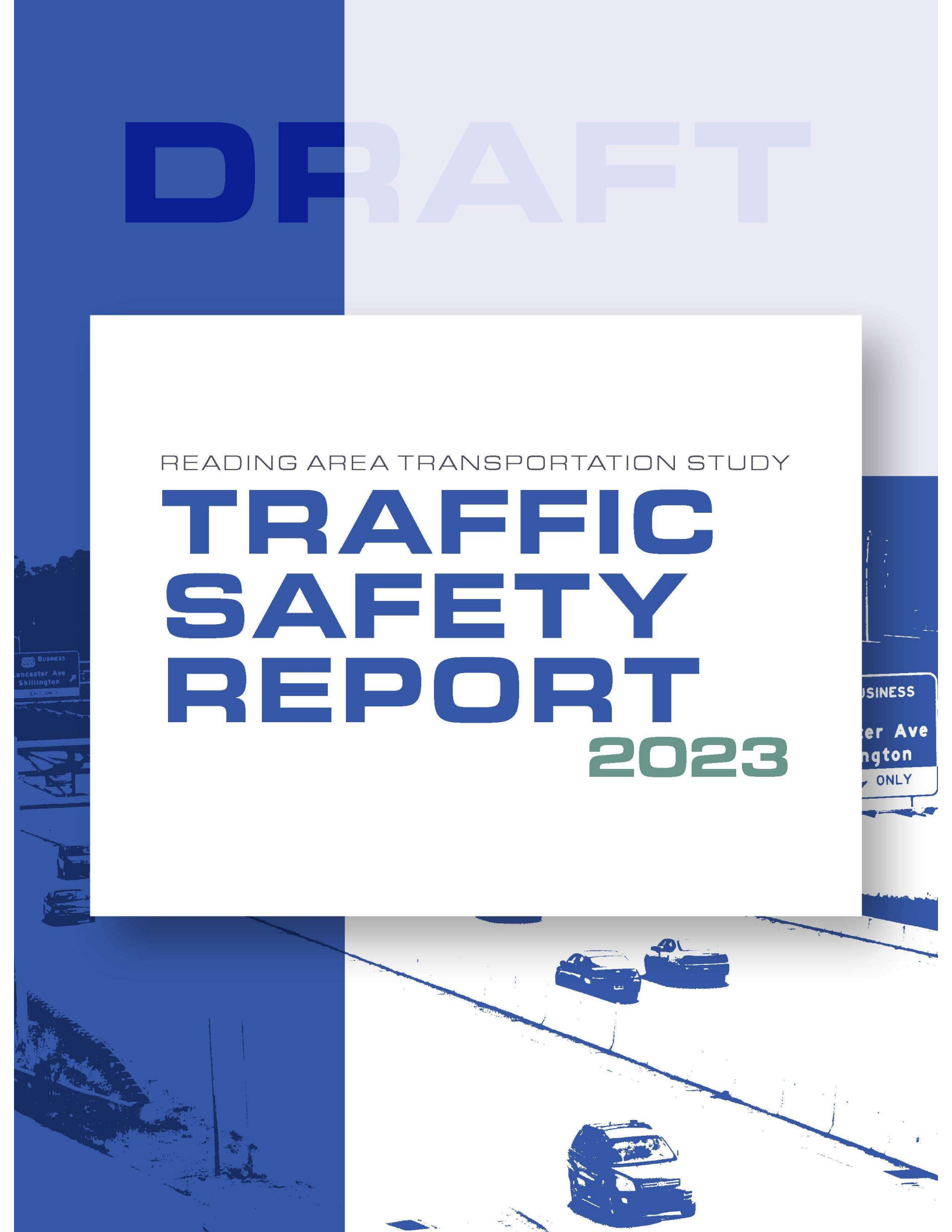


**DRAFT**

READING AREA TRANSPORTATION STUDY

# TRAFFIC SAFETY REPORT

**2023**



# Goal

The goal of this plan is to identify ways to reduce the number of crashes on Berks County roadways and prevent fatalities and serious injuries through the examination of crash trends and identification of mitigation strategies.

**This report will be used as a guide when determining potential projects for inclusion in the Reading Area Transportation Study Transportation Improvement Program and Long Range Transportation Plan.**



# Development



- Toward Zero Deaths (TZD): A National Strategy on Highway Safety

- Pennsylvania Strategic Highway Safety Plan
- PennDOT District 5-0 Highway Safety Plan

## PENNSYLVANIA Strategic Highway Safety Plan

2022



# RATS Concurrence with Statewide Performance Measures

The Moving Ahead for Progress in the 21st Century Act (MAP-21) and Fixing America's Surface Transportation (FAST) Act established a series of performance measures to ensure effective use of Federal transportation funds.

**TABLE 1: STATEWIDE TARGETS:**

PERFORMANCE MEASURE	5-YEAR ROLLING AVERAGES		
	TARGET	ACTUAL	BASELINE
	2019-2023	2019-2023	2017-2021
Number of Fatalities	1,160.9		1149.0
Fatality Rate	1.170		1.162
Number of Serious Injuries	4,893.2		4590.6
Serious Injury Rate	4.931		4.642
Number of Non-motorized Fatalities and Serious Injuries	811.3		783.4

\* Future VMT estimated to hold level over next few years

**TABLE 2: READING MPO SUPPORTING VALUES:**

PERFORMANCE MEASURE	5-YEAR ROLLING AVERAGES		
	TARGET	ACTUAL	BASELINE
	2019-2023	2019-2023	2017-2021
Number of Fatalities	44.3		44.6
Fatality Rate	1.293		1.326
Number of Serious Injuries	210.8		192.2
Serious Injury Rate	6.154		5.714
Number of Non-motorized Fatalities and Serious Injuries	30.3		27.0

\* Future VMT estimated to hold level over next few years

# Data

- 5-year period from 2017-2021
- Travel Demand Factors
- All crash data was derived from PennDOT's Pennsylvania Crash Information Tool
- Crash datasets include a breakdown of the total number of crashes and a breakdown of crashes that involved fatalities and suspected serious injuries

## **Travel Demand Factors**

- Population
- Employment
- Passenger Car Registrations
- Vehicle Miles Traveled

## **General Crash Trends**





















- Crashes by Month
- Crashes by Day of the Week
- Crashes by Time of Day
- Crashes by Collision Type
- Crashes by Road Condition
- Crashes by Weather Condition
- Crashes by Illumination

## **Mode Specific Crash Trends**





















- Crashes by Driving Behavior
- Crashes by Young and Mature Drivers
- Crashes by Vulnerable Road Users
- Crashes by Vehicle Type
- Crashes by Road Ownership
- Crashes by Intersection Type
- Crashes in Work Zones by Work Zone Type



## SAFETY TREND SUMMARY FOR FATAL AND SUSPECTED SERIOUS INJURY CRASHES FROM 2017 TO 2021

INDICATOR NAME	DESCRIPTION	TREND	TREND RATING
<b>Roadway Fatalities</b>	The total number of fatal roadway crashes decreased approximately 17% from 2017 to 2021.	<b>IMPROVING</b> 	
<b>Roadway Suspected Serious Injury</b>	The total number of suspected serious injury roadway crashes increased approximately 43% from 2017 to 2021.	<b>DECLINING</b> 	
<b>Impaired Driver Fatalities</b>	The total number of fatal crashes among impaired drivers remained the same from 2017 to 2021.	<b>STEADY</b> 	
<b>Impaired Driver Suspected Serious Injury</b>	The total number of suspected serious injury crashes among impaired drivers increased approximately 68% from 2017 to 2021.	<b>DECLINING</b> 	
<b>Vulnerable Road User Fatalities</b>	Despite crashes involving VRUs declining approximately 20% from 2017 to 2021, the total number of fatal crashes among this group increased approximately 50%.	<b>DECLINING</b> 	
<b>Vulnerable Road User Suspected Serious Injury</b>	Despite crashes involving VRUs declining approximately 20% from 2017 to 2021, the total number of suspected serious injury crashes among this group increased approximately 47%.	<b>DECLINING</b> 	
<b>Work Zone Fatalities</b>	Work zone fatal crashes increased approximately 50% from 2017 to 2021.	<b>DECLINING</b> 	
<b>Work Zone Suspected Serious Injury</b>	Work zone suspected serious injury crashes increased from 1 in 2017 to 12 in 2021.	<b>DECLINING</b> 	
<b>Motorcyclist Fatalities</b>	Fatal crashes among motorcyclists remained the same from 2017 to 2021.	<b>STEADY</b> 	
<b>Motorcyclist Suspected Serious Injury</b>	Suspected serious injury crashes among motorcyclists more than doubled from 2017 to 2021.	<b>DECLINING</b> 	

## SAFETY TREND SUMMARY FOR FATAL AND SUSPECTED SERIOUS INJURY CRASHES FROM 2017 TO 2021

INDICATOR NAME	DESCRIPTION	TREND	TREND RATING
<b>Lane Departure Fatalities</b>	Lane departure fatal crashes decreased approximately 31% from 2017 to 2021.	IMPROVING 	
<b>Lane Departure Suspected Serious Injury</b>	Lane departure suspected serious injury crashes remained the same from 2017 to 2021.	STEADY 	
<b>Local Road Fatalities</b>	Local road fatal crashes decreased approximately 12% from 2017 to 2021.	IMPROVING 	
<b>Local Road Suspected Serious Injury</b>	Local road suspected serious injury crashes increased approximately 55% from 2017 to 2021.	DECLINING 	
<b>Intersection Fatalities</b>	Fatal crashes at intersections decreased approximately 43% from 2017 to 2021.	IMPROVING 	
<b>Intersection Suspected Serious Injury</b>	Suspected serious injury crashes at intersections nearly doubled from 2017 to 2021.	DECLINING 	
<b>Heavy Truck Related Fatalities</b>	Fatal crashes involving heavy trucks increased by 1 from 2017 to 2021.	DECLINING 	
<b>Heavy Truck Related Suspected Serious Injury</b>	Suspected serious injury crashes involving heavy trucks increased by 10 from 2017 to 2021.	DECLINING 	
<b>Young (16-18) and Mature (65+) Driver Fatalities</b>	Fatal crashes involving young and mature drivers decreased by 7% from 2017 to 2021.	IMPROVING 	
<b>Young (16-18) and Mature (65+) Driver Suspected Serious Injuries</b>	Suspected serious injury crashes involving young and mature drivers increased 46% from 2017 to 2021.	DECLINING 	

# FHWA Proven Safety Countermeasures

- Appropriate speed limits
- Speed safety cameras
- Variable speed limits
- Bicycle lanes
- Crosswalk visibility enhancements
- Leading pedestrian interval
- Medians and pedestrian refuge islands
- Pedestrian hybrid beacons
- Rectangular rapid flashing beacons
- Road diets
- Walkways
- Enhanced delineation for horizontal curves
- Longitudinal rumble strips and stripes on two-lane roads
- Median barriers
- Roadside design Improvements at curves
- SafetyEdge™ technology
- Wider edge lines
- Backplates with retroreflective borders
- Corridor access management
- Dedicated left- and right-turn lanes at intersections
- Reduced left-turn conflict intersections
- Roundabouts
- Systemic application of multiple low-cost countermeasures at stop-controlled intersections
- Yellow change intervals
- Lighting
- Local road safety plans
- Pavement friction management
- Road safety audit





# Additional Countermeasures

## Education

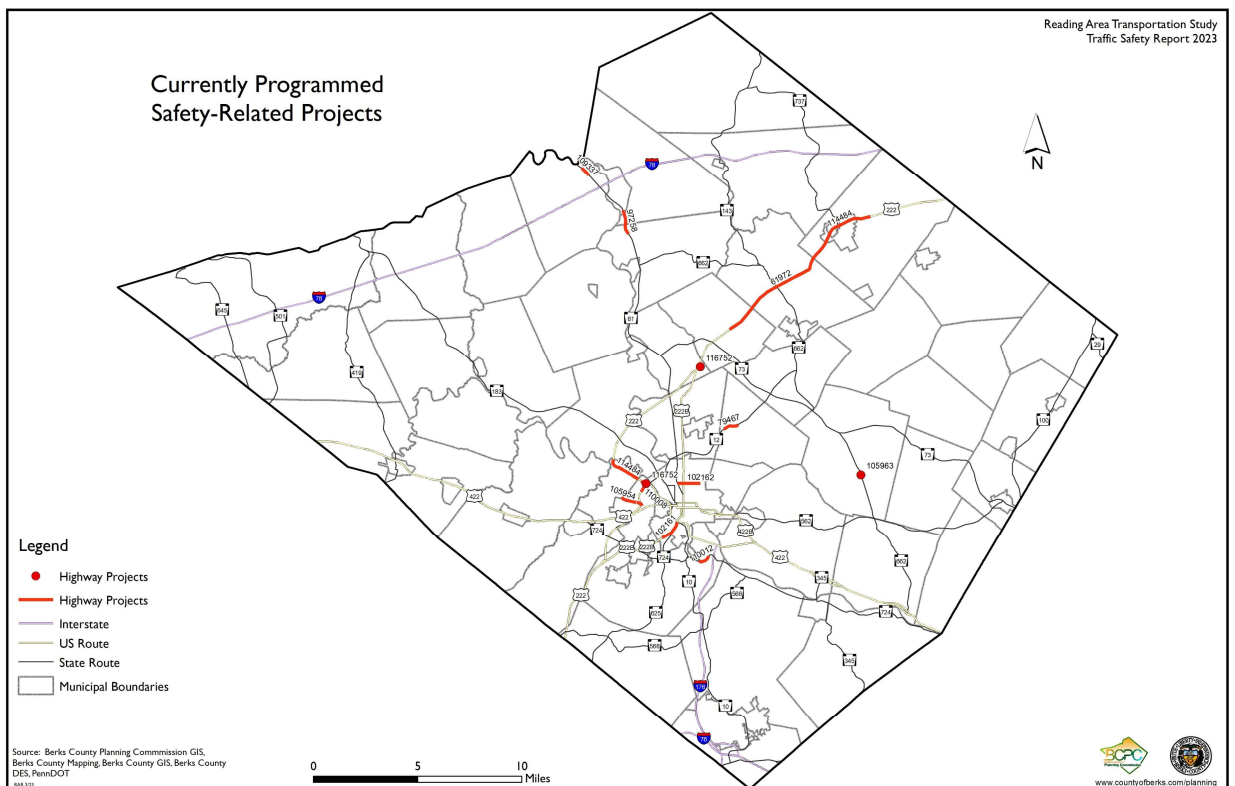
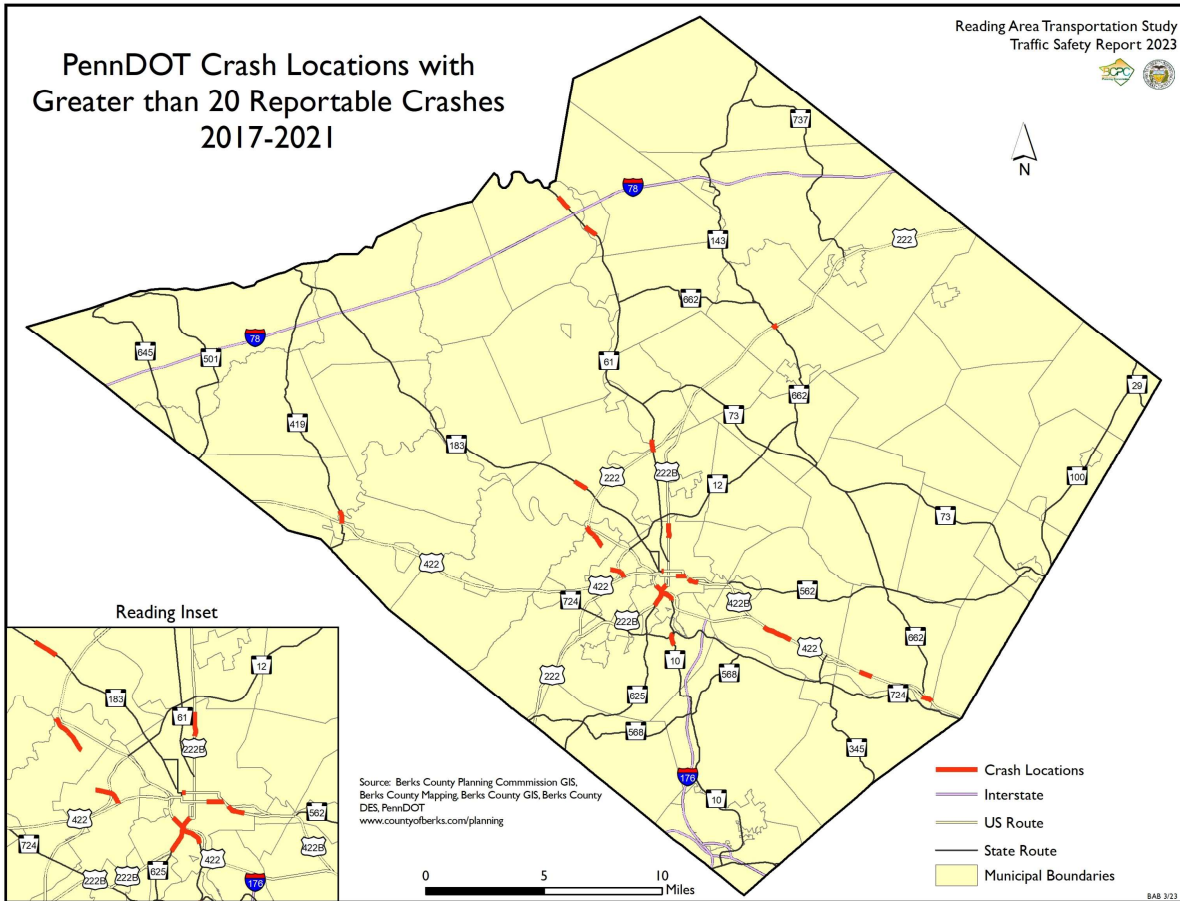
- Pennsylvania Graduated Driver Licensing Law
- Live Free Ride Alive Campaign
- Be Safe PA Campaign
  - 'Slow Down, Save a Life'
  - 'Don't Drive Impaired'

## Enforcement

- 'Click It or Ticket'
- Active Work Zone
- Aggressive Driving



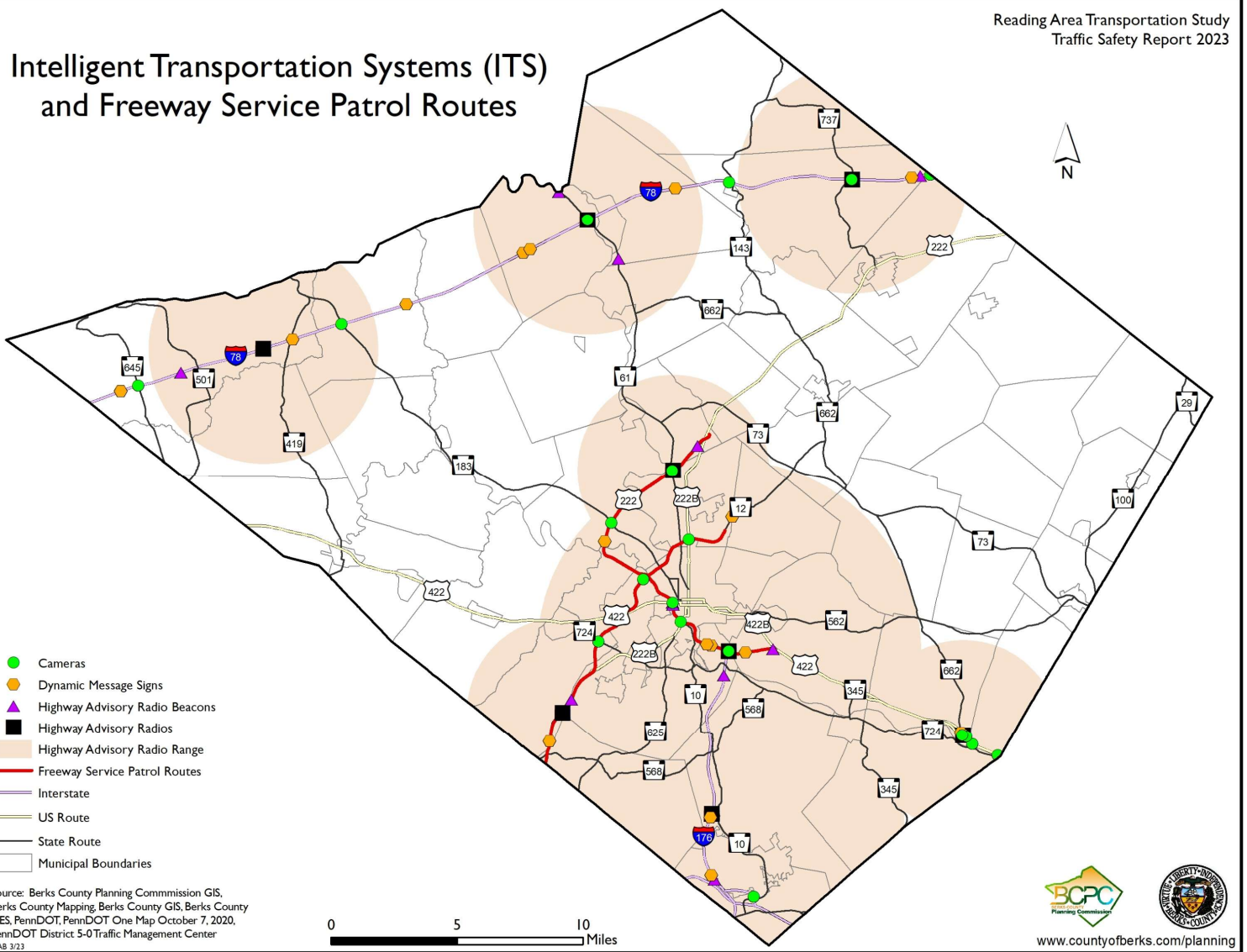
# TIP Projects and Crash Locations



# ITS and Freeway Service Patrol Routes

Reading Area Transportation Study  
Traffic Safety Report 2023

## Intelligent Transportation Systems (ITS) and Freeway Service Patrol Routes



Questions or Comments:  
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