Introduction to ISOAP

Intersection Safety and Operational Assessment Process

California LTAP, "Mini & Modular Roundabouts"
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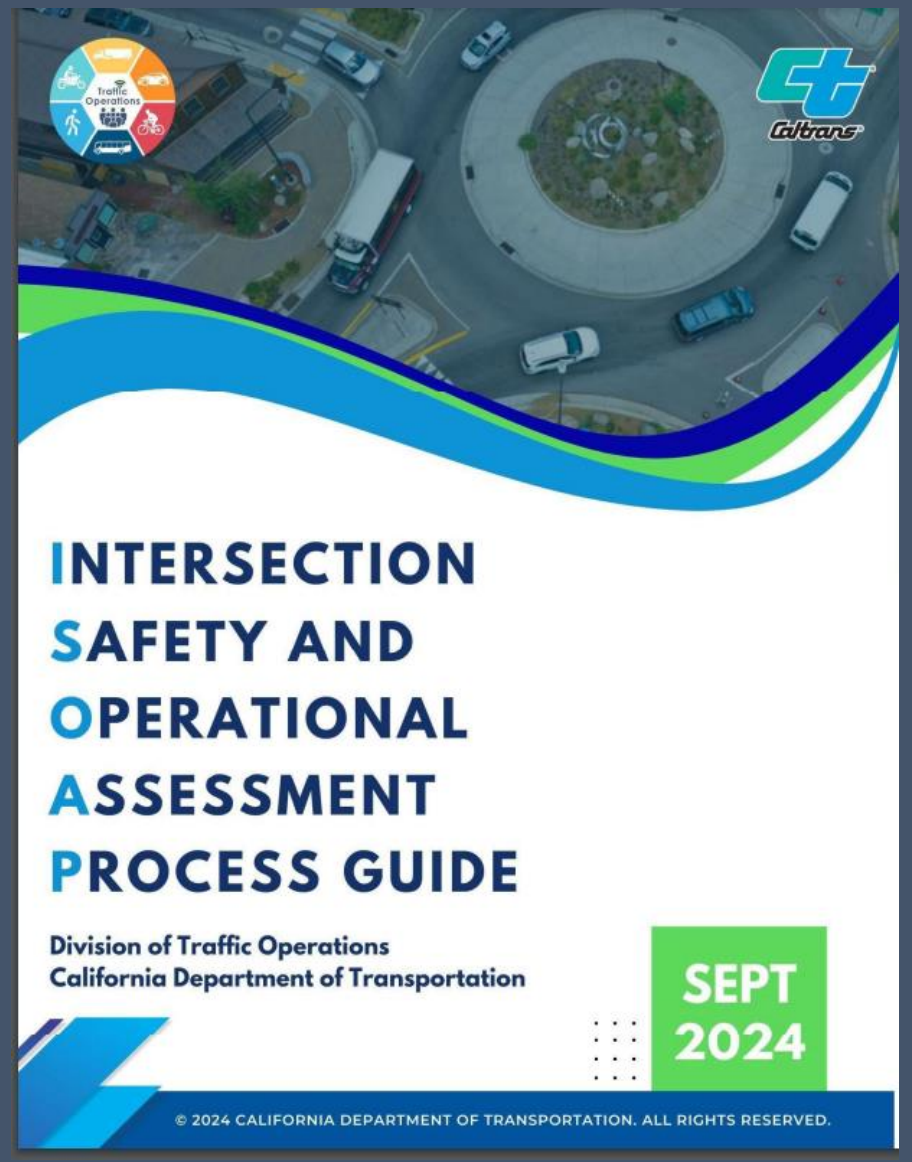
ISOAP

- Data-driven framework evaluate intersection design and traffic control for intersections and interchanges on the State Highway System
- Incorporates the Safe System Approach
- Two-stage process with a screening and initial assessment, and then if there are multiple intersection strategies, a detailed analysis

Background

- Intersection Control Evaluation (ICE) was established in a Traffic Operations Policy Directive (TOPD) in 2013
- Began update process in late 2021 with FHWA and VHB
- 2022 Director's Policy 36 on Road Safety
- ICE rebranded to ISOAP, and memo signed on September 10, 2024



Two-Stage Process

Stage 1 Screening and Initial Assessment

- Done during Project initiation document (PID) stage
- Eliminate poor-performing or infeasible strategies

Stage 2 Detailed Analysis

- Done during environmental stage
- Evaluate on the most feasible strategies
- Conduct cost-benefit analysis but also consider Safe System Approach outcomes
- Consider phased or interim improvements

Stage 1 Screening and Initial Assessment

- Step 1.1 – Is ISOAP required?
- Step 1.2 – Determine intended project outcome, place type, design vehicle, and gather data
- Step 1.3 – Ped and bike planning and feasibility assessment
- Step 1.4 – General R/W and operational feasibility assessment
- Step 1.5 – Transit and freight assessment
- Step 1.6 – Initial safety assessment
- Step 1.7 – Eliminate infeasible strategies
- Step 1.8 – Findings and recommendations

Stage 2 Detailed Analysis

- Step 2.1 – Detailed safety analysis using Highway Safety Manual (HSM) if applicable
- Step 2.2 – Detailed operational analysis
- Step 2.3 – Functional sketches and performance checks
- Step 2.4 – Cost estimate, life-cycle costs
- Step 2.5 – Performance-based analysis matrix
- Step 2.6 – Findings and recommendation