



MEMORANDUM

STATE OF ALASKA

Department of Transportation and Public Facilities
Central Region-Division of Design and Engineering Services
Traffic, Safety, & Utilities Section

To: **Ken Morton, P.E.** *LM*
Regional Preconstruction Engineer

Date: November 10, 2014

Thru: *JA* **James Amundsen, P.E., Chief** Phone No.: 269-0633
Highway Design Section

From: **Scott E. Thomas, P.E.** *set* Subject: Regional HSIP Crash Review
Central Region Traffic Engineer Pedestrians 2001-2010

Use the attached crash concentration lists to guide potential pedestrian improvements.

Examine crash pre-actions, direction of travel, time of day, time of year and other crash details to determine if there are feasible and reasonable solutions. Use the following two thresholds to reevaluate crash densities as newer data becomes available:

HIGHEST CRASH AREAS - 95th percentile.

(12 crashes/quarter-mile/decade)

Evaluate cost-effective long term capital project solutions on 3R and 4R projects.

Gather pedestrian and vehicle counts, measure pedestrian gaps. Consider traffic control device changes or additions using criteria provided in the Highway Preconstruction Manual and the Alaska Traffic Manual.

AREAS OF CONCERN - 75th percentile.

(4 crashes/quarter-mile/decade)

These are areas do not have significant pedestrian improvements or restrictions in place. Evaluate which solutions are available within the scope of all projects.

Consider improving sight distance and providing guide signs or advance warning signs.

Distribution: Randy Vanderwood, P.E., Chief, Maintenance & Operations
Jennifer Witt, Chief, Planning & Administrative Services
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**Central Region DOT/PF
Pedestrian-Vehicle Crash Rankings (2002-2011)
Highest Crash Segments for Evaluation using 95thile Threshold**
Highway Safety Improvement Program (HSIP) Review

((Consider benefit/cost of capital project crossing possibilities: rerouting, medians, designated facilities, traffic control devices, grade separation, etc.))												
Sliding Spot using Baski Sorting Formula (BSF Formula) & 3+ crashes in 10 years												
1/4 Mile Window (0.25 mi: +/-660 feet or +/-2 blocks)												
										10 year totals		
			Start Crashes		End Crashes							
	CDS Route	Road Name	From MiPt	Description	To MiPt	Description	Length (mi)	Length (ft)	Total Qualifying Crashes	SORT	Crash Density/ Mi	Comments
Rank												
1	130000	SEWARD HIGHWAY	124.722	Benson Blvd	124.877	Northern Lts Blvd	0.155	818	12		77.4	
2	133900	MULDOON ROAD	2.049	200'S of Debarrr Rd	2.402	200' N of Old Harbor St	0.353	1864	26		73.7	Signal relocated to 11th 2013. Temp transit transfer site 2003.
3	133899	TUDOR ROAD	2.845	50' W of Laurel St	3.218	Piper St	0.373	1969	24		64.3	HSIP Median built 2010
4	134600	6TH AVENUE	0.240	H St	0.476	D St	0.236	1246	15		63.6	HSIP curb bulbouts
5	134200	GAMBELL STREET	0.410	9th Ave	0.751	100' E of 14th Ave	0.341	1800	20		58.7	
6	134440	5TH AVENUE	1.895	A St	2.228	60' E of F St	0.333	1758	19		57.1	
7	134100	BENSON BOULEVARD	1.716	100' E of Denali St	1.935	200' E of Seward Hwy	0.219	1156	12		54.8	
8	134300	MINNESOTA DR	6.150	31st Ave	6.380	Northern Lts Blvd	0.230	1214	12		52.2	
9	134310	SPENARD ROAD	2.111	Benson Blvd	2.370	25th Ave	0.259	1368	13		50.2	

Sites are ranked at 95thile collision frequency when 12 or more crashes per quarter mile per 10 years.

CDS Milepoints are DOT/PF linear references. Mileposts are historical markers and are not the same. See Descriptions for location.

Cost-effectiveness of mitigation strategies should be compared before selecting a solution.

This table overlaps with the data meeting the 75thile threshold.

OTHER RANKING CRITERIA	NONQUALIFYING CRITERIA
Unsignalized locations, signalized locations, roundabouts and midblock areas	No collision patterns, 2 or less crashes in 10 years
High pedestrian volume conflict areas (See ATM for volumes); typical of greenbelts, designated trail crossings, typically midblock	

NOTE:

The information in this report is compiled for highway safety planning purposes. Federal law prohibits its discovery or admissibility in litigation against state, tribal or local government that involves a location or locations mentioned in the collision data. 23 U.S.C. § 409; 23 U.S.C. § 148(g); *Walden v. DOT*, 27 P.3d 297, 304-305 (Alaska 2001).

Central Region DOT/PF

Pedestrian-Vehicle Crash Rankings (2002-2011)

High Crash Areas of Concern for Evaluation using 75%ile Thresholds

Highway Safety Improvement Program (HSIP) Review

(Consider benefit/cost of operational possibilities: signing, striping, vegetation management)

Sliding Spot using Baski Sorting Formula (BSF Formula) & 3+ crashes		Start Crashes		End Crashes		Description		Length (mi)		Length (ft)		Total Qualifying Crashes		10 year totals		Comments	
Rank	CDS Route	Road Name	From MIPT	To MIPT	Crashes	11th Ave	150' N of 42nd Ave	0.080	0.080	422	7	87.5	73.2	66.7	57.1	37.5	34.3
1	134200	GAMBELL ST	0.507	0.587	11th Ave	150' N of 42nd Ave	0.080	0.080	422	7	87.5	73.2	66.7	57.1	37.5	34.3	Recent medians, signal to north
2	134140	LAKE OTIS PARKWAY	1.705	1.746	Camelot Dr	150' N of 42nd Ave	0.080	0.080	422	7	87.5	73.2	66.7	57.1	37.5	34.3	Reconn Study in 2014
3	134700	BONIFACE PARKWAY	2.750	2.810	Camelot Dr	150' N of 42nd Ave	0.080	0.080	422	7	87.5	73.2	66.7	57.1	37.5	34.3	Reconn Study in 2014
4	133899	TUDOR ROAD	2.800	3.115	100' W of Laurel St	100' E of Wright St	0.315	0.315	1663	18	57.1	37.5	34.3	HSIP Median project built 2010			
5	134450	4TH AVENUE	1.313	1.393	Karluk St	Karluk St	0.080	0.080	423	3	37.5			Ped warning/crosswalk in place			
6	134140	LAKE OTIS PARKWAY	2.500	2.704	50' S of Tahiti St	Pago Pago St	0.204	0.204	1077	7	34.3						
7	134140	LAKE OTIS PARKWAY	2.111	2.199	Campbell Place	Campbell Place	0.088	0.088	465	3	34.1			Grade Separation Reconn complete			
8	133900	MULDOON ROAD	2.372	2.529	150' S of Old Harbor Rd	0.1 MI N of Old Harbor	0.157	0.157	829	5	31.8			HSIP Median project in Design			
9	134440	5TH AVENUE	0.936	1.076	1500 E 5th Ave	100' E of Medfra St	0.140	0.140	739	4	28.6			6 Lane, sidewalks added			
10	134500	DEBARR ROAD	2.170	2.320	426' W of Buckner Dr	100' W of Nunaka Dr	0.150	0.150	792	3	20.0			HSIP Median project built 2010			
										Total	1.3151 miles						

Sites are ranked at 75%ile collision frequency when 4 ore more crashes per quarter mile per 10 years.

CDS Milepoints are DOT/PF linear references. Mileposts are historical markers and are not the same. See Descriptions for locaton.

Cost-effectiveness of mitigation strategies should be compared before selecting a solution.

OTHER RANKING CRITERIA (Infrastructure does not exist or is permissable)	NONQUALIFYING CRITERIA (Infrastructure exists or is not permissable)
Unsignalized locations greater than 1 block from a signal.	At or near pedestrian traffic signals, within 1 block
Midblock locations greater than 1 block from a signal.	Adjacent grade separation within 1 block
Roundabout crossings ahead of Yield bars	Freeways (where pedestrians are prohibited)
High pedestrian volume conflict areas (See ATM for volumes); typical of greenbelts, designated trail crossings, typically midblock	Other roads where pedestrians are prohibited by traffic control devices or fencing
	No collision patterns in areas uninterrupted by a traffic signal, 2 or less crashes in 10 years

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