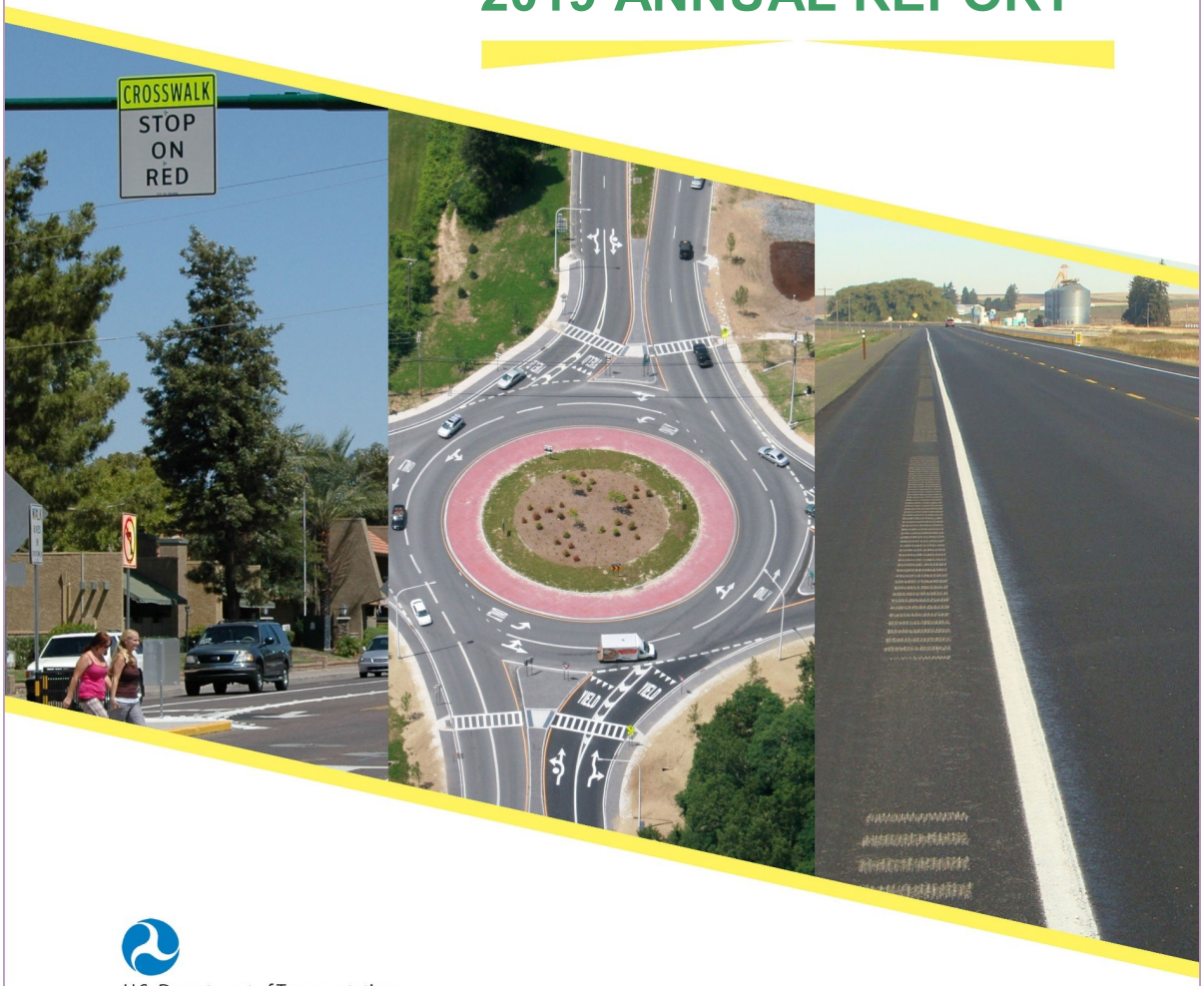
KENTUCKY

HIGHWAY SAFETY IMPROVEMENT PROGRAM

2019 ANNUAL REPORT



U.S. Department of Transportation
Federal Highway Administration

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Table of Contents

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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. 409 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

Kentucky's HSIP funds are administered from the Division of Traffic Operations in KYTC's Central Office. Each Highway District has an HSIP Coordinator that acts as a liaison between, and works closely with, Central Office HSIP staff and District staff to organize project team meetings, deliver required project documentation, and conduct a Road Safety Audit (RSA) on potential improvement locations. The RSA teams are multi-disciplinary and represent the following highway functions; planning, highway design, traffic operations, maintenance, and construction. The Cabinet also requests that members from local Area Development Districts (ADDs) and local enforcement agencies participate in the process. Highway Districts are encouraged to submit candidate projects after completing all established guidelines for funding consideration. Funding levels to date have been sufficient to implement projects submitted that meet the eligibility guidelines for the program.

The program methodology used by the Transportation Cabinet during the time period of this report was generally the same as in the previous years. With completion of the document titled, "Kentucky Roadway Departure Safety Implementation Plan" in July 2010, there has been significant reliance on the recommended approach to supplement the traditional process directed to high-crash locations with systemic application of low-cost, cost-effective countermeasures. More specifically, the systemic approach could be characterized as the reverse of the traditional approach in that low-cost, effective countermeasures are first identified and then the crash database is queried to prioritize highway sections that have targeted crashes at or above a crash threshold that would ensure cost-effective deployment of these countermeasures.

The HSIP supports Kentucky's Strategic Highway Safety Plan (SHSP) and its vision of Toward Zero Deaths. The mission of the SHSP is, "to reduce Kentucky's highway fatalities and injuries." In conformance with program guidelines, the HSIP seeks to adhere to the SHSP through a data-driven approach for funding safety improvements.

Effectiveness evaluations were performed and benefit/costs were calculated, with results presented for the following 3 types of systemic improvements:

CABLE MEDIAN BARRIERS

Wilcoxon Signed-Rank Test for "before and after shift in proportions of cross-median or impacted object in median crashes" - significant reduction at 99% confidence level.

Empirical Bayes analysis of "before and after cross-median crashes" was not performed on cable median barrier crashes because the necessary safety performance function was not available.

Benefit/Cost analysis results using observed crashes; 4.54:1 based on Comprehensive Cost of motor vehicle collisions (National Safety Council).

HIGH-FRICTION SURFACE TREATMENTS

Wilcoxon Signed-Rank Test for "before and after shift in proportions of wet-weather lane departure crashes" - significant reduction at 95% confidence level.

Empirical Bayes analysis of "before and after wet-weather lane departure crashes" results indicated the change in crashes (effect of the treatment) was significant at the 95% confidence level.

Benefit/Cost analysis results using expected crashes from empirical Bayes analysis; 33.31:1 based on Comprehensive Cost of motor vehicle collisions (National Safety Council).

EGDELINE ONLY STRIPING

Wilcoxon Signed-Rank Test was not performed for Edgeline Only Striping

Empirical Bayes analysis of Edgeline Only Striping was not performed because the necessary safety performance function was not available.

Benefit/Cost analysis results using expected crashes from empirical Bayes analysis; 5.05:1 based on Comprehensive Cost of motor vehicle collisions (National Safety Council).

Introduction

The Highway Safety Improvement Program (HSIP) is a core Federal-aid program with the purpose of achieving a significant reduction in fatalities and serious injuries on all public roads. As per 23 U.S.C. 148(h) and 23 CFR 924.15, States are required to report annually on the progress being made to advance HSIP implementation and evaluation efforts. The format of this report is consistent with the HSIP Reporting Guidance dated December 29, 2016 and consists of five sections: program structure, progress in implementing highway safety improvement projects, progress in achieving safety outcomes and performance targets, effectiveness of the improvements and compliance assessment.

Program Structure

Program Administration

Describe the general structure of the HSIP in the State.

Kentucky's HSIP funds are administered by the Division of Traffic Operations in KYTC's Central Office. Projects are prioritized and selected through network screening utilizing crash analysis performed by the Kentucky Transportation Center (KTC) at the University of Kentucky and/or risk assessment utilizing Road Safety Audits (RSAs) performed by District personnel. Each of the twelve Highway District has an HSIP Coordinator that works closely with Central Office and District Personnel. Project Development is achieved either in conjunction with in-house staff at the District level or by engineering consultants who have been selected for their knowledge, skills, and abilities in developing HSIP projects. HSIP projects are let through the Division of Construction Procurement; implementation and inspection of projects occurs through the District Construction staff. Evaluation is performed through a formal partnership with KTC.

Where is HSIP staff located within the State DOT?

Operations

Traffic Operations

How are HSIP funds allocated in a State?

- SHSP Emphasis Area Data

The Governor's Office of Highway Safety is the lead agency for the development of the SHSP. Efforts have been made to use data-driven analysis to identify appropriate emphasis areas to affect highway safety. The "Roadway Departure" and "Intersections" emphasis areas are the primary focus for HSIP infrastructure-related projects.

Describe how local and tribal roads are addressed as part of HSIP.

The Safety Circuit Rider program continues to function as the primary means of identifying and implementing projects on local roads through the HSIP. The focus of this program is to provide technical assistance to improve safety on local roads and streets. While the free technical advice offered by the Safety Circuit Rider is available to every community across the Commonwealth, the program selects six counties with high crash rates on an annual cycle for focused training covering low-cost safety improvements. The 2019 selected counties are Barren, Gallatin, Knox, McCracken, Meade, and Shelby. Typical improvements in these counties

were clearing and correcting water runoff and drainage, repairing shoulder drop off and width, removing fixed objects such as trees and stumps, and clearing vegetation around signs and intersections. Additionally, each county is provided with funds for signing. Aside from these targeted counties, the Safety Circuit Rider Program provides a one day training course designed to provide communities with practical and effective ways to mainstream safety into their day-to-day activities and project development process. This course is offered for free at selected areas throughout Kentucky.

Please note that the Road Departure and High Friction Surface Treatment screenings include Minor Collectors and above for local roads. Furthermore, the Intersection database used for screening for the Intersection initiative includes all intersections in the state, including Local Road/Local Road intersections. If any local road screens high enough to be considered for a project the HSIP and LTAP work with local governments to implement projects.

In addition, HSIP has begun exploring local partnership with the Louisville/Jefferson County Metro Government, as well as individual counties.

Lastly, Kentucky is part of FHWA's Local Road Safety Plan Pilot 2 initiative. Three counties are currently in the pilot: Boone, Boyle, and Crittenden Counties. The pilot is being used to determine the framework for KYTC to move forward with development of LRSPs for additional counties in the upcoming years.

Identify which internal partners (e.g., State departments of transportation (DOTs) Bureaus, Divisions) are involved with HSIP planning.

- Design
- Districts/Regions
- Governors Highway Safety Office
- Maintenance
- Operations
- Planning
- Traffic Engineering/Safety

Describe coordination with internal partners.

Kentucky's HSIP funds are administered by the Division of Traffic Operations in KYTC's Central Office. The planning and project development processes involve collaboration with internal partners in the Divisions of Planning, Design, Traffic Operations, and Maintenance, as warranted by subject matter. The implementation process is performed in collaboration with the Divisions of Construction Procurement and Construction. Open communication is maintained with all internal partners to develop collaborative solutions on all HSIP endeavors. As an example of this open communication, HSIP staff coordinates closely with the Division of Maintenance to look for opportunities to bundle HSIP funded improvement projects with Maintenance funded resurfacing projects.

HSIP projects are selected and prioritized based on their correlation with Kentucky's Strategic Highway Safety Plan. There are presently 11 emphasis areas within the SHSP and efforts are made to implement projects consistent with the goals and objectives of the SHSP.

Identify which external partners are involved with HSIP planning.

- Academia/University
- FHWA
- Local Government Agency
- Local Technical Assistance Program

- Regional Planning Organizations (e.g. MPOs, RPOs, COGs)
- Other-Kentucky Transportation Center

Describe coordination with external partners.

KTC is housed within the University of Kentucky and assists in the performance of data analytics for KYTC HSIP.

FHWA representatives collaborates with the administration of Kentucky's HSIP.

Metropolitan Planning Organizations (MPOs) provide feedback during project identification and modify their Transportation Improvement Plans (TIPs) when applicable.

The University of Kentucky's Local Technical Assistance Program (LTAP) assists in administering the Safety Circuit Rider Program, as well as performing the safety analysis for prioritizing the six targeted counties subject to the Safety Circuit Rider Program and performing the subsequent RSAs. In addition, KTC & LTAP both provide training resources and programs for the Cabinet through the HSIP. A new initiative being led by LTAP is the development of three pilot Local Road Safety Plans for the counties of Boone, Boyle, and Crittenden. An important goal of the pilot is to develop the framework so additional LRSPs can be developed for many more counties in the upcoming years.

Program Methodology

Does the State have an HSIP manual or similar that clearly describes HSIP planning, implementation and evaluation processes?

Yes
FileName:
HSIP FAST Act Investment Plan with Memo to FHWA.pdf

Select the programs that are administered under the HSIP.

- Intersection
- Low-Cost Spot Improvements
- Median Barrier
- Roadway Departure
- Shoulder Improvement
- Sign Replacement And Improvement
- Skid Hazard

Program: Intersection

Date of Program Methodology:3/27/2017

What is the justification for this program?

- Addresses SHSP priority or emphasis area

What is the funding approach for this program?

Funding set-aside

What data types were used in the program methodology?

Crashes	Exposure	Roadway
All crashes Fatal and serious injury crashes only	Traffic Volume	Functional classification

What project identification methodology was used for this program?

- Excess expected crash frequency using SPFs
- Excess expected crash frequency with the EB adjustment

Are local roads (non-state owned and operated) included or addressed in this program?

Yes

Are local road projects identified using the same methodology as state roads?

Yes

How are projects under this program advanced for implementation?

- Other-Prioritized list

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Rank of Priority Consideration

Available funding:2
Ranking based on net benefit:1

Program: Low-Cost Spot Improvements

Date of Program Methodology:3/27/2017

What is the justification for this program?

- Addresses SHSP priority or emphasis area

What is the funding approach for this program?

Funding set-aside

What data types were used in the program methodology?

Crashes	Exposure	Roadway
Other-Potential	Other-Potential	Other-Potential

What project identification methodology was used for this program?

- Other-Potential

Are local roads (non-state owned and operated) included or addressed in this program?

No

Are local road projects identified using the same methodology as state roads?

How are projects under this program advanced for implementation?

- selection committee

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Rank of Priority Consideration

Available funding:1

Program: Median Barrier

Date of Program Methodology:3/27/2017

What is the justification for this program?

- Addresses SHSP priority or emphasis area

What is the funding approach for this program?

Funding set-aside

What data types were used in the program methodology?

Crashes	Exposure	Roadway
All crashes Fatal and serious injury crashes only	Volume	Median width Functional classification Roadside features

What project identification methodology was used for this program?

- Excess expected crash frequency using SPFs
- Excess expected crash frequency with the EB adjustment

Are local roads (non-state owned and operated) included or addressed in this program?

No

Are local road projects identified using the same methodology as state roads?

How are projects under this program advanced for implementation?

- selection committee

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Rank of Priority Consideration

Available funding:2
Ranking based on net benefit:1

Program: Roadway Departure

Date of Program Methodology:3/27/2017

What is the justification for this program?

- Addresses SHSP priority or emphasis area

What is the funding approach for this program?

Funding set-aside

What data types were used in the program methodology?

Crashes	Exposure	Roadway
All crashes Fatal and serious injury crashes only	Volume	Functional classification

What project identification methodology was used for this program?

- Excess expected crash frequency using SPFs
- Excess expected crash frequency with the EB adjustment

Are local roads (non-state owned and operated) included or addressed in this program?

No

Are local road projects identified using the same methodology as state roads?

How are projects under this program advanced for implementation?

- Other-Prioritized list

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Rank of Priority Consideration

Available funding:2
Ranking based on net benefit:1

Program: Shoulder Improvement

Date of Program Methodology:3/27/2017

What is the justification for this program?

- Addresses SHSP priority or emphasis area

What is the funding approach for this program?

Funding set-aside

What data types were used in the program methodology?

Crashes	Exposure	Roadway
		Roadside features

What project identification methodology was used for this program?

- Other-Systematic Improvement

Are local roads (non-state owned and operated) included or addressed in this program?

No

Are local road projects identified using the same methodology as state roads?

How are projects under this program advanced for implementation?

- selection committee

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Rank of Priority Consideration

Available funding:1

Program: Sign Replacement And Improvement

Date of Program Methodology:3/27/2017

What is the justification for this program?

- Addresses SHSP priority or emphasis area

What is the funding approach for this program?

Funding set-aside

What data types were used in the program methodology?

Crashes	Exposure	Roadway
All crashes	Volume	Horizontal curvature Functional classification

What project identification methodology was used for this program?

- Crash frequency
- Excess proportions of specific crash types
- Probability of specific crash types

Are local roads (non-state owned and operated) included or addressed in this program?

Yes

Are local road projects identified using the same methodology as state roads?

No

Describe the methodology used to identify local road projects as part of this program.

Sign Replacement and Improvement on locally owned roads are handled through the Safety Circuit Rider Program

How are projects under this program advanced for implementation?

- Other-Prioritized list

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Rank of Priority Consideration

Available funding:2
Ranking based on net benefit:1

Program: Skid Hazard

Date of Program Methodology:3/27/2017

What is the justification for this program?

- Addresses SHSP priority or emphasis area

What is the funding approach for this program?

Funding set-aside

What data types were used in the program methodology?

Crashes	Exposure	Roadway
All crashes Fatal and serious injury crashes only	Volume	Horizontal curvature Functional classification

What project identification methodology was used for this program?

- Excess expected crash frequency using SPFs
- Excess expected crash frequency with the EB adjustment

Are local roads (non-state owned and operated) included or addressed in this program?

No

Are local road projects identified using the same methodology as state roads?

How are projects under this program advanced for implementation?

- Other-Prioritized list based on EB

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must

equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Rank of Priority Consideration

Available funding:2
Ranking based on net benefit:1

What percentage of HSIP funds address systemic improvements?

50

HSIP funds are used to address which of the following systemic improvements?

- Cable Median Barriers
- Clear Zone Improvements
- Horizontal curve signs
- Install/Improve Signing
- Upgrade Guard Rails

What process is used to identify potential countermeasures?

- Data-driven safety analysis tools (HSM, CMF Clearinghouse, SafetyAnalyst, usRAP)
- Engineering Study
- Road Safety Assessment
- SHSP/Local road safety plan
- Stakeholder input

The HSIP is currently developing a Road Safety Plan for the Louisville Metro area. The plan will include all roads, except for interstates, in Jefferson County. The process that the Metro Road Safety Plan will utilize includes data-driven safety tools and other methods used for countermeasure identification at the State level.

Does the State HSIP consider connected vehicles and ITS technologies?

Yes

Describe how the State HSIP considers connected vehicles and ITS technologies.

The KYTC HSIP is exploring the potential benefits of connected vehicles and ITS technologies in regards to the goals of the SHSP. Although the HSIP has not dedicated funding directly to this area, the HSIP has representation on the internal workgroup on connected & autonomous vehicles (CAV) and has worked in conjunction with the State Highway Engineer's office to let projects to install DSRC units along targeted corridors.

Does the State use the Highway Safety Manual to support HSIP efforts?

Yes

Please describe how the State uses the HSM to support HSIP efforts.

KYTC HSIP has worked with the Kentucky Transportation Center to improve the data analytics process utilizing the procedures and information found in the HSM. Specifically, KTC incorporates network screening

techniques from Section B of the HSM and develops Safety Performance Functions (SPFs) to identify locations most likely to see a safety benefit. In addition, HSM Part C methods are used for evaluation and benefit-cost analysis of safety improvements.

Describe other aspects of the HSIP methodology on which the State would like to elaborate.

In 2015 Kentucky's HSIP, through partnership with KTC, developed an Intersection Database. This database allowed the HSIP to perform network screening and implement the Intersection Emphasis Initiative. Each year a list of 4-7 intersections are identified in each of KY's 12 Districts and then a safety study at each identified intersection is performed. Potential improvement options are determined and evaluated. A variety of countermeasures are selected and implemented through a construction project. Common countermeasures include: Retroreflective Backplates, Flashing Yellow Arrow, ICWS, Turn Lane Additions or Extensions, Access Management, Signing & Marking Enhancements, etc. Further, Kentucky's HSIP continues to identify and develop projects to implement Restricted Crossing U-Turn (RCUT) intersections. Two RCUTs have been constructed, two are currently under construction, and over a dozen are currently in the project development process. Lastly, the intersection database has been utilized to determine locations where mini roundabouts appear to be a viable solution. Currently, multiple locations are undergoing preliminary engineering analysis to determine the feasibility of a mini roundabout.

Project Implementation

Funds Programmed

Reporting period for HSIP funding.

State Fiscal Year

Enter the programmed and obligated funding for each applicable funding category.

FUNDING CATEGORY	PROGRAMMED	OBLIGATED	% OBLIGATED/PROGRAMMED
HSIP (23 U.S.C. 148)	$41,600,000	$50,460,836	121.3%
HRRR Special Rule (23 U.S.C. 148(g)(1))	$2,879,986	$2,879,986	100%
Penalty Funds (23 U.S.C. 154)	$0	$0	0%
Penalty Funds (23 U.S.C. 164)	$0	$0	0%
RHCP (for HSIP purposes) (23 U.S.C. 130(e)(2))	$0	$0	0%
Other Federal-aid Funds (i.e. STBG, NHPP)	$0	$0	0%
State and Local Funds	$0	$0	0%
Totals	$44,479,986	$53,340,822	119.92%

$57,011,938.70 were obligated for Advance Construction funds during the FY.

How much funding is programmed to local (non-state owned and operated) or tribal safety projects?

$2,044,764

How much funding is obligated to local or tribal safety projects?

$2,044,764

How much funding is programmed to non-infrastructure safety projects?

$3,747,962

How much funding is obligated to non-infrastructure safety projects?

$3,747,962

How much funding was transferred in to the HSIP from other core program areas during the reporting period under 23 U.S.C. 126?

0%

How much funding was transferred out of the HSIP to other core program areas during the reporting period under 23 U.S.C. 126?

0%

Discuss impediments to obligating HSIP funds and plans to overcome this challenge in the future.

In previous HSIP Annual Reports it was noted there was surplus of HSIP funds that had not been obligated. Through aggressive implementation of the HSIP Investment Plan the program has progressed toward full annual obligation of HSIP funds over the reporting period.

General Listing of Projects

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

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
ADDING NEW TURN LANES, IMPROVING EXISTING TURN LANES, AND SIGNAL IMPROVEMENTS ALONG US 68 FROM MP 3.5 TO 4.9. (2018BOP)	Intersection geometry	Auxiliary lanes - add right-turn lane	1.4	Miles	$10000	$10000	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	18,467	45	State Highway Agency	Spot	Intersections	
ADDING NEW TURN LANES, IMPROVING EXISTING TURN LANES, AND SIGNAL IMPROVEMENTS ALONG US 68 FROM MP 3.5 TO 4.9. (2018BOP)	Intersection geometry	Auxiliary lanes - add right-turn lane	1.4	Miles	$120938	$120938	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	18,467	45	State Highway Agency	Spot	Intersections	
ADDING NEW TURN LANES, IMPROVING EXISTING TURN LANES, AND SIGNAL IMPROVEMENTS ALONG US 68 FROM MP 3.5 TO 4.9. (2018BOP)	Intersection geometry	Auxiliary lanes - add right-turn lane	1.4	Miles	$480000	$480000	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	18,467	45	State Highway Agency	Spot	Intersections	
CONSTRUCTION OF A J-TURN AT THE INTERSECTION OF US 45 AND KY 408. (2018BOP)	Intersection geometry	Intersection geometry - other	1	Intersections	$175000	$175000	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	13,483	55	State Highway Agency	Spot	Intersections	
CONSTRUCTION OF A J-TURN AT THE INTERSECTION OF US 68 AND KY 73.	Intersection geometry	Intersection geometry - other	1	Intersections	$100000	$100000	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	12,083	65	State Highway Agency	Spot	Intersections	
CONSTRUCTION OF J-TURN AT THE	Intersection geometry	Intersection geometry - other	1	Intersections	$100000	$100000	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	19,421	55	State Highway Agency	Spot	Intersections	

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
INTERSECTION OF KY 80 AND KY 1535. (2018BOP)															
CONSTRUCTION OF J-TURN AT THE INTERSECTION OF KY 80 AND KY 1535. (2018BOP)	Intersection geometry	Intersection geometry - other	1	Intersections	$277508	$277508	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	19,421	55	State Highway Agency	Spot	Intersections	
CONSTRUCTION OF J-TURN AT THE INTERSECTION OF KY 80 AND KY 1535. (2018BOP)	Intersection geometry	Intersection geometry - other	1	Intersections	$935000	$935000	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	19,421	55	State Highway Agency	Spot	Intersections	
CORRECT DRAINAGE ISSUE ALONG NB I-65. (2018BOP)	Roadside	Drainage improvements	13.711	Miles	$112000	$112000	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Interstate	49,388	70	State Highway Agency	Spot	Roadway Departure	
CORRECT DROP OFFS, IMPROVE DITCHING, REMOVE TREES IN CLEAR ZONE AND INSTALL HFS FROM MP 1.7 TO MP 2.25 ON KY 1829 IN KENTON COUNTY.	Roadside	Roadside grading	0.55	Miles	$30000	$30000	HSIP (23 U.S.C. 148)	Urban	Major Collector	5,206	45	State Highway Agency	Spot	Roadway Departure	
CURVE REVISION ON KY 979 FROM KY 122 (MP 0.00) TO CR 1184 (MP 0.25). (2012BOP)	Alignment	Horizontal curve realignment	0.25	Curves	$119330	$119330	HSIP (23 U.S.C. 148)	Rural	Major Collector	1,003	55	State Highway Agency	Spot	Roadway Departure	
CURVE REVISION ON KY 979 FROM KY 122 (MP 0.00) TO CR 1184 (MP 0.25). (2012BOP)	Alignment	Horizontal curve realignment	0.25	Curves	$407000	$407000	HSIP (23 U.S.C. 148)	Rural	Major Collector	1,003	55	State Highway Agency	Spot	Roadway Departure	
DEVELOPMENT OF A "LOCAL ROADS SAFETY PLAN' TO PROVIDE A FRAMEWORK FOR ORGANIZING STAKEHOLDERS, IDENTIFYING,	Non-infrastructure	Transportation safety planning		Data	$125000	$125000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Data	

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
ANALYZING, AND PRIORITIZING ROADWAY SAFET															
EXTEND 4 REINFORCED CONCRETE BOX CULVERTS ALONG KY 80. (2018BOP)	Roadside	Drainage improvements	4	Locations	$15000	$15000	HSIP (23 U.S.C. 148)	Rural	Major Collector	1,330	55	State Highway Agency	Spot	Roadway Departure	
EXTEND THE DUAL LEFT TURN LANE ALONG NORTHBOUND US 23. (2018BOP)	Roadway	Roadway widening - add lane(s) along segment	16	Miles	$25000	$25000	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	21,458	55	State Highway Agency	Spot	Intersections	
FLATTEN SLOPES, WIDEN CURVES, UPGRADE GUARDRAIL END TREATMENTS, AND EXTEND CULVERT.	Roadside	Barrier- metal	14.29	Curves	$115101	$115101	HSIP (23 U.S.C. 148)	Rural	Local Road or Street	1,313	35	State Highway Agency	Spot	Roadway Departure	
FLATTEN SLOPES, WIDEN CURVES, UPGRADE GUARDRAIL END TREATMENTS, AND EXTEND CULVERT.	Roadside	Barrier- metal	14.29	Curves	$10000	$10000	HSIP (23 U.S.C. 148)	Rural	Local Road or Street	1,313	35	State Highway Agency	Spot	Roadway Departure	
FLATTEN SLOPES, WIDEN CURVES, UPGRADE GUARDRAIL END TREATMENTS, AND EXTEND CULVERT.	Roadside	Barrier- metal	14.29	Curves	$586000	$586000	HSIP (23 U.S.C. 148)	Rural	Local Road or Street	1,313	35	State Highway Agency	Spot	Roadway Departure	
HIGH FRICTION SURFACE TREATMENT ON CR 1215 FROM MP 0.10 TO MP 0.60 IN DAVIESS COUNTY.	Roadway	Pavement surface - high friction surface	0.5	Miles	$9000	$9000	HSIP (23 U.S.C. 148)	Urban	Major Collector	5,161	35	State Highway Agency	Spot	Roadway Departure	
HIGH FRICTION SURFACE TREATMENT ON	Roadway	Pavement surface - high friction surface	1.119	Miles	$97000	$97000	HSIP (23 U.S.C. 148)	Rural	Major Collector	4,002	55	State Highway Agency	Spot	Roadway Departure	

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
KY 44 FROM MP 8.166 TO MP 9.285. (2018BOP)															
HORIZONTAL ALIGNMENT SIGNING ON VARIOUS ROUTES IN DISTRICT 8.	Roadway signs and traffic control	Curve-related warning signs and flashers		Signs	$77300	$77300	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Roadway Departure	
HORIZONTAL CURVE BALL-BANK DATA COLLECTION ON STATE-MAINTAINED ROUTES. (2016BOP)	Non-infrastructure	Data/traffic records		Data	$1115000	$1115000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Data	
IMPLEMENTATION OF THE FY 2020 STATEWIDE PLANNING PROGRAM.	Non-infrastructure	Transportation safety planning		Data	$500000	$500000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Data	
IMPROVE ALIGNMENT AND SIGHT DISTANCE AT THE INTERSECTION OF KY 830 & US 25. (2018BOP)	Intersection geometry	Intersection geometry - other	1	Intersections	$10000	$10000	HSIP (23 U.S.C. 148)	Urban	Minor Collector	1,048	35	State Highway Agency	Spot	Intersections	
IMPROVE ALIGNMENT AT THE INTERSECTION OF KY80, KY379, & KY 3017. (2018BOP)	Intersection geometry	Intersection geometry - other	1	Intersections	$55000	$55000	HSIP (23 U.S.C. 148)	Rural	Major Collector	9,024	45	State Highway Agency	Spot	Intersections	
IMPROVE PAVEMENT FRICTION ON US 23 BETWEEN US 119 AND THE VIRGINIA STATE LINE BY MILLING AND OVERLAYING A 1.5" SURFACE COURSE USING A POLISH RESISTANT	Roadway	Pavement surface - high friction surface	1.2	Miles	$25000	$25000	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	6,347	55	State Highway Agency	Spot	Roadway Departure	

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
IMPROVE SUPERELEVATION, ADD EMBANKMENT, IMPROVE SIGHT DISTANCE, AND REMOVE ROADSIDE HAZARDS ON KY 169 FROM KY 1267 (MP 16.685) TO JESSAMINE-WOODFORD C	Roadside	Roadside - other	2.495	Miles	$368000	$368000	HSIP (23 U.S.C. 148)	Rural	Major Collector	3,206	55	State Highway Agency	Spot	Roadway Departure	
IMPROVE SUPERELEVATION, ADD EMBANKMENT, IMPROVE SIGHT DISTANCE, AND REMOVE ROADSIDE HAZARDS ON KY 169 FROM KY 1267 (MP 16.685) TO JESSAMINE-WOODFORD C	Roadside	Roadside - other	2.495	Miles	$468760	$468760	HSIP (23 U.S.C. 148)	Rural	Major Collector	3,206	55	State Highway Agency	Spot	Roadway Departure	
INSTALL CABLE MEDIAN BARRIER ON I-64 IN WOODFORD, SCOTT, AND FAYETTE COUNTIES. (2016BOP)	Roadside	Barrier - cable	7.675	Miles	$1303100	$1303100	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Interstate	38,223	70	State Highway Agency	Spot	Roadway Departure	
INSTALL CABLE MEDIAN BARRIER ON I-71 IN HENRY AND TRIMBLE COUNTIES. (2016BOP)	Roadside	Barrier - cable	13.359	Miles	$1123090	$1123090	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Interstate	35,929	70	State Highway Agency	Spot	Roadway Departure	
INSTALL GUARDRAIL ALON KY 26 FROM MP 10.160 TO MP 10.660. (2018BOP)	Roadside	Barrier- metal	0.5	Miles	$138545	$138545	HSIP (23 U.S.C. 148)	Rural	Major Collector	2,345	55	State Highway Agency	Spot	Roadway Departure	
INSTALL GUARDRAIL ALONG KY 1107 FROM 0.192 MILE	Roadside	Barrier- metal	0.29	Miles	$18600	$18600	HSIP (23 U.S.C. 148)	Rural	Minor Collector	2,070	35	State Highway Agency	Spot	Roadway Departure	

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
WEST OF HOLBROOK HOLLOW ROAD (MP 2.050) TO 0.098 MILE EAST OF HOLBROOK HOLLOW ROAD (MP 2.340).															
INSTALL GUARDRAIL ALONG KY 194 FROM 500 FEET WEST OF SOLOMON HOLLOW (MP 51.885) TO 500 FEET EAST OF PHILLIPS BRANCH (MP 52.975).	Roadside	Barrier- metal	1.9	Miles	$12870	$12870	HSIP (23 U.S.C. 148)	Rural	Minor Collector	693	55	State Highway Agency	Spot	Roadway Departure	
INSTALL GUARDRAIL ALONG KY 204 FROM KY 1481 (MP 7.219) TO 0.677 MILES SOUTH OF KY 895 (MP 7.390).	Roadside	Barrier- metal	0.17999999999999	Miles	$8760	$8760	HSIP (23 U.S.C. 148)	Rural	Minor Collector	1,524	55	State Highway Agency	Spot	Roadway Departure	
INSTALL GUARDRAIL ALONG KY 204 FROM KY 1481 (MP 7.219) TO 0.677 MILES SOUTH OF KY 895 (MP 7.390).	Roadside	Barrier- metal	0.17999999999999	Miles	$55540	$55540	HSIP (23 U.S.C. 148)	Rural	Minor Collector	1,524	55	State Highway Agency	Spot	Roadway Departure	
INSTALL GUARDRAIL ALONG KY 233 FROM 5.740 MILES NORTH OF KY 5 (MP 5.740) TO 0.414 MILE SOUTH OF US 25 (MP 5.820).	Roadside	Barrier- metal	0.81	Miles	$37400	$37400	HSIP (23 U.S.C. 148)	Urban	Local Road or Street	3,025	55	State Highway Agency	Spot	Roadway Departure	
INSTALL GUARDRAIL ALONG KY 26 FROM MP 1.970	Roadside	Barrier- metal	0.18	Miles	$26207	$26207	HSIP (23 U.S.C. 148)	Rural	Major Collector	1,728	55	State Highway Agency	Spot	Roadway Departure	

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
TO 2.150. (2018BOP)															
INSTALL GUARDRAIL ALONG KY 3421 FROM MP 0.784 TO 0.824. (2018BOP)	Roadside	Barrier- metal	0.399999999999999	Miles	$21895	$21895	HSIP (23 U.S.C. 148)	Rural	Local Road or Street	1,183	45	State Highway Agency	Spot	Roadway Departure	
INSTALL GUARDRAIL ALONG KY 840 FROM 0.609 MILE WEST OF US 421 (MP 5.400) TO 0.101 MILE WEST OF US 421 (MP 5.908).	Roadside	Barrier- metal	0.58	Miles	$4325	$4325	HSIP (23 U.S.C. 148)	Urban	Major Collector	3,989	45	State Highway Agency	Spot	Roadway Departure	
INSTALL GUARDRAIL ALONG KY 987 FROM 0.299 MILE EAST OF KY 3099 (MP 17.120) TO 0.012 MILE WEST OF KY 3001 (MP 18.655).	Roadside	Barrier- metal	1.535	Miles	$40500	$40500	HSIP (23 U.S.C. 148)	Rural	Minor Collector	1,167	55	State Highway Agency	Spot	Roadway Departure	
INSTALL HIGH FRICTION SURFACE AND UPDATE SIGNAGE. (2018BOP)	Roadway	Pavement surface - high friction surface	4.443	Signs	$50000	$50000	HSIP (23 U.S.C. 148)	Urban	Major Collector	943	35	State Highway Agency	Spot	Roadway Departure	
INSTALL HIGH FRICTION SURFACE AND UPDATE SIGNAGE. (2018BOP)	Roadway	Pavement surface - high friction surface	4.443	Signs	$159000	$159000	HSIP (23 U.S.C. 148)	Urban	Major Collector	943	35	State Highway Agency	Spot	Roadway Departure	
INSTALL HIGH FRICTION SURFACE ON US 41 FROM MP 16.00 TO MP 16.40 IN HENDERSON COUNTY.	Roadway	Pavement surface - high friction surface	0.399999999999999	Miles	$220000	$220000	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	36,186	50	State Highway Agency	Spot	Roadway Departure	
INSTALLATION OF PAVEMENT MARKERS ON	Roadway delineation	Longitudinal pavement markings - new		Signs	$255000	$255000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Roadway Departure	

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
VARIOUS ROUTES IN DISTRICT 11.															
INSTALLATION OF PAVEMENT MARKERS ON VARIOUS ROUTES IN DISTRICT 12.	Roadway delineation	Longitudinal pavement markings - new		Signs	$420000	$420000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Roadway Departure	
INSTALLATION OF PAVEMENT MARKERS ON VARIOUS ROUTES IN DISTRICT 3.	Roadway delineation	Longitudinal pavement markings - new		Signs	$310000	$310000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Roadway Departure	
INSTALLATION OF PAVEMENT MARKERS ON VARIOUS ROUTES IN DISTRICT 4.	Roadway delineation	Longitudinal pavement markings - new		Signs	$215000	$215000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Roadway Departure	
INSTALLATION OF PAVEMENT MARKERS ON VARIOUS ROUTES IN DISTRICT 5.	Roadway delineation	Longitudinal pavement markings - new		Signs	$795000	$795000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Roadway Departure	
INSTALLATION OF PAVEMENT MARKERS ON VARIOUS ROUTES IN DISTRICT 6.	Roadway delineation	Longitudinal pavement markings - new		Signs	$365000	$365000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Roadway Departure	
INSTALLATION OF PAVEMENT MARKERS ON VARIOUS ROUTES IN DISTRICT 9.	Roadway delineation	Longitudinal pavement markings - new		Signs	$215000	$215000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Roadway Departure	
INSTALLATION OF PAVEMENT MARKERS ON VARIOUS ROUTES IN DISTRICTS 1 & 2.	Roadway delineation	Longitudinal pavement markings - new		Signs	$375000	$375000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Roadway Departure	
INSTALLATION OF PAVEMENT MARKERS ON VARIOUS ROUTES IN DISTRICTS 7, 8 & 10.	Roadway delineation	Longitudinal pavement markings - new		Signs	$710000	$710000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Roadway Departure	

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
INSTALLATION OF RAISED ISLAND FOR CHANNELIZING TRAFFIC FROM TWO WAY STREET TO ONE WAY COUPLET. ADDITIONAL SIGNING AND PAVEMENT MARKINGS TO DELINEATE	Roadway	Roadway - other	1	Miles	$50816	$50816	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	2,245	35	State Highway Agency	Spot	Roadway Departure	
INSTALLATION OF RAISED ISLAND FOR CHANNELIZING TRAFFIC FROM TWO WAY STREET TO ONE WAY COUPLET. ADDITIONAL SIGNING AND PAVEMENT MARKINGS TO DELINEATE	Roadway	Roadway - other	1	Miles	$51000	$51000	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	2,245	35	State Highway Agency	Spot	Roadway Departure	
INSTALLATION OF STRIPING ON VARIOUS ROUTES IN DISTRICT 11. (2018BOP)	Roadway delineation	Longitudinal pavement markings - new		Miles	$840000	$840000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Roadway Departure	
INSTALLATION OF STRIPING ON VARIOUS ROUTES IN DISTRICT 2. (2018BOP)	Roadway delineation	Longitudinal pavement markings - new		Miles	$570000	$570000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Roadway Departure	
INSTALLATION OF STRIPING ON VARIOUS ROUTES IN DISTRICT 3. (2018BOP)	Roadway delineation	Longitudinal pavement markings - new		Miles	$940000	$940000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Roadway Departure	
INSTALLATION OF STRIPING ON VARIOUS ROUTES IN DISTRICT 4. (2018BOP)	Roadway delineation	Longitudinal pavement markings - new		Miles	$1125000	$1125000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Roadway Departure	
INSTALLATION OF STRIPING ON VARIOUS ROUTES	Roadway delineation	Longitudinal pavement markings - new		Miles	$900000	$900000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Roadway Departure	

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
IN DISTRICT 5. (2018BOP)															
INSTALLATION OF STRIPING ON VARIOUS ROUTES IN DISTRICT 6. (2018BOP)	Roadway delineation	Longitudinal pavement markings - new		Miles	$840000	$840000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Roadway Departure	
INSTALLATION OF STRIPING ON VARIOUS ROUTES IN DISTRICT 7. (2018BOP)	Roadway delineation	Longitudinal pavement markings - new		Miles	$735000	$735000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Roadway Departure	
INSTALLATION OF STRIPING ON VARIOUS ROUTES IN DISTRICT 8. (2018BOP)	Roadway delineation	Longitudinal pavement markings - new		Miles	$1101000	$1101000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Roadway Departure	
INTERSECTION AND CORRIDOR IMPROVEMENTS TO ENHANCE SAFETY & CAPACITY ALONG US 31W FROM RING ROAD TO GRAHAM AVE. (2016BOP)	Intersection geometry	Intersection geometry - other	19.66	Miles	$425000	$425000	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	32,715	25	State Highway Agency	Spot	Intersections	
INTERSECTION AND CORRIDOR IMPROVEMENTS TO ENHANCE SAFETY & CAPACITY ALONG US 31W FROM RING ROAD TO GRAHAM AVE. (2016BOP)	Intersection geometry	Intersection geometry - other	19.66	Miles	$1100000	$1100000	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	32,715	25	State Highway Agency	Spot	Intersections	
INTERSECTION AND CORRIDOR IMPROVEMENTS TO ENHANCE SAFETY & CAPACITY ALONG US 31W FROM RING ROAD TO GRAHAM AVE. (2016BOP)	Intersection geometry	Intersection geometry - other	19.66	Miles	$550000	$550000	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	32,715	25	State Highway Agency	Spot	Intersections	

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
INTERSECTION AND CORRIDOR IMPROVEMENTS TO REDUCE CONFLICT POINT AND ENHANCE SAFETY ALONG US 231 FROM MP 3.0 TO MP 6.6. (2018BOP)	Intersection geometry	Intersection geometry - other	3.6	Intersections	$400000	$400000	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	13,555	65	State Highway Agency	Spot	Intersections	
INTERSECTION AND CORRIDOR IMPROVEMENTS TO REDUCE CONFLICT POINTS AND ENHANCE SAFETY & OPERATIONS ALONG THE RICHMOND BYPASS BETWEEN MP 15.946 TO 18	Intersection geometry	Intersection geometry - other	2.54	Miles	$550000	$550000	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	23,972	55	State Highway Agency	Spot	Intersections	
INTERSECTION IMPROVEMENTS AT KY 15 AND KY 11 IN POWELL COUNTY LOCATED IN DISTRICT 10. (2014BOP)	Intersection geometry	Intersection geometry - other	0.2	Intersections	$35000	$35000	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	7,735	35	State Highway Agency	Spot	Intersections	
INTERSECTION IMPROVEMENTS AT KY 15 AND KY 11 IN POWELL COUNTY LOCATED IN DISTRICT 10. (2014BOP)	Intersection geometry	Intersection geometry - other	0.2	Intersections	$50000	$50000	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	7,735	35	State Highway Agency	Spot	Intersections	
INTERSECTION IMPROVEMENTS AT KY 15 AND KY 11 IN POWELL COUNTY LOCATED IN DISTRICT 10. (2014BOP)	Intersection geometry	Intersection geometry - other	0.2	Intersections	$395000	$395000	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	7,735	35	State Highway Agency	Spot	Intersections	

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
INTERSECTION IMPROVEMENTS AT VARIOUS LOCATIONS IN DAVIESS, HENDERSON, AND MCLEAN COUNTIES LOCATED IN DISTRICT 2. (2014BOP)	Intersection geometry	Intersection geometry - other	3.56	Intersections	$16295	$16295	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	20,130	35	State Highway Agency	Spot	Intersections	
INTERSECTION IMPROVEMENTS AT VARIOUS LOCATIONS IN DAVIESS, HENDERSON, AND MCLEAN COUNTIES LOCATED IN DISTRICT 2. (2014BOP)	Intersection geometry	Intersection geometry - other	3.56	Intersections	$19671	$19671	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	20,130	35	State Highway Agency	Spot	Intersections	
INTERSECTION IMPROVEMENTS AT VARIOUS LOCATIONS IN DAVIESS, HENDERSON, AND MCLEAN COUNTIES LOCATED IN DISTRICT 2. (2014BOP)	Intersection geometry	Intersection geometry - other	3.56	Intersections	$19707	$19707	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	20,130	35	State Highway Agency	Spot	Intersections	
INTERSECTION IMPROVEMENTS AT VARIOUS LOCATIONS IN DAVIESS, HENDERSON, AND MCLEAN COUNTIES LOCATED IN DISTRICT 2. (2014BOP)	Intersection geometry	Intersection geometry - other	3.56	Intersections	$30680	$30680	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	20,130	35	State Highway Agency	Spot	Intersections	
INTERSECTION IMPROVEMENTS AT VARIOUS LOCATIONS IN DAVIESS, HENDERSON,	Intersection geometry	Intersection geometry - other	3.56	Intersections	$58911	$58911	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	20,130	35	State Highway Agency	Spot	Intersections	

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
AND MCLEAN COUNTIES LOCATED IN DISTRICT 2. (2014BOP)															
INTERSECTION IMPROVEMENTS AT VARIOUS LOCATIONS IN DAVIESS, HENDERSON, AND MCLEAN COUNTIES LOCATED IN DISTRICT 2. (2014BOP)	Intersection geometry	Intersection geometry - other	3.56	Intersections	$246048	$246048	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	20,130	35	State Highway Agency	Spot	Intersections	
INTERSECTION IMPROVEMENTS AT VARIOUS LOCATIONS IN DAVIESS, HENDERSON, AND MCLEAN COUNTIES LOCATED IN DISTRICT 2. (2014BOP) 2-9004.10 - OFFSET LEFT TU	Intersection geometry	Intersection geometry - other	2	Intersections	$243000	$243000	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	20,130	35	State Highway Agency	Spot	Intersections	
INTERSECTION IMPROVEMENTS AT VARIOUS LOCATIONS IN DAVIESS, HENDERSON, AND MCLEAN COUNTIES LOCATED IN DISTRICT 2. (2014BOP) 2-9004.10 - OFFSET LEFT TU	Intersection geometry	Intersection geometry - other	2	Intersections	$462000	$462000	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	20,130	35	State Highway Agency	Spot	Intersections	
INTERSECTION IMPROVEMENTS AT VARIOUS LOCATIONS IN HARDIN, NELSON, AND TAYLOR COUNTIES LOCATED IN	Intersection geometry	Intersection geometry - other	2	Intersections	$27446	$27446	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	18,467	45	State Highway Agency	Spot	Intersections	

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
DISTRICT 4. (2014BOP) 4-9003.10 - EXTEND THE LEFT T															
INTERSECTION IMPROVEMENTS AT VARIOUS LOCATIONS IN HARDIN, NELSON, AND TAYLOR COUNTIES LOCATED IN DISTRICT 4. (2014BOP) 4-9003.10 - EXTEND THE LEFT T	Intersection geometry	Intersection geometry - other	2	Intersections	$250000	$250000	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	18,467	45	State Highway Agency	Spot	Intersections	
INTERSECTION IMPROVEMENTS AT VARIOUS LOCATIONS IN JEFFERSON COUNTY LOCATED IN DISTRICT 5. (2014BOP) 5-9010.10 - KY 61 & GRADE LANE 5-9010.30 - KY 10	Intersection geometry	Intersection geometry - other	3	Intersections	$13666	$13666	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	24,434	45	State Highway Agency	Spot	Intersections	
INTERSECTION IMPROVEMENTS AT VARIOUS LOCATIONS IN JEFFERSON COUNTY LOCATED IN DISTRICT 5. (2014BOP) 5-9010.10 - KY 61 & GRADE LANE 5-9010.30 - KY 10	Intersection geometry	Intersection geometry - other	3	Intersections	$35000	$35000	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	24,434	45	State Highway Agency	Spot	Intersections	
INTERSECTION IMPROVEMENTS AT VARIOUS LOCATIONS IN JEFFERSON COUNTY LOCATED IN DISTRICT 5. (2014BOP) 5-9010.10 - KY 61 &	Intersection geometry	Intersection geometry - other	3	Intersections	$85397	$85397	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	24,434	45	State Highway Agency	Spot	Intersections	

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
GRADE LANE 5-9010.30 - KY 10															
INTERSECTION IMPROVEMENTS AT VARIOUS LOCATIONS IN JEFFERSON COUNTY LOCATED IN DISTRICT 5. (2014BOP) 5-9010.10 - KY 61 & GRADE LANE 5-9010.30 - KY 10	Intersection geometry	Intersection geometry - other	3	Intersections	$108039	$108039	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	24,434	45	State Highway Agency	Spot	Intersections	
INTERSECTION IMPROVEMENTS AT VARIOUS LOCATIONS IN JEFFERSON COUNTY LOCATED IN DISTRICT 5. (2014BOP) 5-9010.10 - KY 61 & GRADE LANE 5-9010.30 - KY 10	Intersection geometry	Intersection geometry - other	3	Intersections	$310000	$310000	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	24,434	45	State Highway Agency	Spot	Intersections	
INTERSECTION IMPROVEMENTS AT VARIOUS LOCATIONS IN JEFFERSON COUNTY LOCATED IN DISTRICT 5. (2014BOP) 5-9010.10 - KY 61 & GRADE LANE 5-9010.30 - KY 10	Intersection geometry	Intersection geometry - other	3	Intersections	$340000	$340000	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	24,434	45	State Highway Agency	Spot	Intersections	
INTERSECTION IMPROVEMENTS AT VARIOUS LOCATIONS IN PIKE AND LAWRENCE COUNTIES LOCATED IN DISTRICT 12.	Intersection geometry	Intersection geometry - other		Intersections	$16833	$16833	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Intersections	

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
INTERSECTION IMPROVEMENTS AT VARIOUS LOCATIONS IN PIKE AND LAWRENCE COUNTIES LOCATED IN DISTRICT 12.	Intersection geometry	Intersection geometry - other		Intersections	$56900	$56900	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Intersections	
INTERSECTION IMPROVEMENTS AT VARIOUS LOCATIONS IN PIKE AND LAWRENCE COUNTIES LOCATED IN DISTRICT 12.	Intersection geometry	Intersection geometry - other		Intersections	$63864	$63864	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Intersections	
INTERSECTION IMPROVEMENTS AT VARIOUS LOCATIONS IN PIKE AND LAWRENCE COUNTIES LOCATED IN DISTRICT 12.	Intersection geometry	Intersection geometry - other		Intersections	$171000	$171000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Intersections	
INTERSECTION IMPROVEMENTS AT VARIOUS LOCATIONS IN PULASKI COUNTY LOCATED IN DISTRICT 8.	Intersection geometry	Intersection geometry - other	1	Intersections	$28436.94	$28436.94	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	25,943	45	State Highway Agency	Spot	Intersections	
INTERSECTION IMPROVEMENTS AT VARIOUS LOCATIONS IN PULASKI COUNTY LOCATED IN DISTRICT 8. 8-9004.10 - REBUILD THE TRAFFIC SIGNAL AND UPDATE THE SIGNING	Intersection geometry	Intersection geometry - other	1	Intersections	$93000	$93000	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	25,943	45	State Highway Agency	Spot	Intersections	
INTERSECTION IMPROVEMENTS AT VARIOUS	Intersection geometry	Intersection geometry - other	1	Intersections	$382000	$382000	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	25,943	45	State Highway Agency	Spot	Intersections	

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
LOCATIONS IN PULASKI COUNTY LOCATED IN DISTRICT 8. 8-9004.10 - REBUILD THE TRAFFIC SIGNAL AND UPDATE THE SIGNING															
INTERSECTION IMPROVEMENTS AT VARIOUS LOCATIONS IN PULASKI COUNTY LOCATED IN DISTRICT 8. 8-9004.40- CONSTRUCT A J-TURN AND UPDATE SIGNING AND STRIPING	Intersection geometry	Intersection geometry - other	2	Intersections	$55652	$55652	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	25,943	45	State Highway Agency	Spot	Intersections	
INTERSECTION IMPROVEMENTS AT VARIOUS LOCATIONS IN PULASKI COUNTY LOCATED IN DISTRICT 8. 8-9004.40- CONSTRUCT A J-TURN AND UPDATE SIGNING AND STRIPING	Intersection geometry	Intersection geometry - other	2	Intersections	$129568	$129568	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	25,943	45	State Highway Agency	Spot	Intersections	
INTERSECTION IMPROVEMENTS AT VARIOUS LOCATIONS IN PULASKI COUNTY LOCATED IN DISTRICT 8. 8-9004.40- CONSTRUCT A J-TURN AND UPDATE SIGNING AND STRIPING	Intersection geometry	Intersection geometry - other	2	Intersections	$155000	$155000	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	25,943	45	State Highway Agency	Spot	Intersections	
INTERSECTION IMPROVEMENTS AT VARIOUS LOCATIONS IN PULASKI COUNTY	Intersection geometry	Intersection geometry - other	2	Intersections	$290000	$290000	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	25,943	45	State Highway Agency	Spot	Intersections	

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
LOCATED IN DISTRICT 8. 8-9004.40- CONSTRUCT A J-TURN AND UPDATE SIGNING AND STRIPING															
INTERSECTION IMPROVEMENTS AT VARIOUS LOCATIONS IN PULASKI COUNTY LOCATED IN DISTRICT 8. 8-9004.50 - CONSTRUCT A LEFT AND RIGHT TURN LANE ALONG KY 157	Intersection geometry	Intersection geometry - other	1	Intersections	$30000	$30000	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	25,943	45	State Highway Agency	Spot	Intersections	
INTERSECTION IMPROVEMENTS AT VARIOUS LOCATIONS IN PULASKI COUNTY LOCATED IN DISTRICT 8. 8-9004.50 - CONSTRUCT A LEFT AND RIGHT TURN LANE ALONG KY 157	Intersection geometry	Intersection geometry - other	1	Intersections	$170000	$170000	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	25,943	45	State Highway Agency	Spot	Intersections	
INTERSECTION IMPROVEMENTS AT VARIOUS LOCATIONS IN WARREN COUNTY LOCATED IN DISTRICT 3. (2014BOP)	Intersection geometry	Intersection geometry - other	1	Intersections	$14110	$14110	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	27,952	35	State Highway Agency	Spot	Intersections	
INTERSECTION IMPROVEMENTS AT VARIOUS LOCATIONS IN WARREN COUNTY LOCATED IN DISTRICT 3. (2014BOP)	Intersection geometry	Intersection geometry - other	1	Intersections	$23241	$23241	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	27,952	35	State Highway Agency	Spot	Intersections	

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
INTERSECTION IMPROVEMENTS AT VARIOUS LOCATIONS IN WARREN COUNTY LOCATED IN DISTRICT 3. (2014BOP)	Intersection geometry	Intersection geometry - other	1	Intersections	$37056	$37056	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	27,952	35	State Highway Agency	Spot	Intersections	
INTERSECTION IMPROVEMENTS AT VARIOUS LOCATIONS IN WARREN COUNTY LOCATED IN DISTRICT 3. (2014BOP)	Intersection geometry	Intersection geometry - other	1	Intersections	$56951	$56951	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	27,952	35	State Highway Agency	Spot	Intersections	
INVESTIGATE CRASH LOCATION ERRORS AND DEVELOP AN ALGORITHM TO UPDATE THE CRASH RECORD LOCATION TO THE MOST LIKELY CRASH LOCATION.	Non-infrastructure	Data/traffic records		Data	$100000	$100000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Spot	Data	
LANE-DEPARTURE IMPROVEMENTS ALONG KY 2207. (2018BOP)	Roadway	Roadway - other	4.477	Miles	$20000	$20000	HSIP (23 U.S.C. 148)	Rural	Minor Collector	576	35	State Highway Agency	Spot	Roadway Departure	
PERFORM LOW COST SAFETY IMPROVEMENTS ALONG KY 100 BETWEEN MP 0.000 AND MP 8.830 IN ALLEN COUNTY, KY.	Roadway	Roadway - other	8.83	Miles	$30000	$30000	HSIP (23 U.S.C. 148)	Rural	Major Collector	2,400	55	State Highway Agency	Systemic	Roadway Departure	
PERFORM LOW COST SAFETY IMPROVEMENTS ALONG KY 1214 BETWEEN MP 6.300 AND MP 14.028 IN GRAYSON COUNTY, KY.	Roadway	Roadway - other	7.728	Miles	$50000	$50000	HSIP (23 U.S.C. 148)	Rural	Minor Collector	710	55	State Highway Agency	Systemic	Roadway Departure	

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
PERFORM LOW COST SAFETY IMPROVEMENTS ON KY 11 FROM MP 4.022 TO MP 9.131 IN MONTGOMERY COUNTY. (2016BOP)	Roadway	Roadway - other	5.19	Miles	$40000	$40000	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	3,664	55	State Highway Agency	Systemic	Roadway Departure	
PERFORM LOW COST SAFETY IMPROVEMENTS ON KY 11 FROM MP 4.022 TO MP 9.131 IN MONTGOMERY COUNTY. (2016BOP)	Roadway	Roadway - other	5.19	Miles	$282650	$282650	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	3,664	55	State Highway Agency	Systemic	Roadway Departure	
PERFORM LOW COST SAFETY IMPROVEMENTS ON KY 11 FROM MP 4.022 TO MP 9.131 IN MONTGOMERY COUNTY. (2016BOP)	Roadway	Roadway - other	5.19	Miles	$1252000	$1252000	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	3,664	55	State Highway Agency	Systemic	Roadway Departure	
PERFORM LOW COST SAFETY IMPROVEMENTS ON KY 11 FROM MP 7.450 TO MP 14.047 IN POWELL COUNTY. (2016BOP)	Roadway	Roadway - other	6.597	Miles	$550643	$550643	HSIP (23 U.S.C. 148)	Rural	Major Collector	2,981	35	State Highway Agency	Systemic	Roadway Departure	
PERFORM LOW COST SAFETY IMPROVEMENTS ON KY 11 FROM MP 7.450 TO MP 14.047 IN POWELL COUNTY. (2016BOP)	Roadway	Roadway - other	6.597	Miles	$1650000	$1650000	HSIP (23 U.S.C. 148)	Rural	Major Collector	2,981	35	State Highway Agency	Systemic	Roadway Departure	
PERFORM LOW COST SAFETY IMPROVEMENTS ON KY 112 BEGINNING AT MP 1.925 AND	Roadway	Roadway - other	7.447	Miles	$167802	$167802	HSIP (23 U.S.C. 148)	Urban	Minor Collector	1,238	55	State Highway Agency	Systemic	Roadway Departure	

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
ENDING AT MP 9.372 IN HOPKINS COUNTY. (2016BOP)															
PERFORM LOW COST SAFETY IMPROVEMENTS ON KY 112 BEGINNING AT MP 1.925 AND ENDING AT MP 9.372 IN HOPKINS COUNTY. (2016BOP)	Roadway	Roadway - other	7.447	Miles	$1325000	$1325000	HSIP (23 U.S.C. 148)	Urban	Minor Collector	1,238	55	State Highway Agency	Systemic	Roadway Departure	
PERFORM LOW COST SAFETY IMPROVEMENTS ON KY 115 FROM MP 3.15 TO MP 9.929 IN CHRISTIAN COUNTY. (2018BOP)	Roadway	Roadway - other	6.779	Miles	$275000	$275000	HSIP (23 U.S.C. 148)	Rural	Major Collector	3,444	55	State Highway Agency	Systemic	Roadway Departure	
PERFORM LOW COST SAFETY IMPROVEMENTS ON KY 158 FROM THE FLEMING/ROWAN COUNTY LINE TO KY 32. (2014BOP)	Roadway	Roadway - other	2.766	Miles	$75000	$75000	HSIP (23 U.S.C. 148)	Rural	Minor Collector	2,511	55	State Highway Agency	Systemic	Roadway Departure	
PERFORM LOW COST SAFETY IMPROVEMENTS ON KY 158 FROM THE FLEMING/ROWAN COUNTY LINE TO KY 32. (2014BOP)	Roadway	Roadway - other	2.766	Miles	$575000	$575000	HSIP (23 U.S.C. 148)	Rural	Minor Collector	2,511	55	State Highway Agency	Systemic	Roadway Departure	
PERFORM LOW COST SAFETY IMPROVEMENTS ON KY 158 FROM THE FLEMING/ROWAN COUNTY LINE TO KY 32. (2014BOP)	Roadway	Roadway - other	2.766	Miles	$1500000	$1500000	HSIP (23 U.S.C. 148)	Rural	Minor Collector	2,511	55	State Highway Agency	Systemic	Roadway Departure	

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
PERFORM LOW COST SAFETY IMPROVEMENTS ON KY 158 FROM THE FLEMING/ROWAN COUNTY LINE TO KY 32. (2014BOP)	Roadway	Roadway - other	2.766	Miles	$2100000	$2100000	HSIP (23 U.S.C. 148)	Rural	Minor Collector	2,511	55	State Highway Agency	Systemic	Roadway Departure	
PERFORM LOW COST SAFETY IMPROVEMENTS ON KY 17 FROM KY 14 (MP 3.974) TO 0.143 MI NORTH OF HERGOTT DRIVE (MP 8.969). (2016BOP)	Roadway	Roadway - other	4.995	Miles	$75000	$75000	HSIP (23 U.S.C. 148)	Rural	Major Collector	5,719	35	State Highway Agency	Systemic	Roadway Departure	
PERFORM LOW COST SAFETY IMPROVEMENTS ON KY 17 FROM KY 14 (MP 3.974) TO 0.143 MI NORTH OF HERGOTT DRIVE (MP 8.969). (2016BOP) 6-9014.01 - SLOPE LAYBAC	Roadway	Roadway - other	4.995	Miles	$45000	$45000	HSIP (23 U.S.C. 148)	Rural	Major Collector	5,719	35	State Highway Agency	Systemic	Roadway Departure	
PERFORM LOW COST SAFETY IMPROVEMENTS ON KY 17 FROM KY 14 (MP 3.974) TO 0.143 MI NORTH OF HERGOTT DRIVE (MP 8.969). (2016BOP) 6-9014.01 - SLOPE LAYBAC	Roadway	Roadway - other	4.995	Miles	$140000	$140000	HSIP (23 U.S.C. 148)	Rural	Major Collector	5,719	35	State Highway Agency	Systemic	Roadway Departure	
PERFORM LOW COST SAFETY IMPROVEMENTS ON KY 192 FROM KY 692 (MP 1.076) TO JAMES MEECE RD (CR-1233) AT (MP 7.435) IN	Roadway	Roadway - other	6.359	Miles	$80000	$80000	HSIP (23 U.S.C. 148)	Rural	Major Collector	2,531	55	State Highway Agency	Systemic	Roadway Departure	

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
PULASKI COUNTY. (2016BOP)															
PERFORM LOW COST SAFETY IMPROVEMENTS ON KY 197 FROM MP 6.729 TO MP 15.237 IN PIKE COUNTY. (2018BOP)	Roadway	Roadway - other	8.58	Miles	$275000	$275000	HSIP (23 U.S.C. 148)	Rural	Major Collector	2,133	35	State Highway Agency	Systemic	Roadway Departure	
PERFORM LOW COST SAFETY IMPROVEMENTS ON KY 2 BEGINNING AT MP 13.203 AND ENDING AT MP 17.190 IN GREENUP COUNTY. (2016BOP)	Roadway	Roadway - other	3.987	Miles	$1715000	$1715000	HSIP (23 U.S.C. 148)	Rural	Major Collector	2,063	35	State Highway Agency	Systemic	Roadway Departure	
PERFORM LOW COST SAFETY IMPROVEMENTS ON KY 2 BEGINNING AT MP 13.203 AND ENDING AT MP 17.190 IN GREENUP COUNTY. (2016BOP)	Roadway	Roadway - other	3.987	Miles	$2321700	$2321700	HSIP (23 U.S.C. 148)	Rural	Major Collector	2,063	35	State Highway Agency	Systemic	Roadway Departure	
PERFORM LOW COST SAFETY IMPROVEMENTS ON KY 22 FROM MP 5.758 TO MP 10.522 IN GRANT COUNTY. (2018BOP)	Roadway	Roadway - other	4.764	Miles	$275000	$275000	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	3,201	45	State Highway Agency	Systemic	Roadway Departure	
PERFORM LOW COST SAFETY IMPROVEMENTS ON KY 234 FROM THE WARREN/ALLEN COUNTY LINE TO CR 1175/CR 1155	Roadway	Roadway - other	7.22	Miles	$275000	$275000	HSIP (23 U.S.C. 148)	Rural	Major Collector	626	55	State Highway Agency	Systemic	Roadway Departure	

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
IN WARREN COUNTY.															
PERFORM LOW COST SAFETY IMPROVEMENTS ON KY 259 FROM MP 0.000 TO MP 11.761 IN GRAYSON COUNTY. (2018BOP)	Roadway	Roadway - other	11.761	Miles	$150000	$150000	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	2,324	55	State Highway Agency	Systemic	Roadway Departure	
PERFORM LOW COST SAFETY IMPROVEMENTS ON KY 32 FROM 0.106 MI E OF US 60 (MP 8.545) TO VETERANS LN (CR-1009) AT (MP 13.645) IN ROWAN COUNTY. (2016BOP)	Roadway	Roadway - other	5.1	Miles	$12681	$12681	HSIP (23 U.S.C. 148)	Urban	Major Collector	2,931	45	State Highway Agency	Systemic	Roadway Departure	
PERFORM LOW COST SAFETY IMPROVEMENTS ON KY 32 FROM 0.106 MI E OF US 60 (MP 8.545) TO VETERANS LN (CR-1009) AT (MP 13.645) IN ROWAN COUNTY. (2016BOP)	Roadway	Roadway - other	5.1	Miles	$29081	$29081	HSIP (23 U.S.C. 148)	Urban	Major Collector	2,931	45	State Highway Agency	Systemic	Roadway Departure	
PERFORM LOW COST SAFETY IMPROVEMENTS ON KY 33 BEGINNING AT MP 3.017 AND ENDING AT MP 11.686 IN WOODFORD COUNTY. (2016BOP)	Roadway	Roadway - other	8.669	Miles	$55000	$55000	HSIP (23 U.S.C. 148)	Rural	Major Collector	2,211	35	State Highway Agency	Systemic	Roadway Departure	
PERFORM LOW COST SAFETY IMPROVEMENTS ON KY 33 BEGINNING AT MP	Roadway	Roadway - other	8.669	Miles	$150000	$150000	HSIP (23 U.S.C. 148)	Rural	Major Collector	2,211	35	State Highway Agency	Systemic	Roadway Departure	

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
3.017 AND ENDING AT MP 11.686 IN WOODFORD COUNTY. (2016BOP)															
PERFORM LOW COST SAFETY IMPROVEMENTS ON KY 39 BEGINNING AT MP 3.535 AND ENDING AT MP 12.809 IN PULASKI COUNTY. (2016BOP)	Roadway	Roadway - other	9.274	Miles	$20000	$20000	HSIP (23 U.S.C. 148)	Urban	Major Collector	4,337	55	State Highway Agency	Systemic	Roadway Departure	
PERFORM LOW COST SAFETY IMPROVEMENTS ON KY 44 FROM THE BULLIT/SPENCER COUNTY LINE (MP 0.00) TO OAK TREE WAY (MP 7.542). (2016BOP)	Roadway	Roadway - other	7.542	Miles	$646000	$646000	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	5,326	45	State Highway Agency	Systemic	Roadway Departure	
PERFORM LOW COST SAFETY IMPROVEMENTS ON KY 44 FROM THE BULLIT/SPENCER COUNTY LINE (MP 0.00) TO OAK TREE WAY (MP 7.542). (2016BOP)	Roadway	Roadway - other	7.542	Miles	$1345000	$1345000	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	5,326	45	State Highway Agency	Systemic	Roadway Departure	
PERFORM LOW COST SAFETY IMPROVEMENTS ON KY 53 BEGINNING AT MP 10.040 IN SHELBY COUNTY AND EXTENDING TO MP 2.65 IN OLDHAM COUNTY. (2016BOP)	Roadway	Roadway - other	12.219	Miles	$35000	$35000	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	4,760	45	State Highway Agency	Systemic	Roadway Departure	

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
PERFORM LOW COST SAFETY IMPROVEMENTS ON KY 55 FROM KY 155 IN SPENCER COUNTY TO KY 148 IN SHELBY COUNTY.	Roadway	Roadway - other	4.5	Miles	$150000	$150000	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	12,046	55	State Highway Agency	Systemic	Roadway Departure	
PERFORM LOW COST SAFETY IMPROVEMENTS ON KY 632 FROM KY 194 (MP 0.00) TO 0.037 MI EAST OF BLACKBERRY FRK (CR-1576) AT (MP 7.00) IN PIKE COUNTY. (2016BO	Roadway	Roadway - other	7	Miles	$50000	$50000	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	2,383	55	State Highway Agency	Systemic	Roadway Departure	
PERFORM LOW COST SAFETY IMPROVEMENTS ON KY 70 FROM MP 4.700 TO MP 12.868 IN CASEY COUNTY. (2018BOP)	Roadway	Roadway - other	8.168	Miles	$275000	$275000	HSIP (23 U.S.C. 148)	Rural	Major Collector	2,111	35	State Highway Agency	Systemic	Roadway Departure	
PERFORM LOW COST SAFETY IMPROVEMENTS ON KY 790 FROM WAYNE-PULASKI COUNTY LINE (MP 0.000) TO KY 90 (MP 5.551) IN PULASKI COUNTY, KY. (2014BOP)	Roadway	Roadway - other	5.551	Miles	$1480000	$1480000	HSIP (23 U.S.C. 148)	Rural	Minor Collector	2,109	55	State Highway Agency	Systemic	Roadway Departure	
PERFORM LOW COST SAFETY IMPROVEMENTS ON KY 82 IN ESTILL COUNTY, KY.	Roadway	Roadway - other	5.29	Miles	$275000	$275000	HSIP (23 U.S.C. 148)	Rural	Major Collector	3,352	55	State Highway Agency	Systemic	Roadway Departure	
PERFORM LOW COST SAFETY IMPROVEMENTS ON US 25W FROM MP 13.400 TO MP	Roadway	Roadway - other	3	Miles	$150000	$150000	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	5,509	45	State Highway Agency	Systemic	Roadway Departure	

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
16.400 IN WHITLEY COUNTY. (2018BOP)															
PERFORM LOW COST SAFETY IMPROVEMENTS ON US 42 FROM THE GALLATIN/BOONE COUNTY LINE TO KY 338. (2014BOP)	Roadway	Roadway - other	5.67	Miles	$1816000	$1816000	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	37,248	35	State Highway Agency	Systemic	Roadway Departure	
PERFORM LOW COST SAFETY IMPROVEMENTS ON US 60 FROM MP 17.402 IN BATH COUNTY TO MP 2.806 IN ROWAN COUNTY. (2018BOP)	Roadway	Roadway - other	5.514	Miles	$275000	$275000	HSIP (23 U.S.C. 148)	Rural	Major Collector	3,605	55	State Highway Agency	Systemic	Roadway Departure	
PERFORM LOW COST SAFETY IMPROVEMENTS ON US 62 FROM KY 1837 IN BALLARD COUNTY EXTENDING EASTWARD TO KY 998 IN MCCRACKEN COUNTY. (2018BOP)	Roadway	Roadway - other	8.855	Miles	$275000	$275000	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	3,226	35	State Highway Agency	Systemic	Roadway Departure	
PERFORM LOW COST SAFETY IMPROVEMENTS ON US 68 FROM MP 0.00 TO MP 4.807 IN JESSAMINE COUNTY. (2018BOP)	Roadway	Roadway - other	4.87	Miles	$175000	$175000	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	3,177	55	State Highway Agency	Systemic	Roadway Departure	
PERFORM SAFETY IMPROVEMENTS ALONG KY 537 CORRIDOR IN BOURBON	Roadside	Drainage improvements	12.798	Miles	$50000	$50000	HSIP (23 U.S.C. 148)	Rural	Minor Collector	295	55	State Highway Agency	Systemic	Roadway Departure	

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
COUNTY FROM SHOULDERING, DRAINAGE ENHANCEMENTS, AND ROADSIDE IMPROVEMENTS. (2018BOP)															
PERFORM SAFETY IMPROVEMENTS ALONG US 25 CORRIDOR IN SCOTT COUNTY FROM SHOULDERING, DRAINAGE ENHANCEMENTS, AND ROADSIDE IMPROVEMENTS. (2018BOP)	Roadside	Drainage improvements	25.372	Miles	$50000	$50000	HSIP (23 U.S.C. 148)	Rural	Major Collector	1,783	35	State Highway Agency	Systemic	Roadway Departure	
PRELIMINARY DESIGN AND STUDY OF MINI-ROUNDABOUTS AT VARIOUS INTERSECTIONS IN DISTRICT 11. (2018BOP)	Non-infrastructure	Road safety audits		Intersections	$350000	$350000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Systemic	Data	
PRELIMINARY DESIGN AND STUDY OF MINI-ROUNDABOUTS AT VARIOUS INTERSECTIONS WITHIN THE CITY OF ELIZABETHTOWN. (2018BOP)	Non-infrastructure	Road safety audits		Intersections	$550000	$550000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Systemic	Data	
PRELIMINARY DESIGN AND STUDY TO DETERMINE LOW COST IMPROVEMENTS AT INTERSECTIONS BETWEEN MILEPOINTS 10.5 TO 11.5 ALONG US	Non-infrastructure	Road safety audits	1	Intersections	$200000	$200000	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	27,952	35	State Highway Agency	Systemic	Data	

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
231 IN WARREN CO. (2018BOP)															
PRELIMINARY DESIGN AND STUDY TO DETERMINE LOW COST IMPROVEMENTS AT VARIOUS INTERSECTIONS WITHIN DISTRICT 1. (2016BOP)	Non-infrastructure	Road safety audits		Intersections	$100000	$100000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Systemic	Data	
PRELIMINARY DESIGN AND STUDY TO DETERMINE LOW COST IMPROVEMENTS AT VARIOUS INTERSECTIONS WITHIN DISTRICT 1. (2018BOP)	Non-infrastructure	Road safety audits		Intersections	$200000	$200000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Systemic	Data	
PRELIMINARY DESIGN AND STUDY TO DETERMINE LOW COST IMPROVEMENTS AT VARIOUS INTERSECTIONS WITHIN DISTRICT 10.	Non-infrastructure	Road safety audits		Intersections	$45000	$45000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Systemic	Data	
PRELIMINARY DESIGN AND STUDY TO DETERMINE LOW COST IMPROVEMENTS AT VARIOUS INTERSECTIONS WITHIN DISTRICT 11.	Non-infrastructure	Road safety audits		Intersections	$120000	$120000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Systemic	Data	
PRELIMINARY DESIGN AND STUDY TO DETERMINE LOW COST IMPROVEMENTS AT VARIOUS	Non-infrastructure	Road safety audits		Intersections	$200000	$200000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Systemic	Data	

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
INTERSECTIONS WITHIN DISTRICT 11. (2018BOP)															
PRELIMINARY DESIGN AND STUDY TO DETERMINE LOW COST IMPROVEMENTS AT VARIOUS INTERSECTIONS WITHIN DISTRICT 11. (2018BOP)	Non-infrastructure	Road safety audits		Intersections	$200000	$200000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Systemic	Data	
PRELIMINARY DESIGN AND STUDY TO DETERMINE LOW COST IMPROVEMENTS AT VARIOUS INTERSECTIONS WITHIN DISTRICT 2. 2-9008.10 - INSTALL SUPPLEMENTAL SIGNAL H	Non-infrastructure	Road safety audits	2	Intersections	$19955	$19955	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	8,046	45	State Highway Agency	Systemic	Data	
PRELIMINARY DESIGN AND STUDY TO DETERMINE LOW COST IMPROVEMENTS AT VARIOUS INTERSECTIONS WITHIN DISTRICT 2. 2-9008.10 - INSTALL SUPPLEMENTAL SIGNAL H	Non-infrastructure	Road safety audits	2	Intersections	$22942	$22942	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	8,046	45	State Highway Agency	Systemic	Data	
PRELIMINARY DESIGN AND STUDY TO DETERMINE LOW COST IMPROVEMENTS AT VARIOUS INTERSECTIONS WITHIN DISTRICT 2. 2-9008.10 - INSTALL	Non-infrastructure	Road safety audits	2	Intersections	$25000	$25000	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	8,046	45	State Highway Agency	Systemic	Data	

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
SUPPLEMENTAL SIGNAL H															
PRELIMINARY DESIGN AND STUDY TO DETERMINE LOW COST IMPROVEMENTS AT VARIOUS INTERSECTIONS WITHIN DISTRICT 2. 2-9008.10 - INSTALL SUPPLEMENTAL SIGNAL H	Non-infrastructure	Road safety audits	2	Intersections	$26000	$26000	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	8,046	45	State Highway Agency	Systemic	Data	
PRELIMINARY DESIGN AND STUDY TO DETERMINE LOW COST IMPROVEMENTS AT VARIOUS INTERSECTIONS WITHIN DISTRICT 2. (2018BOP)	Non-infrastructure	Road safety audits		Intersections	$200000	$200000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Systemic	Data	
PRELIMINARY DESIGN AND STUDY TO DETERMINE LOW COST IMPROVEMENTS AT VARIOUS INTERSECTIONS WITHIN DISTRICT 3. (2016BOP) 3-9013.20 - US 68 & KY 181; 3-9	Non-infrastructure	Road safety audits	4	Intersections	$9000	$9000	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	13,480	45	State Highway Agency	Systemic	Data	
PRELIMINARY DESIGN AND STUDY TO DETERMINE LOW COST IMPROVEMENTS AT VARIOUS INTERSECTIONS WITHIN DISTRICT 3. (2016BOP) 3-9013.20 - US 68 & KY 181; 3-9	Non-infrastructure	Road safety audits	4	Intersections	$21000	$21000	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	13,480	45	State Highway Agency	Systemic	Data	

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
PRELIMINARY DESIGN AND STUDY TO DETERMINE LOW COST IMPROVEMENTS AT VARIOUS INTERSECTIONS WITHIN DISTRICT 3. (2016BOP) 3-9013.20 - US 68 & KY 181; 3-9	Non-infrastructure	Road safety audits	4	Intersections	$220000	$220000	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	13,480	45	State Highway Agency	Systemic	Data	
PRELIMINARY DESIGN AND STUDY TO DETERMINE LOW COST IMPROVEMENTS AT VARIOUS INTERSECTIONS WITHIN DISTRICT 3. (2016BOP) 3-9013.20 - US 68 & KY 181; 3-9	Non-infrastructure	Road safety audits	4	Intersections	$501000	$501000	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	13,480	45	State Highway Agency	Systemic	Data	
PRELIMINARY DESIGN AND STUDY TO DETERMINE LOW COST IMPROVEMENTS AT VARIOUS INTERSECTIONS WITHIN DISTRICT 4. (2018BOP)	Non-infrastructure	Road safety audits		Intersections	$275000	$275000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Systemic	Data	
PRELIMINARY DESIGN AND STUDY TO DETERMINE LOW COST IMPROVEMENTS AT VARIOUS INTERSECTIONS WITHIN DISTRICT 5. (2018BOP)	Non-infrastructure	Road safety audits		Intersections	$200000	$200000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Systemic	Data	
PRELIMINARY DESIGN AND STUDY TO DETERMINE LOW COST IMPROVEMENTS	Non-infrastructure	Road safety audits		Intersections	$40000	$40000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Systemic	Data	

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
AT VARIOUS INTERSECTIONS WITHIN DISTRICT 5. (2016BOP)															
PRELIMINARY DESIGN AND STUDY TO DETERMINE LOW COST IMPROVEMENTS AT VARIOUS INTERSECTIONS WITHIN DISTRICT 6. (2018BOP)	Non-infrastructure	Road safety audits		Intersections	$350000	$350000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Systemic	Data	
PRELIMINARY DESIGN AND STUDY TO DETERMINE LOW COST IMPROVEMENTS AT VARIOUS INTERSECTIONS WITHIN DISTRICT 6. (2016BOP)	Non-infrastructure	Road safety audits		Intersections	$30000	$30000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Systemic	Data	
PRELIMINARY DESIGN AND STUDY TO DETERMINE LOW COST IMPROVEMENTS AT VARIOUS INTERSECTIONS WITHIN DISTRICT 7.	Non-infrastructure	Road safety audits		Intersections	$115000	$115000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Systemic	Data	
PRELIMINARY DESIGN AND STUDY TO DETERMINE LOW COST IMPROVEMENTS AT VARIOUS INTERSECTIONS WITHIN DISTRICT 7. (2018BOP)	Non-infrastructure	Road safety audits		Intersections	$600000	$600000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Systemic	Data	
PRELIMINARY DESIGN AND STUDY TO DETERMINE LOW COST	Non-infrastructure	Road safety audits		Intersections	$150000	$150000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Systemic	Data	

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
IMPROVEMENTS AT VARIOUS INTERSECTIONS WITHIN DISTRICT 8.															
PRELIMINARY DESIGN AND STUDY TO DETERMINE LOW COST IMPROVEMENTS AT VARIOUS INTERSECTIONS WITHIN DISTRICT 8. (2018BOP)	Non-infrastructure	Road safety audits		Intersections	$200000	$200000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Systemic	Data	
PRELIMINARY DESIGN AND STUDY TO DETERMINE LOW COST IMPROVEMENTS AT VARIOUS INTERSECTIONS WITHIN DISTRICT 9.	Non-infrastructure	Road safety audits		Intersections	$50000	$50000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Systemic	Data	
PRELIMINARY DESIGN AND STUDY TO DETERMINE LOW COST IMPROVEMENTS AT VARIOUS INTERSECTIONS WITHIN DISTRICT 9. (2018BOP)	Non-infrastructure	Road safety audits		Intersections	$200000	$200000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Systemic	Data	
PRELIMINARY DESIGN AND STUDY TO DETERMINE LOW COST IMPROVEMENTS AT VARIOUS INTERSECTIONS WITHIN JEFFERSON COUNTY. (2018BOP)	Non-infrastructure	Road safety audits		Intersections	$900000	$900000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Systemic	Data	

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
PRELIMINARY DESIGN AND STUDY TO DETERMINE LOW COST IMPROVMENTS AT VARIOUS INTERSECTIONS WITHIN DISTRICT 4.	Non-infrastructure	Road safety audits		Intersections	$45000	$45000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Systemic	Data	
PRELIMINARY DESIGN AND STUDY TO DETERMINE LOW COST IMPROVMENTS AT VARIOUS INTERSECTIONS WITHIN DISTRICT 4. 4-9006.20 - KY 555 & US 150 4-9006.30 -	Non-infrastructure	Road safety audits	4	Intersections	$37000	$37000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Systemic	Data	
PRELIMINARY DESIGN AND STUDY TO DETERMINE LOW COST IMPROVMENTS AT VARIOUS INTERSECTIONS WITHIN DISTRICT 4. 4-9006.20 - KY 555 & US 150 4-9006.30 -	Non-infrastructure	Road safety audits	4	Intersections	$48000	$48000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Systemic	Data	
PRELIMINARY DESIGN AND STUDY TO DETERMINE LOW COST IMPROVMENTS AT VARIOUS INTERSECTIONS WITHIN DISTRICT 4. 4-9006.20 - KY 555 & US 150 4-9006.30 -	Non-infrastructure	Road safety audits	4	Intersections	$77000	$77000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Systemic	Data	
PRELIMINARY DESIGN AND STUDY TO DETERMINE LOW	Non-infrastructure	Road safety audits	4	Intersections	$135000	$135000	HSIP (23 U.S.C. 148)			0		State Highway Agency	Systemic	Data	

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
COST IMPROVMENTS AT VARIOUS INTERSECTIONS WITHIN DISTRICT 4. 4-9006.20 - KY 555 & US 150 4-9006.30 -															
REALIGN THE INTERSECTION OF KY 76 AND KY 80 (MP 7.0-7.7) IN RUSSELL COUNTY LOCATED IN DISTRICT 8.	Intersection geometry	Intersection geometry - other	1	Intersections	$500	$500	HSIP (23 U.S.C. 148)	Rural	Minor Collector	494	55	State Highway Agency	Spot	Intersections	
REALIGN THE INTERSECTION OF KY 76 AND KY 80 (MP 7.0-7.7) IN RUSSELL COUNTY LOCATED IN DISTRICT 8.	Intersection geometry	Intersection geometry - other	1	Intersections	$55100	$55100	HSIP (23 U.S.C. 148)	Rural	Minor Collector	494	55	State Highway Agency	Spot	Intersections	
REALIGNMENT OF KY 2565 BETWEEN MP 3.2 AND MP 3.35 (DEAD MAN CURVE) IN LAWRENCE COUNTY. (2016BOP)	Alignment	Horizontal curve realignment	0.15	Miles	$647000	$647000	HSIP (23 U.S.C. 148)	Rural	Minor Collector	2,012	45	State Highway Agency	Spot	Roadway Departure	
RECONSTRUCT THE INTERSECTION OF KY 473 AT MOSSTOWN RD FROM 'Y' TO 'T' INTERSECTION IN BALLARD COUNTY.	Intersection geometry	Intersection geometrics - miscellaneous/other/unspecified	1	Intersections	$397155	$397155	HSIP (23 U.S.C. 148)	Rural	Minor Collector	77	55	State Highway Agency	Spot	Intersections	
RECONSTRUCT THE INTERSECTION OF KY 473 AT MOSSTOWN RD FROM 'Y' TO 'T' INTERSECTION IN	Intersection geometry	Intersection geometrics - miscellaneous/other/unspecified	1	Intersections	$448560	$448560	HSIP (23 U.S.C. 148)	Rural	Minor Collector	77	55	State Highway Agency	Spot	Intersections	

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
BALLARD COUNTY.															
RECONSTRUCT THE INTERSECTION OF US 62 AT KY 175 FROM 'Y' TO 'T' INTERSECTION AND PROVIDE INTERSECTION SIGHT DISTANCE IN MUHLENBERG COUNTY.	Intersection geometry	Intersection geometrics - miscellaneous/other/unspecified	1	Intersections	$60086	$60086	HSIP (23 U.S.C. 148)	Rural	Major Collector	1,477	55	State Highway Agency	Spot	Intersections	
RECONSTRUCT THE INTERSECTION OF US 62 AT KY 175 FROM 'Y' TO 'T' INTERSECTION AND PROVIDE INTERSECTION SIGHT DISTANCE IN MUHLENBERG COUNTY.	Intersection geometry	Intersection geometrics - miscellaneous/other/unspecified	1	Intersections	$545000	$545000	HSIP (23 U.S.C. 148)	Rural	Major Collector	1,477	55	State Highway Agency	Spot	Intersections	
RECONSTRUCT THE SHOULDERS WITH FULL DEPTH ASPHALT ALONG KY 115 AND RESTRIPE TO PROVIDE A 6' WIDE MEDIAN NEAR THE INTERSECTION OF KY 115 AND WALTER GAR	Roadway	Roadway - other	1	Intersections	$569884	$569884	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	8,046	45	State Highway Agency	Spot	Intersections	
REMOVE RAISED MEDIAN AND CONSTRUCT A LEFT TURN LANE AT OLD TRAM RD. (2018BOP)	Intersection geometry	Splitter island - remove from one or more approaches	1	Intersections	$20000	$20000	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	19,340	45	State Highway Agency	Spot	Roadway Departure	
REMOVE RR CROSSING AND IMPROVE SAFETY AT THE INTERSECTIONS OF KY 1560 & US 25 AND KY 1560 &	Railroad grade crossings	Railroad grade crossings - other	2	Intersections	$50000	$50000	HSIP (23 U.S.C. 148)	Rural	Major Collector	4,842	45	State Highway Agency	Spot	Intersections	

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
KY 3025. (2018BOP)															
ROAD DIET (4 LANE TO 3 LANE WITH TWLTL) IN LOUISA. (2018BOP)	Roadway	Roadway narrowing (road diet, roadway reconfiguration)	0.61	Miles	$100000	$100000	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	8,766	45	State Highway Agency	Spot	Roadway Departure	
ROADSIDE SAFETY IMPROVEMENTS ALONG US 60 FROM MP 4.75 TO MP 9.35. (2014BOP)	Roadside	Roadside - other	4.6	Miles	$108500	$108500	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	10,526	55	State Highway Agency	Spot	Roadway Departure	
SAFETY IMPROVEMENTS AT THE INTERSECTION OF KY 155 (TAYLORSVILLE RD) AND KY 1747 (HURSTBOURNE PKWY) IN JEFFERSON COUNTY. (2014BOP)	Intersection geometry	Intersection geometrics - miscellaneous/other/unspecified	1	Intersections	$100000	$100000	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	26,528	45	State Highway Agency	Spot	Intersections	
SHOULDERING AND DRAINAGE STRUCTURES ON KY 36 FROM MP 8.00 TO MP 11.847 IN BATH COUNTY.	Roadside	Drainage improvements	3.847	Miles	$52190	$52190	HSIP (23 U.S.C. 148)	Rural	Major Collector	1,261	55	State Highway Agency	Spot	Roadway Departure	
UPDATE THE SIGNAL TO INCLUDE REFLECTIVE BACKPLATES AT THE INTERSECTION OF US 68 & OLD BARREN RIVER ROAD. (2018BOP)	Intersection traffic control	Modify traffic signal - add backplates with retroreflective borders	1	Signal heads	$5229	$5229	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	13,480	45	State Highway Agency	Spot	Intersections	
WIDEN KY 864 TO CREATE A NORTHBOUND LEFT TURN LANE. (2018BOP)	Roadway	Roadway widening - add lane(s) along segment	1	Intersections	$125000	$125000	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	6,391	35	State Highway Agency	Spot	Roadway Departure	

2019 Kentucky Highway Safety Improvement Program

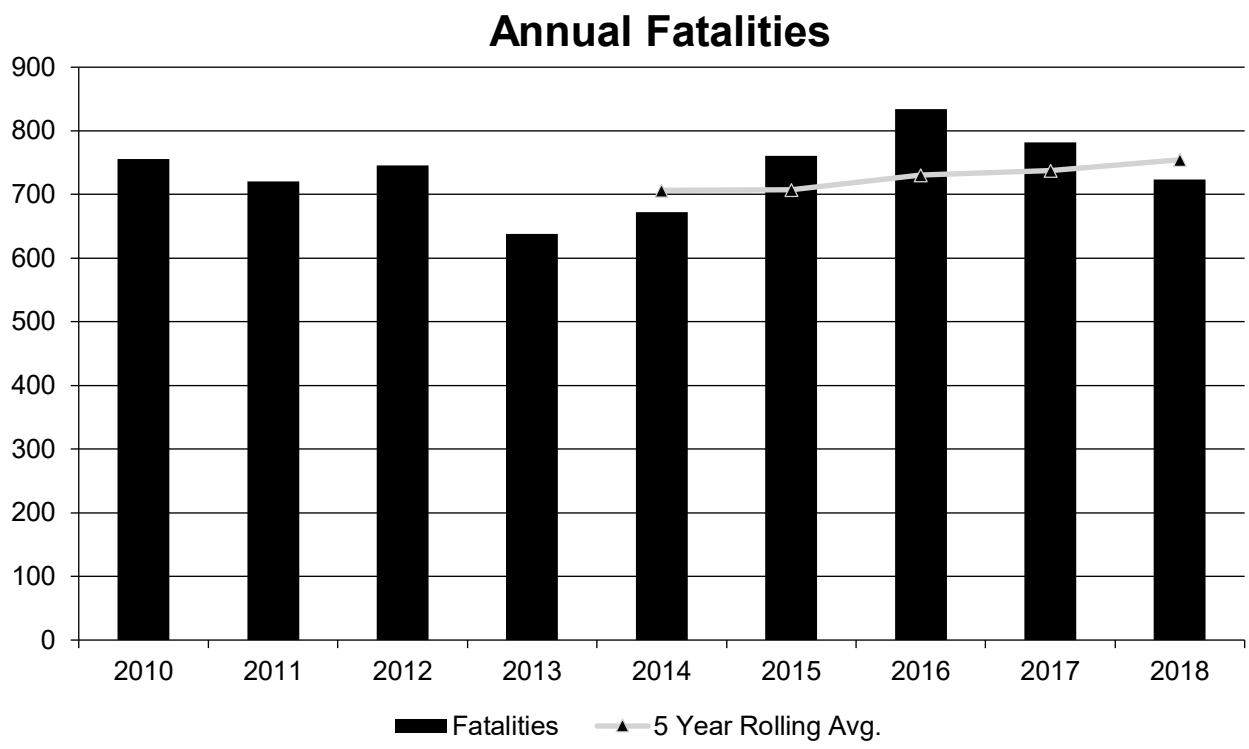
PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
US42	Roadway	Roadway - other	15.287	Miles	$397626	$397626	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	37,248	35	State Highway Agency	Spot	Roadway Departure	

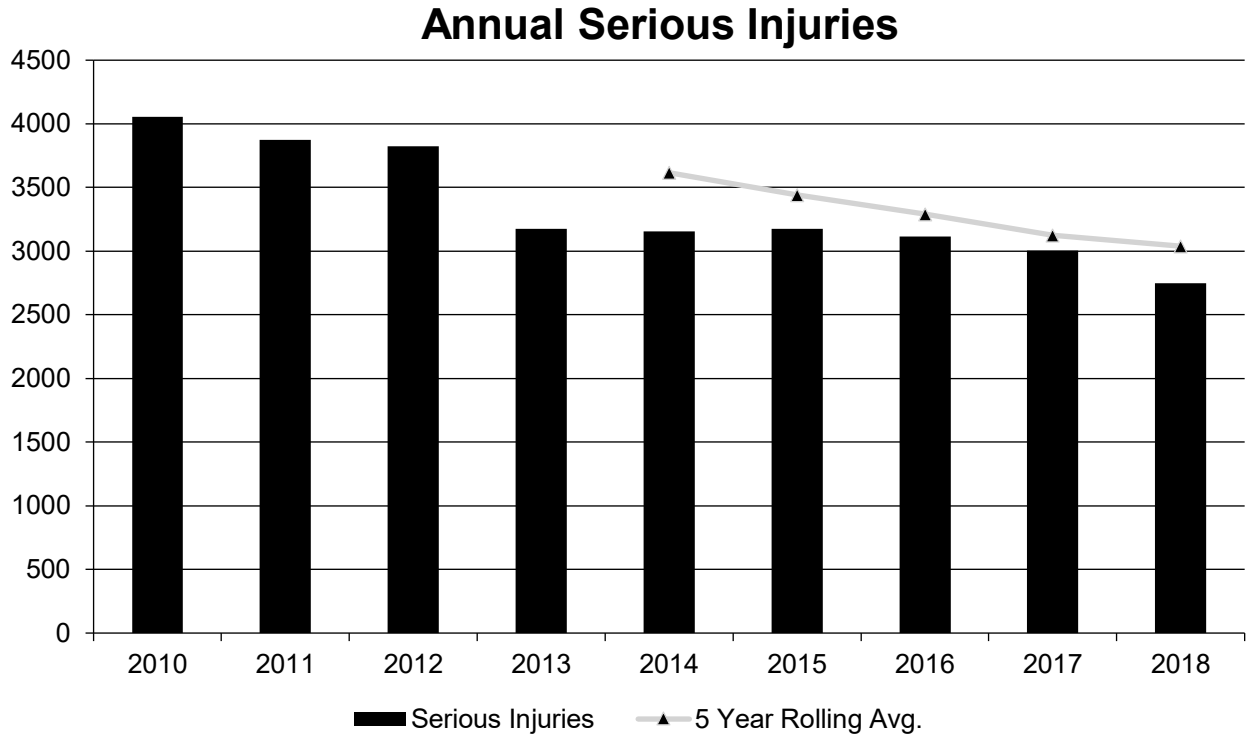
Safety Performance

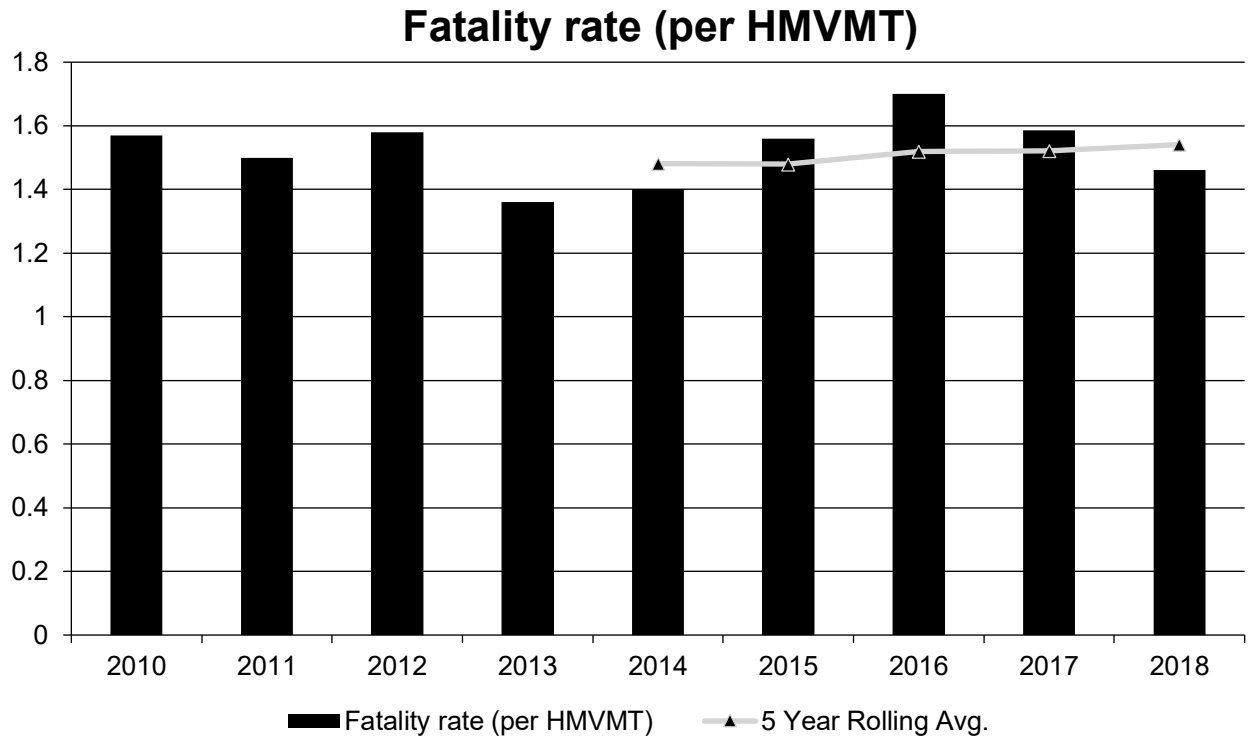
General Highway Safety Trends

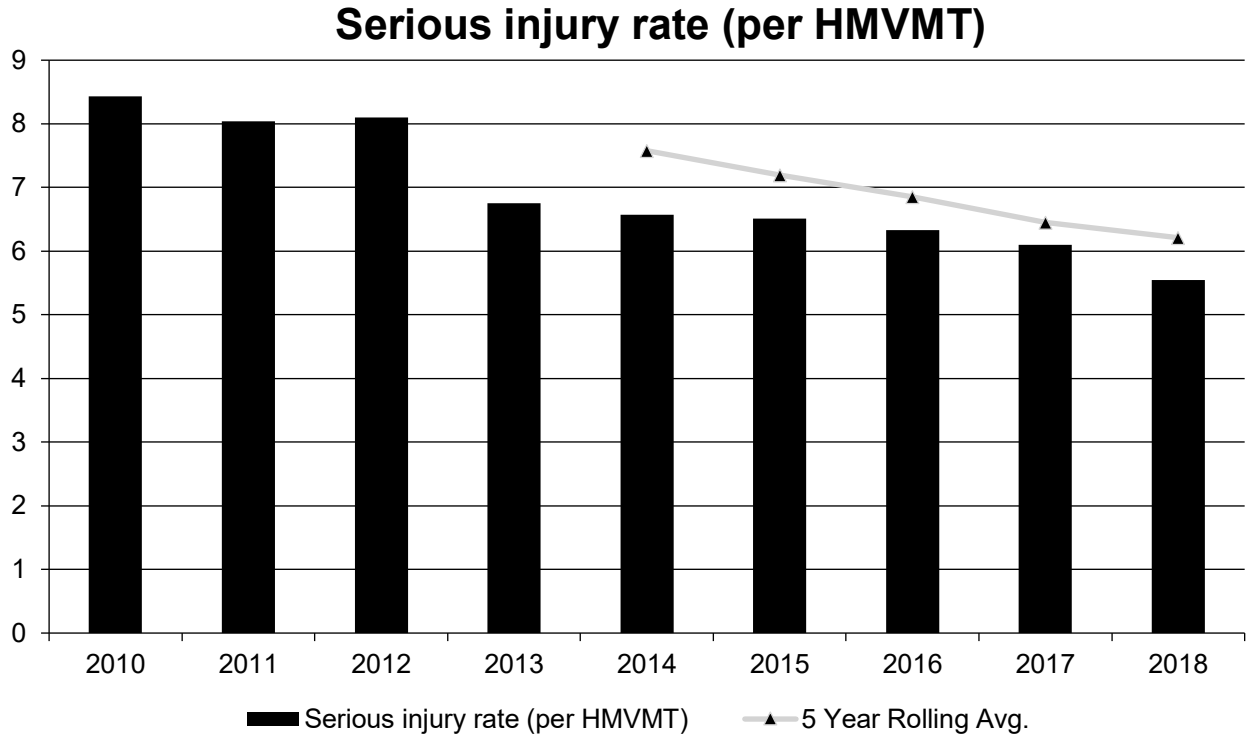
Present data showing the general highway safety trends in the State for the past five years.

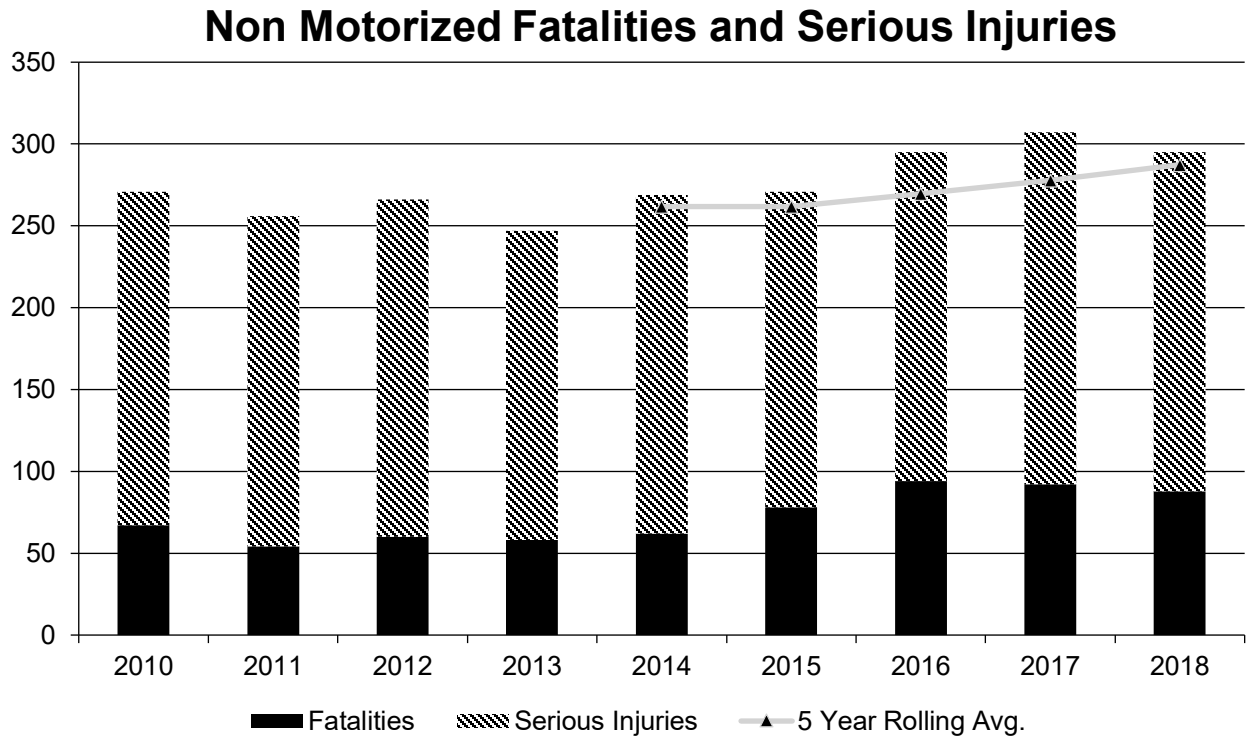
PERFORMANCE MEASURES	2010	2011	2012	2013	2014	2015	2016	2017	2018
Fatalities	756	721	746	638	672	761	834	782	724
Serious Injuries	4,053	3,873	3,825	3,175	3,154	3,175	3,114	3,006	2,746
Fatality rate (per HMVMT)	1.570	1.500	1.580	1.360	1.400	1.560	1.700	1.586	1.461
Serious injury rate (per HMVMT)	8.430	8.040	8.100	6.750	6.570	6.510	6.330	6.097	5.548
Number non-motorized fatalities	67	54	60	58	62	78	94	92	88
Number of non-motorized serious injuries	204	202	206	189	207	193	201	215	207
Number of non-motorized fatalities & serious injuries	271	256	266	247	269	271	295	307	295

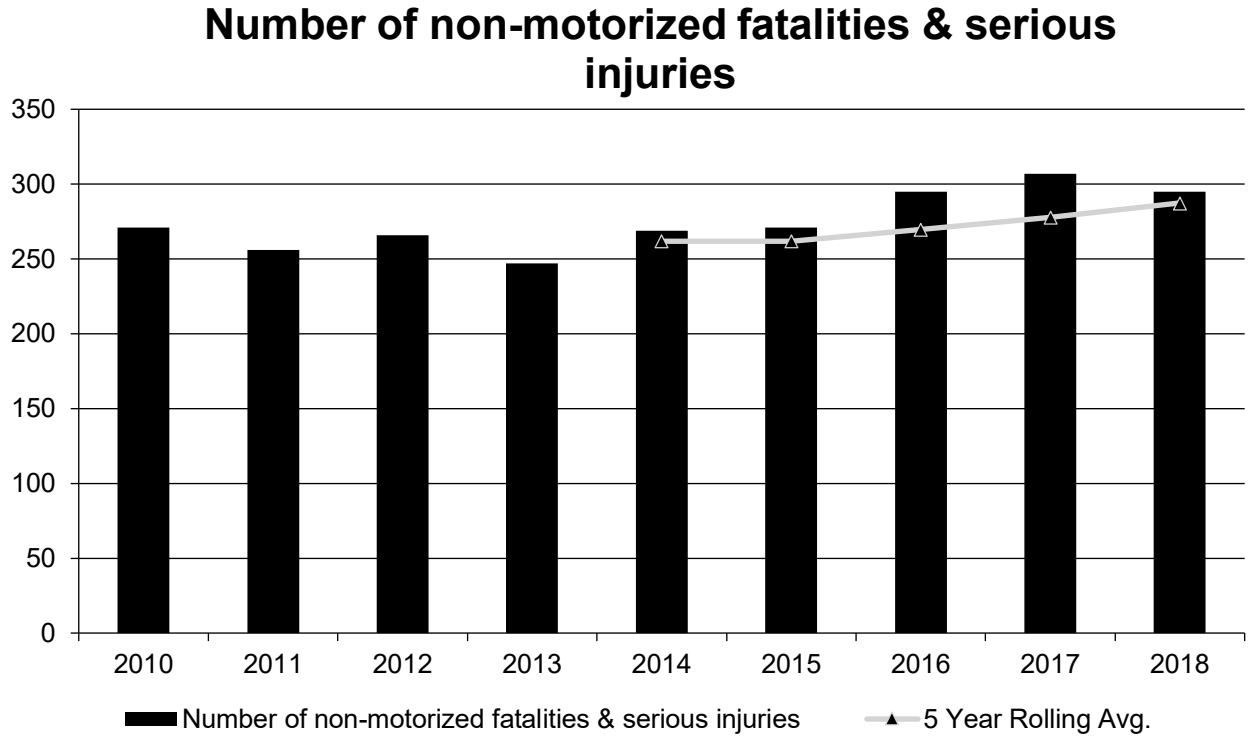

Annual Fatalities
900
800
700
600
500
400
300
200
100
0
2010
2011
2012
2013
2014
2015
2016
2017
2018
Fatalities
5 Year Rolling Avg.


Annual Serious Injuries
4500
4000
3500
3000
2500
2000
1500
1000
500
0
2010
2011
2012
2013
2014
2015
2016
2017
2018
Serious Injuries
5 Year Rolling Avg.


Fatality rate (per HMVMT)
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
2010
2011
2012
2013
2014
2015
2016
2017
2018
Fatality rate (per HMVMT)
5 Year Rolling Avg.


Serious injury rate (per HMVMT)
9
8
7
6
5
4
3
2
1
0
2010
2011
2012
2013
2014
2015
2016
2017
2018
Serious injury rate (per HMVMT)
5 Year Rolling Avg.





Describe fatality data source.

FARS

To the maximum extent possible, present this data by functional classification and ownership.

Year 2018

Functional Classification	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
Rural Principal Arterial (RPA) - Interstate	42	107.8	0.53	1.37
Rural Principal Arterial (RPA) - Other Freeways and Expressways				
Rural Principal Arterial (RPA) - Other	77	181	1.52	3.55
Rural Minor Arterial	76.6	236.8	2.22	6.88
Rural Minor Collector	71.6	242	3.37	11.39
Rural Major Collector	133	373.4	3.43	9.64
Rural Local Road or Street	18.4	63.2	3.2	10.99
Urban Principal Arterial (UPA) - Interstate	29.2	151.6	0.6	2.92
Urban Principal Arterial (UPA) - Other Freeways and Expressways	6	15	0.71	1.78
Urban Principal Arterial (UPA) - Other	66.6	314.4	1.49	7.07
Urban Minor Arterial	70	373	1.38	7.35
Urban Minor Collector				
Urban Major Collector	18.2	86.8	1.06	5.04
Urban Local Road or Street	2.4	10	2.42	10.46

Year 2018

Roadways	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
State Highway Agency	565.8	2,322.2	1.34	4.75
County Highway Agency	53.4	209.8		
Town or Township Highway Agency				
City or Municipal Highway Agency	37.4	331.6		
State Park, Forest, or Reservation Agency				
Local Park, Forest or Reservation Agency				
Other State Agency				
Other Local Agency				
Private (Other than Railroad)				
Railroad				
State Toll Authority				
Local Toll Authority				
Other Public Instrumentality (e.g. Airport, School, University)	5.2	18.4		
Indian Tribe Nation				

Safety Performance Targets

Safety Performance Targets

Calendar Year 2020 Targets *

Number of Fatalities:754.0

Describe the basis for established target, including how it supports SHSP goals.

The Kentucky Transportation Cabinet has set the target goal of 754.0 fatalities (5-year moving average) for fiscal year 2020. Similar to the national trend, the number of fatalities on Kentucky's

public roads has been increasing the past five years, after a historically low number of fatalities in 2013. This is possibly due to factors such as increased VMT and economic growth. Despite these upward trends, KYTC remains committed to the reduction of fatalities throughout the Commonwealth. This target represents a reduction in total fatalities in calendar years 2019 and 2020 as compared to calendar years 2017 and 2018. This goal is shared with the SHSP and reiterates KYTC's commitment to the shared vision of Toward Zero Deaths.

Number of Serious Injuries:2706.0

Describe the basis for established target, including how it supports SHSP goals.

The Kentucky Transportation Cabinet has set the target goal of 2705.6 serious injuries (5-year moving average) for fiscal year 2012. KYTC remains committed to the continued reduction of serious injuries throughout the Commonwealth. This target represents a reduction in total serious injuries in calendar years 2019 and 2020 as compared to calendar years 2017 and 2018. This goal is shared with the SHSP and reiterates KYTC's commitment to the shared vision of Toward Zero Deaths.

Fatality Rate:1.500

Describe the basis for established target, including how it supports SHSP goals.

The Kentucky Transportation Cabinet has set the target goal of a 1.5 fatality rate (5-year moving average) for fiscal year 2020. KYTC remains committed to the reduction of the fatality rate throughout the Commonwealth. This target represents a reduction in the fatality rate in calendar years 2019 and 2020 as compared to calendar years 2017 and 2018. This goal is shared with the SHSP and reiterates KYTC's commitment to the shared vision of Toward Zero Deaths.

Serious Injury Rate:5.400

Describe the basis for established target, including how it supports SHSP goals.

The Kentucky Transportation Cabinet has set the target goal of a 5.4 serious injury rate for fiscal year 2020. KYTC remains committed to the reduction of the serious injury rate throughout the Commonwealth. This target represents a reduction in the serious injury rate in calendar years 2019 and 2020 as compared to calendar years 2017 and 2018. This goal reiterates KYTC's commitment to the shared vision of Toward Zero Deaths.

Total Number of Non-Motorized Fatalities and Serious Injuries:287.0

Describe the basis for established target, including how it supports SHSP goals.

The Kentucky Transportation Cabinet has set the target goal of 287 non-motorized fatalities and serious injuries for fiscal year 2019. KYTC remains committed to the reduction of non-motorized serious injuries and fatalities throughout the Commonwealth. This target represents a reduction in total Non-Motorized fatalities and serious injuries in calendar years 2019 and 2020 as compared to calendar years 2017 and 2018. This goal reiterates KYTC's commitment to the shared vision of Toward Zero Deaths.

Describe efforts to coordinate with other stakeholders (e.g. MPOs, SHSO) to establish safety performance targets.

HSIP and KOHS personnel attend STP MPO meetings.

Does the State want to report additional optional targets?

No

Describe progress toward meeting the State's 2018 Safety Performance Targets (based on data available at the time of reporting). For each target, include a discussion of any reasons for differences in the actual outcomes and targets.

For the 2018 reporting period, KYTC met the target for one (1) safety performance measure, the Number of Non-Motorized Fatalities and Serious Injuries measure. In addition, KYTC showed significant progress towards two (2) safety performance measures, namely the Number of Serious Injuries and Rate of Serious Injuries measures. However, KYTC did not meet or show significant progress for the remaining two safety performance measures, specifically the Number of Fatalities and Rate of Fatalities measures. Based on this information, KYTC has met or made significant progress in three (3) of the five (5) safety performance measures, and the overall finding is that KYTC has not met or made significant progress toward meeting its safety performance targets.

As previously indicated, KYTC did not meet the target for four (4) of the five (5) safety performance measures. The primary reason for the differences in the actual outcomes and targets for these four safety performance measures is that KYTC was extremely aggressive in establishing the 2018 targets involving fatalities and serious injuries. When it comes to the two performance measures involving fatal collisions, KYTC understood that the baseline five (5) year average included a historically low year for highway fatalities and that this historically low year would not be included in the 2018 evaluation. Nevertheless, KYTC established the fatality-based targets at or near the 2016 baseline measures in support of the goal of showing improvement, even though it was understood that the required reductions in fatalities would be extremely difficult to achieve. In a similar manner, KYTC was extremely aggressive in establishing the targets for the two safety performance measures involving serious injury collisions, basing their targets on a predicted rate of decline. While serious injuries continued to decline at a significant rate in 2017 and 2018, the rate of decline was not as significant as originally predicted. As a result, KYTC did not meet the injury-based safety performance measures but did show significant progress when it comes to these two safety performance measures.

Applicability of Special Rules

Does the HRRR special rule apply to the State for this reporting period?

Yes

Provide the number of older driver and pedestrian fatalities and serious injuries 65 years of age and older for the past seven years.

PERFORMANCE MEASURES	2011	2012	2013	2014	2015	2016	2017
Number of Older Driver and Pedestrian Fatalities	126	144	152	130	140	196	198

PERFORMANCE MEASURES	2011	2012	2013	2014	2015	2016	2017
Number of Older Driver and Pedestrian Serious Injuries	538	551	528	513	583	563	500

Evaluation

Program Effectiveness

How does the State measure effectiveness of the HSIP?

- Other-Initiative Basis

Due to the extent of utilization of the HSM by KYTC's HSIP, procedures for program-wide effectiveness assessment do not currently exist. Effectiveness is determined at the initiative level, utilizing such methodology as benefit/cost ratios.

Based on the measures of effectiveness selected previously, describe the results of the State's program level evaluations.

As previously stated, effectiveness is not currently determined at the program-wide level. Effectiveness at the initiative level is determined through benefit/cost ratios were applicable as seen below in the entry entitled Countermeasure Effectiveness Evaluations and in the Executive Summary. Current and previous benefit/cost analysis has shown positive return on investment for the initiatives analyzed.

What other indicators of success does the State use to demonstrate effectiveness and success of the Highway Safety Improvement Program?

- Increased awareness of safety and data-driven process
- Increased focus on local road safety
- Policy change

Policy changes include the implementation of Rumble Strips and Durable Pavement Edge (Safety Edge), as well as the implementation of a Performance Based Flexible Solutions initiative within Project Development.

Effectiveness of Groupings or Similar Types of Improvements

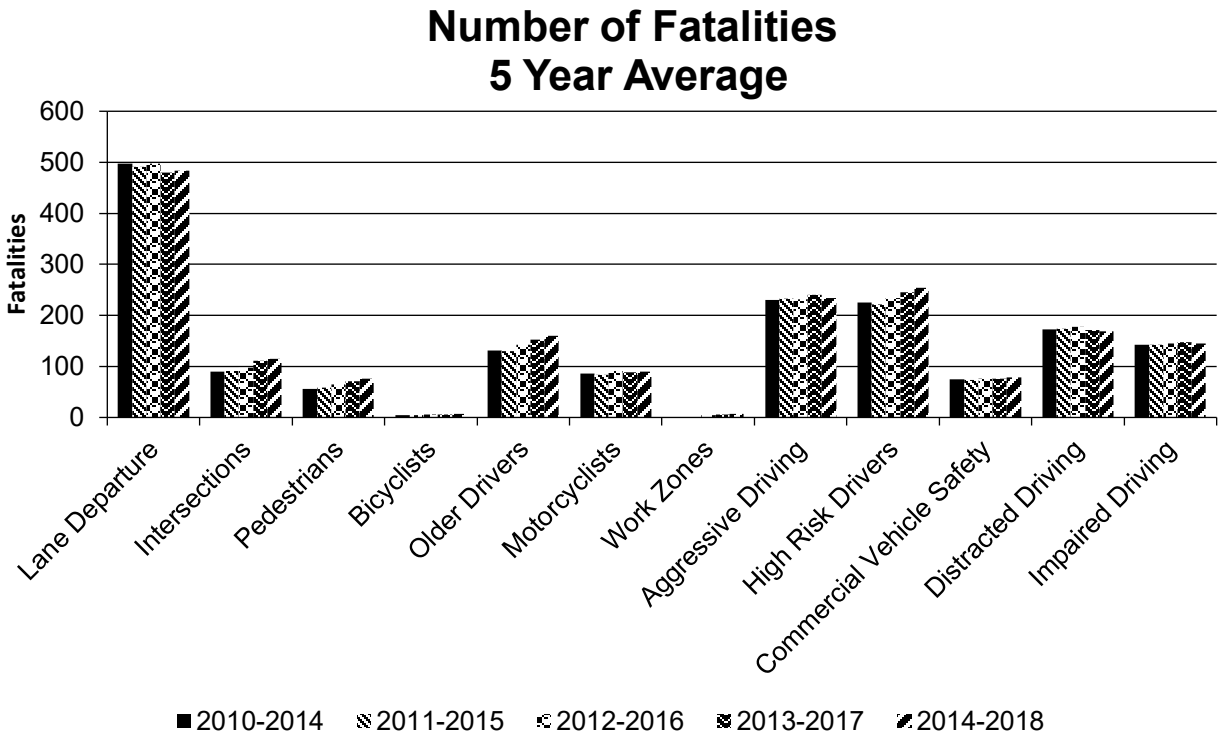
Present and describe trends in SHSP emphasis area performance measures.

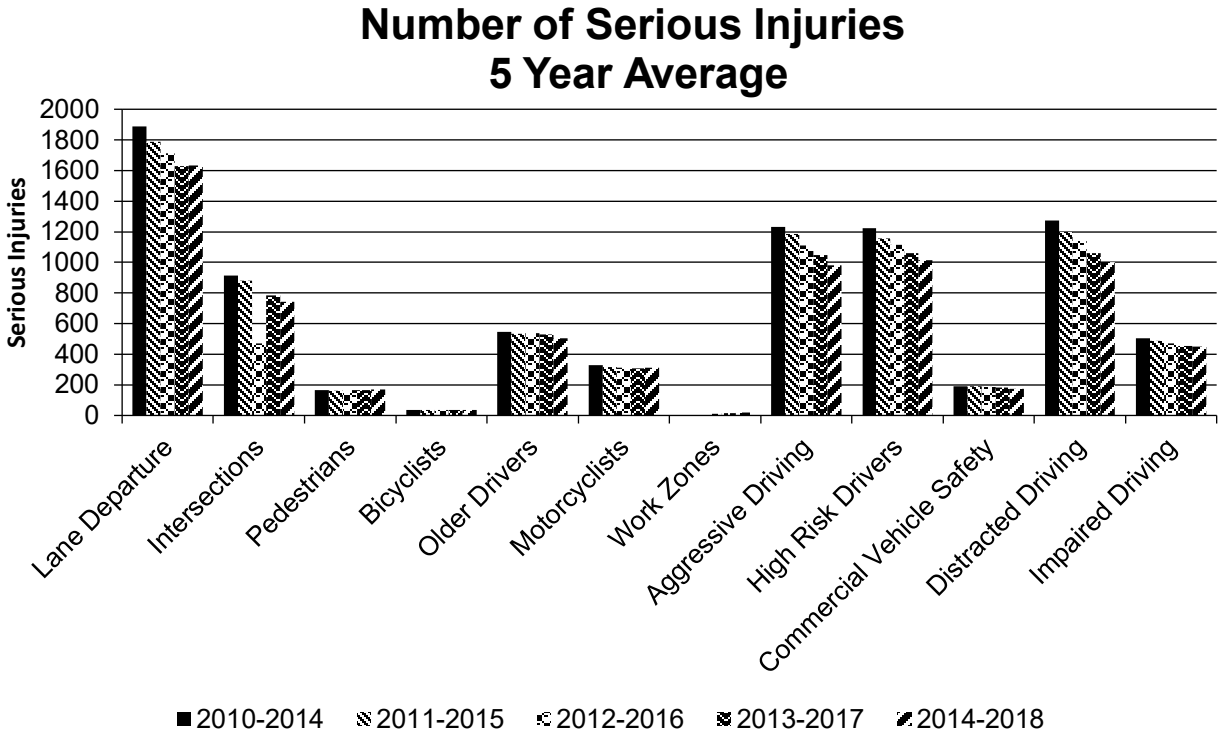
Year 2018

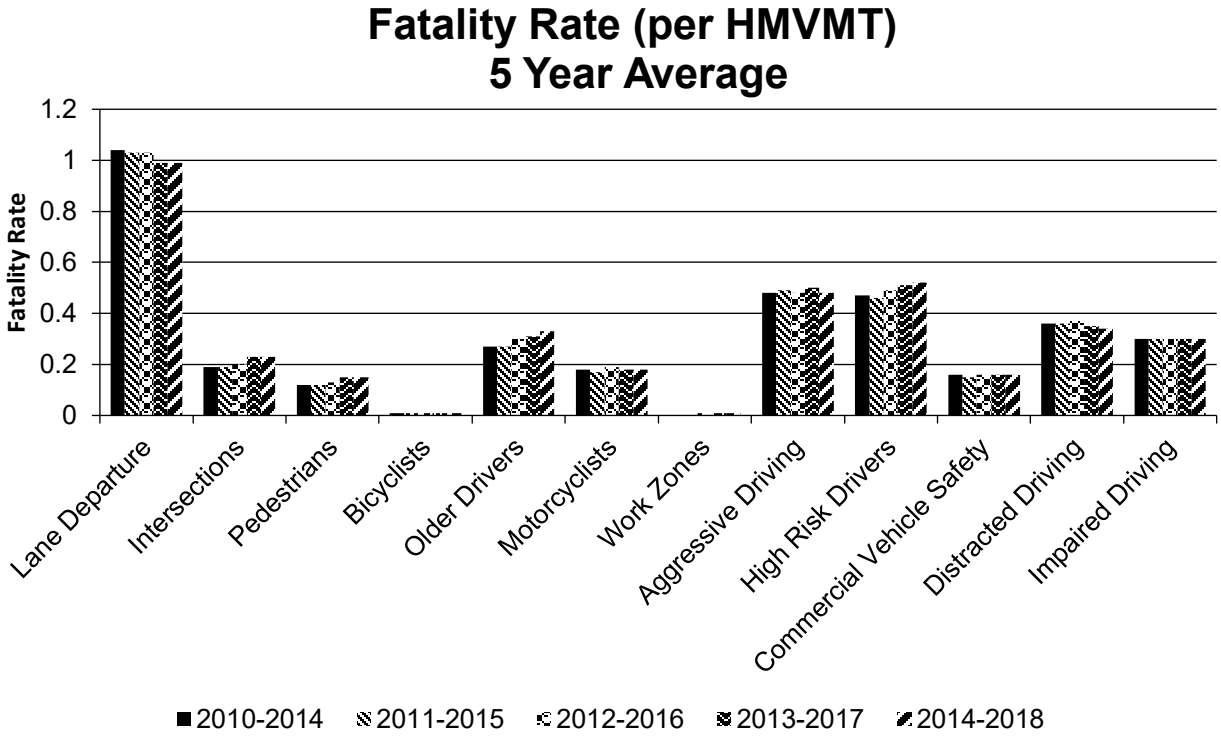
SHSP Emphasis Area	Targeted Crash Type	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
Lane Departure	Lane Departure	483	1,631.4	0.99	3.33
Intersections	Intersections	114.6	743.8	0.23	1.52
Pedestrians	Vehicle/pedestrian	75.6	169	0.15	0.35
Bicyclists	Vehicle/bicycle	7.2	35.6	0.01	0.07
Older Drivers	Older Driver Involved	159.8	506	0.33	1.03

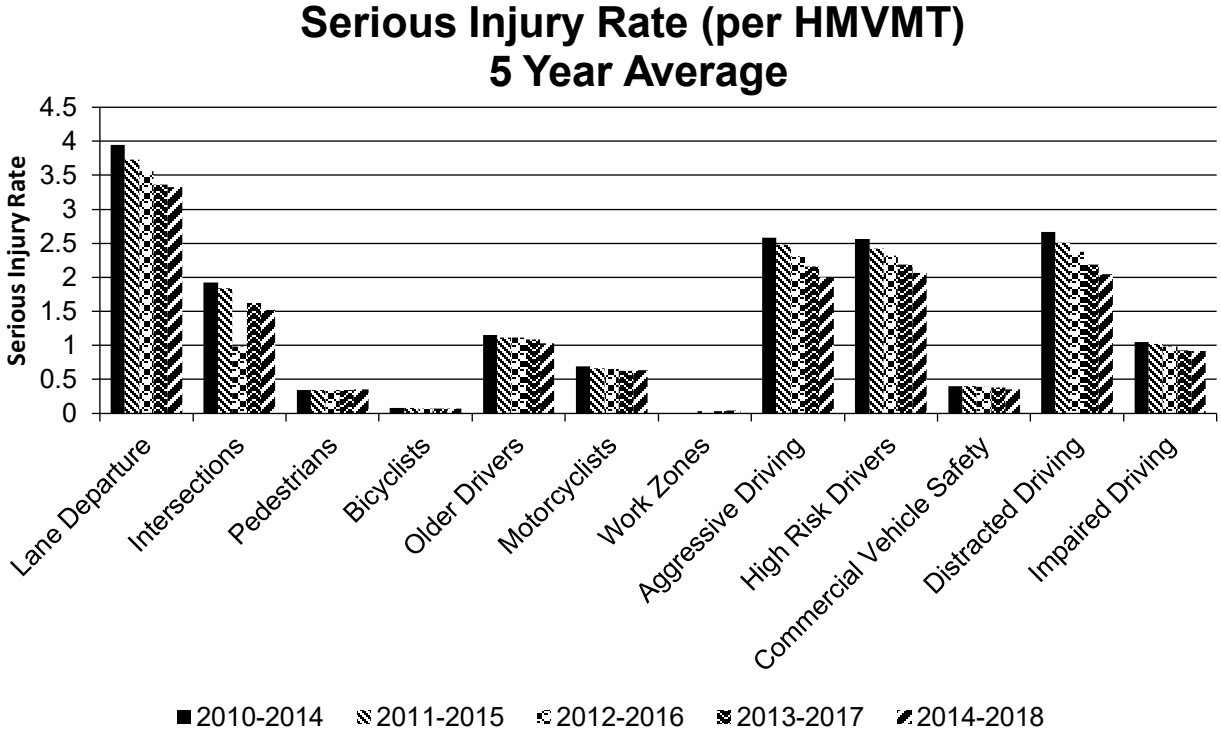
2019 Kentucky Highway Safety Improvement Program

SHSP Emphasis Area	Targeted Crash Type	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
Motorcyclists	Morotcycle Involved	89.8	311.6	0.18	0.64
Work Zones	Work Zone Involved	6.4	17.4	0.01	0.04
Aggressive Driving	Aggressive Human Factors	233.4	980	0.48	2
High Risk Drivers	Young & Older Drivers	254.4	1,013.8	0.52	2.07
Commercial Vehicle Safety	Truck-related	78	173.4	0.16	0.35
Distracted Driving	Distraction Related	168.6	1,002.6	0.34	2.05
Impaired Driving	Alcohol or Drug Related	144.6	448.8	0.3	0.92


Number of Fatalities
5 Year Average
Fatalities
600
500
400
300
200
100
0
Lane Departure
Intersections
Pedestrians
Bicyclists
Older Drivers
Motorcyclists
Work Zones
Aggressive Driving
High Risk Drivers
Commercial Vehicle Safety
Distracted Driving
Impaired Driving
2010-2014
2011-2015
2012-2016
2013-2017
2014-2018


Number of Serious Injuries
5 Year Average
Serious Injuries
2000
1800
1600
1400
1200
1000
800
600
400
200
0
Lane Departure
Intersections
Pedestrians
Bicyclists
Older Drivers
Motorcyclists
Work Zones
Aggressive Driving
High Risk Drivers
Commercial Vehicle Safety
Distracted Driving
Impaired Driving
2010-2014
2011-2015
2012-2016
2013-2017
2014-2018





Has the State completed any countermeasure effectiveness evaluations during the reporting period?

No

Project Effectiveness

Provide the following information for previously implemented projects that the State evaluated this reporting period.

LOCATION	FUNCTIONAL CLASS	IMPROVEMENT CATEGORY	IMPROVEMENT TYPE	PDO BEFORE	PDO AFTER	FATALITY BEFORE	FATALITY AFTER	SERIOUS INJURY BEFORE	SERIOUS INJURY AFTER	ALL OTHER INJURY BEFORE	ALL OTHER INJURY AFTER	TOTAL BEFORE	TOTAL AFTER	EVALUATION RESULTS (BENEFIT/COST RATIO)
N/A														

Describe any other aspects of HSIP effectiveness on which the State would like to elaborate.

Effectiveness evaluations were performed and benefit/costs were calculated, with results presented for the following four types of systemic improvements:

CABLE MEDIAN BARRIERS

Wilcoxon Signed-Rank Test for “before and after shift in proportions of cross-median or impacted object in median crashes” – significant reduction at 99% confidence level.

Empirical Bayes analysis of “before and after cross-median crashes” was not performed on cable median barrier crashes because the necessary safety performance function was not available.

Benefit/Cost analysis results using observed crashes; 4.54:1 based on Comprehensive Cost of motor vehicle collisions (National Safety Council).

HIGH-FRICTION SURFACE TREATMENTS

Wilcoxon Signed-Rank Test for “before and after shift in proportions of wet-weather lane departure crashes” – significant reduction at 95% confidence level.

Empirical Bayes analysis of “before and after wet-weather lane departure crashes” results indicated the change in crashes (effect of the treatment) was significant at the 95% confidence level.

Benefit/Cost analysis results using expected crashes from empirical Bayes analysis; 33.31:1 based on Comprehensive Cost of motor vehicle collisions (National Safety Council).

EDGELINE ONLY STRIPING

Wilcoxon Signed-Rank Test for “before and after shift in proportions of road departure crashes” – no statistically significant change.

Empirical Bayes analysis of “before and after cross-median crashes” results indicated the change in crashes (effect of the treatment) was significant at the 95% confidence level.

Benefit/Cost analysis results using observed crashes; 5.05:1 based on Comprehensive Cost of motor vehicle collisions (National Safety Council).

HSM methods are used to evaluate and calculate benefits and costs for systemic safety improvements (cable median barriers, edgeline only striping, and high-friction surface treatments).

Compliance Assessment

What date was the State's current SHSP approved by the Governor or designated State representative?

07/31/2015

What are the years being covered by the current SHSP?

From: 2015 To: 2019

When does the State anticipate completing it's next SHSP update?

2019

The SHSP is currently being updated and it is planned to be completed by the end of 2019.

Provide the current status (percent complete) of MIRE fundamental data elements collection efforts using the table below.

ROAD TYPE	MIRE NAME (MIRE NO.)	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
		NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	
ROADWAY SEGMENT	Segment Identifier (12)	100	100					100	100	100	100
	Route Number (8)	100	100								
	Route/Street Name (9)	100	100								
	Federal Aid/Route Type (21)	100	100								
	Rural/Urban Designation (20)	100	100					100	100		
	Surface Type (23)	100	100					100	100		
	Begin Point Segment Descriptor (10)	100	100					100	100	100	100
	End Point Segment Descriptor (11)	100	100					100	100	100	100
	Segment Length (13)	100	100								
	Direction of Inventory (18)	100	100								
	Functional Class (19)	100	100					100	100	100	100
	Median Type (54)	100	100								
	Access Control (22)	100	100								

ROAD TYPE	MIRE NAME (MIRE NO.)	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
		NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	
	One/Two Way Operations (91)	100	100								
	Number of Through Lanes (31)	100	100					100			
	Average Annual Daily Traffic (79)	100	100					100	1		
	AADT Year (80)	100	100								
	Type of Governmental Ownership (4)	100	100					100	100	100	100
INTERSECTION	Unique Junction Identifier (120)			100	100						
	Location Identifier for Road 1 Crossing Point (122)			100	100						
	Location Identifier for Road 2 Crossing Point (123)			100	100						
	Intersection/Junction Geometry (126)			100	100						
	Intersection/Junction Traffic Control (131)			100	100						
	AADT for Each Intersecting Road (79)			81	81						
	AADT Year (80)			13	8						
	Unique Approach Identifier (139)			100	100						
INTERCHANGE/RAMP	Unique Interchange Identifier (178)					100	100				
	Location Identifier for Roadway at Beginning of Ramp Terminal (197)					100	100				
	Location Identifier for Roadway at Ending Ramp Terminal (201)					100	100				
	Ramp Length (187)					100	100				

ROAD TYPE	MIRE NAME (MIRE NO.)	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
		NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	
	Roadway Type at Beginning of Ramp Terminal (195)					100	100				
	Roadway Type at End Ramp Terminal (199)					100	100				
	Interchange Type (182)					100	100				
	Ramp AADT (191)					85	100				
	Year of Ramp AADT (192)					85	100				
	Functional Class (19)					100	100				
	Type of Governmental Ownership (4)					100	100				
Totals (Average Percent Complete):		**100.00**	**100.00**	**86.75**	**86.13**	**97.27**	**100.00**	**100.00**	**77.89**	**100.00**	**100.00**

*Based on Functional Classification

Describe actions the State will take moving forward to meet the requirement to have complete access to the MIRE fundamental data elements on all public roads by September 30, 2026.

The State will continue to collect the MIRE fundamental data elements on all public roads and is on-target to meet the deadline.

Did the State conduct an HSIP program assessment during the reporting period?

No

The HSIP plans to perform a program-wide assessment by analyzing the effectiveness of individual initiatives when sufficient after-crash data becomes available early in the year.

When does the State plan to complete its next HSIP program assessment.

2020

Optional Attachments

Program Structure:

HSIP FAST Act Investment Plan with Memo to FHWA.pdf
Project Implementation:

Safety Performance:

Evaluation:

Compliance Assessment:

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.

Highway safety improvement project: means strategies, activities and projects on a public road that are consistent with a State strategic highway safety plan and corrects or improves a hazardous road location or feature or addresses a highway safety problem.

HMVMT: means hundred million vehicle miles traveled.

Non-infrastructure projects: are projects that do not result in construction. Examples of non-infrastructure projects include road safety audits, transportation safety planning activities, improvements in the collection and analysis of data, education and outreach, and enforcement activities.

Older driver special rule: applies if traffic fatalities and serious injuries per capita for drivers and pedestrians over the age of 65 in a State increases during the most recent 2-year period for which data are available, as defined in the Older Driver and Pedestrian Special Rule Interim Guidance dated February 13, 2013.

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.

Programmed funds: mean those funds that have been programmed in the Statewide Transportation Improvement Program (STIP) to be expended on highway safety improvement projects.

Roadway Functional Classification: means the process by which streets and highways are grouped into classes, or systems, according to the character of service they are intended to provide.

Strategic Highway Safety Plan (SHSP): means a comprehensive, multi-disciplinary plan, based on safety data developed by a State Department of Transportation in accordance with 23 U.S.C. 148.

Systematic: refers to an approach where an agency deploys countermeasures at all locations across a system.

Systemic safety improvement: means an improvement that is widely implemented based on high risk roadway features that are correlated with specific severe crash types.

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.