



Florida Department of Transportation

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TRAFFIC ENGINEERING AND OPERATIONS BULLETIN 17-04
ROADWAY DESIGN BULLETIN 17-16
OFFICE OF ENVIRONMENTAL MANAGEMENT BULLETIN 17-03

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TO: District Directors of Transportation Operations, District Directors of Transportation Development, District Design Engineers, District Consultant Project Management Engineers, District Maintenance Engineers, District Roadway Design Engineers, District Traffic Operations Engineers, District Program Management Engineers/Administrators, District Planning Managers

FROM: V. Y. "Trey" Tillander III, P.E., State Traffic Operations Engineer
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SUBJECT: Manual on Intersection Control Evaluation (ICE) (Topic No. 750-010-003)
Training and Implementation Plan

This bulletin announces the release of the 2018 Manual on Intersection Control Evaluation (ICE), which is available on the Traffic Engineering and Operations Office website at the following link: http://www.fdot.gov/traffic/TrafficServices/Intersection_Operations.shtm

The ICE procedure includes the following documents available for conducting a complete ICE analysis:

1. Manual on ICE (Topic No. 750-010-003)
2. Analysis tools for ICE:
 - a. FDOT-modified Capacity Analysis at Junctions (CAP-X) which provides generalized capacity information as part of the initial ICE stage.

- b. Safety Performance for ICE (SPICE) for safety performance evaluations, which are required for stages 1 and 2 of the ICE process.
 - c. FDOT ICE Tool for comparing life-cycle costs of top alternatives during the final stage.
3. FDOT-modified default Synchro® templates for alternative intersection types.

BACKGROUND

In 2015, Florida ranked as the #1 state in the country with the most intersection-related traffic fatalities. With over 30 percent of all traffic fatalities occurring from intersection-related crashes, the Florida Strategic Highway Safety Plan (SHSP) identifies intersection safety as one of the top emphasis areas for the state. In response to this call to action, and with direction from leadership, FDOT has developed an Intersection Control Evaluation (ICE) manual to aid in this effort.

The FDOT ICE manual includes new tools to assist the Department to consistently and quantitatively evaluate and select the best value alternative for intersection control when considering intersection modifications. The purpose of the ICE manual is to evaluate alternative intersection controls or types, and rank them according to operational efficiency, safety performance, and context classification.

COMMENTARY

Implementing the full requirements of the ICE manual after adoption potentially has an impact on project delivery; therefore, the ICE implementation plan has been developed to assist districts in transitioning to full ICE requirements within three years.

IMPLEMENTATION

The implementation plan outlined below provides the framework for training and establishing a minimum number of ICE intersection targets programmed for improvements each year over the next 3 years. After the 3-year implementation plan is complete, Quality Assurance Reviews (QAR) will incorporate the ICE requirements to further assist with implementation at the district level.

2018: Training and Acclimation Implementation Focus: District Training

The first year implementation will consist of training and evaluating two (2) intersections per district. The training workshops will be held at each district headquarters and will begin in January

2018. The training will provide hands-on ICE practice for the district personnel and consultants on using the ICE manual, CAP-X, SPICE and FDOT ICE analysis tools.

Districts are encouraged to identify and conduct additional ICE analysis if they chose to do so. Central Office Traffic Operations will provide guidance for identifying and assisting districts with conducting any additional ICE analysis

***2019: Districts Identify & Conduct ICE Analysis for Additional Locations
Implementation Focus: Refine ICE Processes***

During year 2 of the ICE implementation plan, districts identify and evaluate a minimum of three (3) projects. This effort will further familiarize the districts with the triggers and requirements when conducting an ICE analysis. Therefore, it is recommended that one project is selected from each of the following offices or focus areas for year 2 of the implementation plan:

- Project Development & Environment (PD&E);
- Traffic Operations; and
- Access Management / Permitting.

Districts are encouraged to select more than 3 projects to apply ICE. Central Office will provide guidance for identifying and assisting districts with conducting any additional ICE analysis.

***2020: Full ICE Procedure Implementation by Districts
Implementation Focus: Mainstream ICE Processes***

The requirements of the ICE manual procedures will be fully effective for all projects beginning January 1, 2020. District personnel involved in reviewing or conducting ICE analyses should be adequately familiar with the ICE requirements at this stage to ensure proper application.

The following requirements will be in effect:

- Districts follow ICE procedure.
- Central Office (Traffic Ops and Roadway Design) review and oversight for initial design plans; and
- Quality Assurance Reviews (QAR) will not begin until after the ICE Implementation Plan is complete (starting in year 4).

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