Appendix A
Supplemental Data Collection and Analysis

TASK 3 – ADDITIONAL DATA COLLECTION AND MAPPING

FIELD REVIEW

As part of the additional data collection phase, WSA conducted a field review along the existing sections of the Breathitt and Ford Parkways to be incorporated into the I-69 system. The supplemental information gathered during this investigation is presented in the following section.

Based upon the construction plans for the roadways, typical cross-section features have been recorded along various reaches including data on pavement widths, medians, ditches, and structures.

- Pavement – Lane and shoulder widths exist as indicated on the construction documents; all lane widths and most shoulder widths are within compliance with the applicable standards. These measurements include median and ditch information.
- Medians – Median widths generally correspond to the original construction plans but have been changed from raised medians to depressed in some sections. These widths are near AASHTO standards for the traffic volumes using the routes.
- Ditches – Existing ditches range from 6 to 18 feet wide in sections along the parkways. Over time, the earth and rock backslopes have deteriorated significantly. Thus, ditches appear narrower than indicated on construction plans. This affects performance, reflected in the number of accidents involving a vehicle running off the roadway.
- Structures – The majority of bridges on the parkways have substandard side rails, on both median and shoulder edges. Most bridges crossing the parkways meet the minimum design vertical clearance requirements mandated for the new route design; no horizontal clearance deficiencies were observed.

Measurements for medians and ditches taken from the construction documents are presented in **Table A.1**. Bridge information for the Breathitt and Ford Parkways are summarized in **Tables A.2** and **A.3**, respectively. Width and clearance data for overpasses are shown in **Tables A.4** and **A.5**.

CRASH HISTORY

Crash history data was obtained from KYTC to update data gathered during the previous study. The data used in this analysis covers crashes occurring from January 2002 through April 2006. In the study area during this time span, 396 incidents were reported on the Ford Parkway and 929 were reported along the Breathitt Parkway. Crash data was also obtained for connecting local roads in the immediate vicinity of the parkway interchanges.

KYTC procedures were applied to this new data to determine the location of high crash segments and spots, shown in **Tables A.6** and **A.7**. Figures of this data are presented in **Figure A.1** and discussed further as part of the Task 4 analysis in this Appendix.

TRAFFIC COUNTS

Traffic counts were obtained from KYTC for the ramps along both routes. The AM and PM peak hour volumes, truck percents, and ADTs for these locations are given in **Table A.8**.

Additionally, turning movement counts were performed at the base of each ramp where they join the local road network. The volumes at these locations for the AM and PM peak hours are presented in **Tables A.9** and **A.10** respectively.

MAPPING UPDATES

Additional figures related to supplemental analysis are presented in the following Task 4 discussion and figures.

TASK 4 – SUPPLEMENTAL ANALYSIS

AASHTO DESIGN POLICIES

The design standards in the January 2005 AASHTO publication *A Policy on Design Standards: Interstate System* were adopted into the Federal Register effective June 5, 2006. The standards set forth in this policy apply to all interstate highways on new right-of-way and to those undergoing complete reconstruction on existing right-of-way. Interstates undergoing 3-R improvements may use the standards that were in effect at the time of construction or in effect at the time of inclusion to the interstate system.

The standards in the 2005 edition do not substantially differ from those published in the 1991 edition of the AASHTO interstate standards manual. Example changes from the 2005 edition include

- Metric values are shown in the new edition, in addition to conventional values;
- Allowable percent grades are further divided into 5 mph increments; and
- The use of curbs in conjunction with guard rails is discouraged, but if used, the face of the curb should be behind the guard rail. This change could affect the use of curbs to control erosion of fill slopes but should have only minor effects on any 3-R improvements.

GEOMETRIC CONSIDERATIONS

To determine if the existing features on the Ford or Breathitt Parkways significantly impact vehicle crash frequency or severity, analysts examined crash data from January 2002 through April 2006. Crash locations were geospatially aligned against specific

existing roadway geometric features: ditches, medians, shoulders, bridges, and ramps, as shown in **Figure A.1**. As shown, the correlation between geometric features and high crash frequency and severity concentrations is minimal. A relationship between the crash history and traffic volumes and conflict points is more strongly established.

Ditches

Ditch slopes and widths could potentially have a primary impact on the severity of crashes. In the event of a run off the road incident, effects resulting from shorter, steeper ditches would appear as an increase in crash severity, seen through higher than average injury and fatality concentrations. The data, shown in **Table A.11**, does not indicate that these concentrations exist in narrow ditch sections.

The existing ditch cross section does not meet current AASHTO standards: a maximum slope of 4:1 is required for any foreslopes. The January 2005 *AASHTO Policy on Design Standards: Interstate System* requires that new or reconstructed interstate routes meet current standards. Resurfacing, restoration, and rehabilitation projects shall meet the standards in effect at the time of initial construction or at the time of inclusion to the Interstate System.

Existing fill slopes along the parkways presently conform to this requirement or have been fitted with guardrail. Within cut sections, a significant portion of the total corridor length has foreslopes steeper than 4:1 with backslopes cut to 2:1 or steeper. These ditches do not meet the preferred ditch cross section as recommended by the *AASHTO Roadside Design Guide*.

Medians

Substandard medians could potentially influence both the frequency and severity of crashes. Given the narrow median widths (30 to 36 feet) along both parkways, the total number of cross-median crashes is relatively small. Of 1,325 incidents along both parkways over a 4 year and 4 month period, only 13 involved a median crossing. The number of fatalities associated with these cross-median events is also small – only three deaths – but represents a disproportionate component of the total fatalities; 23% of all fatalities resulted from a cross-median crash.

Widening the existing medians or incorporating positive separations would significantly raise construction costs and increase right-of-way and environmental impacts. However, a berm or cabled rail median may be a cost effective alternative. Research shows that incorporating median barriers on high speed, fully controlled-access roadways with narrow medians reduces the number and severity of cross-median events. Installing a barrier-type median could improve safety characteristics and effectively provide space to add a lane to the existing facilities. Disadvantages accompanying this type of improvement include

- Increased initial costs for installation;
- An increased number of reported crashes due to decreased recovery distances;

- Increased maintenance requirements, both financial investments as well as extended exposure for crews to repair damaged portions; and
- Limited turning opportunities for maintenance and emergency vehicles.

The 2006 edition of the *AASHTO Roadside Design Guide* recommends median barriers for facilities serving traffic flows of at least 20,000 vehicles per day with median widths less than or equal to 30 feet; barriers should also be considered for widths less than 50 feet. Though capacity constraints do not justify adding an extra lane at present, safety concerns suggest that the use of a positive median separation should be made on a reach by reach basis.

Shoulders

AASHTO design policy mandates paved right- and left-side shoulders of 10 feet and 4 feet, respectively. The current parkway configurations do not meet these standards. Currently, there are 4 foot wide graded shoulders on the left with a paved width of 3 feet along a significant portion of the corridor. There are also bridges in place which do not meet this requirement.

Additionally, AASHTO mandates a wider shoulder for routes serving a high volume of truck traffic – greater than 250 DDHV trucks. At present, the volume does not mandate the increased shoulder width. Based on truck projections (discussed further in the following section), a portion of the route in Madisonville will surpass this threshold by the 2030 design year. By the year 2024, the section of roadway between milepoints 34 and 45 around Madisonville should reach an average of 250 DDHV trucks based on current estimations.

Bridges/Structures

Fourteen of 25 bridges along the existing route do not meet AASHTO standards for minimum horizontal clearances. These narrow structures could potentially impact both frequency and severity of crashes, leading to increased numbers of collision-type crashes and higher concentrations of injury and fatality crashes.

To investigate this possibility, analysts tracked accidents within 1/10 mile of bridge ends. As shown in **Table A.12**, there is no clear indication that narrow bridge widths are correlated to a disproportionate probability of collision crashes. There also does not seem to be an increased likelihood for crashes to be severe.

There are no recorded fatalities associated with bridges of any width on either roadway. Along the Ford Parkway, the probability of injury in a collision crash is similar for the entire roadway, for a bridge (any width), and for a narrow bridge. Along the Breathitt Parkway, there is actually a decreased probability of being injured in a collision on a bridge segment as compared to the roadway at large.

Comparing the data for individual bridges, collision-type crashes account for 30% of the total crashes and demonstrate no marked concentrations, as presented in **Table A.13**.

Ford
In a relevant collision, there is a 41% chance of injury anywhere along the parkway.
There is a 40% chance of injury on a bridge of any width.
There is a 41% chance of injury on a narrow bridge (<38 ft clearance).

Breathitt
In a relevant collision, there is a 27% chance of injury anywhere along the parkway.
There is a 15% chance of injury on a bridge of any width.
There is an 18% chance of injury on a narrow bridge (<38 ft clearance).

Based on the vehicle crash history, there is no strong support to make major investments to widen the existing structures. In cases of narrow bridges with obsolete bridge rails, rail treatments should be addressed, incorporating a widening element into the project.

Structures passing over the parkways are required to maintain a minimal vertical clearance of 16 feet. There are instances within the corridor where overpasses do not meet this standard. In these cases, the clearance should be obtained by raising the structure or lowering the paved surface of the parkway.

Ramps/Interchanges

Generally, the existing interchange ramp configurations are sufficient by current AASHTO standards excluding old toll booth intersections: Ford Parkway exit 24 at KY 109 and Breathitt Parkway exit 63 at KY 56. The loop ramps used to funnel traffic through the toll booths are not acceptable for free movement entering and exiting. Overall, the ramp acceleration/deceleration taper lanes are typically deficient by current standards. However, vehicle crash data does not indicate a significant increase in crash rates resulting at these locations. Additionally, the taper lengths do not greatly influence capacity except at the Madisonville interchange at the Breathitt Parkway with KY 281 where ramp LOS approaches E. This will be discussed in more detail in the "Capacity at Key Interchanges" section below.

Designation as an interstate facility does carry additional implications for certain ramps. Some ramp movements (between Ford and Breathitt Parkways, at I-24, and potentially at systems interchanges in Henderson) will become through I-69 movements. By AASHTO standards, these facilities must provide two driving lanes per direction. Route continuity will require additional attention at these locations as well to preserve capacity and ensure safety.

Interchange spacing requirements will also change once incorporated into the interstate system. Interchanges are required to be at least one mile apart in urban areas and three miles apart in rural areas. Sections of the current parkways near Madisonville and Princeton do not meet these standards.

OPERATIONAL CONSIDERATIONS

Crash History

As shown in **Figure A.1**, there is one high crash segment on the length of the I-69 corridor as well as multiple high crash spots. Traffic volumes and concentrations of conflict points tend to correlate to crash frequency/severity concentrations more directly than geometric features correlate.

Average Daily Traffic

To project 2006 volumes to the 2030 scenarios, a growth rate was determined for each parkway. Both parkways show relatively low annual growth rates based on local knowledge, development patterns, previous KYTC Statewide Travel Demand Model, and historic traffic data. Because the updated KYTC Statewide Travel Demand Model doesn't specifically address I-69 traffic, it was not used to further update previous forecasts. An existing annual growth rate of 1.3% was assumed for the current conditions. Because including these corridors into the interstate system will impact traffic growth rates, a rate of 2.3% annual growth was assumed along the Breathitt Parkway to account for the impacts of I-69; a rate of 2.8% was assumed along the Ford Parkway to account for the impacts of both I-69 and I-66 along this corridor.

Projected growth rates are consistent with previous studies including the conclusions reached in the *Safety and Capacity Evaluation for Interstates* Research Report conducted by the Kentucky Transportation Center. The findings from this study concluded future growth on Kentucky interstates are projected to increase at a rate of 2.0 to 2.5 percent per year. It is also consistent with original forecasts derived in the *Corridor 18 Feasibility Study* completed in November 1995, which showed 2015 daily volumes along Corridor 18 ranging between 18,400 and 25,100 south and north of Kentucky, respectively.

Recent analysis presented as part of the *I-69 Evansville to Indianapolis Tier 2 Studies, Section 1 – Draft Environmental Impact Statement* showed volumes along I-164 in Evansville to increase by 14,000 vehicles per day as a result of I-69. As shown in **Table A.14**, 2030 volumes along the Ford and Breathitt Parkways increase between 4,000 to 10,000 vehicles per day with the addition of I-69 and I-66. This is lower than the I-164 forecasted volume. Differences can be explained based on the varying dynamics of each segment including Evansville serving as an origin/destination for northern traffic; however, it is important to understand the sensitivity of these forecasts in the event projected growth is higher or lower than anticipated. This will be addressed in more detail in the "Capacity on Mainline between Interchanges" section below.

Truck percentages were carried over from the 2002 WSA study. In the previous study, no truck percentage growth was assumed with the addition of I-69. Given the emphasis on freight movements along the I-69 corridor, truck percentages were increased by 3% along the mainline to account for I-69 impacts. This results in an additional 1,500 to 3,000 trucks per day traveling the corridor as a result of I-69.

Design Hourly Volumes

Based upon 2006 traffic volumes, analysts projected balanced 30th highest design hourly volumes along the mainline and ramp pairs for the study corridor. These values are shown in **Figure A.2**. Design hourly volumes for the 2030 No I-69 scenario are shown in **Figure A.3**. The 2030 With I-69 scenario volumes are presented in **Figure A.4**. These volumes will be analyzed in more detail in the following sections.

Capacity on Mainline between Interchanges

Analysts used HCS+ software to analyze capacity at different points of interest along the corridors. For freeway facilities, level of service (LOS) provides a qualitative measure of capacity. In urban areas, LOS D or better is acceptable; in rural areas LOS C or better is acceptable. For freeways, LOS is measured in terms of density – the number of cars per lane per mile. For ramps, a density of 28 cars/lane/mile corresponds to LOS C; for mainline and weaving segments, this translates to 35 cars/lane/mile.

Each segment of the parkways between interchanges was analyzed for the 2006 directional design hourly volume based on existing geometry. Analysis showed most segments operating at LOS A currently, with the portions in Madisonville (interchanges 40 through 45) operating at LOS B. For comparison, these segments were also analyzed in the 2030 No I-69 and 2030 With I-69 scenarios to determine any potential capacity problems. Results of this analysis are presented in **Table A.15**. The resulting LOS through the 2030 With I-69 scenario are all within acceptable ranges, though degrading as volumes increase. Assuming the With I-69 scenario growth rates and truck percentages continue, the year LOS drops below acceptable levels (LOS D in rural areas, LOS E in urban settings) was also projected within a 5 year increment. Based on this analysis, the segment of I-69 between Interchange 42 and 44 in Madisonville would degrade to LOS E between 2035 and 2040.

To determine the sensitivity of the preceding analysis, the growth rate that would cause unacceptable LOS by 2030 was derived and presented in **Table A.15**. Based on this analysis, the segment of I-69 between Interchange 42 and 44 would need to grow at 3.3% instead of the forecasted 2.3% to reach unacceptable levels by 2030. This is equivalent to an increase of 22,000 vehicles along this segment as a result of I-69. Other segments within the Madisonville area resulted in growth rates between 3.3% and 4.3%.

Capacity at Key Interchanges

Capacity analysis was also completed for interchange facilities. Because of the relatively low volumes, three distinct interchanges were selected for investigation to provide an overview for the corridors.

Interchange 44 in Madisonville displays the highest volumes on ramps and mainline through movements. It was selected for analysis to determine any potential needs for additional lanes. Density, defined as cars per lane per mile, and LOS information is

presented in **Table A.16** for this location. Most segments today function at a LOS B; by the 2030 With I-69 scenario, all sections are at LOS C except the junction with the northbound off ramp which has degraded to a LOS D. These are all within acceptable levels for an urban area.

Interchange 63 at KY 56 near Sebree was chosen for analysis because it has the higher design hourly volumes of the two toll-booth configured ramps. Density and LOS information is presented in **Table A.17**. From a capacity perspective, weave segments in both directions are adequate to handle the anticipated traffic volumes.

The final interchange selected for analysis was the junction between the two parkways located in Hopkins County. This interchange serves comparably higher volumes as well. Density and LOS information is presented in **Table A.18**. All segments will function at LOS C or better for the 2030 With I-69 scenario.

Capacity between Ramps and Local Street Networks

An additional focal point for capacity analysis occurs where the parkway ramps terminate, joining the local road networks. Geometric configuration, volumes, and control methods influence operations at these intersections. The ramps at interchanges 42 and 44 in Madisonville have the highest traffic volumes; these were each analyzed for AM and PM peak hour operations. The ramps at Interchange 63 – the higher volume toll interchange – were also selected for analysis.

LOS for signalized intersections is reported for the intersection as a whole. For unsignalized intersections, LOS is calculated for each stop-controlled approach. Results for the eight primary intersections at these interchanges are reported in **Tables A.19** and **A.20** for the 2006, 2030 No I-69, and 2030 With I-69 scenarios. It should be noted that improvements to KY 70 (Center Street) are under construction and were included into both 2030 scenarios. Based on this analysis, both intersections at KY 70 resulted in LOS E and relatively long queue lengths. The southbound ramp at KY 281 (Island Ford Road) analyzed as an unsignalized intersection results in LOS E and F for the 2030 scenarios. Interchange 63 analyzed as an unsignalized intersection resulted in LOS B for the 2030 With I-69 scenario. A preliminary analysis of the other unsignalized intersections results in acceptable conditions.

Table A.1
A comparison of median and ditch characteristics according to construction plans

Roadway	MP begin	MP end	Median Width	Raised or Depressed	Median Slope	Ditch Width	Ditch Slope
Ford	0.000	0.404	36	D	4:01	12	4:1
Ford	0.404	3.546	36	D	4:01	12	4:1
Ford	3.552	10.155	36	D	4:01	8	3:1
Ford	3.729	9.855	36	D	4:01	8	3:1
Ford	9.855	10.332	30	R	1:12	8	3:1
Ford	10.188	10.341	30	R	1:12	8	3:1
Ford	10.341	11.021	30	R	1:12	8	3:1
Ford	11.021	14.856	30	R	1:12	8	3:1
Ford	14.856	21.153	30	R	1:12	8	3:1
Ford	21.153	25.655	30	R	1:12	8	3:1
Ford	25.655	31.689	30	R	1:12	8	3:1
Ford	31.689	37.264	30	R	1:12	8	3:1
Ford	37.202	40.753	30	R	1:12	8	3:1
Breathitt	34.271	35.266	36	D	3:01	6	3:1
Breathitt	36.620	46.069	36	D	4:01	6	3:1
Breathitt	46.069	50.907	36	D	4:01	8	3:1
Breathitt	49.553	53.573	36	D	4:01	8	3:1
Breathitt	53.550	57.489	36	D	4:01	8	3:1
Breathitt	57.489	62.112	36	D	4:01	8	3:1
Breathitt	62.112	65.305	36	D	4:01	8	3:1
Breathitt	65.305	70.362	36	D	4:01	8	3:1
Breathitt	70.362	76.233	36	D	4:01	8	3:1
Breathitt	70.339	78.661	36	D	4:01	8	3:1

Table A.2 EDWARD T. BREATHITT PARKWAY BRIDGE SUMMARY

Route	County	Bridge No.	Dir.	MP	FEATURES	Horizontal Clearance (curb-to-curb) (ft.)	Combined Horizontal Width of Curbs (ft.)	Type of Curb	Median Widths (ft.)	Median Type	Bridge Length	ADT	Bypass Length	Suff. Rating	Structural Defficient	Funct. Obsolete
EB 9004	Hopkins	B00095	NB	37.054	P&L RR-FLAT CREEK-KY 813	34	3	Jersey	36	Depressed	318	18,451	1	87.1	No	No
EB9004	Hopkins	B00095P	SB	37.054	P&L RR-FLAT CREEK-KY 813	34	3	Jersey	36	Depressed	318	18,451	1	90.1	No	No
EB 9004	Hopkins	B00096	NB	39.774	KY 2171	34	3	Jersey	36	Depressed	265	17,542	1	87.1	No	Yes
EB 9004	Hopkins	B00096P	SB	39.774	KY 2171	34	3	Jersey	36	Depressed	265	17,451	1	80.9	No	No
EB 9004	Hopkins	B00100	NB	42.418	KENTUCKY 70	34	3	Jersey	37	Depressed	192	17,542	1	91.2	No	No
EB 9004	Hopkins	B00100P	SB	42.418	KENTUCKY 70	34	3	Jersey	37	Depressed	192	17,542	1	78.9	No	Yes
EB 9004	Hopkins	B00101	NB	43.438	CSX RAILROAD	34	3	Jersey	36	Depressed	159	30,093	1	77.4	No	Yes
EB 9004	Hopkins	B00101P	SB	43.438	CSX RAILROAD	34	3	Jersey	36	Depressed	159	30,093	1	89.9	No	No
EB 9004	Hopkins	B00020P	SB	48.805	OTTER CREEK	38	3	Jersey	36	Depressed	144	14,549	1	95.6	No	No
EB 9004	Hopkins	B00020	NB	48.805	OTTER CREEK	38	3	Jersey	36	Depressed	144	14,549	1	95.6	No	No
EB 9004	Hopkins	B00210	RAMP C	48.970	OTTER CREEK	26.2	3	Jersey	36	Depressed	132	14,549	6	72.2	No	Yes
EB 9004	Hopkins	B00211	RAMP D	48.971	OTTER CREEK	26.2	3	Jersey	36	Depressed	182	14,549	6	72.2	No	Yes
EB 9004	Hopkins	B00021		48.979	KY 260 @ HANSON	38	3	Jersey	36	Depressed	161	14,549	1	94.6	No	No
EB 9004	Hopkins	B00021P		48.979	KY 260 @ HANSON	38	3	Jersey	36	Depressed	161	14,549	1	94.6	No	No
EB 9004	Hopkins	B00012	NB	54.070	KY 138	38	3.4	Brush-block	36	Depressed	174	15,741	1	96.3	No	No
EB 9004	Hopkins	B00012P	SB	54.070	KY 138	38	3.4	Brush-block	36	Depressed	174	15,741	1	96.3	No	No
EB 9004	Webster	B00069P	SB	56.523	KY 147	38	3.4	Brush-block	36	Depressed	163	14,015	1	97.7	No	No
EB 9004	Webster	B00069	NB	56.523	KY 147	38	3.4	Brush-block	36	Depressed	163	14,015	1	96.7	No	No
EB 9004	Webster	B00071P	SB	59.280	DEER CREEK	30	4.4	Brush-block	36	Depressed	368	14,015	1	81.4	No	No
EB 9004	Webster	B00071	NB	59.280	DEER CREEK	30	4.4	Brush-block	36	Depressed	368	14,015	1	81.4	No	No
EB 9004	Webster	B00072	NB	60.476	KY 370	38	3.4	Brush-block	36	Depressed	166	14,015	22	82.0	No	No
EB 9004	Webster	B00072P	SB	60.476	KY 370	38	3.4	Brush-block	36	Depressed	166	14,015	22	95.6	No	No
EB 9004	Webster	B00074	NB	63.887	GROVES CREEK	30	4.6	Brush-block	36	Depressed	260	11,877	1	81.6	No	No
EB 9004	Webster	B00074P	SB	63.888	GROVES CREEK	30	4.6	Brush-block	36	Depressed	260	11,877	1	81.6	No	No
EB 9004	Henderson	B00062P	SB	65.393	ACCESS RD-BIG RIVERS RR	38	3.4	Brush-block	36	Depressed	183	11,877	4	94.6	No	No
EB 9004	Henderson	B00062	NB	65.393	ACCESS RD-BIG RIVERS RR	38	3.4	Brush-block	36	Depressed	183	11,877	4	94.6	No	No
EB 9004	Henderson	B00068	NB	75.360	ELAM DITCH	38	3.4	Brush-block	36	Depressed	141	13,893	1	96.7	No	No
EB 9004	Henderson	B00068P	SB	75.360	ELAM DITCH	38	3.4	Brush-block	36	Depressed	141	13,893	1	96.7	No	No

Highlighted when measurement varies from previous information.
Lowest 20% sufficiency ratings

Table A.3 WENDELL H. FORD PARKWAY BRIDGE SUMMARY

Route	County	Bridge No.	Dir.	MP	Features Intersected	Horizontal Clearance (curb-to-curb) (ft.)	Combined Horizontal Width of Curbs (ft.)	Type of Curb	Median Widths (ft.)	Median Type	Bridge Length	ADT	Bypass Length	Suff. Rating	Structural Defficient	Funct. Obsolete
WK 9001	Lyon	B00049P [1]	WB	0.001	I-24 @ MP. 041.603	26	3.0	Jersey	38	Depressed	275	8,439	1	79.0	No	Yes
WK 9001	Lyon	B00049	EB	0.001	I-24 @ MP. 041.603	34	3.0	Jersey	38	Depressed	272	8,439	1	96.2	No	No
WK 9001	Lyon	B00052	EB	3.408	P&L RR-ELKHORN TAVERN RD	38	3.0	Jersey	38	Depressed	221	8,439	1	97.9	No	No
WK 9001	Lyon	B00052P	WB	3.408	P&L RR-ELKHORN TAVERN RD	48 (3 Lanes)	3.0	Jersey	38	Depressed	221	8,439	1	96.8	No	No
WK 9001	Lyon	B00030	EB	3.702	US 62	38	1.8	Brush-block	38	Depressed	226	8,439	1	93.2	No	No
WK 9001	Lyon	B00030P	WB	3.703	US 62	38	1.8	Brush-block	38	Depressed	226	8,439	1	93.2	No	No
WK 9001	Caldwell	B00029P	WB	11.357	P&L RAILWAY	30	4.6	Brush-block	31	Depressed	189	8,689	1	80.0	No	Yes
WK 9001	Caldwell	B00029	EB	11.357	P&L RAILWAY	30	4.6	Brush-block	31	Depressed	189	8,689	1	80.0	No	Yes
WK 9001	Caldwell	B00033P	WB	21.752	TRADEWATER RIVER	30	5.4	Brush-block	31	Depressed	207	10,453	1	70.5	No	No
WK 9001	Caldwell	B00033	EB	21.752	TRADEWATER RIVER	30	5.4	Brush-block	31	Depressed	207	10,453	1	81.8	No	No
WK 9001	Hopkins	B00138	EB	22.003	TRADEWATER RIV. OVERFLOW	30	5.4	Brush-block	31	Depressed	215	10,453	1	69.5	No	No
WK 9001	Hopkins	B00138P	WB	22.003	TRADEWATER RIV. OVERFLOW	30	5.4	Brush-block	31	Depressed	215	10,453	1	70.5	No	No
WK 9001	Hopkins	B00139P	WB	24.887	P&L RAILWAY	38	1.8	Brush-block	32	Depressed	131	9,628	1	92.0	No	No
WK 9001	Hopkins	B00139	EB	24.887	P&L RAILWAY	38	1.8	Brush-block	32	Depressed	131	9,628	1	93.0	No	No
WK 9001	Hopkins	B00140	EB	28.346	KY 112 & COPPERAS CREEK	30	4.6	Brush-block	32	Raised	278	9,628	1	74.8	No	Yes
WK 9001	Hopkins	B00140P	WB	28.346	KY 112 & COPPERAS CREEK	30	4.6	Brush-block	32	Raised	278	9,628	1	74.8	No	Yes
WK 9001	Hopkins	B00143	EB	33.872	P&L RAILWAY SPUR & OAK R	30	4.6	Brush-block	32	Raised	260	9,628	1	78.9	No	No
WK 9001	Hopkins	B00143P	WB	33.872	P&L RAILWAY SPUR -OAK RD	30	4.6	Brush-block	32	Raised	260	9,628	1	78.9	No	No
WK 9001	Hopkins	B00144	EB	36.900	CSX RAILROAD	30	4.6	Brush-block	32	Depressed	448	9,628	1	78.9	No	No
WK 9001	Hopkins	B00144P	WB	36.900	CSX RAILROAD	30	4.6	Brush-block	32	Depressed	448	9,628	1	81.9	No	No
WK 9001	Hopkins	B00145P	WB	38.311	PENNYRILLE PARKWAY	N/A	N/A	N/A	N/A	N/A	226	9,628	1	96.1	No	No
WK 9001	Hopkins	B00145	EB	38.311	PENNYRILLE PARKWAY	N/A	N/A	N/A	N/A	N/A	226	9,628	1	96.1	No	No

[1] Structure becomes ramp component of I-24 Systems Interchange and is therefore not required to meet AASHTO mainline widths

Highlighted when measurement varies from previous information.
Lowest 20% sufficiency ratings

Table A.4 EDWARD T. BREATHITT PARKWAY OVERPASS SUMMARY

					Vertical Clearances					Shoulder & Median Widths			
MP	Bridge #	Dir.	Location	County	Left Edge Passing Lane Clearance	Centerline Clearance	Right Edge Driving Lane Clearance	Median Side Shoulder Edge Clearance	Outside Shoulder Edge Clearance	Outside Shoulder Width	Median Shoulder Width	Median Width	Median Type
40.996	B00102	NB	UNDER ICRR	Hopkins	23'03"	23'00"	22'09"	23'05"	23'02"	10' Paved	4' Paved	38'	Depressed
40.996		SB	UNDER ICRR	Hopkins	23'07"	23'07"	24'00"	23'09"	24'05"	10' Paved	4' Paved	38'	Depressed
41.060	RR0602	NB	UNDER L&N RR SPUR	Hopkins	16'06"	16'03"	16'02"	16'08"	16'05"	10' Paved	4' Paved	38'	Depressed
41.060		SB	UNDER L&N RR SPUR	Hopkins	16'04"	16'06'	16'10"	16'06"	17'02"	10' Paved	4' Paved	38'	Depressed
44.000	B00219	NB	UNDER KY 281	Hopkins	18'00"	17'07"	17'08"	18'01"	17'10"	10' Paved	4' Paved	38'	Depressed
44.000		SB	UNDER KY 281	Hopkins	18'01"	18'01"	18'02"	18'01"	18'04"	10' Paved	4' Paved	38'	Depressed
45.206	B00016	NB	US 41 N.B. LANE	Hopkins	19'09"	20'07"	21'07"	19'08"	22'05"	10' Paved	4' Paved	38'	Depressed
45.206		SB	UNDER US 41 N.B. LANE	Hopkins	18'02"	17'03"	16'02"	18'5"	15'08"	10' Paved	4' Paved	38'	Depressed
46.435	B00018	NB	UNDER KY 2657 JOHN FOWLER RD	Hopkins	16'10"	16'08"	16'09"	16'04"	16'06"	10' Paved	4' Paved	36'	Depressed
46.435		SB	UNDER KY 2657 JOHN FOWLER RD	Hopkins	16'10"	16'08"	16'10"	16'02"	16'04"	10' Paved	4' Paved	36'	Depressed
47.472	B00019	NB	UNDER KY 862	Hopkins	17'02"	16'10"	16'10"	16'06"	16'05"	10' Paved	4' Paved	36'	Depressed
47.472		SB	UNDER KY 862	Hopkins	17'07"	17'07"	18'00"	16'10"	17'10"	10' Paved	4' Paved	36'	Depressed
51.941	B00011	NB	UNDER KY 2655 HERBERT BROWN RD	Hopkins	16'03"	16'07"	16'10"	15'10"	17'01"	10' Paved	4' Paved	36'	Depressed
51.941		SB	UNDER KY 2655 HERBERT BROWN RD	Hopkins	16'03"	15'10"	15'07"	16'01"	15'01"	10' Paved	4' Paved	36'	Depressed
55.449	B00068	NB	UNDER KY 2667	Webster	17'08"	17'08"	18'06"	17"11"	19'02"	10' Paved	4' Paved	36'	Depressed
55.449		SB	UNDER KY 2667	Webster	17'00"	16'05"	16'01"	17'05"	16'00"	10' Paved	4' Paved	36'	Depressed
58.396	B00070	NB	UNDER KY 2666	Webster	16'09"	16'03"	16'04"	17'01"	16'04"	10' Paved	3' Paved	36'	Depressed
58.396		SB	UNDER KY 2666	Webster	16'06"	16'05"	16'09"	16'08"	17"01"	10' Paved	4' Paved	36'	Depressed
62.637	B00073	NB	UNDER KY 56	Webster	17'01"	16'09"	16'06"	17'04"	17'02"	10' Paved (3 lanes)	4' Paved	36'	Depressed
62.637		SB	UNDER KY 56	Webster	17'05"	17'07"	17'10"	17'07"	18'10"	10' Paved (3 lanes)	4' Paved	36'	Depressed
66.835	B00063	NB	UNDER KY 2678	Henderson	18'03"	18'03"	18'10"	18'06"	19'07"	10' Paved	4' Paved	36'	Depressed
66.835		SB	UNDER KY 2678	Henderson	17'06"	17'00"	16'10"	17'11"	17'02"	10' Paved	4' Paved	36'	Depressed
68.363	B00064	NB	UNDER KY 416	Henderson	16'08"	16'08"	16'03"	16'11"	16'10"	10' Paved	4' Paved	36'	Depressed
68.363		SB	UNDER KY 416	Henderson	16'08"	16'08"	17'00"	16'11"	17'06"	10' Paved	4' Paved	36'	Depressed
69.674	B00065	NB	UNDER KY 2675	Henderson	16'08"	16'06"	16'07"	16'08"	17'00"	10' Paved	4' Paved	36'	Depressed
69.674		SB	UNDER KY 2675	Henderson	16'08"	16'05"	16'06"	16'10"	16'10"	10' Paved	4' Paved	36'	Depressed
72.346	B00066	NB	UNDER KY 136	Henderson	17'02"	16'09"	16'06"	17'05"	17'02"	10' Paved	4' Paved	36'	Depressed
72.346		SB	UNDER KY 136	Henderson	17'00"	17'02"	17'03"	17'04"	17'11"	10' Paved	4' Paved	36'	Depressed
73.256	B00067	NB	UNDER KY 2677	Henderson	16'08"	16'03"	16'02"	17'00"	16'08"	10' Paved	4' Paved	36'	Depressed
73.256		SB	UNDER KY 2677	Henderson	17'02"	17'01"	17'04"	17'04"	17'11"	10' Paved	4' Paved	36'	Depressed

Highlighted when bridge has a vertical clearance less than 16'00"
Highlighted because overpass was not on original list.
Highlighted when measurement varies from previous information.

Table A.5 WENDELL H. FORD PARKWAY OVERPASS SUMMARY

					Vertical Clearances					Shoulder & Median Widths			
MP	Bridge #	Dir.	Location	County	Left Edge Passing Lane Clearance	Centerline Clearance	Right Edge Driving Lane Clearance	Median Side Shoulder Edge Clearance	Outside Shoulder Edge Clearance	Outside Shoulder Width	Median Shoulder Width	Median Width	Median Type
0.855	B00050	EB	UNDER KY 93	Lyon	17'09"	17'09"	18'03"	17'11"	18'04"	10' Paved	4' Paved	38'	Depressed
0.855		WB	UNDER KY 93	Lyon	17'00"	16'08"	16'09"	17'04"	16'04"	10' Paved	4' Paved	38'	Depressed
5.577	B00029	EB	UNDER KY 2611	Lyon	17'07"	17'04"	17'04"	17'06"	16'08"	10' Paved	4' Paved	36'	Depressed
5.770		WB	UNDER KY 2611	Lyon	18'00"	17'10"	18'00"	17'10"	17'02"	10' Paved	4' Paved	36'	Depressed
11.700	B00037	EB	UNDER KY 91	Caldwell	16'07"	16'02"	15'09"	16'06"	15'00"	10' Paved	4' Paved	30'	Depressed
11.700		WB	UNDER KY 91	Caldwell	17'07"	18'07"	19'02"	16'08"	19'05"	10' Paved	4' Paved	30'	Depressed
13.120	B00007	EB	UNDER KY 293	Caldwell	15'06"	15'06"	15'06"	15'06"	14'05"	10' Paved	4' Paved	32'	Depressed
13.120		WB	UNDER KY 293	Caldwell	16'03"	16'07"	17'01"	15'08"	16'06"	10' Paved	4' Paved	32'	Depressed
17.308	B00060	EB	UNDER KY 2614	Caldwell	14'09"	14'10"	15'00"	14'10"	14'07"	10' Paved	4' Paved	31'	Raised
17.308		WB	UNDER KY 2614	Caldwell	15'03"	15'06"	15'10"	15'00"	15'07"	10' Paved	4' Paved	31'	Raised
18.610	B00061	EB	UNDER KY 2613	Caldwell	22'01"	22'02"	22'04"	22'03"	22'09"	10' Paved	3' Paved	30'	Depressed
18.610		WB	UNDER KY 2613	Caldwell	22'01"	22'02"	22'04"	22'03"	22'07"	10' Paved	3' Paved	30'	Depressed
20.880	B00048	EB	UNDER KY 2619	Caldwell	15'07"	15'03"	15'00"	15'08"	14'11"	10' Paved	3' Paved	31'	Depressed
20.880		WB	UNDER KY 2619	Caldwell	15'07"	15'10"	16'02"	15'05"	16'06"	10' Paved	3' Paved	31'	Depressed
24.440	B00070	EB	UNDER KY 109	Hopkins	16'01"	16'08"	16'09"	15'06"	15'06"	4' Paved (3 Lanes)	3' Paved	30'	Depressed
24.440		WB	UNDER KY 109	Hopkins	16'05"	16'10"	17'03"	15'10"	16'02"	3' Paved (3 Lanes)	3' Paved	30'	Depressed
31.580	B00117	EB	UNDER KY 454	Hopkins	17'08"	17'06"	17'01"	17'08"	15'10"	10' Paved	4' Paved	31'	Raised
31.580		WB	UNDER KY 454	Hopkins	19'01"	19'09"	20'06"	18'07"	20'04"	10' Paved	4' Paved	31'	Raised
38.000	B00145	EB	Breathitt & Ford Interchange (NB on Breathitt)	Hopkins	19'10"	19'07"	19'10"	19'11"	18'11"	4' Paved (3 Lanes)	4' Paved	35'	Depressed
38.000		EB	Breathitt & Ford Interchange (SB on Breathitt)	Hopkins	20'04"	20'01"	19'08"	20'02"	19'04"	4' Paved (3 Lanes)	4' Paved	35'	Depressed
38.000	B00145P	WB	Breathitt & Ford Interchange (NB on Breathitt)	Hopkins	19'05"	19'08"	19'05"	19'06"	18'02"	4' Paved (3 Lanes)	4' Paved	35'	Depressed
38.000		WB	Breathitt & Ford Interchange (SB on Breathitt)	Hopkins	19'07"	19'06"	19'02"	19'06"	18'05"	4' Paved (3 Lanes)	4' Paved	35'	Depressed

Highlighted when bridge has a vertical clearance less than 16'00".
Highlighted because overpass was not on original list.
Highlighted when measurement varies from previous information.

Table A.6 Vehicle Crash Analysis - Segments

Route	County	Begin MP	End MP	Length (Miles)	ADT	Number of Lanes	Divided Undivided	Rural Urban	Avg. Veh. Crash Rate	Critical Veh. Crash Rate	Vehicle Crashes				HMVM	Rates per HMVM				Critical Rate Factor
											Fatal	Injury	PDO	Total		Fatal	Injury	PDO	Total	
WK PKWY	Lyon	0.000	3.702	3.702	8,440	4	Divided	R	122	163.502	0	8	34	42	0.49	0.00	16.20	68.85	85.05	0.52
WK PKWY	Lyon	3.702	5.610	1.908	8,690	4	Divided	R	122	179.490	0	7	17	24	0.26	0.00	26.71	64.87	91.59	0.51
WK PKWY	Hopkins	24.435	38.332	13.897	9,630	4	Divided	R	122	141.801	1	45	116	162	2.12	0.47	21.28	54.84	76.59	0.54
WK PKWY	Hopkins	38.332	39.000	0.668	11,100	4	Divided	R	122	209.383	0	3	15	18	0.12	0.00	25.60	128.00	153.60	0.73
EB PKWY	Hopkins	33.000	34.271	1.271	15,400	4	Divided	R	122	174.773	0	9	28	37	0.31	0.00	29.09	90.51	119.61	0.68
EB PKWY	Hopkins	34.271	37.070	2.799	18,100	4	Divided	R	122	154.422	2	16	58	76	0.80	2.50	19.98	72.44	94.92	0.61
EB PKWY	Hopkins	37.070	41.002	3.932	18,300	4	Divided	R	122	149.121	1	24	91	116	1.14	0.88	21.10	80.02	102.00	0.68
EB PKWY	Hopkins	41.002	42.418	1.416	18,300	4	Divided	R	122	167.682	0	19	79	98	0.41	0.00	46.39	192.90	239.29	1.43
EB PKWY	Hopkins	45.200	47.472	2.272	15,100	4	Divided	R	122	161.563	1	6	46	53	0.54	1.84	11.07	84.84	97.75	0.61
EB PKWY	Hopkins	48.990	54.070	5.080	13,400	4	Divided	R	122	149.896	1	16	76	93	1.08	0.93	14.87	70.64	86.44	0.58
EB PKWY	Webster	62.637	65.305	2.668	10,900	4	Divided	R	122	165.057	1	13	31	45	0.46	2.18	28.28	67.45	97.91	0.59
EB PKWY	Henderson	65.305	68.363	3.058	10,900	4	Divided	R	122	162.151	0	9	38	47	0.53	0.00	17.08	72.13	89.22	0.55
KY 138	Hopkins	0.000	0.024	0.024	830	2	Undivided	R	244	4099.986	0	1	1	2	0.00	0.00	3176.36	3176.36	6352.72	1.55
KY 260	Hopkins	1.000	1.486	0.486	1270	2	Undivided	R	244	702.665	0	0	7	7	0.01	0.00	0.00	717.59	717.59	1.02
KY 260	Hopkins	1.950	2.151	0.201	1820	2	Divided	R	244	859.677	0	1	4	5	0.01	0.00	172.96	691.85	864.81	1.01
KY 260	Hopkins	2.151	3.000	0.849	1820	2	Undivided	R	244	521.965	0	2	6	8	0.02	0.00	81.90	245.69	327.59	0.63
KY 281	Hopkins	0.000	0.045	0.045	20400	3	Divided	U	492	1000.832	0	2	11	13	0.01	0.00	137.85	758.17	896.02	0.90
KY 281	Hopkins	0.058	0.568	0.510	20400	4	Undivided	U	458	596.994	0	23	60	83	0.16	0.00	139.88	364.90	504.77	0.85
KY 281	Hopkins	0.568	0.712	0.144	20400	4	Divided	U	281	492.176	0	8	12	20	0.05	0.00	172.31	258.47	430.78	0.88
KY 281	Hopkins	0.712	0.871	0.159	4730	4	Divided	U	281	719.143	0	2	12	14	0.01	0.00	168.26	1009.58	1177.85	1.64
KY 281	Hopkins	1.023	1.623	0.600	4730	2	Undivided	U	273	485.117	0	3	13	16	0.04	0.00	66.88	289.83	356.72	0.74
KY 70	Hopkins	18.700	19.354	0.654	8340	2	Divided	U	273	423.766	1	42	187	230	0.09	11.60	487.22	2169.29	2668.11	6.30
KY 70	Hopkins	19.354	19.392	0.038	23000	2	Divided	U	273	671.341	0	1	10	11	0.01	0.00	72.39	723.95	796.34	1.19
KY 70	Hopkins	19.392	19.868	0.476	23000	4	Divided	U	281	387.700	0	25	100	125	0.17	0.00	144.49	577.94	722.43	1.86
KY 70	Hopkins	19.868	20.167	0.299	11000	4	Divided	U	281	480.017	0	23	83	106	0.05	0.00	442.47	1596.74	2039.21	4.25
KY 336	Hopkins	1.768	2.700	0.932	2310	2	Undivided	R	244	476.835	0	3	8	11	0.03	0.00	88.17	235.12	323.28	0.68
KY 813	Hopkins	9.300	9.677	0.377	340	2	Undivided	R	244	1384.819	0	2	1	3	0.00	0.00	987.25	493.63	1480.88	1.07
KY 813	Hopkins	9.677	10.349	0.672	720	2	Undivided	R	244	769.536	0	1	3	4	0.01	0.00	130.77	392.32	523.09	0.68
KY 813	Hopkins	10.349	11.300	0.951	3320	2	Undivided	R	244	434.152	0	2	9	11	0.05	0.00	40.08	180.36	220.44	0.51
US 62	Hopkins	14.600	15.308	0.708	1650	2	Undivided	R	244	567.218	0	4	10	14	0.02	0.00	216.65	541.63	758.28	1.34
US 62	Hopkins	15.308	16.600	1.292	3680	2	Undivided	R	244	397.444	0	5	18	23	0.08	0.00	66.54	239.54	306.08	0.77
I-24	Lyon	41.603	42.600	0.997	15400	4	Divided	R	122	181.821	0	5	19	24	0.24	0.00	20.61	78.30	98.90	0.54
KY 91	Caldwell	11.200	11.320	0.120	4300	2	Undivided	U	273	805.627	0	1	3	4	0.01	0.00	122.62	367.87	490.49	0.61
KY 91	Caldwell	11.320	11.701	0.381	4870	2	Undivided	U	273	538.598	0	3	15	18	0.03	0.00	102.30	511.51	613.82	1.14
KY 91	Caldwell	11.701	11.849	0.148	3270	2	Divided	U	273	825.037	0	1	10	11	0.01	0.00	130.74	1307.40	1438.14	1.74
KY 91	Caldwell	11.849	12.266	0.417	9500	2	Undivided	U	273	451.087	0	4	16	20	0.06	0.00	63.89	255.55	319.44	0.71
KY 91	Caldwell	12.266	13.117	0.851	7190	2	Undivided	U	273	415.040	0	5	30	35	0.10	0.00	51.70	310.23	361.93	0.87
KY 293	Caldwell	6.500	7.547	1.047	3750	2	Undivided	U	273	451.921	0	6	12	18	0.06	0.00	96.69	193.38	290.08	0.64
KY 109	Hopkins	2.800	3.811	1.011	5140	2	Undivided	R	244	390.496	0	11	17	28	0.08	0.00	133.94	206.99	340.93	0.87
KY 109	Hopkins	3.811	4.800	0.989	2860	2	Undivided	R	244	445.498	1	4	5	10	0.04	22.37	89.48	111.85	223.70	0.50

NOTE: Analysis covers recorded crashes dated January 1, 2002 though April 30, 2006

High Crash Segments (CRF greater than 1.0)

Potential High Crash Segments (CRF 0.9 - 1.0)

Table A.7 High Accident Spots (1/10 Mile)

Route	Begin MP	End MP	Length (Miles)	ADT	Number of Lanes	Divided/ Undivided	Rural/ Urban	Avg. Veh. Crash Rate	Critical Veh. Crash Rate	Vehicle Crashes				MVM	Rates per MVM				Critical Rate Factor
										Fatal	Injury	PDO	Total		Fatal	Injury	PDO	Total	
EB PKWY	33.000	33.100	0.1	15400	4	Divided	R	0.07	0.229	0	1	7	8	24.34	0.00	0.04	0.29	0.33	1.44
EB PKWY	33.100	33.200	0.1	15400	4	Divided	R	0.07	0.229	0	1	4	5	24.34	0.00	0.04	0.16	0.21	0.90
EB PKWY	33.770	33.870	0.1	15400	4	Divided	R	0.07	0.229	0	1	3	4	24.34	0.00	0.04	0.12	0.16	0.72
EB PKWY	34.000	34.100	0.1	15400	4	Divided	R	0.07	0.229	0	2	3	5	24.34	0.00	0.08	0.12	0.21	0.90
EB PKWY	34.100	34.200	0.1	15400	4	Divided	R	0.07	0.229	0	3	2	5	24.34	0.00	0.12	0.08	0.21	0.90
EB PKWY	34.200	34.300	0.1	15400	4	Divided	R	0.07	0.229	0	0	8	8	24.34	0.00	0.00	0.33	0.33	1.44
EB PKWY	34.300	34.400	0.1	18100	4	Divided	R	0.07	0.215	0	0	5	5	28.61	0.00	0.00	0.17	0.17	0.81
EB PKWY	34.900	35.000	0.1	18100	4	Divided	R	0.07	0.215	2	3	2	7	28.61	0.07	0.10	0.07	0.24	1.14
EB PKWY	36.000	36.100	0.1	18100	4	Divided	R	0.07	0.215	0	2	8	10	28.61	0.00	0.07	0.28	0.35	1.63
EB PKWY	36.670	36.770	0.1	18100	4	Divided	R	0.07	0.215	0	1	5	6	28.61	0.00	0.03	0.17	0.21	0.98
EB PKWY	36.900	37.000	0.1	18100	4	Divided	R	0.07	0.215	0	1	7	8	28.61	0.00	0.03	0.24	0.28	1.30
EB PKWY	37.000	37.100	0.1	18100	4	Divided	R	0.07	0.215	0	6	17	23	28.61	0.00	0.21	0.59	0.80	3.74
EB PKWY	37.170	37.270	0.1	18300	4	Divided	R	0.07	0.214	0	1	5	6	28.92	0.00	0.03	0.17	0.21	0.97
EB PKWY	37.500	37.600	0.1	18300	4	Divided	R	0.07	0.214	0	1	4	5	28.92	0.00	0.03	0.14	0.17	0.81
EB PKWY	37.600	37.700	0.1	18300	4	Divided	R	0.07	0.214	0	2	4	6	28.92	0.00	0.07	0.14	0.21	0.97
EB PKWY	37.900	38.000	0.1	18300	4	Divided	R	0.07	0.214	0	2	2	4	28.92	0.00	0.07	0.07	0.14	0.65
EB PKWY	38.000	38.100	0.1	18300	4	Divided	R	0.07	0.214	0	2	4	6	28.92	0.00	0.07	0.14	0.21	0.97
EB PKWY	38.770	38.870	0.1	18300	4	Divided	R	0.07	0.214	0	1	3	4	28.92	0.00	0.03	0.10	0.14	0.65
EB PKWY	39.000	39.100	0.1	18300	4	Divided	R	0.07	0.214	0	2	2	4	28.92	0.00	0.07	0.07	0.14	0.65
EB PKWY	39.174	39.274	0.1	18300	4	Divided	R	0.07	0.214	0	0	7	7	28.92	0.00	0.00	0.24	0.24	1.13
EB PKWY	39.394	39.494	0.1	18300	4	Divided	R	0.07	0.214	0	1	5	6	28.92	0.00	0.03	0.17	0.21	0.97
EB PKWY	39.700	39.800	0.1	18300	4	Divided	R	0.07	0.214	0	1	11	12	28.92	0.00	0.03	0.38	0.41	1.94
EB PKWY	39.900	40.000	0.1	18300	4	Divided	R	0.07	0.214	0	1	3	4	28.92	0.00	0.03	0.10	0.14	0.65
EB PKWY	40.000	40.100	0.1	18300	4	Divided	R	0.07	0.214	0	3	10	13	28.92	0.00	0.10	0.35	0.45	2.10
EB PKWY	40.200	40.300	0.1	18300	4	Divided	R	0.07	0.214	0	1	3	4	28.92	0.00	0.03	0.10	0.14	0.65
EB PKWY	40.400	40.500	0.1	18300	4	Divided	R	0.07	0.214	0	1	5	6	28.92	0.00	0.03	0.17	0.21	0.97
EB PKWY	40.900	41.000	0.1	18300	4	Divided	R	0.07	0.214	0	2	5	7	28.92	0.00	0.07	0.17	0.24	1.13
EB PKWY	41.500	41.600	0.1	18300	4	Divided	R	0.07	0.214	0	3	2	5	28.92	0.00	0.10	0.07	0.17	0.81
EB PKWY	42.000	42.100	0.1	18300	4	Divided	R	0.07	0.214	0	2	9	11	28.92	0.00	0.07	0.31	0.38	1.78
EB PKWY	42.200	42.300	0.1	18300	4	Divided	R	0.07	0.214	0	1	4	5	28.92	0.00	0.03	0.14	0.17	0.81
EB PKWY	42.300	42.400	0.1	18300	4	Divided	R	0.07	0.214	0	3	11	14	28.92	0.00	0.10	0.38	0.48	2.26
EB PKWY	42.400	42.500	0.1	29200	4	Divided	R	0.07	0.181	0	11	45	56	46.15	0.00	0.24	0.98	1.21	6.70
EB PKWY	42.900	43.000	0.1	29200	4	Divided	U	0.11	0.247	0	1	8	9	46.15	0.00	0.02	0.17	0.20	0.79
EB PKWY	43.900	44.000	0.1	29200	4	Divided	U	0.11	0.247	0	4	10	14	46.15	0.00	0.09	0.22	0.30	1.23
EB PKWY	44.037	44.137	0.1	29200	4	Divided	U	0.11	0.247	0	0	6	6	46.15	0.00	0.00	0.13	0.13	0.53
EB PKWY	44.300	44.400	0.1	21000	4	Divided	U	0.11	0.273	0	2	20	22	33.19	0.00	0.06	0.60	0.66	2.42
EB PKWY	45.000	45.100	0.1	21000	4	Divided	R	0.07	0.203	0	1	7	8	33.19	0.00	0.03	0.21	0.24	1.19
EB PKWY	45.206	45.306	0.1	15100	4	Divided	R	0.07	0.230	0	1	7	8	23.86	0.00	0.04	0.29	0.34	1.45
EB PKWY	45.400	45.500	0.1	15100	4	Divided	R	0.07	0.230	0	1	5	6	23.86	0.00	0.04	0.21	0.25	1.09
EB PKWY	45.900	46.000	0.1	15100	4	Divided	R	0.07	0.230	0	0	5	5	23.86	0.00	0.00	0.21	0.21	0.91
EB PKWY	46.750	46.850	0.1	15100	4	Divided	R	0.07	0.230	0	1	3	4	23.86	0.00	0.04	0.13	0.17	0.73
EB PKWY	47.000	47.100	0.1	15100	4	Divided	R	0.07	0.230	0	2	11	13	23.86	0.00	0.08	0.46	0.54	2.36
EB PKWY	47.970	48.070	0.1	15100	4	Divided	R	0.07	0.230	0	1	3	4	23.86	0.00	0.04	0.13	0.17	0.73
EB PKWY	48.500	48.600	0.1	15100	4	Divided	R	0.07	0.230	0	2	2	4	23.86	0.00	0.08	0.08	0.17	0.73
EB PKWY	48.900	49.000	0.1	15100	4	Divided	R	0.07	0.230	0	1	8	9	23.86	0.00	0.04	0.34	0.38	1.64
EB PKWY	49.000	49.100	0.1	13400	4	Divided	R	0.07	0.242	0	2	8	10	21.18	0.00	0.09	0.38	0.47	1.95
EB PKWY	49.200	49.300	0.1	13400	4	Divided	R	0.07	0.242	0	1	3	4	21.18	0.00	0.05	0.14	0.19	0.78
EB PKWY	49.900	50.000	0.1	13400	4	Divided	R	0.07	0.242	0	0	4	4	21.18	0.00	0.00	0.19	0.19	0.78
EB PKWY	50.100	50.200	0.1	13400	4	Divided	R	0.07	0.242	0	1	5	6	21.18	0.00	0.05	0.24	0.28	1.17
EB PKWY	52.000	52.100	0.1	13400	4	Divided	R	0.07	0.242	0	1	6	7	21.18	0.00	0.05	0.28	0.33	1.37
EB PKWY	53.000	53.100	0.1	13400	4	Divided	R	0.07	0.242	0	0	7	7	21.18	0.00	0.00	0.33	0.33	1.37
EB PKWY	53.500	53.600	0.1	13400	4	Divided	R	0.07	0.242	1	0	4	5	21.18	0.05	0.00	0.19	0.24	0.98
EB PKWY	53.800	53.900	0.1	11800	4	Divided	R	0.07	0.255	0	2	5	7	18.65	0.00	0.11	0.27	0.38	1.47
EB PKWY	53.900	54.000	0.1	13400	4	Divided	R	0.07	0.242	0	1	6	7	21.18	0.00	0.05	0.28	0.33	1.37

NOTE: Analysis includes reported crashes dated January 1, 2002 through April 30, 2006

Table A.7 (cont) High Accident Spots (1/10 Mile)

Route	Begin MP	End MP	Length (Miles)	ADT	Number of Lanes	Divided/ Undivided	Rural/ Urban	Avg. Veh. Crash Rate	Critical Veh. Crash Rate	Vehicle Crashes				MVM	Rates per MVM				Critical Rate Factor
										Fatal	Injury	PDO	Total		Fatal	Injury	PDO	Total	
EB PKWY	54.990	55.090	0.1	11800	4	Divided	R	0.07	0.255	0	3	1	4	18.65	0.00	0.16	0.05	0.21	0.84
EB PKWY	55.200	55.300	0.1	11800	4	Divided	R	0.07	0.255	1	0	3	4	18.65	0.05	0.00	0.16	0.21	0.84
EB PKWY	56.000	56.100	0.1	11800	4	Divided	R	0.07	0.255	0	2	3	5	18.65	0.00	0.11	0.16	0.27	1.05
EB PKWY	56.500	56.600	0.1	11800	4	Divided	R	0.07	0.255	0	0	6	6	18.65	0.00	0.00	0.32	0.32	1.26
EB PKWY	56.962	57.062	0.1	11800	4	Divided	R	0.07	0.255	0	5	5	10	18.65	0.00	0.27	0.27	0.54	2.11
EB PKWY	61.600	61.700	0.1	11800	4	Divided	R	0.07	0.255	0	0	5	5	18.65	0.00	0.00	0.27	0.27	1.05
EB PKWY	62.000	62.100	0.1	11800	4	Divided	R	0.07	0.255	0	1	3	4	18.65	0.00	0.05	0.16	0.21	0.84
EB PKWY	62.537	62.637	0.1	11800	4	Divided	R	0.07	0.255	0	2	7	9	18.65	0.00	0.11	0.38	0.48	1.90
EB PKWY	62.900	63.000	0.1	10900	4	Divided	R	0.07	0.263	0	0	5	5	17.23	0.00	0.00	0.29	0.29	1.10
EB PKWY	63.100	63.200	0.1	10900	4	Divided	R	0.07	0.263	0	1	4	5	17.23	0.00	0.06	0.23	0.29	1.10
EB PKWY	63.887	63.987	0.1	10900	4	Divided	R	0.07	0.263	0	3	3	6	17.23	0.00	0.17	0.17	0.35	1.32
EB PKWY	64.087	64.187	0.1	10900	4	Divided	R	0.07	0.263	0	2	3	5	17.23	0.00	0.12	0.17	0.29	1.10
EB PKWY	64.705	64.805	0.1	10900	4	Divided	R	0.07	0.263	0	2	3	5	17.23	0.00	0.12	0.17	0.29	1.10
EB PKWY	65.300	65.400	0.1	10900	4	Divided	R	0.07	0.263	1	1	2	4	17.23	0.06	0.06	0.12	0.23	0.88
EB PKWY	65.405	65.505	0.1	10900	4	Divided	R	0.07	0.263	0	0	5	5	17.23	0.00	0.00	0.29	0.29	1.10
EB PKWY	66.700	66.800	0.1	10900	4	Divided	R	0.07	0.263	0	2	5	7	17.23	0.00	0.12	0.29	0.41	1.54
EB PKWY	66.900	67.000	0.1	10900	4	Divided	R	0.07	0.263	0	3	3	6	17.23	0.00	0.17	0.17	0.35	1.32
EB PKWY	67.700	67.800	0.1	10900	4	Divided	R	0.07	0.263	0	0	5	5	17.23	0.00	0.00	0.29	0.29	1.10
EB PKWY	67.900	68.000	0.1	10900	4	Divided	R	0.07	0.263	0	0	5	5	17.23	0.00	0.00	0.29	0.29	1.10
EB PKWY	68.200	68.300	0.1	10900	4	Divided	R	0.07	0.263	0	1	3	4	17.23	0.00	0.06	0.17	0.23	0.88
EB PKWY	72.400	72.500	0.1	13100	4	Divided	R	0.07	0.244	0	1	4	5	20.70	0.00	0.05	0.19	0.24	0.99
EB PKWY	73.900	74.000	0.1	13100	4	Divided	R	0.07	0.244	0	0	4	4	20.70	0.00	0.00	0.19	0.19	0.79
EB PKWY	75.300	75.400	0.1	13100	4	Divided	R	0.07	0.244	0	2	4	6	20.70	0.00	0.10	0.19	0.29	1.19
EB PKWY	75.900	76.000	0.1	13100	4	Divided	R	0.07	0.244	0	0	4	4	20.70	0.00	0.00	0.19	0.19	0.79
EB PKWY	76.000	76.100	0.1	13100	4	Divided	R	0.07	0.244	0	1	4	5	20.70	0.00	0.05	0.19	0.24	0.99
EB PKWY	76.200	76.300	0.1	17900	4	Divided	U	0.11	0.288	0	2	4	6	28.29	0.00	0.07	0.14	0.21	0.74
EB PKWY	77.200	77.300	0.1	18900	4	Divided	U	0.11	0.283	0	2	6	8	29.87	0.00	0.07	0.20	0.27	0.95
EB PKWY	77.300	77.400	0.1	18900	4	Divided	U	0.11	0.283	0	0	5	5	29.87	0.00	0.00	0.17	0.17	0.59
EB PKWY	77.499	77.599	0.1	18900	4	Divided	U	0.11	0.283	0	1	9	10	29.87	0.00	0.03	0.30	0.33	1.18
WK PKWY	0.000	0.100	0.1	8440	4	Divided	R	0.07	0.294	0	1	11	12	13.34	0.00	0.07	0.82	0.90	3.06
WK PKWY	0.900	1.000	0.1	8440	4	Divided	R	0.07	0.294	0	1	3	4	13.34	0.00	0.07	0.22	0.30	1.02
WK PKWY	3.000	3.100	0.1	8440	4	Divided	R	0.07	0.294	0	1	3	4	13.34	0.00	0.07	0.22	0.30	1.02
WK PKWY	4.100	4.200	0.1	8690	4	Divided	R	0.07	0.290	0	1	5	6	13.73	0.00	0.07	0.36	0.44	1.50
WK PKWY	5.510	5.610	0.1	8690	4	Divided	R	0.07	0.290	0	3	2	5	13.73	0.00	0.22	0.15	0.36	1.25
WK PKWY	6.000	6.100	0.1	8690	4	Divided	R	0.07	0.290	0	1	3	4	13.73	0.00	0.07	0.22	0.29	1.00
WK PKWY	6.700	6.800	0.1	8690	4	Divided	R	0.07	0.290	0	2	2	4	13.73	0.00	0.15	0.15	0.29	1.00
WK PKWY	13.000	13.100	0.1	13400	4	Divided	R	0.07	0.242	0	2	2	4	21.18	0.00	0.09	0.09	0.19	0.78
WK PKWY	16.000	16.100	0.1	10500	4	Divided	R	0.07	0.267	0	5	4	9	16.59	0.00	0.30	0.24	0.54	2.03
WK PKWY	17.900	18.000	0.1	10500	4	Divided	R	0.07	0.267	0	0	5	5	16.59	0.00	0.00	0.30	0.30	1.13
WK PKWY	18.500	18.600	0.1	10500	4	Divided	R	0.07	0.267	0	1	4	5	16.59	0.00	0.06	0.24	0.30	1.13
WK PKWY	21.700	21.800	0.1	10500	4	Divided	R	0.07	0.267	0	2	4	6	16.59	0.00	0.12	0.24	0.36	1.35
WK PKWY	21.964	22.064	0.1	10500	4	Divided	R	0.07	0.267	0	3	4	7	16.59	0.00	0.18	0.24	0.42	1.58
WK PKWY	23.900	24.000	0.1	10500	4	Divided	R	0.07	0.267	0	0	4	4	16.59	0.00	0.00	0.24	0.24	0.90
WK PKWY	24.335	24.435	0.1	10500	4	Divided	R	0.07	0.267	0	1	6	7	16.59	0.00	0.06	0.36	0.42	1.58
WK PKWY	24.987	25.087	0.1	9630	4	Divided	R	0.07	0.278	0	1	3	4	15.22	0.00	0.07	0.20	0.26	0.95
WK PKWY	25.900	26.000	0.1	9630	4	Divided	R	0.07	0.278	0	1	3	4	15.22	0.00	0.07	0.20	0.26	0.95
WK PKWY	26.900	27.000	0.1	9630	4	Divided	R	0.07	0.278	0	2	2	4	15.22	0.00	0.13	0.13	0.26	0.95
WK PKWY	28.100	28.200	0.1	9630	4	Divided	R	0.07	0.278	0	0	4	4	15.22	0.00	0.00	0.26	0.26	0.95
WK PKWY	30.000	30.100	0.1	9630	4	Divided	R	0.07	0.278	0	0	4	4	15.22	0.00	0.00	0.26	0.26	0.95
WK PKWY	30.200	30.300	0.1	9630	4	Divided	R	0.07	0.278	0	3	2	5	15.22	0.00	0.20	0.13	0.33	1.18
WK PKWY	30.600	30.700	0.1	9630	4	Divided	R	0.07	0.278	0	1	3	4	15.22	0.00	0.07	0.20	0.26	0.95
WK PKWY	31.000	31.100	0.1	9630	4	Divided	R	0.07	0.278	0	0	5	5	15.22	0.00	0.00	0.33	0.33	1.18
WK PKWY	31.581	31.681	0.1	9630	4	Divided	R	0.07	0.278	0	1	3	4	15.22	0.00	0.07	0.20	0.26	0.95
WK PKWY	33.100	33.200	0.1	9630	4	Divided	R	0.07	0.278	0	0	4	4	15.22	0.00	0.00	0.26	0.26	0.95

NOTE: Analysis includes reported crashes dated January 1, 2002 through April 30, 2006

Table A.7 (cont) High Accident Spots (1/10 Mile)

Route	Begin MP	End MP	Length (Miles)	ADT	Number of Lanes	Divided/ Undivided	Rural/ Urban	Avg. Veh. Crash Rate	Critical Veh. Crash Rate	Vehicle Crashes				MVM	Rates per MVM				Critical Rate Factor
										Fatal	Injury	PDO	Total		Fatal	Injury	PDO	Total	
WK PKWY	33.890	33.990	0.1	9630	4	Divided	R	0.07	0.278	0	1	3	4	15.22	0.00	0.07	0.20	0.26	0.95
WK PKWY	36.100	36.200	0.1	9630	4	Divided	R	0.07	0.278	0	1	4	5	15.22	0.00	0.07	0.26	0.33	1.18
WK PKWY	36.900	37.000	0.1	9630	4	Divided	R	0.07	0.278	0	3	4	7	15.22	0.00	0.20	0.26	0.46	1.66
WK PKWY	38.000	38.100	0.1	9630	4	Divided	R	0.07	0.278	0	5	6	11	15.22	0.00	0.33	0.39	0.72	2.60
WK PKWY	38.200	38.300	0.1	9630	4	Divided	R	0.07	0.278	0	3	3	6	15.22	0.00	0.20	0.20	0.39	1.42
WK PKWY	38.311	38.411	0.1	11100	4	Divided	R	0.07	0.261	0	0	9	9	17.54	0.00	0.00	0.51	0.51	1.96
WK PKWY	38.400	38.500	0.1	11100	4	Divided	R	0.07	0.261	0	1	3	4	17.54	0.00	0.06	0.17	0.23	0.87
KY 91	11.600	11.700	0.1	4870	2	Undivided	U	0.26	0.798	0	3	12	15	7.70	0.00	0.39	1.56	1.95	2.44
KY 91	11.700	11.800	0.1	3270	2	Divided	U	0.26	0.935	0	0	12	12	5.17	0.00	0.00	2.32	2.32	2.48
KY 91	11.811	11.911	0.1	9500	2	Undivided	U	0.26	0.632	0	1	8	9	15.01	0.00	0.07	0.53	0.60	0.95
KY 91	12.060	12.160	0.1	9500	2	Undivided	U	0.26	0.632	0	1	6	7	15.01	0.00	0.07	0.40	0.47	0.74
KY 91	12.200	12.300	0.1	9500	2	Undivided	U	0.26	0.632	0	4	10	14	15.01	0.00	0.27	0.67	0.93	1.47
KY 91	12.300	12.400	0.1	7190	2	Undivided	U	0.26	0.694	0	0	6	6	11.36	0.00	0.00	0.53	0.53	0.76
KY 91	12.600	12.700	0.1	7190	2	Undivided	U	0.26	0.694	0	1	4	5	11.36	0.00	0.09	0.35	0.44	0.63
KY 91	12.900	13.000	0.1	7190	2	Undivided	U	0.26	0.694	0	2	6	8	11.36	0.00	0.18	0.53	0.70	1.01
KY 109	3.700	3.800	0.1	5140	2	Undivided	R	0.24	0.744	0	6	9	15	8.12	0.00	0.74	1.11	1.85	2.48
KY 260	1.900	2.000	0.1	2705	2	Divided	R	0.24	0.967	0	0	4	4	4.28	0.00	0.00	0.94	0.94	0.97
KY 260	2.200	2.300	0.1	1820	2	Undivided	R	0.24	1.158	0	2	2	4	2.88	0.00	0.70	0.70	1.39	1.20
KY 281	0.000	0.100	0.1	20400	3	Divided	U	0.48	0.810	0	3	23	26	32.24	0.00	0.09	0.71	0.81	1.00
KY 281	0.400	0.500	0.1	20400	4	Undivided	U	0.44	0.756	0	8	25	33	32.24	0.00	0.25	0.78	1.02	1.35
KY 281	0.509	0.609	0.1	20400	4	Undivided	U	0.44	0.756	0	7	12	19	32.24	0.00	0.22	0.37	0.59	0.78
KY 281	0.640	0.740	0.1	20400	4	Divided	U	0.28	0.536	0	9	20	29	32.24	0.00	0.28	0.62	0.90	1.68
KY 281	1.130	1.230	0.1	4730	2	Undivided	U	0.26	0.807	0	1	8	9	7.48	0.00	0.13	1.07	1.20	1.49
KY 281	1.400	1.500	0.1	4730	2	Undivided	U	0.26	0.807	0	1	4	5	7.48	0.00	0.13	0.54	0.67	0.83
KY 293	6.880	6.980	0.1	3750	2	Undivided	U	0.26	0.884	0	1	3	4	5.93	0.00	0.17	0.51	0.67	0.76
KY 293	7.500	7.600	0.1	4010	2	Undivided	U	0.26	0.861	0	2	2	4	6.34	0.00	0.32	0.32	0.63	0.73
KY 336	2.200	2.300	0.1	2310	2	Undivided	R	0.24	1.037	0	2	2	4	3.65	0.00	0.55	0.55	1.10	1.06
KY 425	4.700	4.800	0.1	8320	2	Divided	U	0.26	0.660	1	1	3	5	13.15	0.08	0.08	0.23	0.38	0.58
KY 813	9.300	9.400	0.1	340	2	Undivided	R	0.24	2.892	0	2	1	3	0.54	0.00	3.72	1.86	5.58	1.93
KY 813	10.249	10.349	0.1	720	2	Undivided	R	0.24	1.862	0	0	5	5	1.14	0.00	0.00	4.39	4.39	2.36
KY 813	10.400	10.500	0.1	3320	2	Undivided	R	0.24	0.886	0	1	3	4	5.25	0.00	0.19	0.57	0.76	0.86
US 62	11.500	11.600	0.1	4450	2	Undivided	R	0.24	0.787	0	1	3	4	7.03	0.00	0.14	0.43	0.57	0.72
US 62	15.000	15.100	0.1	1650	2	Undivided	R	0.24	1.213	0	0	5	5	2.61	0.00	0.00	1.92	1.92	1.58
US 62	15.208	15.308	0.1	1650	2	Undivided	R	0.24	1.213	0	3	4	7	2.61	0.00	1.15	1.53	2.68	2.21
US 62	15.310	15.410	0.1	3680	2	Undivided	R	0.24	0.849	0	1	5	6	5.82	0.00	0.17	0.86	1.03	1.21
US 62	15.600	15.700	0.1	3680	2	Undivided	R	0.24	0.849	0	2	4	6	5.82	0.00	0.34	0.69	1.03	1.21

NOTE: Analysis includes reported crashes dated January 1, 2002 through April 30, 2006

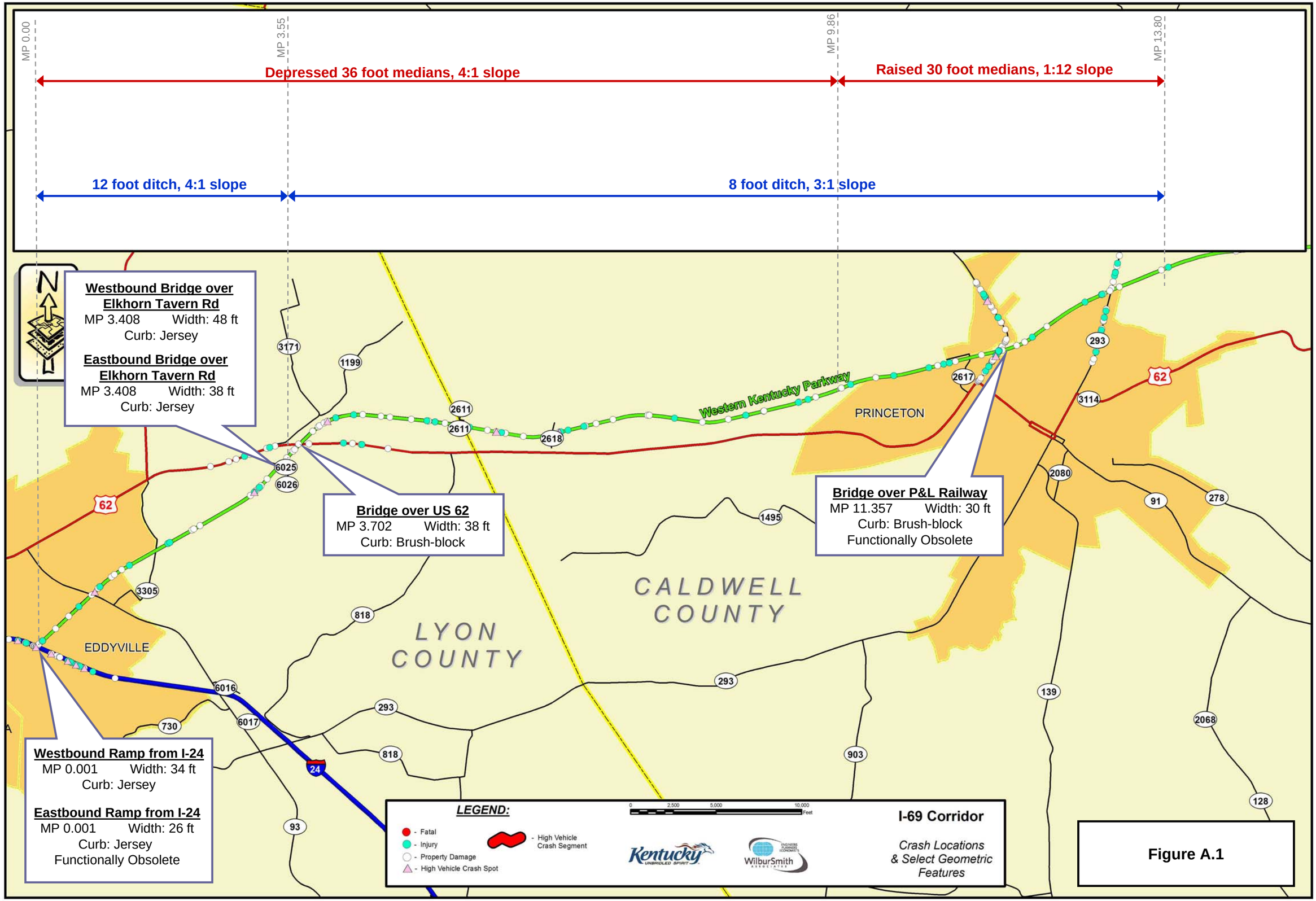
Table A.7 (cont) High Accident Spots (1/10 Mile)

Route	Begin MP	End MP	Length (Miles)	ADT	Number of Lanes	Divided/ Undivided	Rural/ Urban	Avg. Veh. Crash Rate	Critical Veh. Crash Rate	Vehicle Crashes				MVM	Rates per MVM				Critical Rate Factor
										Fatal	Injury	PDO	Total		Fatal	Injury	PDO	Total	
I-24	41.500	41.600	0.1	25100	4	Divided	R	0.05	0.154	0	0	6	6	39.67	0.00	0.00	0.15	0.15	0.98
I-24	41.800	41.900	0.1	15400	4	Divided	R	0.05	0.187	0	0	5	5	24.34	0.00	0.00	0.21	0.21	1.10
I-24	42.000	42.100	0.1	15400	4	Divided	R	0.05	0.187	0	2	3	5	24.34	0.00	0.08	0.12	0.21	1.10
I-24	42.200	42.300	0.1	15400	4	Divided	R	0.05	0.187	0	1	5	6	24.34	0.00	0.04	0.21	0.25	1.32
I-24	40.700	40.800	0.1	25100	4	Divided	R	0.05	0.154	1	1	2	4	39.67	0.03	0.03	0.05	0.10	0.65
I-24	41.000	41.100	0.1	25100	4	Divided	R	0.05	0.154	0	0	4	4	39.67	0.00	0.00	0.10	0.10	0.65
I-24	41.400	41.500	0.1	25100	4	Divided	R	0.05	0.154	0	3	4	7	39.67	0.00	0.08	0.10	0.18	1.15
I-24	42.100	42.200	0.1	15400	4	Divided	R	0.05	0.187	0	2	4	6	24.34	0.00	0.08	0.16	0.25	1.32
KY 56	13.700	13.800	0.1	4250	2	Undivided	R	0.24	0.801	0	1	3	4	6.72	0.00	0.15	0.45	0.60	0.74
KY 70	18.900	19.000	0.1	8340	2	Divided	U	0.26	0.660	0	13	40	53	13.18	0.00	0.99	3.03	4.02	6.09
KY 70	19.000	19.100	0.1	8340	2	Divided	U	0.26	0.660	0	4	20	24	13.18	0.00	0.30	1.52	1.82	2.76
KY 70	19.100	19.200	0.1	8340	2	Divided	U	0.26	0.660	0	4	18	22	13.18	0.00	0.30	1.37	1.67	2.53
KY 70	19.200	19.300	0.1	8340	2	Divided	U	0.26	0.660	0	4	34	38	13.18	0.00	0.30	2.58	2.88	4.37
KY 70	19.300	19.400	0.1	8340	2	Divided	U	0.26	0.660	0	4	34	38	13.18	0.00	0.30	2.58	2.88	4.37
KY 70	19.400	19.500	0.1	23000	4	Divided	U	0.28	0.520	0	1	25	26	36.35	0.00	0.03	0.69	0.72	1.38
KY 70	19.500	19.600	0.1	23000	4	Divided	U	0.28	0.520	0	8	22	30	36.35	0.00	0.22	0.61	0.83	1.59
KY 70	19.600	19.700	0.1	23000	4	Divided	U	0.28	0.520	0	10	28	38	36.35	0.00	0.28	0.77	1.05	2.01
KY 70	19.700	19.800	0.1	23000	4	Divided	U	0.28	0.520	0	4	11	15	36.35	0.00	0.11	0.30	0.41	0.79
KY 70	19.800	19.900	0.1	23000	4	Divided	U	0.28	0.520	0	3	24	27	36.35	0.00	0.08	0.66	0.74	1.43
KY 70	19.924	20.024	0.1	11000	4	Divided	U	0.28	0.636	0	11	47	58	17.38	0.00	0.63	2.70	3.34	5.25
KY 70	20.041	20.141	0.1	11000	4	Divided	U	0.28	0.636	0	11	22	33	17.38	0.00	0.63	1.27	1.90	2.99

NOTE: Analysis includes reported crashes dated January 1, 2002 through April 30, 2006

High Crash Spots (CRF greater than 1.0)

Potential High Crash Spots (CRF 0.9 - 1.0)



NOTE: Crash analysis includes reported crashes dated January 2002 through April 2006

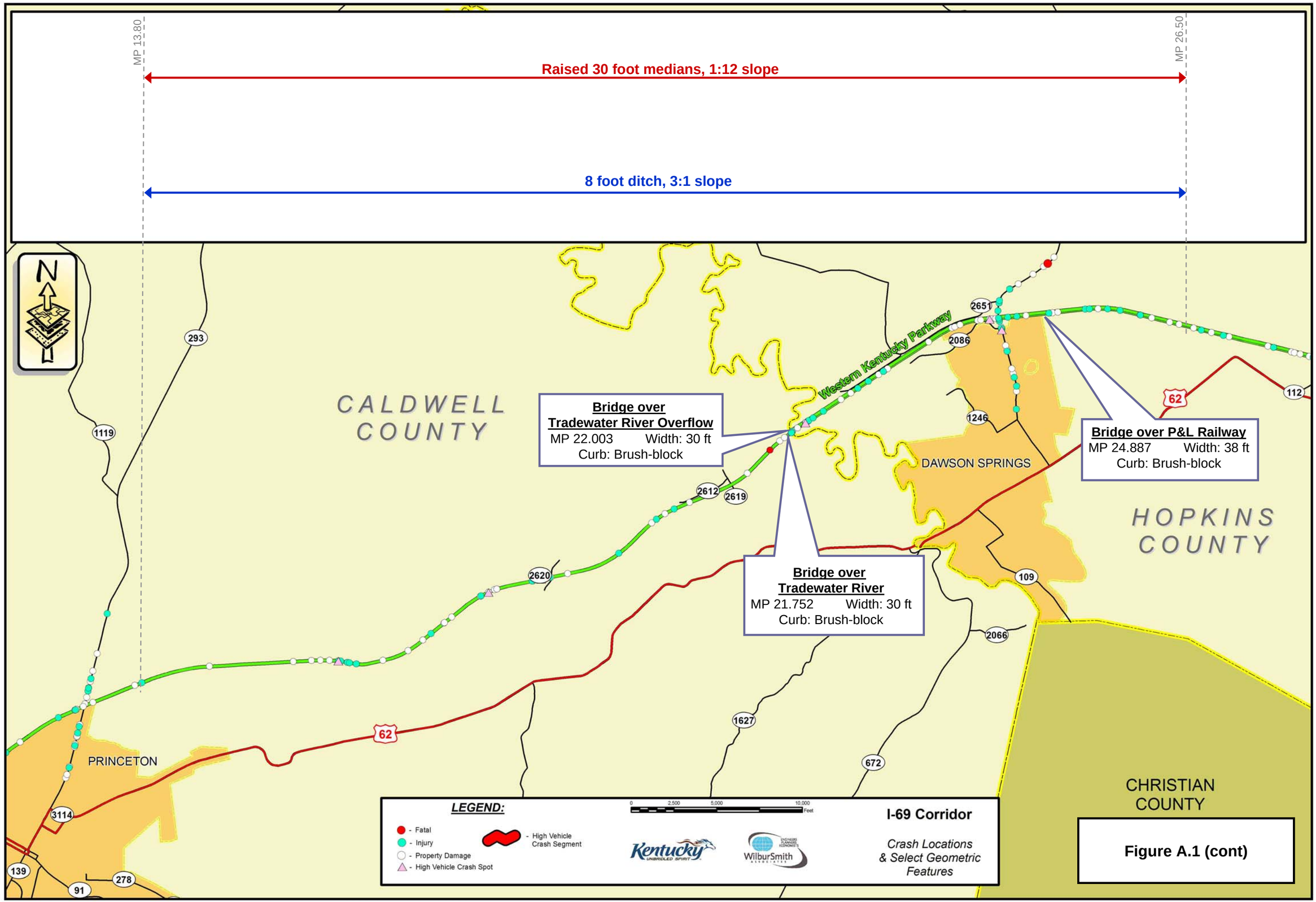


Figure A.1 (cont)

NOTE: Crash analysis includes reported crashes dated January 2002 through April 2006

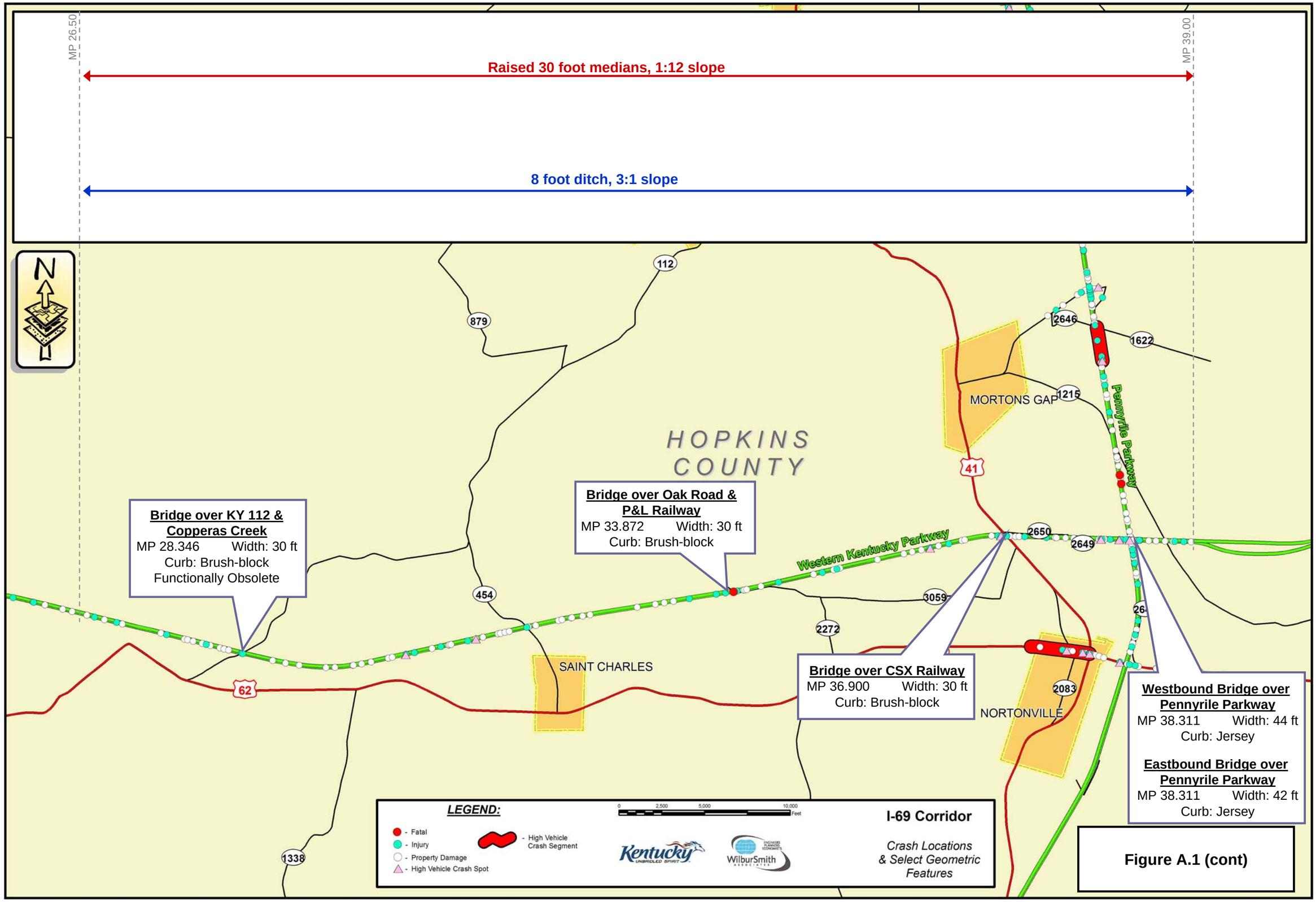


Figure A.1 (cont)

NOTE: Crash analysis includes reported crashes dated January 2002 through April 2006

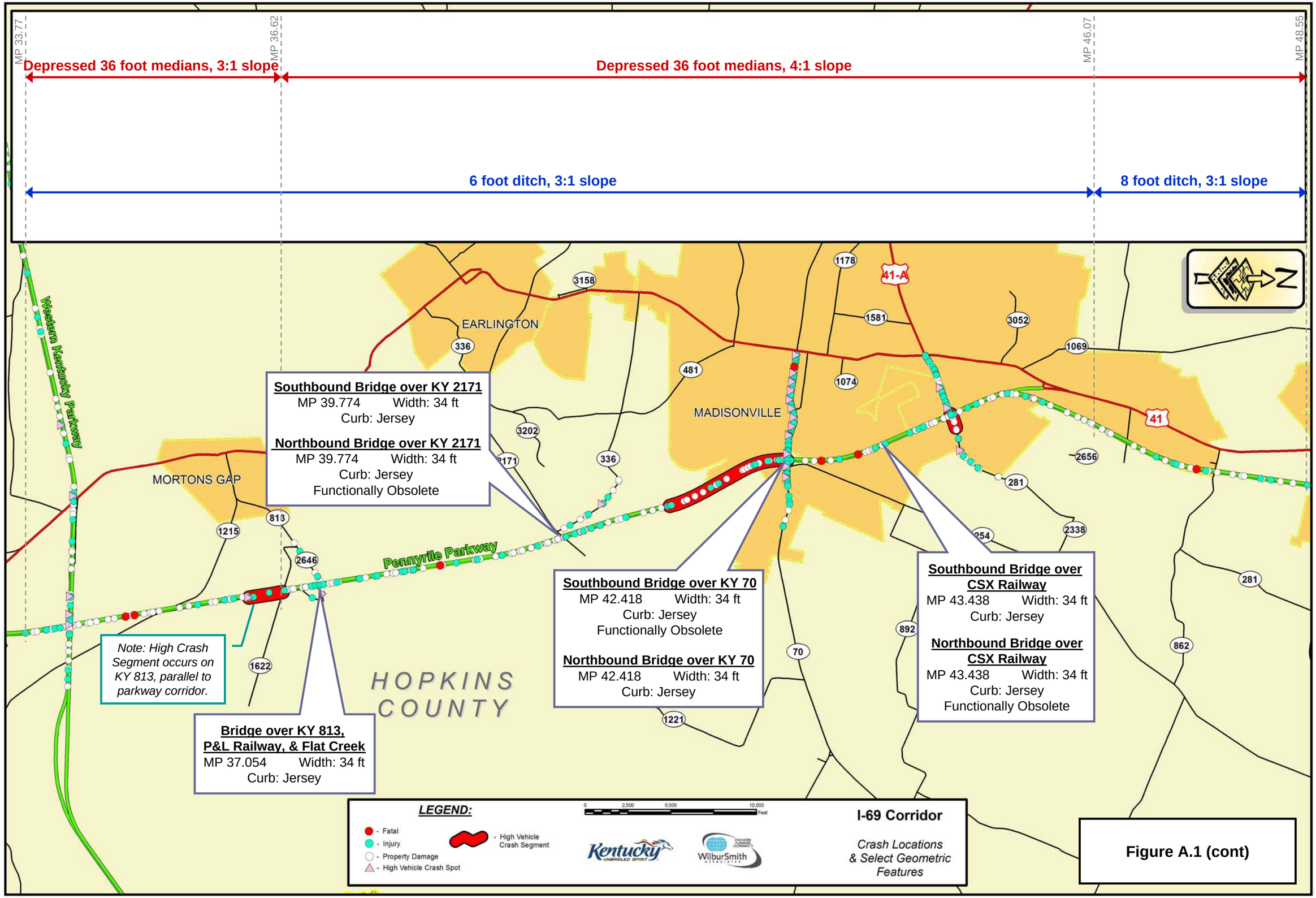


Figure A.1 (cont)

NOTE: Crash analysis includes reported crashes dated January 2002 through April 2006

MP 48.50

MP 62.90

Depressed 36 foot medians, 4:1 slope

8 foot ditch, 3:1 slope

Bridge over Otter Creek
MP 48.970 Width: 26.2 ft
Curb: Jersey
Functionally Obsolete

Bridge over KY 260
MP 48.979 Width: 38 ft
Curb: Jersey

Bridge over KY 147
MP 56.523 Width: 38 ft
Curb: Brush-block

Bridge over Deer Creek
MP 59.280 Width: 30 ft
Curb: Brush-block

Bridge over KY 370
MP 60.476 Width: 38 ft
Curb: Brush-block

Bridge over KY 138
MP 54.070 Width: 38 ft
Curb: Brush-block

Bridge over Otter Creek
MP 48.805 Width: 38 ft
Curb: Jersey

HOPKINS COUNTY

WEBSTER COUNTY

MCLEAN COUNTY

SEBREE

Pennyrile Parkway

120 1405 494 41 2663 2664 2662 2661 2667 2666 147 370 260 138

LEGEND:

- Fatal
- Injury
- Property Damage
- High Vehicle Crash Spot
- High Vehicle Crash Segment

0 2,500 5,000 10,000 Feet

I-69 Corridor

Crash Locations & Select Geometric Features

Figure A.1 (cont)

NOTE: Crash analysis includes reported crashes dated January 2002 through April 2006

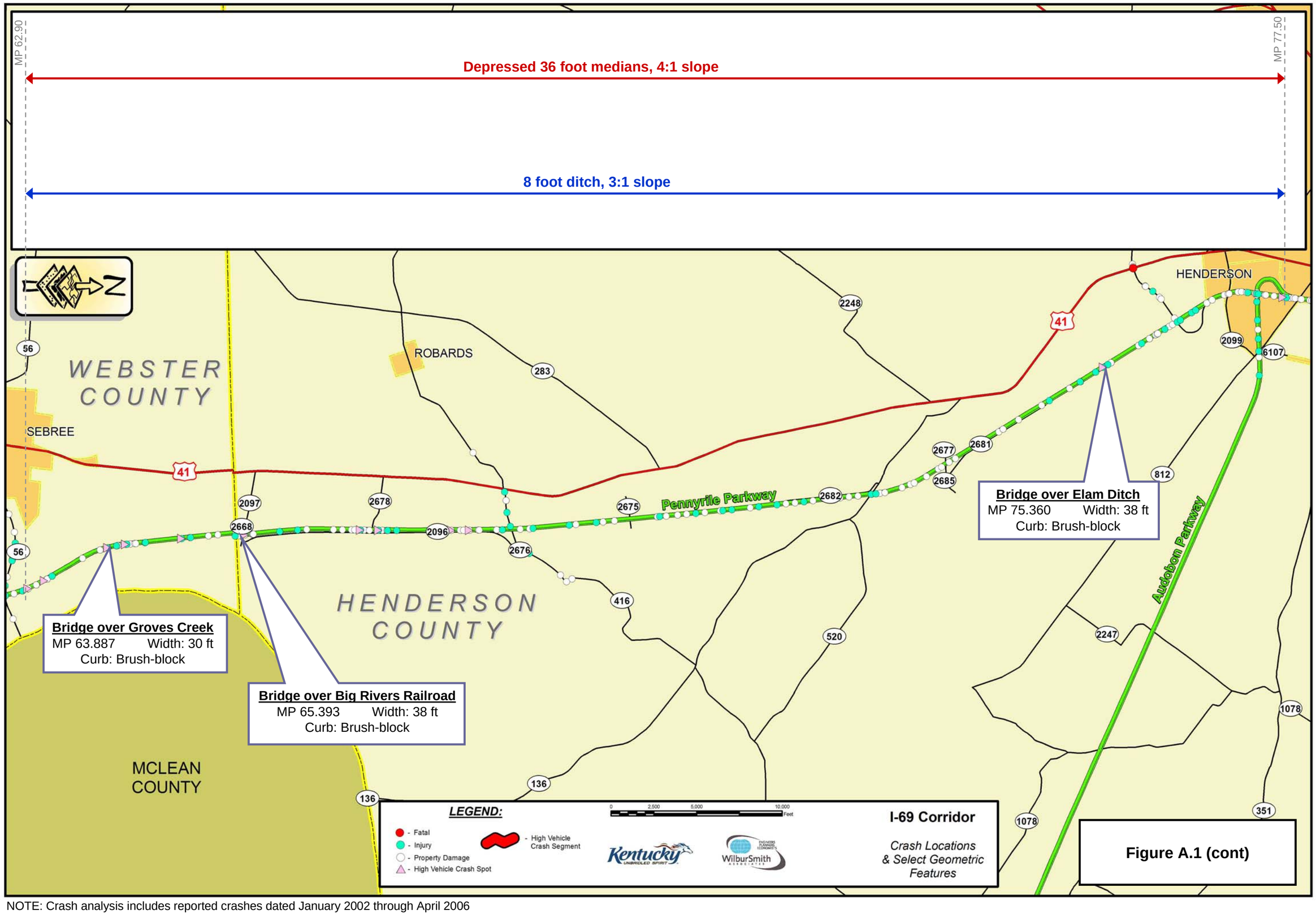


Figure A.1 (cont)

NOTE: Crash analysis includes reported crashes dated January 2002 through April 2006

Table A.8
2006 Count Volumes and Percent Truck Data

Parkway	Exit #	Cross Street	Ramp (direction + on/off)	AM Peak Volume	PM Peak Volume	Ramp % Trucks	ADT
Ford	1	I-24	EB I24 to EB On	202	274	37%	3691
Ford	1	I-24	WB Off to EB I24	8	11	37%	168
Ford	1	I-24	WB Off to WB I24	196	276	39%	3658
Ford	1	I-24	EB On from WB I24	14	24	44%	206
Ford	4	US 62	WB Off	57	56	28%	667
Ford	4	US 62	EB On	17	52	17%	512
Ford	4	US 62	WB On	32	33	30%	331
Ford	4	US 62	EB Off	38	33	34%	388
Ford	12	KY 91	WB On	45	55	14%	742
Ford	12	KY 91	EB Off	31	44	13%	665
Ford	12	KY 91	WB Off	121	128	15%	1500
Ford	12	KY 91	EB On	56	112	13%	1533
Ford	13	KY 293	WB On	164	57	8%	1042
Ford	13	KY 293	WB Off	21	34	21%	401
Ford	13	KY 293	EB Off	70	122	12%	1017
Ford	13	KY 293	EB On	39	27	23%	387
Ford	24	KY 109	WB Off	42	52	16%	681
Ford	24	KY 109	WB On	62	69	26%	779
Ford	24	KY 109	EB On	57	50	16%	629
Ford	24	KY 109	EB Off	76	73	23%	750
Ford/Breathitt	38/34	Breathitt/Ford	SB Brt to WB Ford	136	165	31%	1799
Ford/Breathitt	38/34	Breathitt/Ford	WB Ford to SB Brt	79	93	38%	1148
Ford/Breathitt	38/34	Breathitt/Ford	WB Ford to NB Brt	163	147	23%	2290
Ford/Breathitt	38/34	Breathitt/Ford	NB Brt to WB Ford	16	15	36%	192
Ford/Breathitt	38/34	Breathitt/Ford	NB Brt to EB Ford	95	95	36%	1239
Ford/Breathitt	38/34	Breathitt/Ford	EB Ford to NB Brt	124	153	30%	1760
Ford/Breathitt	38/34	Breathitt/Ford	EB Ford to SB Brt	7	22	43%	202
Ford/Breathitt	38/34	Breathitt/Ford	SB Brt to EB Ford	187	223	12%	2767
Breathitt	37	KY 813	NB Off	78	72	50%	999
Breathitt	37	KY 813	NB On	105	143	23%	1881
Breathitt	37	KY 813	SB Off	88	118	23%	1803
Breathitt	37	KY 813	SB On	76	61	46%	1053
Breathitt	40	KY 2171, KY 336	SB Off	86	152	12%	1455
Breathitt	40	KY 2171, KY 336	NB On	97	116	15%	1093
Breathitt	40	KY 2171, KY 336	SB On	56	62	14%	781
Breathitt	40	KY 2171, KY 336	NB Off	66	84	29%	827
Breathitt	42	KY 70	SB Off	460	546	5%	6226
Breathitt	42	KY 70	NB On	380	488	4%	5820
Breathitt	42	KY 70	SB On	167	280	9%	3323
Breathitt	42	KY 70	NB Off	345	240	9%	3217
Breathitt	44	KY 281	SB Off	354	238	9%	3041
Breathitt	44	KY 281	NB On	287	301	10%	3542
Breathitt	44	KY 281	SB On	367	643	8%	6737
Breathitt	44	KY 281	NB Off	522	482	9%	6435
Breathitt	45	US 41	SB On	386	338	6%	3162
Breathitt	45	US 41	NB Off	338	285	6%	3108
Breathitt	49	KY 260	SB Off	48	52	13%	686
Breathitt	49	KY 260	NB On	63	59	10%	718
Breathitt	49	KY 260	SB On	172	152	7%	1356
Breathitt	49	KY 260	NB Off	79	110	7%	1267
Breathitt	54	KY 138	SB Off	10	18	19%	198
Breathitt	54	KY 138	NB On	23	14	16%	193
Breathitt	54	KY 138	SB On	123	65	11%	1079
Breathitt	54	KY 138	NB Off	46	110	10%	1081
Breathitt	63	KY 56	SB On	80	112	18%	1102
Breathitt	63	KY 56	SB Off	13	32	21%	1176
Breathitt	63	KY 56	NB Off	97	74	31%	406
Breathitt	63	KY 56	NB On	54	35	21%	473
Breathitt	68	KY 416	SB Off	99	49	24%	861
Breathitt	68	KY 416	NB On	100	113	21%	911
Breathitt	76	KY 425	NB On	290	216	17%	2770
Breathitt	76	KY 425	NB Off	59	68	37%	601
Breathitt	76	KY 425	SB Off	48	86	39%	652
Breathitt	76	KY 425	SB On	42	77	29%	628
Breathitt	77	Audobon Pkwy	SB Off	138	230	19%	2378
Breathitt	77	Audobon Pkwy	SB On	106	47	31%	957
Breathitt	77	Audobon Pkwy	NB On	260	173	22%	2504
Breathitt	77	Audobon Pkwy	NB Off	83	103	30%	953

Table A.9
2006 AM Peak Hour Volumes at Ramp Base Intersections

Interchange	N/S Street	E/W Street	Control	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
4	WB Ramp	US 62	Stop	39	100	0	0	106	0	0	0	0	1	0	20
4	EB Ramp	US 62	Stop	0	143	4	21	83	0	0	0	46	0	0	0
12	KY 91	WB Ramp	Stop	22	544	0	0	469	36	0	0	0	52	1	148
12	KY 91	EB Ramp	Stop	0	546	70	61	460	0	20	0	18	0	0	0
13	KY 293	WB Ramp	Stop	70	53	0	0	64	74	0	0	0	17	4	2
13	KY 293	EB Ramp	Stop	0	88	32	4	77	0	30	0	27	0	0	0
24	KY 109	WB Ramp	Stop	0	129	23	27	126	0	8	0	29	0	0	0
24	KY 109	EB Ramp	Stop	48	121	0	0	159	11	0	0	0	36	0	30
24	KY 109	KY 1220	Stop	9	126	1	0	131	3	6	0	23	4	0	0
24	KY 109	KY 2086	Stop	3	140	26	24	173	2	3	0	7	17	0	29
40	KY 2171	KY 336	Stop	15	62	1	1	23	41	44	3	54	2	2	0
40	KY 2171	NB Ramp	Stop	104	6	0	0	1	1	0	0	52	104	6	0
40	SB Ramp	KY 336	Stop	0	0	0	42	0	39	33	42	0	0	55	22
42	SB Ramp	KY 70	Signal	0	0	0	256	0	180	0	500	67	95	772	0
42	NB Ramp	KY 70	Signal	258	36	57	51	0	368	447	327	0	0	296	235
44	SB Ramp	KY 281	Stop	0	0	0	58	0	244	0	382	288	72	613	0
44	NB Ramp	KY 281	Signal	367	0	62	0	0	0	186	237	0	0	297	69
45	KY 41 with Ramps		Stop	0	350	0	293	396	0	339	0	90	0	0	0
49	SB Ramp	KY 260	Stop	0	0	0	13	0	44	0	90	107	43	100	0
49	NB Ramp	KY 260	Stop	35	0	33	0	0	0	46	56	0	0	120	15
54	SB Ramp	KY 138	Stop	0	0	0	0	0	5	0	32	45	59	41	0
54	NB Ramp	KY 138	Stop	15	0	28	0	0	0	12	19	0	0	90	7
63	SB Ramp	KY 56	Stop	17	0	7	0	0	0	50	63	0	0	57	26
63	NB Ramp	KY 56	Stop	0	0	0	11	0	77	0	47	21	21	71	0
68	SB Ramp	KY 416	Stop	0	0	0	66	0	19	0	54	0	0	26	0
68	NB Ramp	KY 416	Stop	0	0	0	0	0	0	34	79	0	0	20	43

Table A.10
2006 PM Peak Hour Volumes at Ramp Base Intersections

Interchange	N/S Street	E/W Street	Control	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
4	WB Ramp	US 62	Stop	28	113	0	0	169	8	0	0	0	1	0	39
4	EB Ramp	US 62	Stop	0	137	4	46	122	0	5	0	37	0	0	0
12	KY 91	WB Ramp	Stop	36	350	0	0	301	26	0	0	0	61	0	35
12	KY 91	EB Ramp	Stop	0	369	110	43	319	0	18	0	37	0	0	0
13	KY 293	WB Ramp	Stop	30	154	0	0	56	42	0	0	0	39	0	4
13	KY 293	EB Ramp	Stop	0	102	18	0	96	0	71	0	42	0	0	0
24	KY 109	WB Ramp	Stop	0	137	39	25	124	0	4	0	63	0	0	0
24	KY 109	EB Ramp	Stop	40	152	0	0	153	9	0	0	0	49	0	26
24	KY 109	KY 1220	Stop	22	113	2	1	125	5	6	0	20	3	0	0
24	KY 109	KY 2086	Stop	10	161	21	21	176	7	4	0	2	15	0	26
40	KY 2171	KY 336	Stop	28	38	0	4	33	51	33	8	82	2	18	8
40	KY 2171	NB Ramp	Stop	81	3	0	0	5	8	2	0	75	0	0	0
40	SB Ramp	KY 336	Stop	0	0	0	77	0	59	48	44	0	0	57	27
42	SB Ramp	KY 70	Signal	0	0	0	279	0	278	0	812	198	142	649	0
42	NB Ramp	KY 70	Signal	144	20	85	21	0	126	447	631	0	0	477	304
44	SB Ramp	KY 281	Stop	0	0	0	58	0	192	0	541	560	68	614	0
44	NB Ramp	KY 281	Signal	446	0	58	0	0	0	261	324	0	0	232	40
45	KY 41 with Ramps		Stop	0	295	0	204	349	0	293	0	79	0	0	0
49	SB Ramp	KY 260	Stop	0	0	0	17	0	51	0	120	59	39	121	0
49	NB Ramp	KY 260	Stop	71	0	32	0	0	0	55	74	0	0	105	11
54	SB Ramp	KY 138	Stop	0	0	0	4	0	17	0	25	23	38	46	0
54	NB Ramp	KY 138	Stop	37	0	101	0	0	0	9	20	0	0	48	2
63	SB Ramp	KY 56	Stop	25	0	31	0	0	0	75	86	0	0	93	10
63	NB Ramp	KY 56	Stop	0	0	0	13	0	32	0	96	17	11	45	0
68	SB Ramp	KY 416	Stop	0	0	0	28	0	36	0	60	0	0	47	0
68	NB Ramp	KY 416	Stop	0	0	0	0	0	0	26	86	0	0	55	48

Table A.11
Crash Statistics by Ditch Widths

Ford/Western Kentucky Parkway	**Fatal**	**Injury**	**Prop Dam.**	**Total**
Total ROR Accidents	1	25	52	78
ROR accidents in 12 ft ditch section	0	2	1	3
ROR accidents in 8 ft ditch section	1	23	51	75
Breathitt/Pennyrile Parkway				
Total ROR Accidents	1	49	115	165
ROR accidents in 8 ft ditch section	0	27	64	91
ROR accidents in 6 ft ditch section	1	18	45	64

NOTE: Analysis includes reported crashes occurring January 2002 through April 2006

Table A.12
Collisions on Parkway Bridges

		Fatal	Injury	Prop Damage only	Total
Ford	Total Crashes	2	111	283	396
	Total Relevant Collisions	0	52	76	128
	Relevant Coll on any Bridge	0	8	12	20
	Relevant Coll on Narrow Bridge	0	7	8	15
ETB	Total Crashes	9	199	724	932
	Total Relevant Collisions	4	63	170	237
	Relevant Coll on any Bridge	0	5	28	33
	Relevant Coll on Narrow Bridge	0	3	14	17

NOTES:
[1] Analysis includes reported crashes occurring January 2002 through April 2006
[2] Relevant collisions were determined to include collisions with fixed objects in non-intersections and outside of gore, collisions on shoulders, and other roadway/midblock collisions.

Table A.13
Crash History Summary for Bridges along Parkways

	Bridge	N=Narrow (<38 ft); W = Wider than 38'	Total Crashes	Related Crashes
Ford	MP 0 (I-24)	N	9	5
	MP 3.4 (RR/Elkhorn Tavern)	W	0	0
	MP 3.7 (US 62)	W	0	0
	MP 11.4 (RR)	N	0	0
	MP 21.75 (Tradewater Riv)	N	6	2
	MP 22 (Tradewater Overflow)	N	7	3
	MP 24.9 (RR)	W	0	0
	MP 28.4 (KY 112)	N	3	2
	MP 33.9 (RR/Oak Rd)	N	3	1
	MP 36.9 (RR)	N	4	2
	MP 38.3 (ETB)	?	9	5
	WKY Bridge Total	**---**	**41**	**20**
ETB	MP 37.5 (RR/KY 813)	N	13	4
	MP 39.8 (KY 2171)	N	12	6
	MP 42.4 (KY 70)	N	66	7
	MP 43.4 (RR)	N	6	0
	MP 48.8 (Otter Creek)	W	1	1
	MP 48.9 (Otter Creek) RAMPS	N	1	0
	MP 49 (KY 260)	W	14	5
	MP 54.1 (KY 138)	W	3	0
	MP 56.5 (KY 147)	W	6	3
	MP 59.3 (Deer Creek)	N	1	0
	MP 60.5 (KY 370)	W	2	1
	MP 63.9 (Groves Creek)	N	2	0
	MP 65.4 (RR)	W	5	3
	MP 75.4 (Elam Ditch)	W	6	3
	ETB Bridge Total	**---**	**138**	**33**

NOTE: Analysis includes reported crashes occurring January 2002 through April 2006

Table A.14
Daily Traffic Characteristics

				Daily Vehicles					Daily Vehicles (Trucks Only)				
	Between Exits		2006 ADT	Growth Rate (No I-69)[1]	Growth Rate (With I-69)	2030 ADT (No I-69)	2030 ADT (With I-69)	Difference (2030)	2006 % Trucks	2030 % Trucks (With I-69)	2006 ADT (Trucks Only)	2030 ADT (Trucks Only: No I-69)	2030 ADT (Trucks Only: With I-69)
Ford	1	4	8,800	1.3%	2.8%	12,000	17,100	5,100	30%	33%	2,904	3,960	5,643
	4	12	9,200	1.3%	2.8%	12,500	17,800	5,300	30%	33%	3,036	4,125	5,874
	12	13	11,000	1.3%	2.8%	15,000	21,300	6,300	30%	33%	3,630	4,950	7,029
	13	24	9,800	1.3%	2.8%	13,400	19,000	5,600	27%	30%	2,940	4,020	5,700
	24	38	9,600	1.3%	2.8%	13,100	18,600	5,500	27%	30%	2,880	3,930	5,580
Breathitt	34	37	19,000	1.3%	2.3%	25,900	32,800	6,900	21%	24%	4,560	6,216	7,872
	37	40	20,400	1.3%	2.3%	27,800	35,200	7,400	21%	24%	4,896	6,672	8,448
	40	42	21,200	1.3%	2.3%	28,900	36,600	7,700	21%	24%	5,088	6,936	8,784
	42	44	27,000	1.3%	2.3%	36,800	46,600	9,800	16%	19%	5,130	6,992	8,854
	44	45	20,800	1.3%	2.3%	28,400	35,900	7,500	21%	24%	4,992	6,816	8,616
	45	49	14,600	1.3%	2.3%	19,900	25,200	5,300	26%	29%	4,234	5,771	7,308
	49	54	13,600	1.3%	2.3%	18,500	23,500	5,000	23%	26%	3,536	4,810	6,110
	54	63	12,000	1.3%	2.3%	16,400	20,700	4,300	28%	31%	3,720	5,084	6,417
	63	68	10,800	1.3%	2.3%	14,700	18,600	3,900	29%	32%	3,456	4,704	5,952
	68	76	12,600	1.3%	2.3%	17,200	21,700	4,500	24%	27%	3,402	4,644	5,859
	76	77	16,000	1.3%	2.3%	21,800	27,600	5,800	20%	23%	3,680	5,014	6,348

[1] *Historic growth rates are based on twelve years of historical travel data provided by the KYTC and modeling of the corridor*

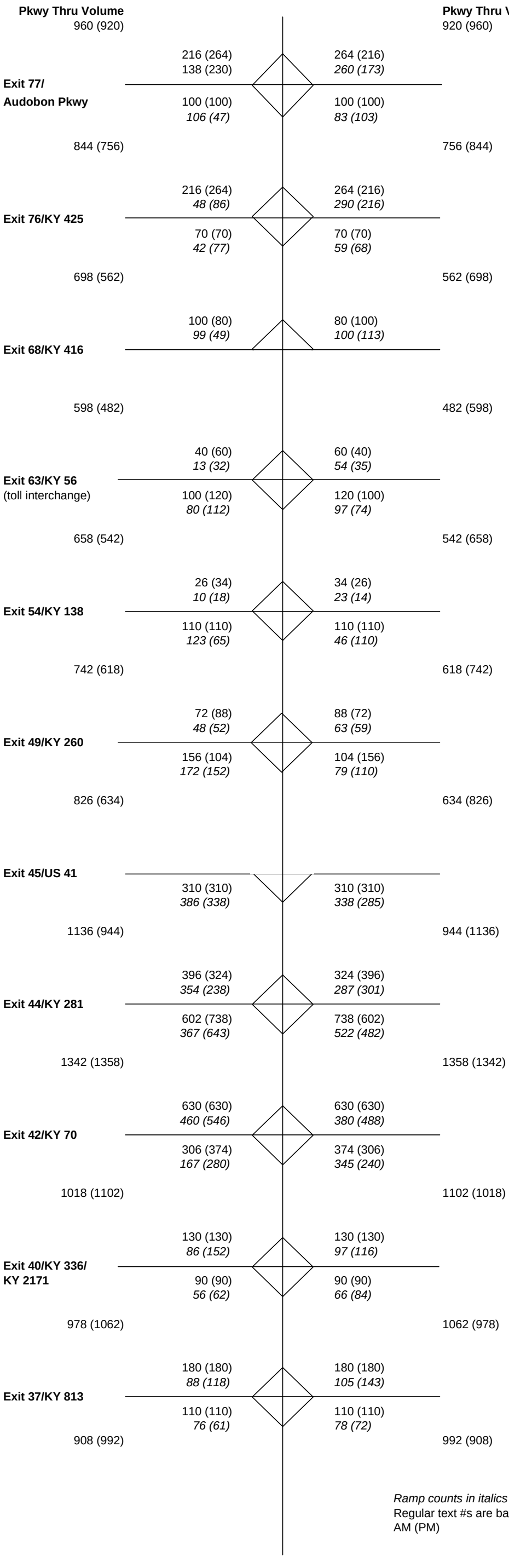


Figure A.2

N

Breathitt
2006
DESIGN HOUR VOLUMES

Ramp counts in italics are actual 2006 counts
Regular text #s are balanced DHV
AM (PM)

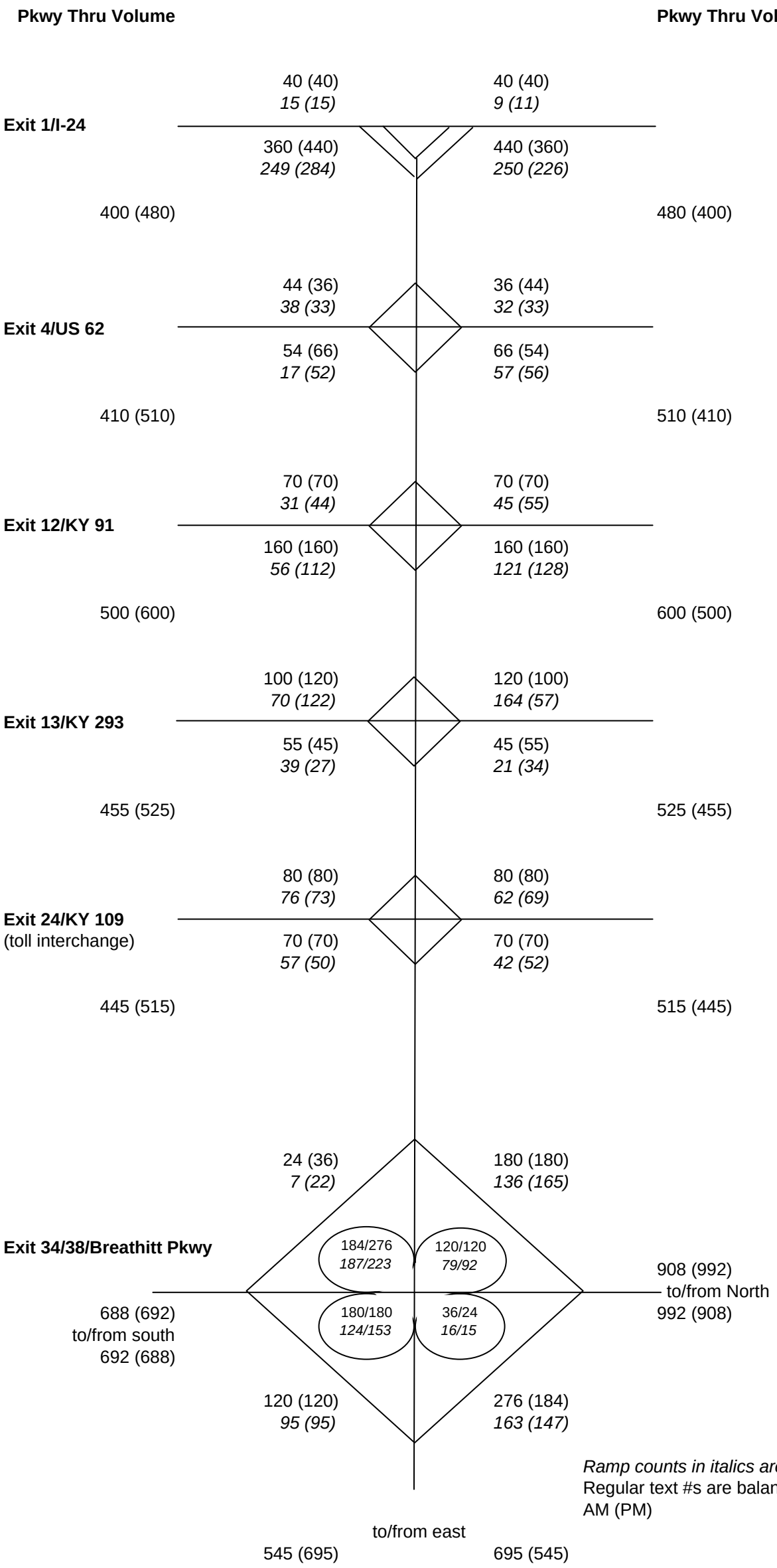


Figure A.2

Western/Ford

2006 N

DESIGN HOUR VOLUMES

Ramp counts in italics are actual 2006 counts
Regular text #s are balanced DHV
AM (PM)

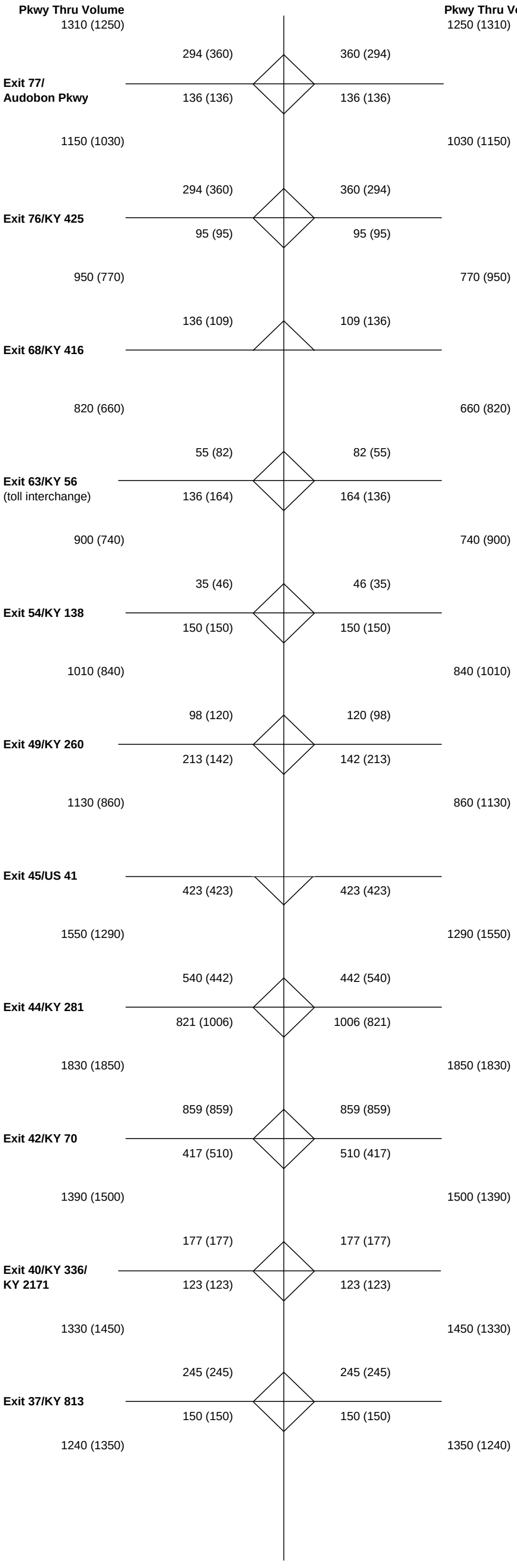


Figure A.3

N

Breathitt
2030 Without I-69
DESIGN HOUR VOLUMES

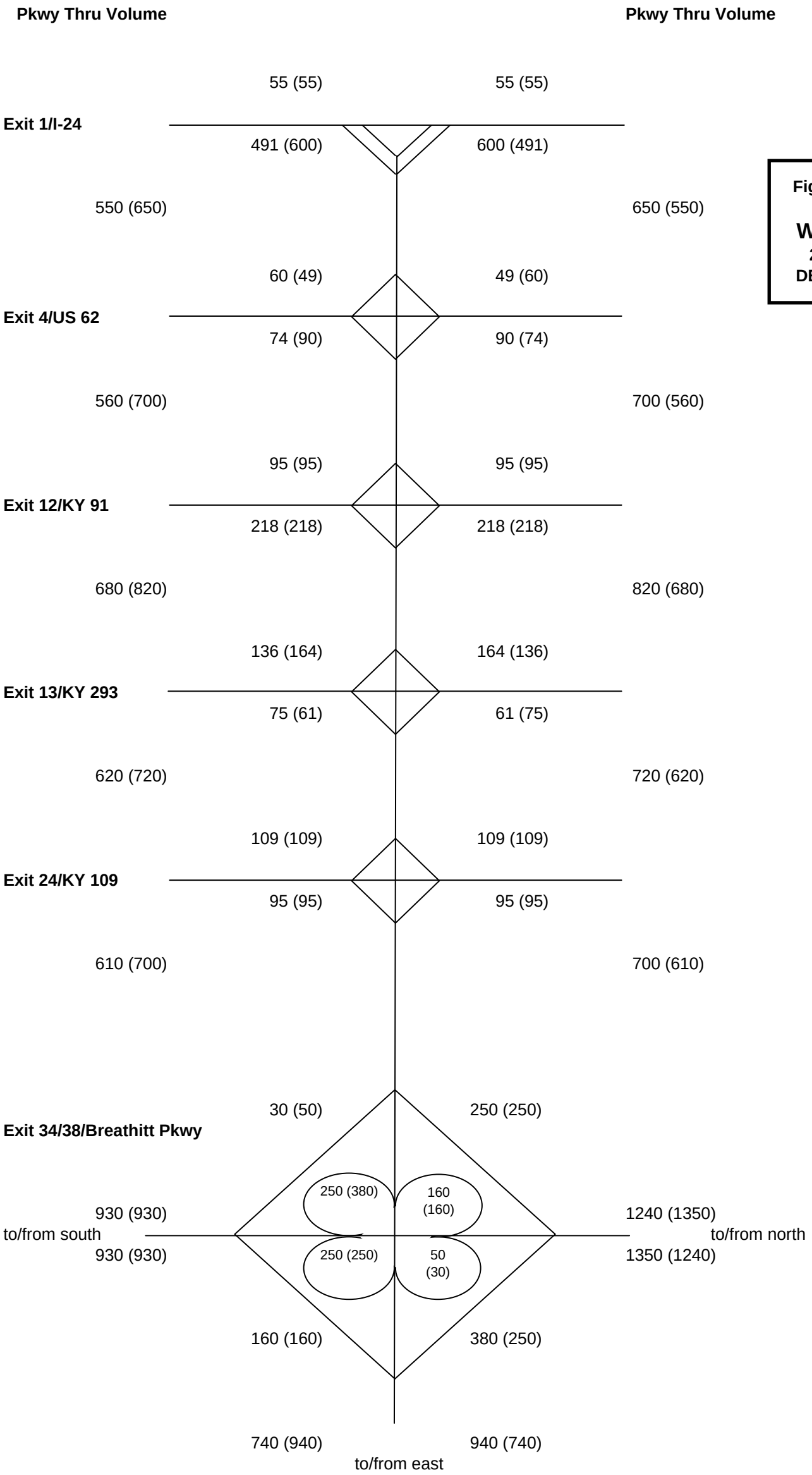


Figure A.3

Western/Ford
2030 Without I-69 N
DESIGN HOUR VOLUMES

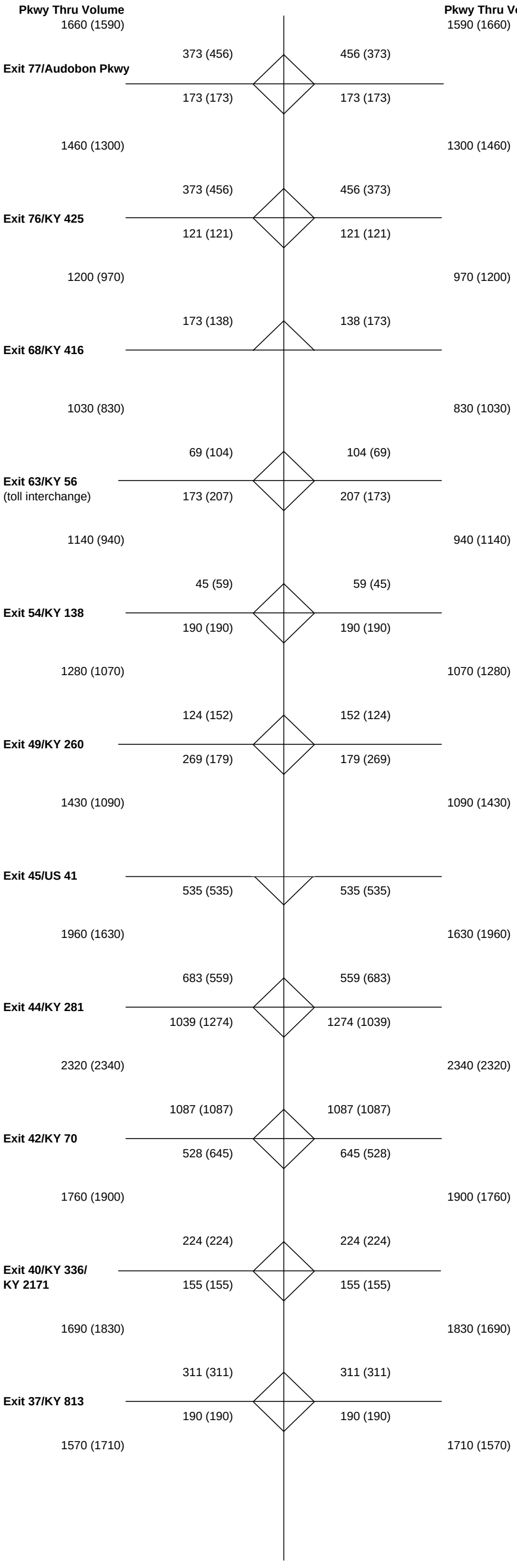


Figure A.4

N

Breathitt
2030 With I-69
DESIGN HOUR VOLUMES

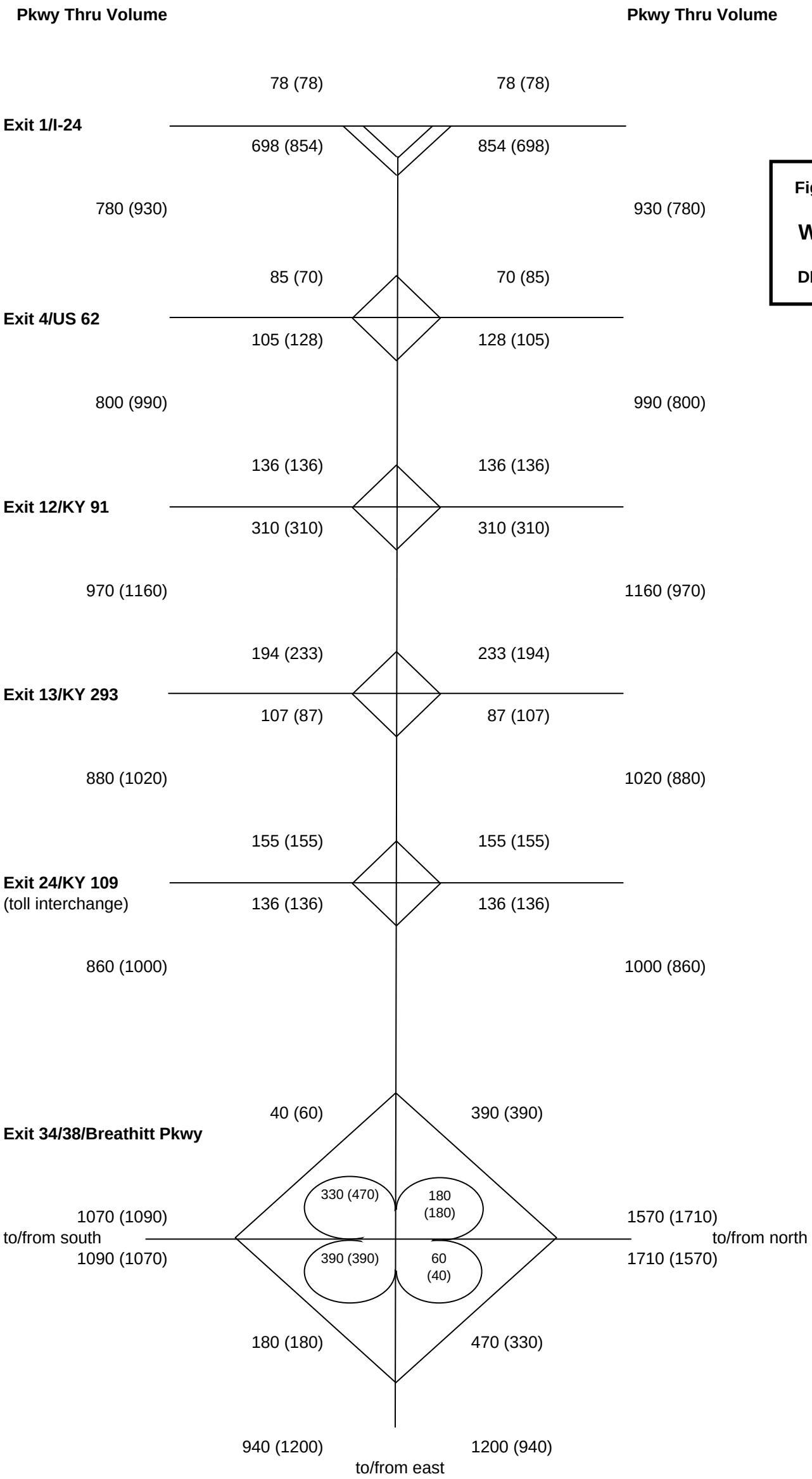


Figure A.4

Western/Ford
2030 With I-69 N
DESIGN HOUR VOLUMES

Table A.15
LOS Information for Mainline Reaches

	Between Exits		Rural / Urban	Existing % Trucks	2006 Scenario		2030 without I-69 Scenario			2030 with I-69 Scenario					Deteriorating Service			
					2006 DDHV	2006 LOS	Growth Rate (No I-69)	2030 DDHV (No I-69)	2030 LOS (No I-69)	Growth Rate (with I-69)	2030 DDHV (with I-69)	Future % Trucks	2030 DDHV (trucks only: with I-69)	2030 LOS (with I-69)	Year of poor LOS	Poor LOS	Volume for LOS D/E	Growth Rate for Poor Service by 2030
Ford	1	4	Rural	30	480	A	1.3%	650	A	2.8%	930	33	188	B	2060-2065	D	2450	7.0%
	4	12	Rural	30	510	A	1.3%	700	A	2.8%	990	33	196	B	2055-2060	D	2250	6.4%
	12	13	Urban	30	600	A	1.3%	820	A	2.8%	1160	33	234	B	2055-2060	E	2650	6.4%
	13	24	Rural	27	525	A	1.3%	720	A	2.8%	1020	30	190	B	2055-2060	D	2350	6.4%
	24	38	Rural	27	515	A	1.3%	700	A	2.8%	1000	30	186	B	2055-2060	D	2300	6.4%
Breathitt	34	37	Rural	21	992	A	1.3%	1350	B	2.3%	1710	24	262	C	2040-2045	D	2400	3.8%
	37	40	Rural	20	1062	A	1.3%	1450	B	2.3%	1830	23	282	C	2040-2045	D	2550	3.7%
	40	42	Urban	20	1102	B	1.3%	1500	B	2.3%	1900	23	293	C	2045-2050	E	3000	4.3%
	42	44	Urban	16	1358	B	1.3%	1850	C	2.3%	2340	19	295	C	2035-2040	E	2950	3.3%
	44	45	Urban	21	1136	B	1.3%	1550	B	2.3%	1960	24	287	C	2040-2045	E	2750	3.7%
	45	49	Rural	26	826	A	1.3%	1130	B	2.3%	1430	29	244	B	2045-2050	D	2250	4.3%
	49	54	Rural	23	742	A	1.3%	1010	A	2.3%	1280	26	204	B	2055-2060	D	2550	5.3%
	54	63	Rural	28	658	A	1.3%	900	A	2.3%	1140	31	214	B	2055-2060	D	2250	5.3%
	63	68	Rural	29	598	A	1.3%	820	A	2.3%	1030	32	198	B	2060-2065	D	2250	5.7%
	68	76	Rural	24	698	A	1.3%	950	A	2.3%	1200	27	195	B	2055-2060	D	2350	5.2%
	76	77	Urban	20	844	A	1.3%	1150	B	2.3%	1460	23	212	B	2055-2060	E	2250	4.2%

Table A.16
LOS and Density for AM/PM peak hours around Breathitt Interchange 44

		2006		2030 without I-69		2030 with I-69	
	Component	**Density[1]**	**LOS**	**Density[1]**	**LOS**	**Density[1]**	**LOS**
Northbound	Mainline south of Exit	14.3 / 14.1	B / B	19.5 / 19.3	C / C	25.7 / 25.4	C / C
	Off Ramp Junction	17.1 / 16.9	B / B	22.9 / 22.7	C / C	29.7 / 29.5	D / D
	On Ramp Junction	13.6 / 15.6	B / B	17.1 / 19.8	B / B	21.1 / 24.5	C / C
	Mainline north of Exit	11.0 / 13.2	A / B	15.0 / 18.0	B / B	19.6 / 23.5	C / C
Southbound	Mainline north of Exit	13.2 / 11.0	B / A	18.0 / 15.0	B / B	23.5 / 19.6	C / C
	Off Ramp Junction	14.2 / 11.9	B / B	19.1 / 16.0	B / B	24.8 / 20.8	C / C
	On Ramp Junction	17.4 / 17.3	B / B	22.3 / 22.2	C / C	27.7 / 27.4	C / C
	Mainline south of Exit	14.1 / 14.3	B / B	19.3 / 19.5	C / C	25.4 / 25.7	C / C

[1] Density measured as passenger cars/lane/mile

Note: Measurements report AM / PM peak hour values

Table A.17
LOS and Density for AM/PM peak hours around Breathitt Interchange 63

	2006		2030 without I-69		2030 with I-69	
Component	**Density[1]**	**LOS**	**Density[1]**	**LOS**	**Density[1]**	**LOS**
NB Weave Segment	5.8 / 6.2	A / A	9.4 / 9.2	A / A	13.4 / 12.8	B / B
SB Weave Segment	6.0 / 5.3	A / A	8.8 / 7.8	A / A	12.3 / 11.0	B / B

[1] Density measured as passenger cars/lane/mile

Note: Measurements report AM / PM peak hour values

Table A.18
LOS and Density for AM/PM peak hours at Breathitt/Ford Interchange

		2006		2030 without I-69		2030 with I-69	
	Component	**Density[1]**	**LOS**	**Density[1]**	**LOS**	**Density[1]**	**LOS**
Eastbound Ford	Off Ramp to SB Breathitt	6.1 / 7.0	A / A	8.3 / 9.5	A / A	12.0 / 14.0	B / B
	Mainline Segment	4.7 / 5.3	A / A	6.5 / 7.2	A / A	9.4 / 10.8	A / A
	Weave to/from North	11.5 / 14.5	B / B	17.6 / 22.4	B / C	29.7 / 36.7	D / E
	Mainline Segment	4.7 / 6.4	A / A	6.5 / 8.7	A / A	8.7 / 11.7	A / B
	On Ramp from NB Breathitt	6.5 / 8.3	A / A	8.9 / 11.3	A / B	11.6 / 14.9	B / B
Westbound Ford	Off Ramp to NB Breathitt	9.5 / 7.4	A / A	12.7 / 10.1	B / B	16.7 / 13.1	B / B
	Mainline Segment	7.4 / 4.0	A / A	6.2 / 5.5	A / A	8.4 / 7.0	A / A
	Weave to/from South	7.6 / 6.6	A / A	10.8 / 9.3	B / A	14.5 / 12.1	B / B
	Mainline Segment	3.7 / 3.0	A / A	5.0 / 4.0	A / A	7.0 / 5.4	A / A
	On Ramp from SB Breathitt	6.1 / 5.2	A / A	8.3 / 7.2	A / A	12.2 / 10.4	B / B
Northbound Breathitt	Off Ramp to EB Ford	8.8 / 8.8	A / A	11.8 / 11.8	B / B	14.3 / 14.0	B / B
	Mainline Segment	6.0 / 5.9	A / A	8.0 / 8.0	A / A	9.8 / 9.6	A / A
	Weave to/from West	10.5 / 10.1	B / B	15.6 / 15.0	B / B	23.5 / 22.4	C / C
	Mainline Segment	7.5 / 7.6	A / A	10.1 / 10.1	A / A	13.4 / 13.4	B / B
	On Ramp from WB Ford	11.0 / 10.1	B / B	15.1 / 13.9	B / B	19.6 / 18.1	B / B
Southbound Breathitt	Off Ramp to WB Ford	11.5 / 12.6	B / B	15.7 / 17.1	B / B	20.5 / 22.3	C / C
	Mainline Segment	7.6 / 8.5	A / A	10.3 / 11.5	A / B	12.7 / 14.2	B / B
	Weave to/from East	14.9 / 18.9	B / B	22.4 / 28.9	C / D	30.1 / 38.2	D / E
	Mainline Segment	6.8 / 6.8	A / A	9.2 / 9.2	A / A	11.1 / 11.1	B / B
	On Ramp from EB Ford	7.7 / 7.8	A / A	10.5 / 10.5	B / B	12.5 / 12.7	B / B

[1] *Density measured as passenger cars/lane/mile*

Note: Measurements report AM / PM peak hour values

Table A.19
AM/PM LOS, Delay, and Queue Lengths at Key Signalized Intersections

		2006			2030 without I-69			2030 with I-69		
Exit	Intersection	Delay (sec)	LOS	Queue* (ft)	Delay (sec)	LOS	Queue* (ft)	Delay (sec)	LOS	Queue* (ft)
42	KY 70 & NB Ramps	26.1 / 24.3	C / C	280 / 49	33.8 / 27.9	C / C	385 / 219	57.0 / 44.6	E / D	502 / 259
42	KY 70 & SB Ramps	24.1 / 23.8	C / C	181 / 249	27.4 / 33.3	C / C	312 / 367	31.6 / 74.3	C / E	396 / 469
44	KY 281& NB Ramps	18.8 / 17.9	B / B	105 / 127	22.1 / 20.9	C / C	169 / 220	25.5 / 25.0	C / C	231 / 302

** Longest 95th percentile queue for movements coming off ramp*
Note: Measurements reported for AM / PM peak hours

Table A.20
AM/PM LOS, Delay, and Queue Lengths at Key Unsignalized Intersections

		2006			2030 without I-69			2030 with I-69		
Exit	Intersection	Delay (sec)	LOS	Queue* (ft)	Delay (sec)	LOS	Queue* (ft)	Delay (sec)	LOS	Queue* (ft)
44	SB Ramp at KY 281	17.3 / 16.4	C / C	48 / 37	59.1 / 42.6	F / E	175 / 129	>100 / >100	F / F	Err / 307
63	SB Ramp at KY 56	10.3 / 10.4	B / B	<10 / <10	11.3 / 11.4	B / B	<10 / <10	12.9 / 13.2	B / B	<10 / 15
63	NB Ramp at KY 56	9.6 / 9.5	A / A	<10 / <10	10.1 / 9.8	B / A	13 / <10	10.7 / 10.2	B / B	18 / <10
12	WB Ramp at KY 91	20.7 / 16.8	C / C	34 / 21	57.2 / 28.8	F / D	117 / 54	>100 / >100	F / F	Err / 248
12	EB Ramp at KY 91	23.2 / 13.3	C / B	13 / <10	62.0 / 16.8	F / C	47 / 11	>100 / 36.7	F / E	146 / 44

** Longest 95th percentile queue for movements coming off ramp*
Note: Measurements reported for AM / PM peak hours