

Agency: Department of Transportation and Public Facilities**Project Title:****Project Type:** Planning and Research

Matanuska-Susitna - Knik Goosebay Road Reconstruction

State Funding Requested: \$20,000,000
 Future Funding May Be Requested

House District: Mat-Su Areawide (13-16)**Brief Project Description:**

Road improvements to address safety concerns and access along the Knik Goosebay Corridor.

Funding Plan:

Total Project Cost:	\$92,000,000
Funding Already Secured:	(\$0)
FY2013 State Funding Request:	<u>(\$20,000,000)</u>
Project Deficit:	\$72,000,000

Detailed Project Description and Justification:

Knik Goosebay (KGB) is declared a Safety Corridor: A Highway with the highest incidence of Fatal and Serious injury crashes.

KGB traverses a rapidly growing portion of the Matanuska-Susitna Valley. Commuter Traffic on KGB Road has increased dramatically from the significant growth in residential housing and business development. The area has also experienced a growth in tourisms and recreational access. Safety concerns have arisen at major intersections and for turning movements on and off the main road, as well as for non-motorized travel and off-road vehicles that use the corridor.

This Project will provide traffic and safety improvements along the corridor which is presently ranked 3rd in Alaska (#1 Seward and #2 Parks Highways).

This appropriation will be used to complete the Environmental Study, Right of Way Acquisition, Engineering, and Construction of this project.

Project Timeline:

FY2012 - project will start upon receipt of funding. Construction would take four to five years to complete.
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FY 2012 \$20,000,000

FY 2013 \$25,000,000

FY 2014 \$25,000,000

FY 2014 \$22,000,000

Entity Responsible for the Ongoing Operation and Maintenance of this Project:

Alaska Department of Transportation

Grant Recipient Contact Information:

Name:	Rob Campbell
Title:	Southcentral Regional Director
Address:	4111 Aviation Avenue Anchorage, Alaska 99519
Phone Number:	(907)269-0770
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Has this project been through a public review process at the local level and is it a community priority? ☒ Yes ☐ No



MEMORANDUM

STATE OF ALASKA

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

To: Marc Luiken, P.E., Commissioner

Date: December 2, 2010

Thru: Lance Wilber, AICP, Regional Director *LW*

From: Safety Corridor Review Team

Cindy Cashen, Administrator, Alaska Highway Safety Office, DOT/PF HQ Juneau *CC*

Captain Hans Brinke, AST HQ, Division *HB*

Jeff Jeffers, P.E., Assistant State Traffic & Safety Engineer, DOT/PF HQ Juneau *JJ*

Scott Thomas, P.E., Central Region Traffic & Safety Engineer, DOT/PF *set*

Ron Martindale, HSIP Coordinator, Central Region, DOT/PF *RM*

SUBJECT: Safety Corridors – 2010 Annual Review

Staff from DOT/PF Traffic & Safety, DPS Alaska State Troopers, and the Alaska Highway Safety Office met October 25-26, 2010 and consulted with local EMS providers¹. The purpose of this audit was to review Safety Corridor crashes, and ensure efforts are combined to reduce fatal and major injury crashes².

ACTIONS

Education: - "Roadwise", REDDI safety messages on the radio by DPS, DOT/PF Commissioners, staff

- May 20th, 2010 Channel 2 Special Report on Safety Corridors with DOT/PF, BHP, AG's office, local police, and EMS officials.
- Began monthly Radio Talk Shows with DPS and DOT/PF Commissioners.
- Roadwise courteous driving bumper stickers distributed to agencies and legislators statewide.
- Introduced both aggressive and distracted driving radio and TV ads in statewide media campaigns.
- April 30th Participated in Oprah Winfrey "No Phone Zone" national campaign against distracted driving.

Engineering: - Installed centerline, shoulder rumble strips on Safety Corridors and main highways.

- Designed project for signing headlight use, ½ mile markers, and REDDI reporting for 2011.
- Design for passing lanes and slow vehicle turnout was begun from Turnagain Pass to Anchorage
- Environmental document approved for the Parks Highway Corridor reconstruction.
- Environmental reviews underway for four lane projects - Seward Hwy and Knik-Goose Bay Road
- Planning and funding is being requested for additional projects in all the corridors.

Enforcement: - AST stationed two full time BHP troopers in Girdwood early in 2010 for the Seward Hwy.

- The BHP increased overall by 5 positions, to 27 positions. 32 is the planned staff level statewide.
- BHP reporting upgraded to track resource use in Safety Corridors
- Full time AST Detachment staff and BHP staff made a visible presence in all Safety Corridors

RESULTS

- **Serious crashes are down by 48% overall (fatal and major injury combined (F+MI)).**
- Fatal crashes are up on the Seward Highway in 2008 and 2009, like occasional years in the past. They've dropped in 2010. This is a volatile indicator due to the small numbers each year.
- Major injury crashes are down significantly based on limited dispatch information. Final crash records for 2009 and 2010 may slightly change this result as each year's final record becomes complete.
- Many factors affect the severity of a crash, including roadway geometrics and road conditions, seatbelt use, vehicle type, impairment, fatigue, aggressive driving, and emergency response abilities.

RECOMMENDATIONS

No additional public and legislative meetings were held since the previous 2009 Audit. Suggestions and ideas from the 2009 Safety Corridors Audit are still being followed for investigation. (see pages 1-21).

CURRENT SAFETY CORRIDORS PERFORMANCE (Through 9/30/10)

SEWARD HWY MP 87-117	Designated 5/26/06 Extended 10/30/07		3.0 Mi S of Girdwood to Potter Rifle Range		L=30.6 mi
	BEFORE (1/1/96-5/26/06)		AFTER		Overall*
	Crashes Per Year	Crashes/ HMVM	Crashes Per Year	Crashes/ HMVM	
Fatal Crashes F	2.0	2.1	2.8 (+36%)	2.8 (+31%)	Down in 2010
Major Injury Crashes MI	7.0	7.3	3.7 (-48%)	3.7 (-50%)	
Serious Crashes F+MI	9.0	9.4	6.4 (-29%)	6.4 (-32%)	-31%
PARKS HWY MP 44.5-53	Designated 10/16/06		Church Rd, Wasilla to LaRae Rd, Houston		L=8.5 mi
	BEFORE (1/1/96- 10/16/06)		AFTER		Overall*
	Crashes Per Year	Crashes/ HMVM	Crashes Per Year	Crashes/ HMVM	
Fatal Crashes F	1.5	3.6	1.5 (-0%)	3.2 (-10%)	
Major Injury Crashes MI	4.7	11.5	2.5 (-47%)	5.4 (53%)	
Serious Crashes F+MI	6.2	15.2	4.0 (-35%)	8.6 (-43%)	-39%
KNIK-GOOSE BAY RD MP 0.6-17.2	Designated 7/01/09		Palmer-Wasilla Hwy to Pt. MacKenzie Rd		L=16.4 mi
	BEFORE (1999-2008)		AFTER		Overall*
	Crashes Per Year	Crashes/ HMVM	Crashes Per Year	Crashes/ HMVM	
Fatal Crashes F	1.3	3.7	0 (-100%)	0 (-100%)	
Major Injury Crashes MI	4.1	11.6	0.8 (-80%)	1.8 (-84%)	
Serious Crashes F+MI	5.4	15.2	0.8 (-85%)	1.8 (-88%)	-87%
STERLING HWY MP 83-93	Designated 7/01/09		Sterling to Soldotna		L=9.8 mi
	BEFORE (1999-2008)		AFTER		Overall*
	Crashes Per Year	Crashes/ HMVM	Crashes Per Year	Crashes/ HMVM	
Fatal Crashes F	0.9	2.8	0 (-100%)	0 (-100%)	
Major Injury Crashes MI	1.8	5.6	1.6 (-11%)	4.8 (-14%)	
Serious Crashes F+MI	2.7	8.4	1.6 (-41%)	4.8 (-42%)	-42%

WEIGHTED TOTAL -48%

*Interpret results with caution. One year results are too short to be sustained, and three year results are limited. Five or more years are desirable to for a trend to be sustained.

HMVM = rate of crashes per hundred million vehicle miles of travel. Compares all roads equally.

DOT/PF & DPS
HIGHWAY SAFETY CORRIDORS
ENGINEERING PROJECTS
 (From 2006 through current plans as of 10/26/10)

KNIK-GOOSE BAY ROAD MP 0.6-17.2: PW HWY TO PT. MACKENZIE RD

AKSAS	Project	Scope	Solution	Cost	Construction Year (Est)
50951	KGB & Vine Rd Signalization GF	New Traffic Signal	Short term	\$1,335,000	2009 (Completed)
50889	KGB & Fairview Lp Signal GF	New Traffic Signal	Short Term	\$1,300,000	2009 (Completed)
51047	HSIP Central Region Rumble Strips	Hwy Safety Improvement Project: Centerline / shoulder rumble strips	Short Term	\$174,000	2010 (Completed)
59838	HSIP Small SPOT Improvements	Signing for headlights, REDDI, Mileposts	Short Term	\$55,000	2011 Construction w/NHS Delin
51896	KGB & Fern St Signal & Turn Lanes GF (\$1.2M; City \$300k) [UNDERFUNDED by \$4.6M]	Potential signal, left turn lanes, to serve Fern Street opening. CITY lead in Design, ~\$4.6 million more desired in project funding for lane extensions	Short Term	\$1,500,000	2012
53425	Safety Corridors: KGB Hwy Speed Signs GF	Dynamic speed signs, power service and pads.	Short Term	\$880,000	2013-2014
51717	KGB Widening, Centaur to Vine Environmental Study GF + FHWA (Design) [UNDERFUNDED by \$62M]	Divided 4 lane hwy. Needs Fairview Lp Rd intersection realignment. Coordination with S. Mack project.	Long Term	\$8,000,000	As funding is available
				\$13,244,000	TOTAL

Nearby project coordination:

Fairview Loop Road Rehabilitation

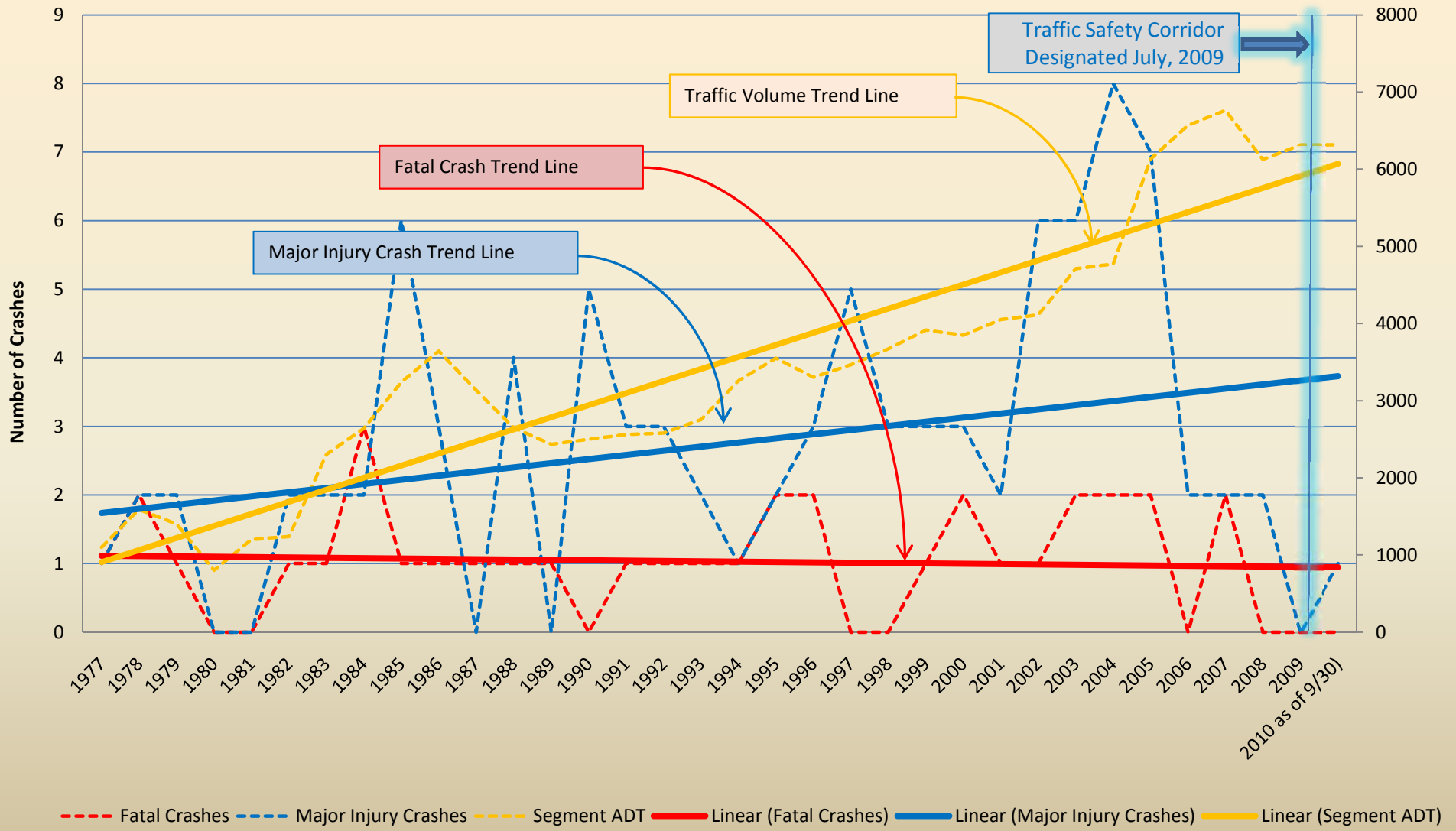
City of Wasilla: South Mack Drive Extension

City of Wasilla/Mat-Su Borough: South Fern Street Extension

Knik/Goose Bay Road: Parks Highway to Goose Bay Airport Fatal & Major Injury

Crashes: 1977-2010* (* As of 9/30/2010)

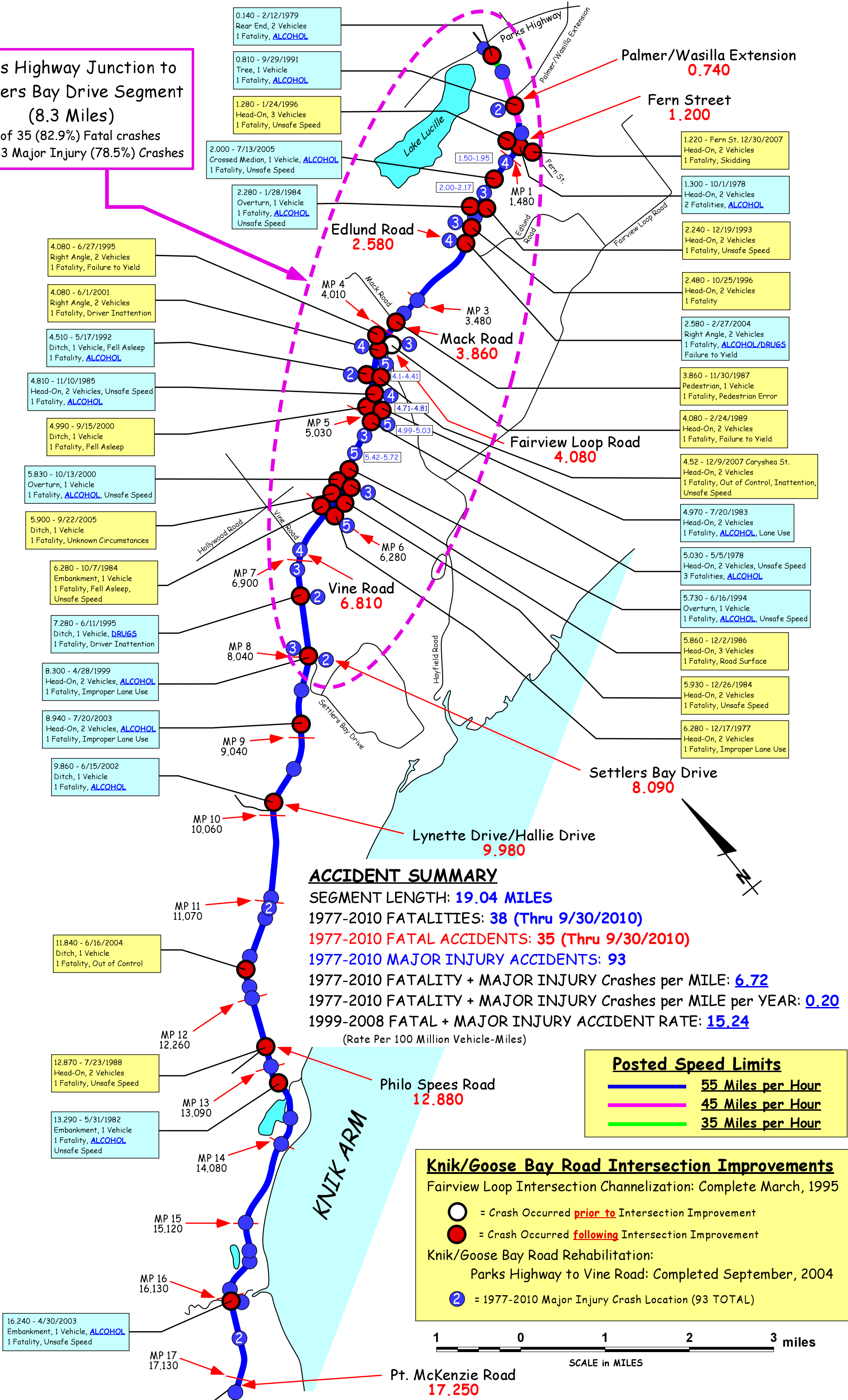
(2009-2010 major injury crashes approximate)



KNIK/GOOSE BAY ROAD: PARKS HIGHWAY TO POINT MCKENZIE ROAD
1977 - 2010* FATAL & MAJOR INJURY CRASH LOCATIONS

*Fatal & Major Injury Crashes thru 9/30/2010

Parks Highway Junction to
Settlers Bay Drive Segment
(8.3 Miles)
29 of 35 (82.9%) Fatal crashes
73 of 93 Major Injury (78.5%) Crashes



DOT/PF & DPS
HIGHWAY SAFETY CORRIDORS
ENGINEERING PROJECTS

(From 2006 through current plans as of 10/26/10)

PARKS HWY MP 44-52.5: WASILLA TO HOUSTON / BIG LAKE JCT

AKSAS	Project	Scope	Solution	Cost	Construction Year (Est)
51097	MP 44-52.3 Parks Hwy Rut Repair	M&O overlay repair Wasilla to Big Lake	Short term	\$5,483,000	2008 (Completed)
53160	Parks & Vine Signal	Traffic signal installation	Short Term	\$1,200,000	2008 (Completed)
51047	HSIP Central Region Rumble Strips	Hwy Safety Imprvmt Proj: Centerline/shoulder rumble strips	Short Term	\$89,000	2010 (Completed)
59838	HSIP Small SPOT Improvements	Signing for headlights, REDDI, Mileposts	Short Term	\$55,000	2011 Construction w/NHS Delin
51289	HSIP NHS Delineation	Curves, guardrail, roadside delineation, signing consistency on Parks, Glenn, Seward, Sterling Hwys.	Short Term	\$100,000	2011
53425	Safety Corridors GF: Parks Hwy Speed Signs, Parks and Stanley Signal	Dynamic speed signs, power service and pads; Traffic Signal installation	Short Term	\$1,940,000	2013-2014
57178	MP 44-52.3 Reconstruction [UNDERFUNDED by \$110M]	Four lane divided highway, signals	Medium Term	\$56,250,000	2014 (Phase I)
Undet.	Access Mgmt. Study & Implementations	Parks and Glenn Hwys. Develop and plan strategies for access mgmt.	Long Term	\$250,000	Undetermined (Phase I)
				\$65,367,000	TOTAL

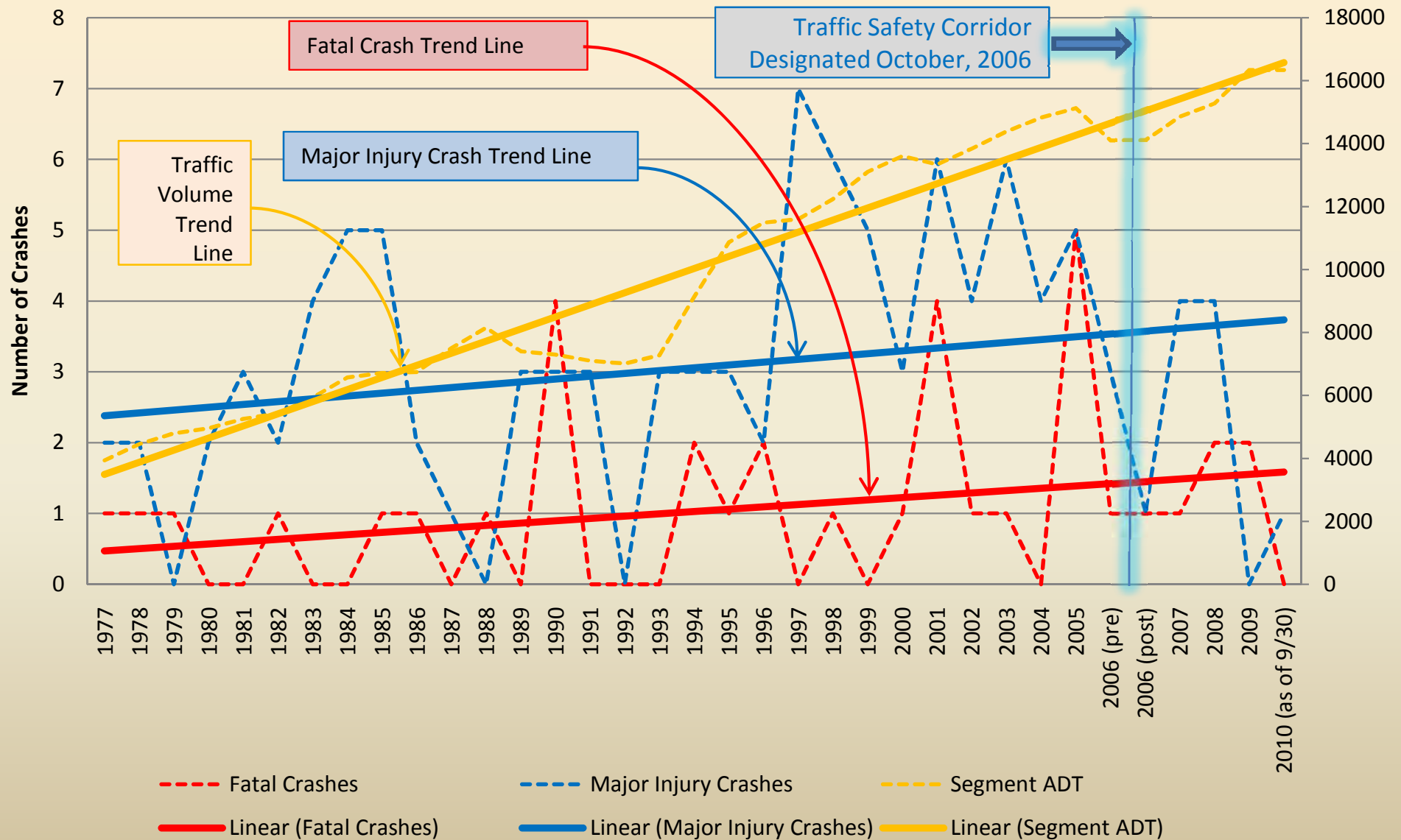
Nearby project coordination:

Mat-Su Borough: Machen Drive Extension: Church Rd to Stanley Dr

Mat-Su Borough: Museum Drive Extension

Parks Highway Traffic Safety Corridor Fatal & Major Injury Crashes: 1977-2010*

(*as of 9/30/2010) (2009-2010 major injury crashes approximate)



PARKS HIGHWAY: WASILLA TO HOUSTON 1996 - 2006* FATAL CRASH LOCATIONS - Pre

TRAFFIC SAFETY CORRIDOR DESIGNATION

(Including Major Injury Crashes)

CRASH SUMMARY (7/1996-10/16/2006)

SEGMENT LENGTH: 8.35 MILES

1996-2006 FATAL CRASHES: 16 Per YEAR: 1.48

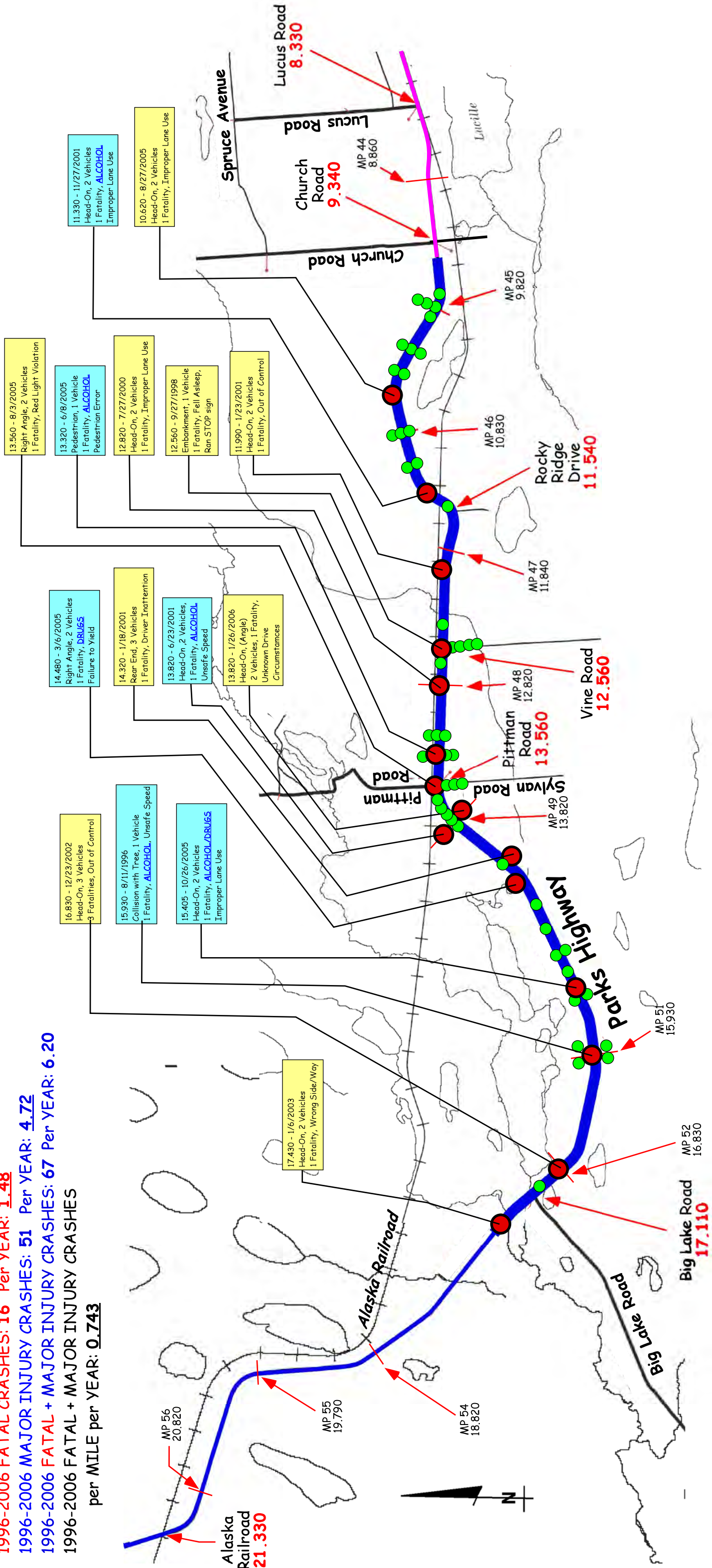
1996-2006 MAJOR INJURY CRASHES: 51 Per YEAR: 4.72

1996-2006 FATAL + MAJOR INJURY CRASHES: 67 Per YEAR: 6.20

1996-2006 FATAL + MAJOR INJURY CRASHES

per MILE per YEAR: 0.743

* Current Alignment-1996-October 16, 2006



Parks Highway Major Realignments Timeline

Milepost 44-52: Complete July, 1996

Milepost 52-57: Complete July, 1998

● = Crash Occurred **following** Highway Realignment

● = Major Injury Crash (1996-2006)

Parks Highway Speed Limits

55 Miles per Hour

Portion for Safety

Corridor Designation

45 Miles per Hour

