Appendix A: Summary of Geometric Deficiencies

Horizontal Curve Deficiency Analysis based on Posted Speed Limit

Functional Classification = Rural Major Collector
e max = 8%

Vd = 25 mph	therefore	Rmin =	134 ft	Source: 2011 Green Book Table 3-10b has Rmin = 134 ft
Vd = 35 mph	therefore	Rmin =	314 ft	Source: 2011 Green Book Table 3-10b has Rmin = 314 ft
Vd = 55 mph	therefore	Rmin =	960 ft	Source: 2011 Green Book Table 3-10b has Rmin = 960 ft

As Built	As Built Year	Existing Horizontal Curve					Minimum Radii for 6%	Is the Radius	Notes
		Road	P.I. Station Number	Milepoint	Road Speed Limit	Radius (ft)	Superelevation Rate (ft)	Adequate?	
As Builts Unavailable until Fish Trap Road									
	None	KY 30	N/A	11.132	25 mph	379.44	170	Yes	Based on HIS data. Not so much a curve but route becoming couplet around courthouse.
		KY 30	N/A	11.420	55 mph	1,432.40	960	Yes	Based on HIS Data
ALL STATIONS BELOW CORRECTED BY -34.5' (EQUATIONS A-F)									
Pj15227	1932	KY 30	1256+73.0	11.485	55 mph	1,910.00	960	Yes	
Pj15227	1932	KY 30	1242+00	11.764	55 mph	955.00	960	No	Close enough. Do not show as defficient.
Pj15227	1932	KY 30	1222+63.5	12.130	55 mph	955.00	960	No	Close enough. Do not show as defficient.
Pj15227	1932	KY 30	1187+78.5	12.790	55 mph	1,148.00	960	Yes	
Pj15227	1932	KY 30	1183+50.0	12.872	55 mph	955.00	960	No	Close enough. Do not show as defficient.
Pj15227	1932	KY 30	1161+39.8	13.290	55 mph	1,910.00	960	Yes	
Pj15227	1932	KY 30	1148+85.0	13.528	55 mph	1,146.00	960	Yes	
Pj15227	1932	KY 30	1129+25.8	13.899	55 mph	955.00	960	No	Close enough. Do not show as defficient.
Pj15227	1932	KY 30	Illegible	14.880	55 mph	636.50	960	No	Exact location illegible. Radius was readable. Got MP location from KYTC Interactive
Pj01630	1938	KY 30	1073+93.3	14.947	55 mph	674.07	960	No	
Pj01630	1938	KY 30	1068+66.7	15.047	55 mph	572.96	960	No	45 mph "S" curve signed
Pj01630	1938	KY 30	1061+02.5	15.191	55 mph	954.93	960	No	Close enough. Do not show as defficient.
Pj01630	1938	KY 30	1057+86.6	15.251	55 mph	1,432.39	960	Yes	
Pj01630	1938	KY 30	1050+07.1	15.399	55 mph	954.93	960	No	Close enough. Do not show as defficient.
ALL STATIONS BELOW CORRECTED BY -22.9' (EQUATIONS A-E)									
Pj01630	1938	KY 30	1043+31.4	15.529	55 mph	1,432.39	960	Yes	
Pj01630	1938	KY 30	1033+00	15.724	55 mph	573.00	960	No	
Pj01630	1938	KY 30	1021+12.0	15.949	55 mph	1,432.89	960	Yes	
Pj01630	1938	KY 30	1003+43	16.284	55 mph	955.00	960	No	Close enough. Do not show as defficient.
Pj01630	1938	KY 30	984+00	16.652	55 mph	1,146.00	960	Yes	
Pj01630	1938	KY 30	965+15	17.009	55 mph	1,146.00	960	Yes	
Pj01630	1938	KY 30	923+25	17.803	55 mph	477.47	960	No	35 mph "S" curve signed
Pj01630	1938	KY 30	912+70.1	18.003	55 mph	716.30	960	No	
Pj01630	1938	KY 30	903+69.3	18.173	55 mph	1,910.00	960	Yes	
Pj01630	1938	KY 30	896+21.5	18.315	55 mph	1,146.00	960	Yes	
Pj01630	1938	KY 30	890+35	18.426	55 mph	886.50	960	No	
Pj01630	1938	KY 30	884+09.7	18.544	55 mph	573.00	960	No	35 mph "S" curve signed
Pj01630	1938	KY 30	871+43.3	18.784	55 mph	716.30	960	No	
Pj01630	1938	KY 30	858+73.6	19.025	55 mph	716.30	960	No	
Pj01630	1938	KY 30	861+64.4	18.970	55 mph	573.30	960	No	
Pj01630	1938	KY 30	841+89.5	19.344	55 mph	818.60	960	No	
Pj01630	1938	KY 30	835+61	19.463	55 mph	818.60	960	No	
Pj01630	1938	KY 30	831+51.4	19.540	55 mph	238.70	960	No	35 mph "S" curve signed
COUNTY LINE - STATION 828+64.1									
Pj01630	1938	KY 30	827+50	0.017	55 mph	716.20	960	No	
Pj01630	1938	KY 30	820+70	0.146	55 mph	1,146.00	960	Yes	
Pj01630	1938	KY 30	814+00	0.273	55 mph	2,865.00	960	Yes	
Pj01630	1938	KY 30	805+50	0.434	55 mph	351.70	960	No	
Pj01630	1938	KY 30	796+29	0.608	55 mph	603.10	960	No	
Pj01630	1938	KY 30	774+18	1.027	55 mph	358.00	960	No	
Pj01630	1938	KY 30	764+78	1.205	55 mph	955.00	960	No	Close enough. Do not show as defficient.
Pj01630	1938	KY 30	754+77	1.395	55 mph	716.20	960	No	
Pj01630	1938	KY 30	745+46	1.571	55 mph	1,432.50	960	Yes	
Pj01630	1938	KY 30	732+00	1.826	55 mph	2,866.00	960	Yes	
Pj01630	1938	KY 30	715+90	2.131	55 mph	2,865.00	960	Yes	
Pj01630	1938	KY 30	693+22	2.560	55 mph	716.20	960	No	
Pj01630	1938	KY 30	679+18	2.826	55 mph	716.20	960	No	45 mph signed curve
Pj01630	1938	KY 30	669+96	3.001	55 mph	286.50	960	No	25 mph "S" curve signed
Pj01630	1938	KY 30	654+78	3.288	55 mph	286.60	960	No	
Pj01630	1938	KY 30	643+25	3.507	55 mph	1,146.00	960	Yes	
Pj01630	1938	KY 30	640+22.5	3.564	55 mph	1,477.40	960	Yes	
Pj01630	1938	KY 30	635+48	3.654	55 mph	400.70	960	No	15 mph "S" curve signed
Pj01630	1938	KY 30	633+49.3	3.692	55 mph	114.60	960	No	
Pj01630	1938	KY 30	626+82	3.818	55 mph	495.80	960	No	
Pj01630	1938	KY 30	623+80	3.875	55 mph	1,432.50	960	Yes	
Pj01630	1938	KY 30	619+87.6	3.950	55 mph	81.80	960	No	15 mph "S" curve signed
ALL STATIONS BELOW CORRECTED BY -26.0 (EQUATIONS A-D)									
Pj01630	1938	KY 30	613+71	4.066	55 mph	193.20	960	No	
Pj01630	1938	KY 30	609+80	4.140	55 mph	1,206.60	960	Yes	
Pj01630	1938	KY 30	605+06	4.230	55 mph	137.60	960	No	15 mph "S" curve signed
Pj01630	1938	KY 30	605+24.5	4.226	55 mph	143.20	960	No	
Pj01630	1938	KY 30	600+32	4.319	55 mph	286.50	960	No	
Pj01630	1938	KY 30	593+22	4.454	55 mph	273.90	960	No	
Pj01630	1938	KY 30	589+62	4.522	55 mph	204.80	960	No	
Pj01630	1938	KY 30	585+43	4.601	55 mph	477.50	960	No	35 mph "S" curve signed
Pj01630	1938	KY 30	581+00	4.685	55 mph	716.30	960	No	
ALL STATIONS BELOW CORRECTED BY +9.3 (EQUATIONS A-C)									
Pj01630	1938	KY 30	574+00	4.825	55 mph	1,432.50	960	Yes	
ALL STATIONS BELOW CORRECTED BY +17.3 (EQUATIONS A-B)									
Pj01641	1935	KY 30	565+23.8	4.992	55 mph	471.50	960	No	
Pj01641	1935	KY 30	557+16	5.145	55 mph	636.60	960	No	
Pj01641	1935	KY 30	560+57.8	5.080	55 mph	1,432.30	960	Yes	
Pj01641	1935	KY 30	548+18	5.315	55 mph	2,865.00	960	Yes	
Pj01641	1935	KY 30	539+58	5.478	55 mph	955.00	960	No	Close enough. Do not show as defficient.
Pj01641	1935	KY 30	534+00	5.584	55 mph	1,432.50	960	Yes	
Pj01641	1935	KY 30	529+17	5.675	55 mph	477.50	960	No	
Pj01641	1935	KY 30	524+45	5.764	55 mph	286.50	960	No	
Pj01641	1935	KY 30	521+00	5.830	55 mph	1,910.00	960	Yes	
Pj08988	2002	KY 30	515+76.18	5.929	55 mph	955.00	960	No	Close enough. Do not show as defficient.
Pj01641	1935	KY 30	506+84	6.098	55 mph	955.00	960	No	Close enough. Do not show as defficient.
Pj01641	1935	KY 30	491+75	6.384	55 mph	1,432.50	960	Yes	
Pj01641	1935	KY 30	482+23	6.564	55 mph	1,432.50	960	Yes	
Pj01641	1935	KY 30	477+90	6.646	55 mph	716.20	960	No	45 mph "S" curve signed
Pj01641	1935	KY 30	468+43	6.825	55 mph	716.20	960	No	
Pj01641	1935	KY 30	461+60	6.955	55 mph	1,108.00	960	Yes	
Pj01641	1935	KY 30	455+88	7.063	55 mph	1,432.50	960	Yes	
Pj01641	1935	KY 30	447+00	7.231	55 mph	965.00	960	Yes	
Pj01641	1935	KY 30	433+08	7.495	55 mph	477.50	960	No	
Pj01641	1935	KY 30	423+53	7.676	55 mph	573.00	960	No	
Pj01641	1935	KY 30	418+84	7.765	55 mph	477.50	960	No	
Pj01641	1935	KY 30	415+88	7.821	55 mph	744.10	960	No	Radius unreadable. Based on HIS data with 7.7 degree of curvature.
Pj01641	1935	KY 30	411+00	7.913	55 mph	409.10	960	No	
Pj01641	1935	KY 30	409+13	7.949	55 mph	286.50	960	No	
Pj01641	1935	KY 30	Illegible	8.080	55 mph	1,146.00	960	Yes	Got MP location from KYTC Interactive Highway Map.
Pj01641	1935	KY 30	Illegible	8.240	55 mph	408.00	960	No	Exact location illegible. Radius was readable. Got MP location from KYTC Interactive
Pj01656	1932	KY 30	390+00	8.311	55 mph	440.80	960	No	
Pj01656	1932	KY 30	386+80	8.371	55 mph	419.80	960	No	
Pj01656	1932	KY 30	372+05	8.651	55 mph	965.00	960	Yes	
Pj01656	1932	KY 30	366+17	8.762	55 mph	358.10	960	No	
Pj01656	1932	KY 30	359+00	8.898	55 mph	286.50	960	No	
Pj01656	1932	KY 30	353+09	9.010	55 mph	573.00	960	No	
Pj01656	1932	KY 30	349+97	9.069	55 mph	955.00	960	No	Close enough. Do not show as defficient.
Pj01656	1932	KY 30	343+50	9.192	55 mph	573.00	960	No	
Pj01656	1932	KY 30	339+35	9.270	55 mph	477.50	960	No	
Pj01656	1932	KY 30	330+67	9.435	55 mph	477.50	960	No	
Pj01656	1932	KY 30	327+36	9.497	55 mph	286.50	960	No	Sign obscured by tree.
Pj01656	1932	KY 30	324+23	9.557	55 mph	1,432.50	960	Yes	
Pj01656	1932	KY 30	318+69	9.661	55 mph	8,865.00	960	Yes	
Pj01656	1932	KY 30	314+23	9.746	55 mph	916.80	960	No	
Pj01656	1932	KY 30	303+35	9.952	55 mph	955.00	960	No	Close enough. Do not show as defficient.
Pj01656	1932	KY 30	291+64	10.174	55 mph	477.50	960	No	
Pj01656	1932	KY 30	278+00	10.432	55 mph	716.30	960	No	
ALL STATIONS BELOW CORRECTED BY -15.5 (EQUATION A)									
Pj01656	1932	KY 30	270+30.8	10.572	55 mph	955.00	960	No	Close enough. Do not show as defficient.
Pj01656	1932	KY 30	Illegible	10.740	55 mph	409.50	960	No	Got MP location from KYTC Interactive Highway Map.
Pj01656	1932	KY 30	249+50	10.966	55 mph	238.80	960	No	25 mph "S" curve signed
Pj01656	1932	KY 30	243+07	11.087	55 mph	143.20	960	No	
Pj01656	1932	KY 30	232+43	11.289	55 mph	716.30	960	No	
Pj01656	1932	KY 30	226+80	11.396	55 mph	716.30	960	No	
ALL STATIONS BELOW NOT ADJUSTED									
Pj01656	1932	KY 30	216+71	11.590	55 mph	286.50	960	No	
Pj01656	1932	KY 30	213+57	11.649	55 mph	347.30	960	No	
Pj01656	1932	KY 30	185+86.5	12.174	55 mph	716.30	960	No	
Pj01656	1932	KY 30	176+83	12.345	55 mph	286.50	960	No	
Pj01656	1932	KY 30	166+54	12.540	55 mph	382.00	960	No	
After 166+54 to end, KY 30 follows new alignment in Pj01502 (1974), which is illegible.									

Horizontal Curve Deficiency Analysis based on 45 mph Design Speed

Functional Classification = Rural Major Collector
e max = 8%

Vd = 25 mph	therefore	Rmin =	134 ft	Source: 2011 Green Book Table 3-10b has Rmin = 134 ft
Vd = 35 mph	therefore	Rmin =	314 ft	Source: 2011 Green Book Table 3-10b has Rmin = 314 ft
Vd = 45 mph	therefore	Rmin =	587 ft	Source: 2011 Green Book Table 3-10b has Rmin = 587 ft

As Built	As Built Year	Existing Horizontal Curve						Minimum Radii for 6% Superelevation Rate (ft)	Is the Radius Adequate?	Notes
		Road	P.I. Station Number	Milepoint	Road Speed Limit	Assume 45 mph Design Speed	Radius (ft)			
As Builts Unavailable until Fish Trap Road										
	None	KY 30	N/A	11.132	25 mph	N/A	379.44	134	Yes	Based on HIS data. Not so much a curve but route becoming couplet around
		KY 30	N/A	11.420	55 mph	45 mph	1,432.40	587	Yes	Based on HIS Data
ALL STATIONS BELOW CORRECTED BY -34.5' (EQUATIONS A-F)										
Pj15227	1932	KY 30	1256+73.0	11.485	55 mph	45 mph	1,910.00	587	Yes	
Pj15227	1932	KY 30	1242+00	11.764	55 mph	45 mph	955.00	587	Yes	
Pj15227	1932	KY 30	1222+63.5	12.130	55 mph	45 mph	955.00	587	Yes	
Pj15227	1932	KY 30	1187+78.5	12.790	55 mph	45 mph	1,148.00	587	Yes	
Pj15227	1932	KY 30	1183+50.0	12.872	55 mph	45 mph	955.00	587	Yes	
Pj15227	1932	KY 30	1161+39.8	13.290	55 mph	45 mph	1,910.00	587	Yes	
Pj15227	1932	KY 30	1148+85.0	13.528	55 mph	45 mph	1,146.00	587	Yes	
Pj15227	1932	KY 30	1129+25.8	13.899	55 mph	45 mph	955.00	587	Yes	
Pj15227	1932	KY 30	Illegible	14.880	55 mph	45 mph	636.50	587	Yes	Exact location illegible. Radius was readable. Got MP location from KYTC
Pj01630	1938	KY 30	1073+93.3	14.947	55 mph	45 mph	674.07	587	Yes	
Pj01630	1938	KY 30	1068+66.7	15.047	55 mph	45 mph	572.96	587	No	45 mph "S" curve signed. Close enough. Do not show as deficient.
Pj01630	1938	KY 30	1061+02.5	15.191	55 mph	45 mph	954.93	587	Yes	
Pj01630	1938	KY 30	1057+86.6	15.251	55 mph	45 mph	1,432.39	587	Yes	
Pj01630	1938	KY 30	1050+07.1	15.399	55 mph	45 mph	954.93	587	Yes	
ALL STATIONS BELOW CORRECTED BY -22.9' (EQUATIONS A-E)										
Pj01630	1938	KY 30	1043+31.4	15.529	55 mph	45 mph	1,432.39	587	Yes	
Pj01630	1938	KY 30	1033+00	15.724	55 mph	45 mph	573.00	587	No	Close enough. Do not show as deficient.
Pj01630	1938	KY 30	1021+12.0	15.949	55 mph	45 mph	1,432.89	587	Yes	
Pj01630	1938	KY 30	1003+43	16.284	55 mph	45 mph	955.00	587	Yes	
Pj01630	1938	KY 30	984+00	16.652	55 mph	45 mph	1,146.00	587	Yes	
Pj01630	1938	KY 30	965+15	17.009	55 mph	45 mph	1,146.00	587	Yes	
Pj01630	1938	KY 30	923+25	17.803	55 mph	45 mph	477.47	587	No	35 mph "S" curve signed
Pj01630	1938	KY 30	912+70.1	18.003	55 mph	45 mph	716.30	587	Yes	
Pj01630	1938	KY 30	903+69.3	18.173	55 mph	45 mph	1,910.00	587	Yes	
Pj01630	1938	KY 30	896+21.5	18.315	55 mph	45 mph	1,146.00	587	Yes	
Pj01630	1938	KY 30	890+35	18.426	55 mph	45 mph	886.50	587	Yes	
Pj01630	1938	KY 30	884+09.7	18.544	55 mph	45 mph	573.00	587	No	35 mph "S" curve signed
Pj01630	1938	KY 30	871+43.3	18.784	55 mph	45 mph	716.30	587	Yes	
Pj01630	1938	KY 30	858+73.6	19.025	55 mph	45 mph	716.30	587	Yes	
Pj01630	1938	KY 30	861+64.4	18.970	55 mph	45 mph	573.30	587	No	Close enough. Do not show as deficient.
Pj01630	1938	KY 30	841+89.5	19.344	55 mph	45 mph	818.60	587	Yes	
Pj01630	1938	KY 30	835+61	19.463	55 mph	45 mph	818.60	587	Yes	
Pj01630	1938	KY 30	831+51.4	19.540	55 mph	45 mph	238.70	587	No	35 mph "S" curve signed
COUNTY LINE - STATION 828+64.1										
Pj01630	1938	KY 30	827+50	0.017	55 mph	45 mph	716.20	587	Yes	
Pj01630	1938	KY 30	820+70	0.146	55 mph	45 mph	1,146.00	587	Yes	
Pj01630	1938	KY 30	814+00	0.273	55 mph	45 mph	2,865.00	587	Yes	
Pj01630	1938	KY 30	805+50	0.434	55 mph	45 mph	351.70	587	No	
Pj01630	1938	KY 30	796+29	0.608	55 mph	45 mph	603.10	587	Yes	
Pj01630	1938	KY 30	774+18	1.027	55 mph	45 mph	358.00	587	No	
Pj01630	1938	KY 30	764+78	1.205	55 mph	45 mph	955.00	587	Yes	
Pj01630	1938	KY 30	754+77	1.395	55 mph	45 mph	716.20	587	Yes	
Pj01630	1938	KY 30	745+46	1.571	55 mph	45 mph	1,432.50	587	Yes	
Pj01630	1938	KY 30	732+00	1.826	55 mph	45 mph	2,866.00	587	Yes	
Pj01630	1938	KY 30	715+90	2.131	55 mph	45 mph	2,865.00	587	Yes	
Pj01630	1938	KY 30	693+22	2.560	55 mph	45 mph	716.20	587	Yes	
Pj01630	1938	KY 30	679+18	2.826	55 mph	45 mph	716.20	587	Yes	45 mph signed curve
Pj01630	1938	KY 30	669+96	3.001	55 mph	45 mph	286.50	587	No	25 mph "S" curve signed
Pj01630	1938	KY 30	654+78	3.288	55 mph	45 mph	286.60	587	No	
Pj01630	1938	KY 30	643+25	3.507	55 mph	45 mph	1,146.00	587	Yes	
Pj01630	1938	KY 30	640+22.5	3.564	55 mph	45 mph	1,477.40	587	Yes	
Pj01630	1938	KY 30	635+48	3.654	55 mph	45 mph	400.70	587	No	15 mph "S" curve signed
Pj01630	1938	KY 30	633+49.3	3.692	55 mph	45 mph	114.60	587	No	
Pj01630	1938	KY 30	626+82	3.818	55 mph	45 mph	495.80	587	No	
Pj01630	1938	KY 30	623+80	3.875	55 mph	45 mph	1,432.50	587	Yes	
Pj01630	1938	KY 30	619+87.6	3.950	55 mph	45 mph	81.80	587	No	15 mph "S" curve signed
ALL STATIONS BELOW CORRECTED BY -26.0 (EQUATIONS A-D)										
Pj01630	1938	KY 30	613+71	4.066	55 mph	45 mph	193.20	587	No	
Pj01630	1938	KY 30	609+80	4.140	55 mph	45 mph	1,206.60	587	Yes	
Pj01630	1938	KY 30	605+06	4.230	55 mph	45 mph	137.60	587	No	15 mph "S" curve signed
Pj01630	1938	KY 30	605+24.5	4.226	55 mph	45 mph	143.20	587	No	
Pj01630	1938	KY 30	600+32	4.319	55 mph	45 mph	286.50	587	No	
Pj01630	1938	KY 30	593+22	4.454	55 mph	45 mph	273.90	587	No	
Pj01630	1938	KY 30	589+62	4.522	55 mph	45 mph	204.80	587	No	
Pj01630	1938	KY 30	585+43	4.601	55 mph	45 mph	477.50	587	No	35 mph "S" curve signed
Pj01630	1938	KY 30	581+00	4.685	55 mph	45 mph	716.30	587	Yes	
ALL STATIONS BELOW CORRECTED BY +9.3 (EQUATIONS A-C)										
Pj01630	1938	KY 30	574+00	4.825	55 mph	45 mph	1,432.50	587	Yes	
ALL STATIONS BELOW CORRECTED BY +17.3 (EQUATIONS A-B)										
Pj01641	1935	KY 30	565+23.8	4.992	55 mph	45 mph	471.50	587	No	
Pj01641	1935	KY 30	557+16	5.145	55 mph	45 mph	636.60	587	Yes	
Pj01641	1935	KY 30	560+57.8	5.080	55 mph	45 mph	1,432.30	587	Yes	
Pj01641	1935	KY 30	548+18	5.315	55 mph	45 mph	2,865.00	587	Yes	
Pj01641	1935	KY 30	539+58	5.478	55 mph	45 mph	955.00	587	Yes	
Pj01641	1935	KY 30	534+00	5.584	55 mph	45 mph	1,432.50	587	Yes	
Pj01641	1935	KY 30	529+17	5.675	55 mph	45 mph	477.50	587	No	
Pj01641	1935	KY 30	524+45	5.764	55 mph	45 mph	286.50	587	No	
Pj01641	1935	KY 30	521+00	5.830	55 mph	45 mph	1,910.00	587	Yes	
Pj08988	2002	KY 30	515+76.18	5.929	55 mph	45 mph	955.00	587	Yes	
Pj01641	1935	KY 30	506+84	6.098	55 mph	45 mph	955.00	587	Yes	
Pj01641	1935	KY 30	491+75	6.384	55 mph	45 mph	1,432.50	587	Yes	
Pj01641	1935	KY 30	482+23	6.564	55 mph	45 mph	1,432.50	587	Yes	
Pj01641	1935	KY 30	477+90	6.646	55 mph	45 mph	716.20	587	Yes	45 mph "S" curve signed
Pj01641	1935	KY 30	468+43	6.825	55 mph	45 mph	716.20	587	Yes	
Pj01641	1935	KY 30	461+60	6.955	55 mph	45 mph	1,108.00	587	Yes	
Pj01641	1935	KY 30	455+88	7.063	55 mph	45 mph	1,432.50	587	Yes	
Pj01641	1935	KY 30	447+00	7.231	55 mph	45 mph	965.00	587	Yes	
Pj01641	1935	KY 30	433+08	7.495	55 mph	45 mph	477.50	587	No	
Pj01641	1935	KY 30	423+53	7.676	55 mph	45 mph	573.00	587	No	Close enough. Do not show as deficient.
Pj01641	1935	KY 30	418+84	7.765	55 mph	45 mph	477.50	587	No	
Pj01641	1935	KY 30	415+88	7.821	55 mph	45 mph	744.10	587	Yes	Radius unreadable. Based on HIS data with 7.7 degree of curvature.
Pj01641	1935	KY 30	411+00	7.913	55 mph	45 mph	409.10	587	No	
Pj01641	1935	KY 30	409+13	7.949	55 mph	45 mph	286.50	587	No	
Pj01641	1935	KY 30	Illegible	8.080	55 mph	45 mph	1,146.00	587	Yes	readable. Got MP location from KYTC Interactive Highway Map.
Pj01641	1935	KY 30	Illegible	8.240	55 mph	45 mph	408.00	587	No	readable. Got MP location from KYTC Interactive Highway Map.
Pj01656	1932	KY 30	390+00	8.311	55 mph	45 mph	440.80	587	No	
Pj01656	1932	KY 30	386+80	8.371	55 mph	45 mph	419.80	587	No	
Pj01656	1932	KY 30	372+05	8.651	55 mph	45 mph	965.00	587	Yes	
Pj01656	1932	KY 30	366+17	8.762	55 mph	45 mph	358.10	587	No	
Pj01656	1932	KY 30	359+00	8.898	55 mph	45 mph	286.50	587	No	
Pj01656	1932	KY 30	353+09	9.010	55 mph	45 mph	573.00	587	No	Close enough. Do not show as deficient.
Pj01656	1932	KY 30	349+97	9.069	55 mph	45 mph	955.00	587	Yes	
Pj01656	1932	KY 30	343+50	9.192	55 mph	45 mph	573.00	587	No	Close enough. Do not show as deficient.
Pj01656	1932	KY 30	339+35	9.270	55 mph	45 mph	477.50	587	No	
Pj01656	1932	KY 30	330+67	9.435	55 mph	45 mph	477.50	587	No	
Pj01656	1932	KY 30	327+36	9.497	55 mph	45 mph	286.50	587	No	Sign obscured by tree.
Pj01656	1932	KY 30	324+23	9.557	55 mph	45 mph	1,432.50	587	Yes	
Pj01656	1932	KY 30	318+69	9.661	55 mph	45 mph	8,865.00	587	Yes	
Pj01656	1932	KY 30	314+23	9.746	55 mph	45 mph	916.80	587	Yes	
Pj01656	1932	KY 30	303+35	9.952	55 mph	45 mph	955.00	587	Yes	
Pj01656	1932	KY 30	291+64	10.174	55 mph	45 mph	477.50	587	No	
Pj01656	1932	KY 30	278+00	10.432	55 mph	45 mph	716.30	587	Yes	
ALL STATIONS BELOW CORRECTED BY -15.5 (EQUATION A)										
Pj01656	1932	KY 30	270+30.8	10.572	55 mph	45 mph	955.00	587	Yes	
Pj01656	1932	KY 30	Illegible	10.740	55 mph	45 mph	409.50	587	No	readable. Got MP location from KYTC Interactive Highway Map.
Pj01656	1932	KY 30	249+50	10.966	55 mph	45 mph	238.80	587	No	25 mph "S" curve signed
Pj01656	1932	KY 30	243+07	11.087	55 mph	45 mph	143.20	587	No	
Pj01656	1932	KY 30	232+43	11.289	55 mph	45 mph	716.30	587	Yes	
Pj01656	1932	KY 30	226+80	11.396	55 mph	45 mph	716.30	587	Yes	
ALL STATIONS BELOW NOT ADJUSTED										
Pj01656	1932	KY 30	216+71	11.590	55 mph	45 mph	286.50	587	No	
Pj01656	1932	KY 30	213+57	11.649	55 mph	45 mph	347.30	587	No	
Pj01656	1932	KY 30	185+86.5	12.174	55 mph	45 mph	716.30	587	Yes	
Pj01656	1932	KY 30	176+83	12.345	55 mph	45 mph	286.50	587	No	
Pj01656	1932	KY 30	166+54	12.540	55 mph	45 mph	382.00	587	No	
After 166+54 to end, KY 30 follows new alignment in Pj01502 (1974), which is illegible.										

Vertical Curve Deficiency Analysis based on Posted Speed Limit

Functional Classification = Rural Major Collector
Terrain = Rolling (7% max grade) in Owsley Co. MP 11.27 to MP 19.599. Mountainous (9% max grade) in Breathitt Co. from MP 0-13.297 and Flat (6% max grade) from MP 13.297 to 14.830
Vd = 55 mph therefore Minimum Stopping Sight Distance = 495 ft Source: 2011 Green Book Table 6-3 and 2006 KYTC Highway Design Manual Exhibit 700-02
Vd = 55 mph therefore Maximum Grade = varies % Source: 2011 Green Book Table 6-2 and 2006 KYTC Highway Design Manual Exhibit 700-02

Crest Vertical Curves

	Existing Vertical Curve							SSD < L [1]			SSD >= L [2]		
As Built Year	Road	V.P.I. Station Number	Milepoint	Road Speed Limit	G1 (%)	G2 (%)	Existing Length (ft)	SSD	Is SSD<L	Meet SSD Req.	SSD	Is SSD>=L	Meet SSD Req.
As Builts Not Available until Fish Trap Road													
Illegible Until Pj01630 at 1052+16.8													
ALL STATIONS BELOW CORRECTED BY -22.9' (EQUATIONS A-E)													
1938	KY 30	1044+15	15.513	55 mph	2.355	-0.933	250.00	405.09	No	No	453.19	Yes	No
1938	KY 30	1035+00	15.686	55 mph	1.000	-2.597	400.00	489.88	No	No	499.98	Yes	Yes
1938	KY 30	1011+87	16.124	55 mph	-1.104	-4.100	300.00	464.88	No	No	510.19	Yes	Yes
1938	KY 30	1002+20	16.308	55 mph	-1.050	-1.104	300.00	3,449.74	No	Yes	19,984.56	Yes	Yes
1938	KY 30	982+80	16.675	55 mph	2.100	-3.100	400.00	407.43	No	No	407.50	Yes	No
1938	KY 30	967+50	16.965	55 mph	0.000	-2.520	300.00	506.86	No	Yes	578.17	Yes	Yes
1938	KY 30	934+60	17.588	55 mph	-0.389	-1.600	200.00	596.99	No	Yes	991.00	Yes	Yes
1938	KY 30	876+30	18.692	55 mph	-1.500	-1.871	200.00	1,078.58	No	Yes	3,008.36	Yes	Yes
1938	KY 30	843+50	19.313	55 mph	-3.364	-4.704	300.00	695.08	No	Yes	955.22	Yes	Yes
COUNTY LINE - STATION 828+64.1													
1938	KY 30	828+64.1	0.000	55 mph	7.000	-5.000	500.00	299.86	Yes	No	339.92	No	No
1938	KY 30	761+85	1.261	55 mph	2.500	1.554	200.00	675.45	No	Yes	1,240.59	Yes	Yes
1938	KY 30	744+00	1.599	55 mph	2.000	0.928	200.00	634.52	No	Yes	1,106.53	Yes	Yes
1938	KY 30	716+50	2.120	55 mph	2.300	0.133	500.00	705.56	No	Yes	747.81	Yes	Yes
1938	KY 30	702+50	2.385	55 mph	1.760	-0.600	300.00	523.76	No	Yes	607.20	Yes	Yes
ALL STATIONS BELOW CORRECTED BY -26.0 (EQUATIONS A-D)													
1938	KY 30	619+00	3.966	55 mph	-5.980	-7.586	300.00	634.91	No	Yes	821.86	Yes	Yes
1938	KY 30	610+00	4.136	55 mph	8.000	-5.980	500.00	277.82	Yes	No	327.18	No	No
ALL STATIONS BELOW CORRECTED BY +9.3 (EQUATIONS A-C)													
ALL STATIONS BELOW CORRECTED BY +17.3 (EQUATIONS A-B)													
1935	KY 30	565+15	4.994	55 mph	1.200	0.000	300.00	734.51	No	Yes	1,049.17	Yes	Yes
1935	KY 30	549+00	5.300	55 mph	-1.800	-3.100	200.00	576.19	No	Yes	930.00	Yes	Yes
1935	KY 30	529+17	5.675	55 mph	7.600	-6.000	500.00	281.67	Yes	No	329.34	No	No
1935	KY 30	509+35	6.050	55 mph	1.000	-3.450	350.00	411.98	No	No	417.47	Yes	No
1935	KY 30	490+50	6.407	55 mph	0.500	-3.350	300.00	410.07	No	No	430.26	Yes	No
1935	KY 30	476+50	6.673	55 mph	0.800	-4.000	300.00	367.25	No	No	374.79	Yes	No
1935	KY 30	465+00	6.890	55 mph	-2.400	-2.800	200.00	1,038.75	No	Yes	2,797.50	Yes	Yes
1935	KY 30	457+88.5	7.025	55 mph	0.800	-2.400	300.00	449.79	No	No	487.19	Yes	No
1935	KY 30	451+75	7.141	55 mph	3.025	-4.000	300.00	303.57	No	No	303.59	Yes	No
1935	KY 30	422+00	7.705	55 mph	-1.400	-5.000	300.00	424.07	No	No	449.72	Yes	No
1935	KY 30	398+00	8.159	55 mph	7.156	-7.940	657.00	306.46	Yes	No	399.98	No	No
1932	KY 30	360+45	8.871	55 mph	4.293	-0.800	250.00	325.46	No	No	336.85	Yes	No
1932	KY 30	350+94.5	9.051	55 mph	4.325	-0.184	300.00	378.92	No	No	389.30	Yes	No
1932	KY 30	326+65	9.511	55 mph	2.750	1.100	300.00	626.39	No	Yes	803.94	Yes	Yes
1932	KY 30	323+00	9.580	55 mph	2.400	-1.054	300.00	432.93	No	No	462.38	Yes	No
1932	KY 30	312+89	9.771	55 mph	2.000	-0.600	300.00	499.00	No	Yes	565.00	Yes	Yes
1932	KY 30	301+50	9.987	55 mph	2.346	2.000	0.00	0.00	No	No	3,123.01	Yes	Yes
1932	KY 30	287+00	10.262	55 mph	1.500	0.000	300.00	656.96	No	Yes	869.33	Yes	Yes
ALL STATIONS BELOW CORRECTED BY -15.5 (EQUATION A)													
1932	KY 30	244+00	11.070	55 mph	3.000	-1.800	300.00	367.25	No	No	374.79	Yes	No
1932	KY 30	236+00	11.221	55 mph	2.371	0.000	300.00	522.50	No	Yes	605.01	Yes	Yes
ALL STATIONS BELOW NOT ADJUSTED													
1932	KY 30	213+20	11.656	55 mph	0.843	-1.000	400.00	684.37	No	Yes	785.46	Yes	Yes
1932	KY 30	196+50	11.972	55 mph	1.200	-0.200	250.00	620.77	No	Yes	895.71	Yes	Yes
1932	KY 30	178+75	12.309	55 mph	1.600	-2.400	300.00	402.31	No	No	419.75	Yes	No
1932	KY 30	166+54	12.540	55 mph	1.642	-4.200	300.00	332.90	No	No	334.71	Yes	No
Awaiting copy of Pb01502 to complete analysis													

[1] Source: 2011 Green Book Formula 3-43
[2] Source: 2011 Green Book Formula 3-44

Sag Vertical Curves

	Existing Vertical Curve							HSSD < L [1]			HSSD >= L [2]		
As Built Year	Road	V.P.I. Station Number	Milepoint	Road Speed Limit	G1 (%)	G2 (%)	Existing Length (ft)	Required Length (ft)	Is SSD<L	Existing L >= Required L	Required Length	Is SSD>=L	Existing L >= Required L
As Builts Not Available until Fish Trap Road													
Illegible Until Pj01630 at 1052+16.8													
ALL STATIONS BELOW CORRECTED BY -22.9' (EQUATIONS A-E)													
1938	KY 30	1040+50	15.582	55 mph	-2.597	2.355	300	568.94	Yes	No	559.33	No	No
1938	KY 30	1028+00	15.819	55 mph	-0.680	1.000	200	193.03	No	Yes	-279.35	Yes	Yes
1938	KY 30	1018+25	16.004	55 mph	-4.100	-0.680	300	392.96	No	No	366.46	Yes	No
1938	KY 30	990+00	16.539	55 mph	-3.100	0.500	300	413.64	No	No	397.64	Yes	No
1938	KY 30	975+05	16.822	55 mph	-2.520	2.100	600	530.84	Yes	Yes	528.42	No	Yes
1938	KY 30	961+60	17.077	55 mph	-0.800	0.000	200	91.92	No	Yes	-1,675.63	Yes	Yes
1938	KY 30	942+15	17.445	55 mph	-1.600	-0.800	300	91.92	No	Yes	-1,675.63	Yes	Yes
1938	KY 30	926+00	17.751	55 mph	-1.556	-0.329	200	140.97	No	Yes	-748.12	Yes	Yes
1938	KY 30	910+00	18.054	55 mph	-1.700	-1.556	200	16.56	No	Yes	-13,808.75	Yes	Yes
1938	KY 30	883+00	18.565	55 mph	-1.871	-1.700	200	19.65	No	Yes	-11,480.76	Yes	Yes
1938	KY 30	870+00	18.811	55 mph	-3.000	-1.500	300	172.35	No	Yes	-431.67	Yes	Yes
1938	KY 30	851+00	19.171	55 mph	-4.704	-3.000	300	195.84	No	Yes	-261.17	Yes	Yes
1938	KY 30	837+00	19.436	55 mph	-5.000	-3.364	300	187.93	No	Yes	-313.80	Yes	Yes
COUNTY LINE - STATION 828+64.1													
1938	KY 30	795+50	0.623	55 mph	1.600	7.000	350	620.46	Yes	No	595.09	No	No
1938	KY 30	768+25	1.139	55 mph	1.554	1.600	0	5.29	No	No	-45,368.70	Yes	Yes
1938	KY 30	754+50	1.400	55 mph	0.930	2.500	300	180.39	No	Yes	-368.28	Yes	Yes
1938	KY 30	737+50	1.722	55 mph	0.850	2.000	300	132.14	No	Yes	-864.35	Yes	Yes
1938	KY 30	724+00	1.978	55 mph	0.133	0.850	250	82.44	No	Yes	-1,982.13	Yes	Yes
1938	KY 30	707+00	2.299	55 mph	-0.600	2.300	300	333.21	No	No	254.66	Yes	Yes
1938	KY 30	686+00	2.697	55 mph	0.400	1.760	300	156.26	No	Yes	-578.01	Yes	Yes
1938	KY 30	675+00	2.906	55 mph	0.000	0.400	200	45.96	No	Yes	-4,341.25	Yes	Yes
1938	KY 30	653+00	3.322	55 mph	-3.000	0.000	300	344.70	No	No	279.17	Yes	Yes
1938	KY 30	647+50	3.426	55 mph	-8.000	-3.000	500	574.50	Yes	No	563.50	No	No
1938	KY 30	641+00	3.549	55 mph	-6.700	-8.000	300	149.37	No	Yes	-650.38	Yes	Yes
1938	KY 30	637+50	3.616	55 mph	-7.586	-6.700	200	101.80	No	Yes	-1,416.88	Yes	Yes
ALL STATIONS BELOW CORRECTED BY -26.0 (EQUATIONS A-D)													
1938	KY 30	594+00	4.439	55 mph	7.385	8.000	200	70.71	No	Yes	-2,475.23	Yes	Yes
ALL STATIONS BELOW CORRECTED BY +9.3 (EQUATIONS A-C)													
1938	KY 30	575+50	4.796	55 mph	0.000	8.000	400	919.20	Yes	No	723.44	No	No
ALL STATIONS BELOW CORRECTED BY +17.3 (EQUATIONS A-B)													
1935	KY 30	560+00	5.091	55 mph	-1.213	1.200	300	277.29	No	Yes	106.36	Yes	Yes
1935	KY 30	552+50	5.233	55 mph	-3.100	-1.213	300	216.78	No	Yes	-140.28	Yes	Yes
1935	KY 30	542+50	5.423	55 mph	-4.500	-1.800	300	310.23	No	No	200.19	Yes	Yes
1935	KY 30	516+00	5.925	55 mph	-3.450	7.600	500	1,269.65	Yes	No	797.01	No	No
1935	KY 30	503+00	6.171	55 mph	-1.089	1.000	300	240.03	No	Yes	-30.82	Yes	Yes
1935	KY 30	495+50	6.313	55 mph	-3.350	-1.089	300	259.79	No	Yes	46.83	Yes	Yes
1935	KY 30	484+00	6.531	55 mph	-1.000	0.500	200	172.35	No	Yes	-431.67	Yes	Yes
1935	KY 30	480+00	6.606	55 mph	-4.000	-1.000	300	344.70	No	No	279.17	Yes	Yes
1935	KY 30	471+00	6.777	55 mph	-2.800	0.800	300	413.64	No	No	397.64	Yes	No
1935	KY 30	453+00	7.118	55 mph	-1.500	0.800	500	264.27	No	Yes	62.83	Yes	Yes
1935	KY 30	448+00	7.212	55 mph	-4.000	-1.500	300	287.25	No	Yes	137.00	Yes	Yes
1935	KY 30	437+50	7.411	55 mph	-1.700	3.025	300	542.90	Yes	No	538.68	No	No
1935	KY 30	427+50	7.601	55 mph	-5.000	-1.700	300	379.17	No	No	343.79	Yes	No
1935	KY 30	419+00	7.762	55 mph	-5.900	-1.400	300	517.05	Yes	No	516.11	No	No
1935	KY 30	411+75	7.899	55 mph	-7.940	-5.900	300	234.40	No	Yes	-55.34	Yes	Yes
1935	KY 30	393+00	8.254	55 mph	6.200	7.156	200	109.84	No	Yes	-1,240.65	Yes	Yes
1932	KY 30	379+00	8.519	55 mph	3.527	6.200	300	307.14	No	No	192.24	Yes	Yes
1932	KY 30	366+00	8.765	55 mph	-0.800	3.527	300	497.16	Yes	No	497.15	No	No
1932	KY 30	358+00	8.917	55 mph	-0.840	4.295	300	590.04	Yes	No	574.73	No	No
1932	KY 30	343+50	9.192	55 mph	1.100	4.325	300	370.55	No	No	328.76	Yes	No
1932	KY 30	326+25	9.518	55 mph	-1.054	2.759	300	438.13	No	No	430.74	Yes	No
1932	KY 30	318+00	9.675	55 mph	-0.600	2.400	300	344.70	No	No	279.17	Yes	Yes
1932	KY 30	297+00	10.072	55 mph	0.000	2.346	400	269.50	No	Yes	80.81	Yes	Yes
1932	KY 30	277+50	10.442	55 mph	0.214	1.500	500	147.77	No	Yes	-668.18	Yes	Yes
ALL STATIONS BELOW CORRECTED BY -15.5 (EQUATION A)													
1932	KY 30	248+50	10.985	55 mph	-1.800	0.214	300	231.40	No	Yes	-68.86	Yes	Yes
1932	KY 30	240+75	11.131	55 mph	0.000	3.000	250	344.70	No	No	279.17	Yes	No
1932	KY 30	232+00	11.297	55 mph	0.800	0.237	300	64.67	No	Yes	-2,798.69	Yes	Yes
1932	KY 30	224+50	11.439	55 mph	-0.020	0.800	300	94.27	No	Yes	-1,609.28	Yes	Yes
ALL STATIONS BELOW NOT ADJUSTED													
1932	KY 30	217+00	11.584	55 mph	-1.000	-0.020	300	112.55	No	Yes	-1,186.95	Yes	Yes
1932	KY 30	193+00	12.039	55 mph	0.500	1.200	200	80.43	No	Yes	-2,056.43	Yes	Yes
1932	KY 30	182+00	12.247	55 mph	-2.400	0.500	300	333.21	No	No	254.66	Yes	Yes
1932	KY 30	171+50	12.446	55 mph	-4.200	1.600	500	666.42	Yes	No	622.33	No	No
Awaiting copy of Pb01502 to complete analysis													

[1] Source: 2011 Green Book Formula 3-48
[2] Source: 2011 Green Book Formula 3-50

Vertical Curve Deficiency Analysis based on 45 mph Design Speed

Functional Classification = Rural Major Collector
Terrain = Rolling (8% max grade) in Owsley Co. MP 11.27 to MP 19.599. Mountainous (10% max grade) in Breathitt Co. from MP 0-13.297 and Flat (7% max grade) from MP 13.297 to 14.830
Vd = 45 mph therefore Minimum Stopping Sight Distance = 360 ft Source: 2011 Green Book Table 6-3 and 2006 KYTC Highway Design Manual Exhibit 700-02
Vd = 45 mph therefore Maximum Grade = varies % Source: 2011 Green Book Table 6-2 and 2006 KYTC Highway Design Manual Exhibit 700-02

Crest Vertical Curves

	Existing Vertical Curve								SSD < L [1]			SSD >= L [2]		
As Built Year	Road	V.P.I. Station Number	Milepoint	Road Speed Limit	Assume 45 mph Design Speed	G1 (%)	G2 (%)	Existing Length (ft)	SSD	Is SSD<L	Meet SSD Req.	SSD	Is SSD>=L	Meet SSD Req.
As Builts Not Available until Fish Trap Road														
Illegible Until Pj01630 at 1052+16.8														
ALL STATIONS BELOW CORRECTED BY -22.9' (EQUATIONS A-E)														
1938	KY 30	1044+15	15.513	55 mph	45 mph	2.355	-0.933	250.00	405.09	No	Yes	453.19	Yes	Yes
1938	KY 30	1035+00	15.686	55 mph	45 mph	1.000	-2.597	400.00	489.88	No	Yes	499.98	Yes	Yes
1938	KY 30	1011+87	16.124	55 mph	45 mph	-1.104	-4.100	300.00	464.88	No	Yes	510.19	Yes	Yes
1938	KY 30	1002+20	16.308	55 mph	45 mph	-1.050	-1.104	300.00	3,449.74	No	Yes	19,984.56	Yes	Yes
1938	KY 30	982+80	16.675	55 mph	45 mph	2.100	-3.100	400.00	407.43	No	Yes	407.50	Yes	Yes
1938	KY 30	967+50	16.965	55 mph	45 mph	0.000	-2.520	300.00	506.86	No	Yes	578.17	Yes	Yes
1938	KY 30	934+60	17.588	55 mph	45 mph	-0.389	-1.600	200.00	596.99	No	Yes	991.00	Yes	Yes
1938	KY 30	876+30	18.692	55 mph	45 mph	-1.500	-1.871	200.00	1,078.58	No	Yes	3,008.36	Yes	Yes
1938	KY 30	843+50	19.313	55 mph	45 mph	-3.364	-4.704	300.00	695.08	No	Yes	955.22	Yes	Yes
COUNTY LINE - STATION 828+64.1														
1938	KY 30	828+64.1	0.000	55 mph	45 mph	7.000	-5.000	500.00	299.86	Yes	No	339.92	No	No
1938	KY 30	761+85	1.261	55 mph	45 mph	2.500	1.554	200.00	675.45	No	Yes	1,240.59	Yes	Yes
1938	KY 30	744+00	1.599	55 mph	45 mph	2.000	0.928	200.00	634.52	No	Yes	1,106.53	Yes	Yes
1938	KY 30	716+50	2.120	55 mph	45 mph	2.300	0.133	500.00	705.56	No	Yes	747.81	Yes	Yes
1938	KY 30	702+50	2.385	55 mph	45 mph	1.760	-0.600	300.00	523.76	No	Yes	607.20	Yes	Yes
ALL STATIONS BELOW CORRECTED BY -26.0 (EQUATIONS A-D)														
1938	KY 30	619+00	3.966	55 mph	45 mph	-5.980	-7.586	300.00	634.91	No	Yes	821.86	Yes	Yes
1938	KY 30	610+00	4.136	55 mph	45 mph	8.000	-5.980	500.00	277.82	Yes	No	327.18	No	No
ALL STATIONS BELOW CORRECTED BY +9.3 (EQUATIONS A-C)														
ALL STATIONS BELOW CORRECTED BY +17.3 (EQUATIONS A-B)														
1935	KY 30	565+15	4.994	55 mph	45 mph	1.200	0.000	300.00	734.51	No	Yes	1,049.17	Yes	Yes
1935	KY 30	549+00	5.300	55 mph	45 mph	-1.800	-3.100	200.00	576.19	No	Yes	930.00	Yes	Yes
1935	KY 30	529+17	5.675	55 mph	45 mph	7.600	-6.000	500.00	281.67	Yes	No	329.34	No	No
1935	KY 30	509+35	6.050	55 mph	45 mph	1.000	-3.450	350.00	411.98	No	Yes	417.47	Yes	Yes
1935	KY 30	490+50	6.407	55 mph	45 mph	0.500	-3.350	300.00	410.07	No	Yes	430.26	Yes	Yes
1935	KY 30	476+50	6.673	55 mph	45 mph	0.800	-4.000	300.00	367.25	No	Yes	374.79	Yes	Yes
1935	KY 30	465+00	6.890	55 mph	45 mph	-2.400	-2.800	200.00	1,038.75	No	Yes	2,797.50	Yes	Yes
1935	KY 30	457+88.5	7.025	55 mph	45 mph	0.800	-2.400	300.00	449.79	No	Yes	487.19	Yes	Yes
1935	KY 30	451+75	7.141	55 mph	45 mph	3.025	-4.000	300.00	303.57	No	No	303.59	Yes	No
1935	KY 30	422+00	7.705	55 mph	45 mph	-1.400	-5.000	300.00	424.07	No	Yes	449.72	Yes	Yes
1935	KY 30	398+00	8.159	55 mph	45 mph	7.156	-7.940	657.00	306.46	Yes	No	399.98	No	Yes
1932	KY 30	360+45	8.871	55 mph	45 mph	4.293	-0.800	250.00	325.46	No	No	336.85	Yes	No
1932	KY 30	350+94.5	9.051	55 mph	45 mph	4.325	-0.184	300.00	378.92	No	Yes	389.30	Yes	Yes
1932	KY 30	326+65	9.511	55 mph	45 mph	2.750	1.100	300.00	626.39	No	Yes	803.94	Yes	Yes
1932	KY 30	323+00	9.580	55 mph	45 mph	2.400	-1.054	300.00	432.93	No	Yes	462.38	Yes	Yes
1932	KY 30	312+89	9.771	55 mph	45 mph	2.000	-0.600	300.00	499.00	No	Yes	565.00	Yes	Yes
1932	KY 30	301+50	9.987	55 mph	45 mph	2.346	2.000	0.00	0.00	No	No	3,123.01	Yes	Yes
1932	KY 30	287+00	10.262	55 mph	45 mph	1.500	0.000	300.00	656.96	No	Yes	869.33	Yes	Yes
ALL STATIONS BELOW CORRECTED BY -15.5 (EQUATION A)														
1932	KY 30	244+00	11.070	55 mph	45 mph	3.000	-1.800	300.00	367.25	No	Yes	374.79	Yes	Yes
1932	KY 30	236+00	11.221	55 mph	45 mph	2.371	0.000	300.00	522.50	No	Yes	605.01	Yes	Yes
ALL STATIONS BELOW NOT ADJUSTED														
1932	KY 30	213+20	11.656	55 mph	45 mph	0.843	-1.000	400.00	684.37	No	Yes	785.46	Yes	Yes
1932	KY 30	196+50	11.972	55 mph	45 mph	1.200	-0.200	250.00	620.77	No	Yes	895.71	Yes	Yes
1932	KY 30	178+75	12.309	55 mph	45 mph	1.600	-2.400	300.00	402.31	No	Yes	419.75	Yes	Yes
1932	KY 30	166+54	12.540	55 mph	45 mph	1.642	-4.200	300.00	332.90	No	No	334.71	Yes	No
Awaiting copy of Pb01502 to complete analysis														

[1] Source: 2011 Green Book Formula 3-43
[2] Source: 2011 Green Book Formula 3-44

Sag Vertical Curves

	Existing Vertical Curve								HSSD < L [1]			HSSD >= L [2]		
As Built Year	Road	V.P.I. Station Number	Milepoint	Road Speed Limit		G1 (%)	G2 (%)	Existing Length (ft)	Required Length (ft)	Is SSD<L	Existing L >= Required L	Required Length	Is SSD>=L	Existing L >= Required L
As Builts Not Available until Fish Trap Road														
Illegible Until Pj01630 at 1052+16.8														
ALL STATIONS BELOW CORRECTED BY -22.9' (EQUATIONS A-E)														
1938	KY 30	1040+50	15.582	55 mph	45 mph	-2.597	2.355	300	386.58	Yes	No	384.75	No	No
1938	KY 30	1028+00	15.819	55 mph	45 mph	-0.680	1.000	200	131.16	No	Yes	-268.10	Yes	Yes
1938	KY 30	1018+25	16.004	55 mph	45 mph	-4.100	-0.680	300	267.01	No	Yes	234.62	Yes	Yes
1938	KY 30	990+00	16.539	55 mph	45 mph	-3.100	0.500	300	281.06	No	Yes	258.89	Yes	Yes
1938	KY 30	975+05	16.822	55 mph	45 mph	-2.520	2.100	600	360.69	Yes	Yes	360.69	No	Yes
1938	KY 30	961+60	17.077	55 mph	45 mph	-0.800	0.000	200	62.46	No	Yes	-1,355.00	Yes	Yes
1938	KY 30	942+15	17.445	55 mph	45 mph	-1.600	-0.800	300	62.46	No	Yes	-1,355.00	Yes	Yes
1938	KY 30	926+00	17.751	55 mph	45 mph	-1.556	-0.329	200	95.79	No	Yes	-633.00	Yes	Yes
1938	KY 30	910+00	18.054	55 mph	45 mph	-1.700	-1.556	200	11.25	No	Yes	-10,799.78	Yes	Yes
1938	KY 30	883+00	18.565	55 mph	45 mph	-1.871	-1.700	200	13.35	No	Yes	-8,987.60	Yes	Yes
1938	KY 30	870+00	18.811	55 mph	45 mph	-3.000	-1.500	300	117.11	No	Yes	-386.67	Yes	Yes
1938	KY 30	851+00	19.171	55 mph	45 mph	-4.704	-3.000	300	133.07	No	Yes	-253.95	Yes	Yes
1938	KY 30	837+00	19.436	55 mph	45 mph	-5.000	-3.364	300	127.70	No	Yes	-294.92	Yes	Yes
COUNTY LINE - STATION 828+64.1														
1938	KY 30	795+50	0.623	55 mph	45 mph	1.600	7.000	350	421.59	Yes	No	412.59	No	No
1938	KY 30	768+25	1.139	55 mph	45 mph	1.554	1.600	0	3.59	No	No	-35,366.96	Yes	Yes
1938	KY 30	754+50	1.400	55 mph	45 mph	0.930	2.500	300	122.57	No	Yes	-337.32	Yes	Yes
1938	KY 30	737+50	1.722	55 mph	45 mph	0.850	2.000	300	89.78	No	Yes	-723.48	Yes	Yes
1938	KY 30	724+00	1.978	55 mph	45 mph	0.133	0.850	250	56.02	No	Yes	-1,593.59	Yes	Yes
1938	KY 30	707+00	2.299	55 mph	45 mph	-0.600	2.300	300	226.41	No	Yes	147.59	Yes	Yes
1938	KY 30	686+00	2.697	55 mph	45 mph	0.400	1.760	300	106.18	No	Yes	-500.59	Yes	Yes
1938	KY 30	675+00	2.906	55 mph	45 mph	0.000	0.400	200	31.23	No	Yes	-3,430.00	Yes	Yes
1938	KY 30	653+00	3.322	55 mph	45 mph	-3.000	0.000	300	234.22	No	Yes	166.67	Yes	Yes
1938	KY 30	647+50	3.426	55 mph	45 mph	-8.000	-3.000	500	390.36	Yes	Yes	388.00	No	Yes
1938	KY 30	641+00	3.549	55 mph	45 mph	-6.700	-8.000	300	101.49	No	Yes	-556.92	Yes	Yes
1938	KY 30	637+50	3.616	55 mph	45 mph	-7.586	-6.700	200	69.17	No	Yes	-1,153.59	Yes	Yes
ALL STATIONS BELOW CORRECTED BY -26.0 (EQUATIONS A-D)														
1938	KY 30	594+00	4.439	55 mph	45 mph	7.385	8.000	200	48.05	No	Yes	-1,977.43	Yes	Yes
ALL STATIONS BELOW CORRECTED BY +9.3 (EQUATIONS A-C)														
1938	KY 30	575+50	4.796	55 mph	45 mph	0.000	8.000	400	624.58	Yes	No	512.50	No	No
ALL STATIONS BELOW CORRECTED BY +17.3 (EQUATIONS A-B)														
1935	KY 30	560+00	5.091	55 mph	45 mph	-1.213	1.200	300	188.41	No	Yes	32.15	Yes	Yes
1935	KY 30	552+50	5.233	55 mph	45 mph	-3.100	-1.213	300	147.30	No	Yes	-159.84	Yes	Yes
1935	KY 30	542+50	5.423	55 mph	45 mph	-4.500	-1.800	300	210.80	No	Yes	105.19	Yes	Yes
1935	KY 30	516+00	5.925	55 mph	45 mph	-3.450	7.600	500	862.70	Yes	No	569.77	No	No
1935	KY 30	503+00	6.171	55 mph	45 mph	-1.089	1.000	300	163.09	No	Yes	-74.64	Yes	Yes
1935	KY 30	495+50	6.313	55 mph	45 mph	-3.350	-1.089	300	176.52	No	Yes	-14.19	Yes	Yes
1935	KY 30	484+00	6.531	55 mph	45 mph	-1.000	0.500	200	117.11	No	Yes	-386.67	Yes	Yes
1935	KY 30	480+00	6.606	55 mph	45 mph	-4.000	-1.000	300	234.22	No	Yes	166.67	Yes	Yes
1935	KY 30	471+00	6.777	55 mph	45 mph	-2.800	0.800	300	281.06	No	Yes	258.89	Yes	Yes
1935	KY 30	453+00	7.118	55 mph	45 mph	-1.500	0.800	500	179.57	No	Yes	-1.74	Yes	Yes
1935	KY 30	448+00	7.212	55 mph	45 mph	-4.000	-1.500	300	195.18	No	Yes	56.00	Yes	Yes
1935	KY 30	437+50	7.411	55 mph	45 mph	-1.700	3.025	300	368.89	Yes	No	368.68	No	No
1935	KY 30	427+50	7.601	55 mph	45 mph	-5.000	-1.700	300	257.64	No	Yes	216.97	Yes	Yes
1935	KY 30	419+00	7.762	55 mph	45 mph	-5.900	-1.400	300	351.33	No	No	351.11	Yes	No
1935	KY 30	411+75	7.899	55 mph	45 mph	-7.940	-5.900	300	159.27	No	Yes	-93.73	Yes	Yes
1935	KY 30	393+00	8.254	55 mph	45 mph	6.200	7.156	200	74.64	No	Yes	-1,016.40	Yes	Yes
1932	KY 30	379+00	8.519	55 mph	45 mph	3.527	6.200	300	208.70	No	Yes	99.00	Yes	Yes
1932	KY 30	366+00	8.765	55 mph	45 mph	-0.800	3.527	300	337.81	No	No	336.35	Yes	No
1932	KY 30	358+00	8.917	55 mph	45 mph	-0.840	4.295	300	400.92	Yes	No	396.74	No	No
1932	KY 30	343+50	9.192	55 mph	45 mph	1.100	4.325	300	251.78	No	Yes	205.27	Yes	Yes
1932	KY 30	326+25	9.518	55 mph	45 mph	-1.054	2.759	300	297.70	No	Yes	284.66	Yes	Yes
1932	KY 30	318+00	9.675	55 mph	45 mph	-0.600	2.400	300	234.22	No	Yes	166.67	Yes	Yes
1932	KY 30	297+00	10.072	55 mph	45 mph	0.000	2.346	400	183.12	No	Yes	12.26	Yes	Yes
1932	KY 30	277+50	10.442	55 mph	45 mph	0.214	1.500	500	100.40	No	Yes	-570.77	Yes	Yes
ALL STATIONS BELOW CORRECTED BY -15.5 (EQUATION A)														
1932	KY 30	248+50	10.985	55 mph	45 mph	-1.800	0.214	300	157.23	No	Yes	-104.25	Yes	Yes
1932	KY 30	240+75	11.131	55 mph	45 mph	0.000	3.000	250	234.22	No	Yes	166.67	Yes	Yes
1932	KY 30	232+00	11.297	55 mph	45 mph	0.800	0.237	300	43.94	No	Yes	-2,229.22	Yes	Yes
1932	KY 30	224+50	11.439	55 mph	45 mph	-0.020	0.800	300	64.05	No	Yes	-1,303.35	Yes	Yes
ALL STATIONS BELOW NOT ADJUSTED														
1932	KY 30	217+00	11.584	55 mph	45 mph	-1.000	-0.020	300	76.48	No	Yes	-974.60	Yes	Yes
1932	KY 30	193+00	12.039	55 mph	45 mph	0.500	1.200	200	54.65	No	Yes	-1,651.43	Yes	Yes
1932	KY 30	182+00	12.247	55 mph	45 mph	-2.400	0.500	300	226.41	No	Yes	147.59	Yes	Yes
1932	KY 30	171+50	12.446	55 mph	45 mph	-4.200	1.600	500	452.82	Yes	Yes	433.79	No	Yes
Awaiting copy of Pb01502 to complete analysis														

[1] Source: 2011 Green Book Formula 3-48
[2] Source: 2011 Green Book Formula 3-50