



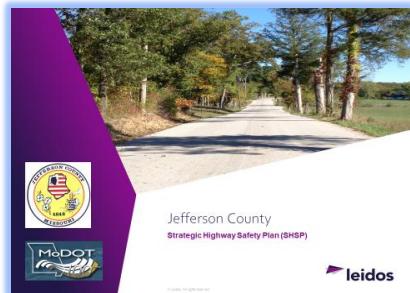
JEFFERSON COUNTY PUBLIC WORKS DEPARTMENT
TRAFFIC SAFETY IMPROVEMENT PROGRAM



Many of the roadways maintained by the Jefferson County Public Works Department follow the natural terrain of the environment, which results in hundreds of sharp roadway curves, steep hillside drop-offs and adjacency to local creeks and rivers. In the past, fewer vehicles drove down these rural roadway corridors; however, the situation has rapidly changed over the last several decades. Jefferson County needed a program to address improving traffic safety on the 725 miles of maintained roadways.



In early 2013, the Department and MoDOT organized the creation of a local traffic safety collaboration group that came to be known as the Safety-first Coalition. The member representation of this organization has grown to include local municipality officials, state and local law enforcement agencies, Jefferson College, Jefferson County Growth Association, EWG planning staff and non-profit traffic safety organizations. The Safety-first Coalition has met quarterly since inception with the focus of coordinating countywide leadership efforts for transportation safety and prioritization. The group has been effective at discussing, collaborating and comparing traffic safety improvement efforts, as well as planning new methods and approaches to a safer local transportation system.



In late 2013 the Department undertook a comprehensive traffic safety study along the County roadway network. With the assistance of MoDOT and EWGCOG officials, the Jefferson County Strategic Highway Safety Plan (JCSHSP) was finalized in 2014. This plan identified systemic traffic safety issues and crash contributors along County roadways based on the recent five-year crash history. The plan was adopted as part of the County Roadway Master Plan in June 2014 by the County Council. Since its adoption, the Department has been actively implementing traffic safety improvement recommendations outlined within the plan.



In the JCSHSP, roadway curves were determined to be a high contributor to crashes along county roadways. Improved, modified or the addition of speed advisory and/or chevron signage

and signpost delineation was listed as recommended tools for improving traffic safety. MoDOT TEAP grants were awarded to the Department in 2014, 2015 and 2016 to perform roadway curve evaluations and inventory traffic studies. Additionally, the Department performed the final phase of this effort in 2017 under local funding only. All totaled JCPW has been able to study five hundred fifty-six (556) curves along sixty-two (62) of our curviest county roads. Approximately one hundred forty (140) centerline miles of roadway were studied under these efforts. Based on the requirements and recommendations of the Manual on Uniform Traffic Control Devices, these studies resulted in two hundred fifty-nine (259) roadway curves that required traffic signage improvements and one hundred fifty-eight (158) roadway curves with recommended traffic signage improvements. All required and recommended improvements to roadway curve signage that were based on these traffic safety studies have been fully implemented by the Department.



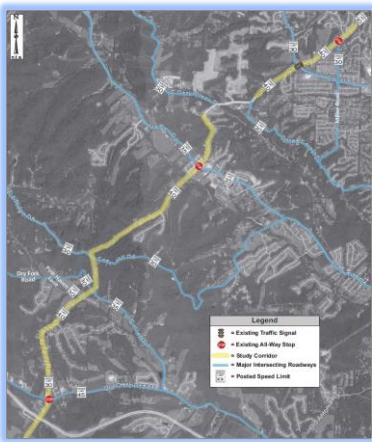
In 2016, the Department received MoDOT TEAP grant funding to evaluate speed limits within nineteen (19) school zone locations along County-maintained roadways for needed pedestrian and vehicular safety improvements. Previously, Jefferson County relied on a blanket, "20 MPH When Children Are Present" signage within school zones. The signing did not consider hours of school operation, actual presence of children, school policies, or much higher posted speeds. This method of traffic safety signing within school zones had historically been met with low adherence to the reduced speed and confusion as to when it was effective.

The results of the study found that eleven (11) of the nineteen (19) school zone locations had an 85th percentile speed higher than the regularly posted speed limit when the schools were in session. The County learned from this study that our existing local school zone ordinance was not effective in reducing speed in school zones, nor was it properly addressing driver and pedestrian safety. The results of the study were that signage was recommended to be changed in seventeen (17) locations to a ten (10) mile per hour reduction from the posted speed limit. Twelve (12) of these locations designated the reduction to when traffic signal beacons were flashing and another five (5) locations were designated to the school AM and PM peak hours of operation. One (1) other location designated further studying to take place to figure a more comprehensive traffic safety management improvement plan.

The improvement recommendations at all seventeen (17) school zones have been fully implemented with the improved signage and a total of twenty-six (26) traffic signal beacons that can be programmed and tailored to the in-session and special events of each school. The recommendation for a more comprehensive traffic safety management plan at the Seckman K-12 schools' campus has been completed as well under a STP-S grant improvement project that is set to be implemented in 2020. That project will add two traffic signalized intersections and one roundabout at the three (3) Seckman K-12 schools.

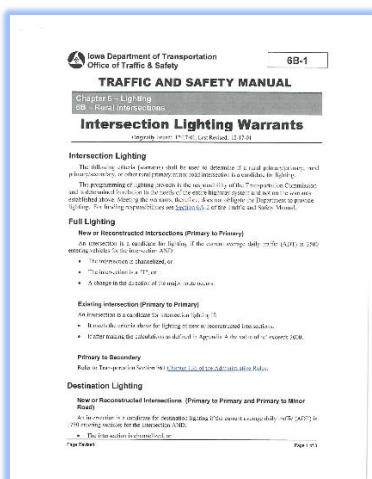


Based on the countermeasure recommendations within the JCSHSP, the Public Works Department purchased seven (7) speed feedback signs in 2016 with local funds to install along various locations on the County-maintained roadway system. These signs are semi-permanently installed at locations that either have shown by past traffic count and speed collection data to have a speed limit adherence issue, especially along sharp-curve roadways, or on major newly-reconstructed roadway projects. They are rotated to new route locations of concern every 6 to 12-months.



In 2018, the Department was granted MoDOT TEAP funding to evaluate approximately 6.5 miles of the Old Lemay Ferry

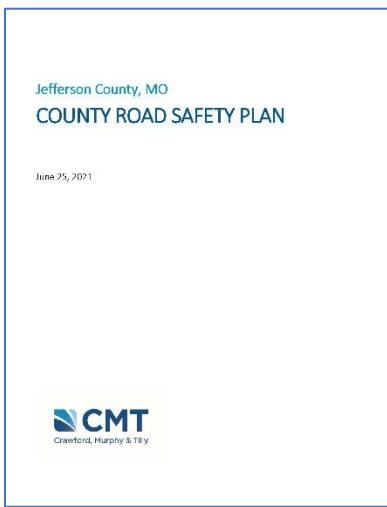
Road corridor from city limits of Arnold, Missouri to State Route M for recommended or required traffic safety improvements. This corridor was designated as a priority route by the JCSHSP. It exhibited the highest total number of crashes in the analyzed data patterns and rated worst among all County-maintained roadways in most evaluated metrics within the JCSHSP study. To date, some of the improvement recommendations and requirements along Old Lemay Ferry Road have been implemented. Others have been successfully planned for as federally-funded projects that are based on the recommendations of the 2014 JCSHSP and 2018 TEAP as follows: (a) Old Lemay Ferry Road from 0.4 mi. north of Frisco Hill / East Four Ridge intersection to Kneff / Dry Fork intersection – safety improvements planned for 2023 along 1.1-mile corridor of crash-prone roadway curves and intersections; and (b) Old Lemay Ferry Road at Spring Forest and East Rock Creek intersections – safety improvements planned for 2021 along 0.6-mile corridor of crash-prone roadway curves and intersections.



The Department performed a County road intersection lighting study in 2018 based on night time vehicle crash patterns at county road intersections among other evaluation criteria. The traffic study was performed on all County-maintained minor arterial or major collector roadways to evaluate County road to County road intersections that met researched FHWA and various State DOT criteria for intersection lighting warrants. Over one hundred thirty (130) County-maintained roadway intersections were evaluated and twenty-one (21) intersections met warrants for various levels of lighting improvements. The County is implementing all recommended and required intersection lighting under a five-year improvement program that runs from 2019 through 2023.

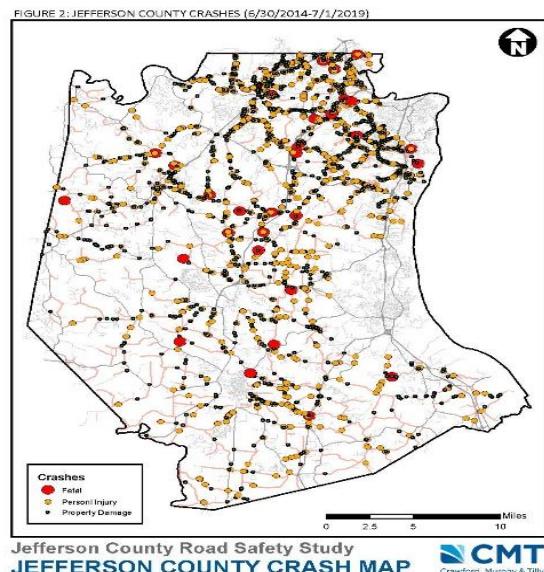


Also in 2018, the Department performed a traffic safety study on all eight hundred two (802) Stop sign locations along County-maintained roadways for proper utilization of Stop Ahead signing per MUTCD recommendations and requirements. The Department implemented all requirements and recommendations for Stop Ahead signing additions or modifications detailed in the study.



In 2019, the Department began development of a new comprehensive traffic safety plan for the County Road System. The plan was set for adoption in 2020; however, this timeline was delayed due to the impacts of the COVID-19 pandemic. In Summer of 2021, the new County Road Safety Plan was adopted by the County

Council along with the new Roadway Master Plan. This new traffic safety plan focused data collection and analysis of the entire County Roadway System broken up into individual one-mile segments. These segments were evaluated to determine their equivalent property damage only ratings (EPDOs). There were thirty-seven (37) one-mile roadway segments that had the highest EPDO rating and detailed with traffic safety improvement countermeasures. Seventeen (17) of these sites have already been programmed with federal, state and/or local funding for the needed improvements. The remaining twenty (20) roadway segments will become the focus of our department's efforts over the next several years.



Project Application Form 

Surface Transportation Block Grant Program

2019 Call for Projects

For the St. Louis Region

Safety Project Type

Sponsoring Agency: Jefferson County Department of Public Works

Project Title: Old Lemay Ferry - East Four Ridge to Knoff Road

Federal Amount Requested: \$540,440

Applications Due: February 14, 2019 by 4:00 pm



The Department has sought out and received several traffic safety federal grant awards on projects that address concerns noted in the TEAP, JCSHSP and CRSP studies. These recent grant awards include the following:

- (a) Seckman Road from Elephant Walk to Outer Road.
- (b) Old State Route 21 at Four Ridge Road.
- (c) Saline Road from Willow Bend to Hermitage.
- (d) Old Lemay Ferry – East Rock Creek Rd to Spring Forest Rd.
- (e) Seckman Road from Old Lemay Ferry to Mastodon.
- (f) East Rock Creek Road near Gary Road.
- (g) Old Lemay Ferry from Miller Road to Brenda.
- (h) Flucom Road from Orchard Park to Kimberly.
- (i) Antire Road from Pere Cliff to Williams Creek.
- (j) Twin Rivers Road from Osage to Byrnes Mill.
- (k) Old Lemay Ferry from Frisco Hill to Regency Woods.
- (l) Old Highway M from Glenstone to Chasteen.
- (m) Saline Road from Sunpark Spur to Silver Maple Drive.
- (n) Hunning Road at Cinphany Lane.
- (o) Old State Route 21 at Lion's Den Road
- (p) Antire Road at Crestview

The Jefferson County Public Works Department is committed to roadway traffic and pedestrian safety. Many safety countermeasures have been implemented to date; however, the County will continue to progress toward a safer local transportation network. The next step in our traffic safety improvement program is to implement the countermeasures detailed within the adopted 2021 County Road Safety Plan.