

STRIDES 2 Zero

OBJECTIVES

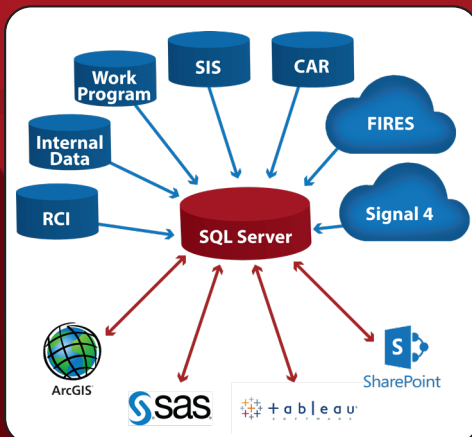
Align with the Florida Transportation Plan goals to provide safe transportation for residents and visitors by providing a traffic operation database for engineering analysis and reports.

Leverage a variety of data sources to create a real-time departmental database with Extract Transfer and Loading (ETL) procedures.

Apply state-of-the-art predictive analysis tools to implement the highway safety management procedures included in the Highway Safety Manual (HSM).

Monitor safety and operational performance for roadway facilities after implementing infrastructure improvements and document benefits from the dollars FDOT invested.

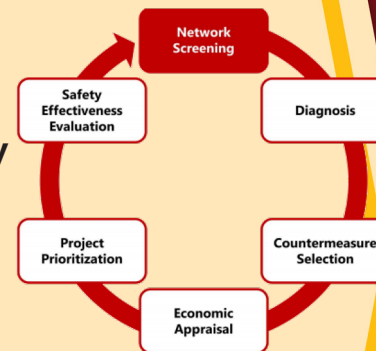
Identify engineering countermeasures to improve safety and mobility for State Highway System (SHS) with a data-driven decision-making process.



SAFE

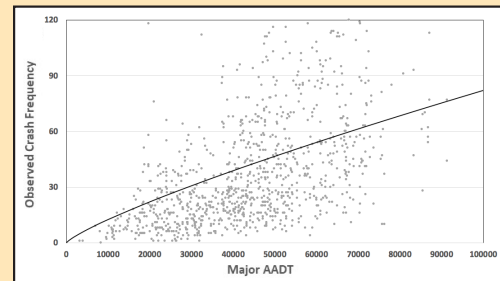
SAFE is the first program developed under the STRIDES 2 Zero initiative. This network screening program utilizes departmental and external data to increase accuracy of crash predictions for operational and safety improvements on the SHS. Concurrently, the program will also track progress and support business decisions through Return on Investment (ROI) analysis of changes to the SHS. This program follows the HSM Procedure for network screening.

FDOT Six-step Highway Safety Management Procedures



Safety Performance Function (SPF)

Florida-specific Safety Performance Functions (SPFs) are developed to predict the average number of crashes at a signalized intersection. An Empirical Bayesian (EB) method is used to calculate the excess expected crash frequency. This data is supported by FDOT traffic counts, context classification, intersection number of legs, and other departmental data.



REPORT DESCRIPTION

The followings three parts are included in the 2020 STRIDES 2 Zero SAFE Program Report:

Part 1 Page A1 to A2

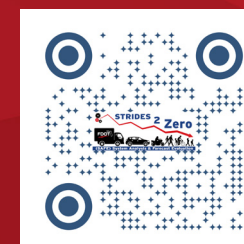
In the first part, an overview of the annual SAFE report (including benefits and cost for SAFE program, number of lives saved, and number of intersections for safety improvements) is provided, both statewide and by District.

Part 2 Page B1 to B14

The second part of the report listed all candidate intersections selected for safety improvements. The top-20 intersections are listed first, followed by all candidate intersections by District. Intersection information including roadway ID and mile post, proposed safety countermeasures, expected benefits from the safety improvements and benefit-cost ratio, is listed for each candidate.

Part 3 Page C1 to C26

For each candidate, all their sister intersections are listed in Part 3. Those sister intersections, ranked from 1 to 5 based on their similarities to candidate from high to low, can be used by Districts as a reference to identify the contributing factors for poor safety performance at candidate intersections.



Scan the QR code to access the SAFE report online.

<https://bit.ly/2vmAezO>

TIMELINE

'19

- STRIDES 2 Zero
- ETL Process
- Program Development

'20

- First SAFE Static Report with Proposed Candidates
- Program Design and Development
- ETL Development
- Roadway Inventory Data Collection for New Countermeasures
- Dynamic Reporting Mechanism Design and Development
- Work Program Integration
- Database Architecture Continued Development
- Coordination with Partnerships and Research

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- Dynamic Reporting Development
- Program Design and Continued Development
- ETL Continued Development
- Development of Florida-specific CMFs
- Analysis and Incorporation of other Countermeasures
- CAV Countermeasure Data
- Database Architecture Continued Development
- Continued Coordination with Partnerships and Research

Traffic Engineering and Operations

Florida Department of Transportation

Trey Tillander, P. E.

Trey.Tillander@dot.state.fl.us
(850) 410-5419

Alan El-Urfali, P. E.

Alan.El-Urfali@dot.state.fl.us
(850) 410-5416

Javier Ponce, P. E.

Javier.Ponce@dot.state.fl.us
(850) 410-5417



STRIDES 2 Zero

*State Traffic Roadway and Intersection
Data Evaluation System 2020*

SAFE

*System Analysis
and Forecast Evaluation*

