speed, FFS	73.9	mi/h

----- LOS and Performance Measures -----

Flow rate, vp	381	pc/h/ln
Free-flow speed, FFS	73.9	mi/h
Average passenger-car speed, S	75.0	mi/h
Number of lanes, N	2	
Density, D	5.1	pc/mi/ln
Level of service, LOS	A	



From Route	MP	To Route	MP	2013 Existing						2040 Build					
				DHV	AM Peak Hour		PM Peak Hour		Truck %	DHV	AM Peak Hour		PM Peak Hour		Truck %
					NB	SB	NB	SB			NB	SB	NB	SB	
					DHV	DHV	DHV	DHV			DHV	DHV	DHV	DHV	
I24	0	Lovers Ln	5.175	900	459	441	549	351	22%	1,200	612	588	732	468	25%
Lovers Ln	5.175	US 68B	5.759	850	289	561	332	519	17%	1,000	340	660	390	610	21%
US 68B	5.759	US 41A	6.826	1,300	715	585	585	715	16%	1,400	770	630	630	770	20%
US 41A	6.826	US 41	7.915	1,500	720	780	795	705	15%	2,000	960	1,040	1,060	940	18%
US 41	7.915	US 68	9.347	1,500	630	870	885	615	15%	2,000	840	1,160	1,180	820	18%
US 68	9.347	KY 1682	11.697	1,300	494	806	780	520	15%	1,700	646	1,054	1,020	680	18%
KY 1682	11.697	KY 800	22.641	780	335	445	413	367	15%	1,000	430	570	530	470	18%
KY 800	22.641	US 41	29.568	880	326	554	458	422	15%	1,200	444	756	624	576	18%
US 41	29.568	US 62	32.85	930	493	437	474	456	15%	1,200	636	564	612	588	18%
US 62	32.85	I69	34.271	1,100	616	484	495	605	15%	1,400	784	616	630	770	18%

From Route	MP	To Route	MP	2013 Existing						2040 Build					
				DHV	AM Peak Hour		PM Peak Hour		Truck %	DHV	AM Peak Hour		PM Peak Hour		Truck %
					NB	SB	NB	SB			NB	SB	NB	SB	
					DHV	DHV	DHV	DHV			DHV	DHV	DHV	DHV	
I24	0	Lovers Ln	5.175	900	459	441	549	351	22%	1,200	612	588	732	468	25%
Lovers Ln	5.175	US 68B	5.759	850	289	561	332	519	17%	1,000	340	660	390	610	21%
US 68B	5.759	US 41A	6.826	1,300	715	585	585	715	16%	1,400	770	630	630	770	20%
US 41A	6.826	US 41	7.915	1,500	720	780	795	705	15%	2,000	960	1,040	1,060	940	18%
US 41	7.915	US 68	9.347	1,500	630	870	885	615	15%	2,000	840	1,160	1,180	820	18%
US 68	9.347	KY 1682	11.697	1,300	494	806	780	520	15%	1,700	646	1,054	1,020	680	18%
KY 1682	11.697	KY 800	22.641	780	335	445	413	367	15%	1,000	430	570	530	470	18%
KY 800	22.641	US 41	29.568	880	326	554	458	422	15%	1,200	444	756	624	576	18%
US 41	29.568	US 62	32.85	930	493	437	474	456	15%	1,200	636	564	612	588	18%
US 62	32.85	I69	34.271	1,100	616	484	495	605	15%	1,400	784	616	630	770	18%