

*SafetyAnalyst*

# **Network Screening Report**

Jun 6, 2011

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## **Table of Contents**

1. Network Screening Report .....	1
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**List of Tables**

Table 1. Basic Network Screening (with Sliding Window on roadway segments) . . . . . 2

# 1. Network Screening Report

## Basic Network Screening

SafetyAnalyst: v4.0.10, packaged: Feb 9, 2011 10:41 AM on sa\_dev.ittsystems.com

Data set title: NH State 2009

Data set comment: null

Data set created: Apr 2, 2010 9:54 AM

Roadway Segments: Sliding Window

Accident Severity Level: Total accidents

Site Types: Segments, Intersections

Screening Attribute: Accident Type and Manner of Collision = Collision with parked motor vehicle; Collision with railroad train; Collision with bicyclist; Collision with pedestrian; Collision with animal; Collision with fixed object; Collision with other object; Other single-vehicle collision; Overturn; Fire or explosion; Other single-vehicle non-collision; Rear-end; Head-on; Rear-to-rear; Angle; Sideswipe, same direction; Sideswipe, opposite direction; Other multiple-vehicle collision; Unknown

Potential for Safety Improvement Using: Expected accident frequency

Analysis Period: From 2002 To 2009

Major Reconstruction: No major reconstruction occurred at any sites during the analysis period

Window Length: 0.3 mi

Window Increment: 0.1 mi

Area Weights (Rural): 1.0

Area Weights (Urban): 1.0

Limiting Value (Roadway Segments): 1.0 crashes/mi/yr

Limiting Value (Intersections): 1.0 crashes/yr

Number of sites in the site list: 84

Number of sites evaluated: 84

Number of segments evaluated: 42

Total length of segments evaluated: 4.580

Number of intersections evaluated: 42

Number of ramps evaluated: 0

Number of sites flagged: 65

**Table 1. Basic Network Screening (with Sliding Window on roadway segments)**

ID	Site Type	Site Subtype	County	Route	Site Start Location	Site End Location	Average Observed Accidents for Entire Site*	Location with Highest Potential for Safety Improvement					Rank	Additional Windows of Interest			
								Average Observed Accidents*	Predicted Accident Frequency*	Expected Accident Frequency*	Variance**	Start Location			End Location	No. of Expected Fatalities	No. of Expected Injuries
51585...5465	Segment	Seg/Urb; Multilane divided	HILLSBOROUGH	SRS0000101A_	11.234	11.37	29.88	63.41	24.55	63.08	11.53	11.24	11.54	-	-	1	10.94 - 11.24 11.04 - 11.34 11.14 - 11.44 11.34 - 11.64
58234	Segment	Seg/Urb; Multilane divided	HILLSBOROUGH	SRS0000101A_	11.37	11.494	120.65	63.41	24.55	63.08	11.53	11.24	11.54	-	-	1	11.14 - 11.44 11.34 - 11.64 11.44 - 11.74
1617	Segment	Seg/Urb; Multilane divided	HILLSBOROUGH	SRS0000101A_	11.494	11.568	9.98	63.41	24.55	63.08	11.53	11.24	11.54	-	-	1	11.34 - 11.64 11.44 - 11.74 11.54 - 11.84
31748	Segment	Seg/Urb; Multilane divided	HILLSBOROUGH	SRS0000101A_	11.568	11.78	16.55	62.18	24.55	61.73	11.24	11.34	11.64	-	-	4	11.44 - 11.74 11.54 - 11.84 11.64 - 11.94 11.74 - 12.04
48349	Segment	Seg/Urb; Multilane divided	HILLSBOROUGH	SRS0000101A_	11.78	11.97	47.63	43.10	24.55	42.91	7.84	11.74	12.04	-	-	5	11.54 - 11.84 11.64 - 11.94 11.84 - 12.14 11.94 - 12.24
95989	Segment	Seg/Urb; Multilane divided	HILLSBOROUGH	SRS0000101A_	11.97	12.125	29.79	43.10	24.55	42.91	7.84	11.74	12.04	-	-	5	11.84 - 12.14 11.94 - 12.24 12.04 - 12.34
95990...33417	Segment	Seg/Urb; Multilane divided	HILLSBOROUGH	SRS0000101A_	12.125	12.285	8.08	40.63	24.55	40.52	7.41	11.84	12.14	-	-	7	11.94 - 12.24 12.04 - 12.34 12.14 - 12.44 12.24 - 12.54
56376	Segment	Seg/Urb; 2-lane arterial	HILLSBOROUGH	SRS0000101A_	13.054	13.159	14.20	25.96	8.61	24.43	3.70	13.14	13.44	-	-	8	12.84 - 13.14 12.94 - 13.24 13.04 - 13.34
22148...22231	Segment	Seg/Urb; 2-lane arterial	HILLSBOROUGH	SRS0000101A_	13.159	13.235	52.32	25.96	8.61	24.43	3.70	13.14	13.44	-	-	8	12.94 - 13.24 13.04 - 13.34
20797	Segment	Seg/Urb; 2-lane arterial	HILLSBOROUGH	SRS0000101A_	13.235	13.278	7.71	25.96	8.61	24.43	3.70	13.14	13.44	-	-	8	12.94 - 13.24 13.04 - 13.34 13.24 - 13.54
59628	Segment	Seg/Urb; 2-lane arterial	HILLSBOROUGH	SRS0000101A_	13.278	13.305	55.23	25.96	8.61	24.43	3.70	13.14	13.44	-	-	8	13.04 - 13.34 13.24 - 13.54
39940	Segment	Seg/Urb; 2-lane arterial	HILLSBOROUGH	SRS0000101A_	13.305	13.348	7.71	25.96	8.61	24.43	3.70	13.14	13.44	-	-	8	13.04 - 13.34 13.24 - 13.54 13.34 - 13.64
27534	Segment	Seg/Urb; 2-lane arterial	HILLSBOROUGH	SRS0000101A_	13.348	13.43	10.10	25.96	8.61	24.43	3.70	13.14	13.44	-	-	8	13.24 - 13.54 13.34 - 13.64
57046	Segment	Seg/Urb; 2-lane arterial	HILLSBOROUGH	SRS0000101A_	13.43	13.492	5.34	25.96	8.61	24.43	3.70	13.14	13.44	-	-	8	13.24 - 13.54 13.34 - 13.64 13.44 - 13.74
5276	Segment	Seg/Urb; 2-lane arterial	HILLSBOROUGH	SRS0000101A_	13.492	13.564	13.81	25.44	8.42	24.29	3.75	13.54	13.82	-	-	15	13.24 - 13.54 13.34 - 13.64 13.44 - 13.74
36259	Segment	Seg/Urb; 2-lane arterial	HILLSBOROUGH	SRS0000101A_	13.564	13.607	7.71	25.44	8.42	24.29	3.75	13.54	13.82	-	-	15	13.34 - 13.64 13.44 - 13.74
30324...42685	Segment	Seg/Urb; 2-lane arterial	HILLSBOROUGH	SRS0000101A_	13.607	13.682	33.14	25.44	8.42	24.29	3.75	13.54	13.82	-	-	15	13.34 - 13.64 13.44 - 13.74
52636...13332	Segment	Seg/Urb; 2-lane arterial	HILLSBOROUGH	SRS0000101A_	13.682	13.771	22.34	25.44	8.42	24.29	3.75	13.54	13.82	-	-	15	13.44 - 13.74
14726	Segment	Seg/Urb; 2-lane arterial	HILLSBOROUGH	SRS0000101A_	13.771	13.82	37.19	25.44	8.42	24.29	3.75	13.54	13.82	-	-	15	13.44 - 13.74
46340	Segment	Seg/Urb; 2-lane arterial	HILLSBOROUGH	SRS0000101A_	13.029	13.054	6.63	25.40	8.51	24.23	3.73	13.04	13.34	-	-	20	12.74 - 13.04 12.84 - 13.14 12.94 - 13.24
26083...26196	Segment	Seg/Urb; Multilane divided	HILLSBOROUGH	SRS0000101A_	10.72	11.234	21.20	24.01	26.36	24.07	4.40	11.14	11.44	-	-	21	10.44 - 10.74 10.54 - 10.84 10.64 - 10.94 10.74 - 11.04 10.84 - 11.14 10.94 - 11.24 11.04 - 11.34
40408	Segment	Seg/Urb; Multilane divided	HILLSBOROUGH	SRS0000101A_	10.384	10.72	23.64	24.01	30.92	24.07	4.42	10.44	10.74	-	-	22	10.14 - 10.44 10.24 - 10.54 10.34 - 10.64 10.54 - 10.84 10.64 - 10.94
45288	Segment	Seg/Urb; Multilane divided	HILLSBOROUGH	SRS0000101A_	10.041	10.184	15.50	23.39	27.44	23.44	4.26	10.14	10.44	-	-	23	9.84 - 10.14 9.94 - 10.24 10.04 - 10.34

ID	Site Type	Site Subtype	County	Route	Site Start Location	Site End Location	Average Observed Accidents for Entire Site*	Location with Highest Potential for Safety Improvement							Rank	Additional Windows of Interest	
								Average Observed Accidents*	Predicted Accident Frequency*	Expected Accident Frequency*	Variance**	Start Location	End Location	No. of Expected Fatalities			No. of Expected Injuries
27644	Segment	Seg/Urb; Multilane divided	HILLSBOROUGH	SRS0000101A_	10.184	10.285	10.97	23.39	27.44	23.44	4.26	10.14	10.44	-	-	23	9.94 - 10.24 10.04 - 10.34 10.24 - 10.54
11120	Segment	Seg/Urb; Multilane divided	HILLSBOROUGH	SRS0000101A_	10.285	10.384	33.58	23.39	27.44	23.44	4.26	10.14	10.44	-	-	23	10.04 - 10.34 10.24 - 10.54 10.34 - 10.64
52660	Segment	Seg/Urb; 2-lane arterial	HILLSBOROUGH	SRS0000101A_	12.918	12.992	15.67	23.20	8.41	22.23	3.44	12.94	13.24	-	-	26	12.64 - 12.94 12.74 - 13.04 12.84 - 13.14
24051	Segment	Seg/Urb; 2-lane arterial	HILLSBOROUGH	SRS0000101A_	12.992	13.029	8.96	23.20	8.41	22.23	3.44	12.94	13.24	-	-	26	12.74 - 13.04 12.84 - 13.14
383	Segment	Seg/Urb; Multilane divided	HILLSBOROUGH	SRS0000101A_	9.898	10.041	23.25	19.09	26.63	19.17	3.50	9.94	10.24	-	-	28	9.64 - 9.94 9.74 - 10.04 9.84 - 10.14 10.04 - 10.34
10589	Segment	Seg/Urb; Multilane divided	HILLSBOROUGH	SRS0000101A_	9.727	9.898	18.36	19.09	26.63	19.16	3.50	9.84	10.14	-	-	29	9.44 - 9.74 9.54 - 9.84 9.64 - 9.94 9.74 - 10.04
1641	Segment	Seg/Urb; Multilane undivided	HILLSBOROUGH	SRS0000101A_	12.285	12.292	71.52	15.53	23.25	15.09	2.50	12.04	12.34	-	-	30	12.14 - 12.44 12.24 - 12.54
93377...24758	Segment	Seg/Urb; Multilane undivided	HILLSBOROUGH	SRS0000101A_	12.292	12.44	12.40	15.53	23.25	15.09	2.50	12.04	12.34	-	-	30	12.14 - 12.44 12.24 - 12.54 12.34 - 12.64
34739	Segment	Seg/Urb; Multilane divided	HILLSBOROUGH	SRS0000101A_	9.24	9.425	14.98	14.78	23.61	14.85	2.72	9.24	9.54	-	-	32	9.34 - 9.64
30075	Segment	Seg/Urb; Multilane divided	HILLSBOROUGH	SRS0000101A_	9.425	9.727	8.56	14.78	23.61	14.85	2.72	9.24	9.54	-	-	32	9.44 - 9.74 9.54 - 9.84 9.64 - 9.94
37005...31219	Segment	Seg/Urb; 2-lane arterial	HILLSBOROUGH	SRS0000101A_	12.44	12.536	18.98	15.46	8.33	14.77	2.24	12.44	12.74	-	-	34	12.24 - 12.54 12.34 - 12.64
33756	Segment	Seg/Urb; 2-lane arterial	HILLSBOROUGH	SRS0000101A_	12.536	12.583	7.05	15.46	8.33	14.77	2.24	12.44	12.74	-	-	34	12.24 - 12.54 12.34 - 12.64 12.54 - 12.84
39439...10525	Segment	Seg/Urb; 2-lane arterial	HILLSBOROUGH	SRS0000101A_	12.583	12.645	21.38	15.46	8.33	14.77	2.24	12.44	12.74	-	-	34	12.34 - 12.64 12.54 - 12.84 12.64 - 12.94
112	Segment	Seg/Urb; 2-lane arterial	HILLSBOROUGH	SRS0000101A_	12.645	12.671	25.49	15.46	8.33	14.77	2.24	12.44	12.74	-	-	34	12.54 - 12.84 12.64 - 12.94
43568...37026	Segment	Seg/Urb; 2-lane arterial	HILLSBOROUGH	SRS0000101A_	12.671	12.729	2.86	15.46	8.33	14.77	2.24	12.44	12.74	-	-	34	12.54 - 12.84 12.64 - 12.94
46319	Segment	Seg/Urb; 2-lane arterial	HILLSBOROUGH	SRS0000101A_	12.729	12.762	20.08	15.46	8.33	14.77	2.24	12.44	12.74	-	-	34	12.54 - 12.84 12.64 - 12.94 12.74 - 13.04
13887	Segment	Seg/Urb; 2-lane arterial	HILLSBOROUGH	SRS0000101A_	12.762	12.819	14.53	13.81	8.33	13.34	2.01	12.74	13.04	-	-	40	12.54 - 12.84 12.64 - 12.94
32983...37628	Segment	Seg/Urb; 2-lane arterial	HILLSBOROUGH	SRS0000101A_	12.819	12.875	20.71	13.81	8.33	13.34	2.01	12.74	13.04	-	-	40	12.54 - 12.84 12.64 - 12.94 12.84 - 13.14
2742	Segment	Seg/Urb; 2-lane arterial	HILLSBOROUGH	SRS0000101A_	12.875	12.918	3.85	13.81	8.33	13.34	2.01	12.74	13.04	-	-	40	12.64 - 12.94 12.84 - 13.14
7397	Intersection	Int/Urb; 3-leg minor-rd STOP	HILLSBOROUGH	SRS0000101A	11.234		11.76	11.76	1.34	10.85	1.62	-	-	-	-	43	
26099	Intersection	Int/Urb; 4-leg signalized	HILLSBOROUGH	SRN3150008	4.865		10.19	10.19	5.93	9.82	1.58	-	-	-	-	44	
72191	Intersection	Int/Urb; 4-leg signalized	HILLSBOROUGH	SRS0000101A	12.44		9.13	9.13	5.40	8.79	1.40	-	-	-	-	45	
64791	Intersection	Int/Urb; 4-leg signalized	HILLSBOROUGH	SRS0000101A	11.97		8.60	8.60	5.93	8.38	1.35	-	-	-	-	46	
3714	Intersection	Int/Urb; 3-leg minor-rd STOP	HILLSBOROUGH	SRS0000101A	13.235		6.86	6.86	0.62	5.79	0.78	-	-	-	-	47	
63455	Intersection	Int/Urb; 4-leg signalized	HILLSBOROUGH	SRS0000101A	10.72		5.62	5.62	5.27	5.59	0.89	-	-	-	-	48	
31522	Intersection	Int/Urb; 4-leg signalized	HILLSBOROUGH	SRS0000101A	9.727		5.27	5.27	6.09	5.34	0.86	-	-	-	-	49	
3872	Intersection	Int/Urb; 4-leg signalized	HILLSBOROUGH	SRS0000101A	10.384		4.57	4.57	6.38	4.71	0.76	-	-	-	-	50	
50215	Intersection	Int/Urb; 3-leg minor-rd STOP	HILLSBOROUGH	SRS0000101A	13.771		5.39	5.39	0.61	4.56	0.62	-	-	-	-	51	
27028	Intersection	Int/Urb; 4-leg signalized	HILLSBOROUGH	SRS0000101A	11.568		4.04	4.04	5.93	4.20	0.68	-	-	-	-	52	
62897	Intersection	Int/Urb; 3-leg minor-rd STOP	HILLSBOROUGH	SRS0000101A	11.494		4.41	4.41	0.73	3.86	0.54	-	-	-	-	53	
41752	Intersection	Int/Urb; 3-leg signalized	HILLSBOROUGH	SRS0000101A	13.159		3.57	3.57	4.47	3.70	0.56	-	-	-	-	54	
30091	Intersection	Int/Urb; 3-leg minor-rd STOP	HILLSBOROUGH	SRS0000101A	13.278		4.08	4.08	0.67	3.54	0.49	-	-	-	-	55	
1007	Intersection	Int/Urb; 3-leg signalized	HILLSBOROUGH	SRS0000101A	9.24		3.03	3.03	5.24	3.31	0.51	-	-	-	-	56	
35187	Intersection	Int/Urb; 3-leg signalized	HILLSBOROUGH	SRS0000101A	11.37		2.85	2.85	5.39	3.17	0.49	-	-	-	-	57	
62678	Intersection	Int/Urb; 3-leg signalized	HILLSBOROUGH	SRS0000101A	13.348		3.03	3.03	3.32	3.09	0.45	-	-	-	-	58	
69750	Intersection	Int/Urb; 3-leg signalized	HILLSBOROUGH	SRS0000101A	9.425		2.50	2.50	5.24	2.85	0.44	-	-	-	-	59	
41284	Intersection	Int/Urb; 3-leg signalized	HILLSBOROUGH	SRS0000101A	9.898		1.78	1.78	5.71	2.25	0.35	-	-	-	-	60	
3196	Intersection	Int/Urb; 3-leg minor-rd STOP	HILLSBOROUGH	SRS0000101A	10.184		1.96	1.96	0.75	1.78	0.25	-	-	-	-	61	
8825	Intersection	Int/Urb; 3-leg minor-rd STOP	HILLSBOROUGH	SRS0000101A	10.041		1.63	1.63	0.75	1.50	0.21	-	-	-	-	62	

ID	Site Type	Site Subtype	County	Route	Site Start Location	Site End Location	Average Observed Accidents for Entire Site*	Location with Highest Potential for Safety Improvement						Rank	Additional Windows of Interest		
								Average Observed Accidents*	Predicted Accident Frequency*	Expected Accident Frequency*	Variance**	Start Location	End Location			No. of Expected Fatalities	No. of Expected Injuries
54342	Intersection	Int/Urb; 3-leg minor-rd STOP	HILLSBOROUGH	SRS0000101A	13.564		1.47	1.47	0.62	1.32	0.18	-	-	-	-	63	
13989	Intersection	Int/Urb; 3-leg minor-rd STOP	HILLSBOROUGH	SRS0000101A	13.682		1.31	1.31	0.61	1.19	0.16	-	-	-	-	64	
12053	Intersection	Int/Urb; 3-leg minor-rd STOP	HILLSBOROUGH	SRS0000101A	12.729		1.14	1.14	0.61	1.05	0.14	-	-	-	-	65	

Total Roadway Segments Ranked = 42 out of 42 total segments in sitelist.

Total Roadway Segment Length Ranked = 4.580 out of 4.580 total segment length in sitelist.

Percentage of Roadway Segment Length Ranked = 100.0

Number of Intersections Ranked = 23 out of 42 total intersections in sitelist.

Percentage of Intersections Ranked = 54.8

Number of Ramps Ranked = 0 out of 0 total ramps in sitelist.

Percentage of Ramps Ranked = ?

\* Units for Observed, Predicted and Excess Accident Frequency

- Roadway Segments (crashes/mi/yr)
- Intersections (crashes/yr)
- Ramps (crashes/mi/yr)

\*\* Units for Variance

- Roadway Segments (crashes/mi\*\*2/yr)
- Intersections (crashes/yr)
- Ramps (crashes/mi\*\*2/yr)