RAILWAY-HIGHWAY CROSSINGS PROGRAM

U.S. Department of Transportation
Federal Highway Administration

Photo source: Montana Department of Transportation

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Disclaimer

Protection of Data from Discovery Admission into Evidence

23 U.S.C. 148(h)(4) states "Notwithstanding any other provision of law, reports, surveys, schedules, lists, or data compiled or collected for any purpose relating to this section[HSIP], shall not be subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location identified or addressed in the reports, surveys, schedules, lists, or other data."

23 U.S.C. 407 states "Notwithstanding any other provision of law, reports, surveys, schedules, lists, or data compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential accident sites, hazardous roadway conditions, or railway-highway crossings, pursuant to sections 130, 144, and 148 of this title or for the purpose of developing any highway safety construction improvement project which may be implemented utilizing Federal-aid highway funds shall not be subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data."

Executive Summary

Alaska's approach to railroad safety targets effective countermeasures rather than specific emphasis areas. By systematically upgrading crossing surfaces, signals, and skew angles, crashes at railroad-highway crossings have diminished in Alaska over the past decades. In the most recent calendar year for which crash data is available, no crashes were reported at grade crossings involving vehicles and trains (2021 FRA data). Over a ten year period, Alaska rail-highway crossing train-vehicle incidents of any severity reported through FRA is 0.9 per year. Over that same ten year period, Alaska hasn't had any fatal and serious injury rail-highway incidents. We have made a concentrated effort through the HSIP to minimize rail-highway crashes.

Introduction

Title 23 of United States Code (USC) Section 130 provides funding to States annually for the elimination of hazards at railway-highway crossings. One of the requirements of 23 USC 130 is that States must submit an annual report on the progress and effectiveness of implementing the program. The report shall include, but not be limited to, the number of projects undertaken, their distribution by cost range, road system, nature of treatment, and subsequent crash experience at improved locations.

Program Structure

Reporting period for railway-highway crossing program funding.

Federal Fiscal Year

Describe how funds are distributed and administered in the State.

Approximately $1.2 million is apportioned annually for railroad-highway crossing safety improvements in Alaska under Section 130. Section 130 funds are administered centrally through the HSIP in the same manner as other funding sources.

Describe the method(s) used for project selection.

Railroad-highway grade crossing projects are selected in the same manner as other HSIP projects.

Regional Traffic and Safety personnel identify, scope, estimate, and rank candidate projects according to benefit-cost ratio (ranked projects) and candidate projects with potential for crash reduction (non-ranked projects). HQ Traffic & Safety reviews proposed new projects, works with the regions to clarify project description and scope, and submits recommended projects to the Chief Engineer for funding approval.

Describe the method(s) used to measure effectiveness (in terms of reducing fatalities and serious injuries) of the projects and program.

Alaska uses Benefit/Cost ratio as a means for prioritizing projects for funding and for evaluating program effectiveness based on before/after studies following project completion using three years of post-construction crash data.

Describe any noteworthy efforts the State has used to effectively deliver a successful program.

No response.

Describe the status of data acquisition and analysis efforts (including inventory and other efforts utilizing the two percent funding allowance)

No Section 130 funds have been utilized to develop inventory. Section 130 funds have been used to design and construct safety improvement projects.

Input the number of crossings and program emphasis areas by crossing type.

CROSSING TYPE	NUMBER OF CROSSINGS
At-Grade Active Warning Devices	82
At-Grade Passive Warning Devices	71
Grade-Separated RR Under Road	35
Grade-Separated RR Over Road	17
Non-Motorized Active Warning Devices	0
Non-Motorized Passive Warning Devices	7

The 2022 FRA crossing inventory lists two fewer Non-Motorized Active Warning Devices than the 2021 inventory. The C Street Pedestrian crossings (910373L and 910220H) were updated by AKRR in August 2022. While the physical crossings and their devices are unchanged, FRA does not include them separately from the vehicular highway crossing in the inventory at this time.

Provide the specific program emphasis area, and if necessary a discussion of significant variations from previous reports.

DOT&PF continues to emphasize projects to improve crossing surfaces, to improve/upgrade signals where present at active crossings especially with respect to preemption, and projects to systemically relocate railroad signal huts from along the roadside because they were impacting drivers' sight distance, while taking the opportunity to upgrade the signal huts at the same time.

Describe the overall Section 130 Program effectiveness, any evaluation results, and how the results are used to improve the Section 130 Program.

DOT&PF, in partnership with Alaska's two railroad organizations, uses the best judgment of its Traffic and Safety professionals to implement projects aimed at systemically reducing crash risk factors at rail-highway crossings. Alaska's low crash statistics at crossings speak to the effectiveness of our program to utilize the Sec. 130 program funds as they are intended to minimize those crash risks.

Input data on a variety of performance measures.

PERFORMANCE MEASURE	2013-2017 (5-yr avg)	2014-2018 (5-yr avg)	2015-2019 (5-yr avg)	2016-2020 (5-yr avg)	2017-2021 (5-yr avg)
Fatalities	0.00	0.00	0.00	0.00	0.00
Serious Injuries	0.00	0.00	0.00	0.00	0.00

Fatalities at Railway-Highway Crossings
5-yr avg. Performance Measure Data

	2013-2017	2014-2018	2015-2019	2016-2020	2017-2021

Years
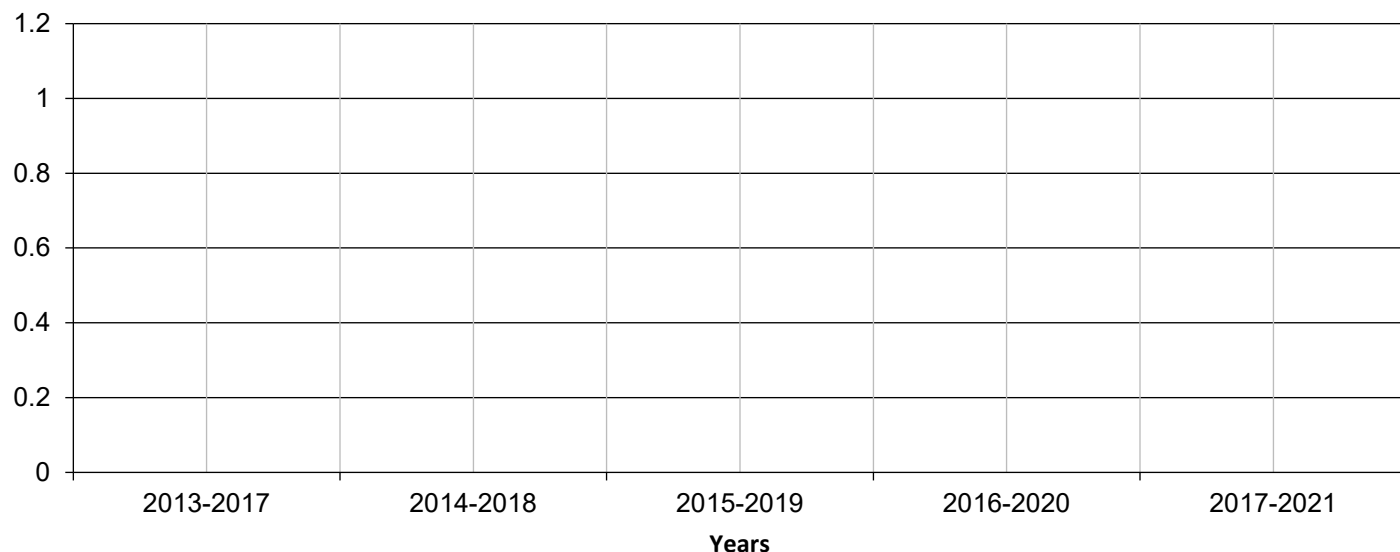
Serious Injuries at Railway-Highway Crossings
5-yr avg. Performance Measure Data

	2013-2017	2014-2018	2015-2019	2016-2020	2017-2021

Years
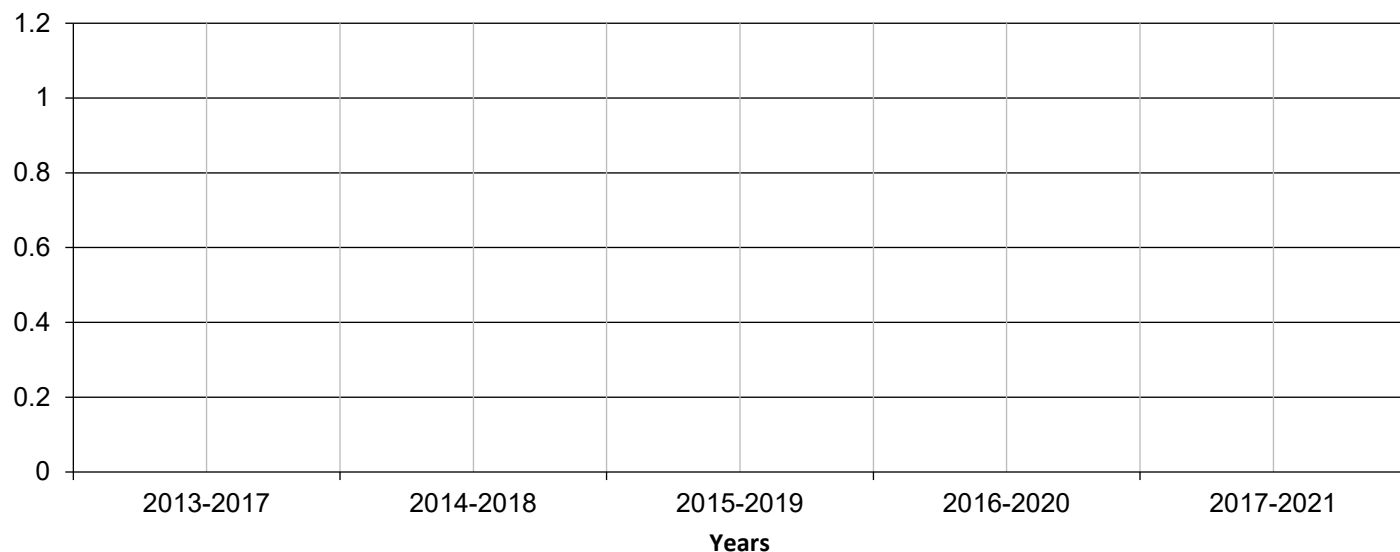
Project Metrics

List the projects obligated using RHCP funds for the reporting period.

PROJECT NUMBER	LOCATION	USDOT CROSSING NUMBER	LAND USE/AREA TYPE	FUNCTIONAL CLASS	PROJECT TYPE	CROSSING TYPE	SECTION 130 FUNDS ($)	NON-SECTION 130 FUNDING TYPE	TOTAL PROJECT COST ($)
21CN01	HSIP: MINNESOTA DR-O'MALLEY BRIDGE TRAINSMAN HANDRAIL & FENC	910219N	Urban	Principal Arterial-Other	Crossing Approach Improvements	Grade-Separated RR Over Road	364028.4	State	404476
19CN02 22CN01	HSIP: TALKEETNA SPUR RD & CHERI LAKE DR RR CROSSING IMPROVE	868341T	Rural	Major Collector	Active Grade Crossing Equipment Installation/Upgrade	At-Grade Active Warning Devices	1106460	State	1229400
22CN02	HSIP: CANTWELL RD RR CROSSING SURFACE UPGRADES	868347J	Rural	Major Collector	Crossing Approach Improvements	At-Grade Passive Warning Devices	1036790	State	1068900

Enter the crash data that is used to measure project effectiveness for both the before and after period.

PROJECT NUMBER	LOCATION	USDOT CROSSING NUMBER	LAND USE/AREA TYPE	FUNCTIONAL CLASS	PROJECT TYPE	CROSSING TYPE	SECTION 130 FUNDS ($)	NON-SECTION 130 FUNDING TYPE	TOTAL PROJECT COST ($)	BEFORE CRASH DATA (YEARS)	FATAL INJURY [K] (BEFORE)	SUSPECTED SERIOUS INJURY [A] (BEFORE)	ALL INJURY CRASHES [K + A + B + C] (BEFORE)	NO APPARENT INJURY [O] (BEFORE)	TOTAL ALL CRASHES [K + A + B + C + O + U] (BEFORE)	AFTER CRASH DATA (YEARS)	FATAL INJURY [K] (AFTER)	SUSPECTED SERIOUS INJURY [A] (AFTER)	ALL INJURY CRASHES [K + A + B + C] (AFTER)	NO APPARENT INJURY [O] (AFTER)	TOTAL ALL CRASHES [K + A + B + C + O + U] (AFTER)
13CN08	Whittier, Whittier Access Road	910368P	Rural	Minor Arterial	Active Grade Crossing Equipment Installation/Upgrade	At-Grade Active Warning Devices	133039.8	State	147822	5	0	0	0	0	0	3	0	0	0	0	0
13CN07	Seward Anchorage Portage Willow Wasilla Palmer Fairbanks North Pole Anderson Nenana	Multiple	Multiple/Varies	Multiple/Varies	Crossing Approach Improvements	At-Grade Active Warning Devices	5113818.9	State	5682021	5	0	0	1	1	2	3	0	0	0	0	0
13CN04	Anchorage, C Street Bike Path	910220H	Urban	Principal Arterial-Other	Active Grade Crossing Equipment Installation/Upgrade	Non-Motorized Active Warning Devices	455801.4	State	506446	5	0	0	0	0	0	3	0	0	0	0	0
12CN08	Palmer, Outer Springer Loop Road	868512S	Urban	Minor Collector	Crossing Approach Improvements	At-Grade Passive Warning Devices	4353.3	State	4837	5	0	0	0	0	0	3	0	0	0	0	0
12CN09	Central Region - Regionwide	Multiple	Multiple/Varies	Multiple/Varies	Crossing Warning Sign And Pavement Marking Improvements	At-Grade Passive Warning Devices	327718.8	State	364132	5	1	0	8	6	15	3	0	0	0	2	2
11CN01	Kenai Peninsula Borough,	Multiple	Multiple/Varies	Multiple/Varies	Active Grade Crossing Equipment	At-Grade Active Warning Devices	292016.7	State	324463	5	0	0	2	2	4	3	0	0	0	2	2

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	Municipality of Anchorage, Mat-Su Borough, etc				Installation/Upgrade																
11CN02	Moose Pass, Seward Highway Willow, Willow Fishhook Rd Parks Highway	Multiple	Multiple/Varies	Multiple/Varies	Crossing Approach Improvements	At-Grade Active Warning Devices	352656.9	State	391841	5	0	0	0	0	0	3	0	0	0	0	0
08CN02 03CN06	Willow, Willow Station Road Willow Fishbook Rd Parking Highway, etc	Multiple	Multiple/Varies	Multiple/Varies	Active Grade Crossing Equipment Installation/Upgrade	At-Grade Active Warning Devices	2427387.3	State	2697097	5	0	0	0	0	0	3	0	0	0	0	0
06CN02	Seward, Stoney Creek Avenue	868231H	Rural	Local Road or Street	Active Grade Crossing Equipment Installation/Upgrade	At-Grade Passive Warning Devices	418950	State	465500	5	0	0	0	0	0	3	0	0	0	0	0
05CN03	Wasilla, Glenn Highway	868311B	Rural	Principal Arterial-Interstate	Active Grade Crossing Equipment Installation/Upgrade	At-Grade Passive Warning Devices	252819.9	State	280911	5	0	0	0	0	0	3	0	0	0	0	0

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04CN04	Central Region - Regionwide	Multiple	Multiple/Varies	Multiple/Varies	Crossing Warning Sign And Pavement Marking Improvements	At-Grade Passive Warning Devices	369000	State	410000	5	0	0	6	4	10	3	0	0	0	1	1
03CN01	Central Region - Regionwide	Multiple	Multiple/Varies	Multiple/Varies	Crossing Warning Sign And Pavement Marking Improvements	At-Grade Passive Warning Devices	576000	State	640000	5	0	0	6	4	10	3	0	0	0	1	1
03CN02 03CN02 ALT	Wasilla, Knik Goose Bay Rd Hallea Lane Anchorage, North Cordova Street North Ingram Street, etc	Multiple	Multiple/Varies	Multiple/Varies	Active Grade Crossing Equipment Installation/Upgrade	At-Grade Active Warning Devices	823831.2	State	915368	5	0	0	1	1	2	3	0	0	0	1	1
01CR14	Anchorage, Potter Rifle Range Houston, Cheri Lake Road Willow, Hidden Hills Road Anchorage, etc	Multiple	Multiple/Varies	Multiple/Varies	Active Grade Crossing Equipment Installation/Upgrade	At-Grade Passive Warning Devices	907200	State	1008000	5	0	0	1	1	2	3	0	0	0	0	0

The process DOT&PF uses to evaluate all HSIP projects is outlined in Alaska's HSIP Handbook.

Optional Attachments

Program Structure
L_8-31-22 RHCP Ann Report Cover.pdf

Project Metrics
RR Crash Data From FRA through 2021.docx

Glossary

5 year rolling average: means the average of five individuals, consecutive annual points of data (e.g. annual fatality rate).

Emphasis area: means a highway safety priority in a State's SHSP, identified through a data-driven, collaborative process.

HMVMT: means hundred million vehicle miles traveled.

Performance measure: means indicators that enable decision-makers and other stakeholders to monitor changes in system condition and performance against established visions, goals, and objectives.

Transfer: means, in accordance with provisions of 23 U.S.C. 126, a State may transfer from an apportionment under section 104(b) not to exceed 50 percent of the amount apportioned for the fiscal year to any other apportionment of the State under that section.