

FORECAST OF EQUIVALENT SINGLE AXLE LOAD ACCUMULATIONS (20-year)

ROUTE ID:

County

Powell

Date 05/30/07

Forecaster David Hamilton

Road Name

TR 9000

MARS No. 8063101D

Item No. 10-138.00

Functional Class

2 - Rural Principal Arterial

Route No. TR 9000

Project Description

Construct WB on ramp and EB off ramp on Mountain Parkway at KY 1057 (Exit 18)

Beg. MP 0

End MP 0.2

Scenario

Build

T.F. No. 07.024

Segment Description

Segment 1 - Westbound Mountain Parkway On Ramp with KY 1057

No. of Lanes 1

1 or 2 way 1

REFERENCES:

Previous Forecasts

None

K- Factor Value 12.0%

Traffic Volume

KYSTM

K-Factor Source Z2, Z3

Milepoint

0.1

Truck Percent

Z2, Z3, KYSTM

PHF 0.9

Milepoint

0.1

ESAL Information

2006 Aggregated ESALS

Growth Rate

1.26%

TRAFFIC PARAMETERS:

		Present Year	Growth Rate	Construction Year	Median Year	Design Year
		2007		2008	2018	2028
Volume	(AADT)	1000	1.26%	1010	1150	1300
Percent Trucks	(%T)	9.000%	2.000%	9.180%	11.190%	13.641%
Number of Trucks		90		93	129	177
Percent Trucks Hauling Coal	(%CT)	0.000%	0.000%	0.000%	0.000%	0.000%
<i>Non-Coal Trucks:</i>						
Axles/Truck	(A/T)	3.400	0.48%	3.416	3.583	3.759
ESALs/Axle	(ESAL/A)	0.260	1.60%	0.264	0.310	0.363
<i>Coal Trucks:</i>						
Axles/Truck	(A/CT)	0	0.00%	0.000	0.000	0.000
ESALs/Axle	(ESAL/CA)	0	0.00%	0.000	0.000	0.000

ESAL CALCULATIONS:

SEE ATTACHED ESAL CALCULATION SHEET

Design ESALs in Critical Lane

1,200,000

General Comments:

Segment 1 - Westbound Mountain Parkway On Ramp with KY 1057 (Build)

Year	ADT	Car %	Truck %	Cars	Trucks	CT%	AX/T	ESAL/AX	AX/CT	ESAL/CA	LDF	ESALs
2008	1,010	90.8%	9.2%	917	93	0.00%	3.42	0.26	0	0	1.000	32,215
2009	1,023	90.6%	9.4%	927	96	0.00%	3.43	0.27	0	0	1.000	33,893
2010	1,036	90.4%	9.6%	937	99	0.00%	3.45	0.27	0	0	1.000	35,662
2011	1,049	90.3%	9.7%	946	102	0.00%	3.47	0.28	0	0	1.000	37,526
2012	1,062	90.1%	9.9%	956	106	0.00%	3.48	0.28	0	0	1.000	39,490
2013	1,075	89.9%	10.1%	966	109	0.00%	3.50	0.29	0	0	1.000	41,560
2014	1,089	89.7%	10.3%	976	113	0.00%	3.52	0.29	0	0	1.000	43,743
2015	1,102	89.5%	10.5%	986	116	0.00%	3.53	0.30	0	0	1.000	46,042
2016	1,116	89.2%	10.8%	996	120	0.00%	3.55	0.30	0	0	1.000	48,467
2017	1,130	89.0%	11.0%	1006	124	0.00%	3.57	0.30	0	0	1.000	51,021
2018	1,144	88.8%	11.2%	1016	128	0.00%	3.58	0.31	0	0	1.000	53,714
2019	1,159	88.6%	11.4%	1027	132	0.00%	3.60	0.31	0	0	1.000	56,553
2020	1,173	88.4%	11.6%	1037	137	0.00%	3.62	0.32	0	0	1.000	59,545
2021	1,188	88.1%	11.9%	1047	141	0.00%	3.64	0.32	0	0	1.000	62,698
2022	1,203	87.9%	12.1%	1057	146	0.00%	3.65	0.33	0	0	1.000	66,022
2023	1,218	87.6%	12.4%	1068	151	0.00%	3.67	0.34	0	0	1.000	69,526
2024	1,233	87.4%	12.6%	1078	155	0.00%	3.69	0.34	0	0	1.000	73,220
2025	1,249	87.1%	12.9%	1088	161	0.00%	3.71	0.35	0	0	1.000	77,113
2026	1,265	86.9%	13.1%	1099	166	0.00%	3.72	0.35	0	0	1.000	81,217
2027	1,281	86.6%	13.4%	1109	171	0.00%	3.74	0.36	0	0	1.000	85,543
2028	1,297	86.4%	13.6%	1120	177	0.00%	3.76	0.36	0	0	1.000	90,104

5 yr ESALs
200,000

10 yr ESALs
400,000

15 yr ESALs
700,000

20 yr ESALs
1,200,000