

# MaineDOT Roundabout Analysis Requirements

For almost 20 years, Maine has considered roundabouts as a practicable alternative in the evaluation of intersection improvements. As more roundabouts have been constructed, municipalities and the traveling public have grown more accustomed to them. In fact, some communities have begun selecting roundabouts as solutions to transportation problems without a detailed traffic analysis. Since MaineDOT must formally approve any design prior to making capital improvements on the state transportation system, MaineDOT is issuing the following analysis requirements which vary somewhat based upon source of implementation funding.

## **Projects Competing for State Sponsored Federal State Funding:**

- Articulation of a clear purpose and need, as required under the National Environmental Policy Act (NEPA) with clear measures for alternatives to be evaluated.
- Identification of a reasonable range of alternatives for modeling, public input and evaluation.
- Public participation to gather input on purpose and need, range of alternatives, etc.
- Traffic Analysis of alternatives via Synchro, SimTraffic or other FHWA-approved Highway Capacity Manual Software. Methods and models must be approved by MaineDOT staff.
- Cost-benefit analysis that considers PE, ROW, CON, CE costs, safety and user costs of all alternatives, using a 20-year design life.

MaineDOT implementation funding will be based upon the cost/ benefit of a roundabout compared to other solutions. State and federal funding will be provided based upon the degree of benefit compared to other alternatives. The maximum state/ federal participation will be that of the lowest cost practical solution.

## **Projects Competing for MPO Sponsored Federal State Funding:**

- Articulation of a clear purpose and need, as required under the National Environmental Policy Act (NEPA) with clear measures for alternatives to be evaluated.
- Identification of a reasonable range of alternatives for modeling, public input and evaluation.
- Public participation to gather input on purpose and need, range of alternatives, etc.
- Traffic Analysis of alternatives via Synchro, SimTraffic or other FHWA-approved Highway Capacity Manual Software. Methods and models must be approved by MaineDOT staff
- Cost-benefit analysis that considers PE, ROW, CON, CE costs and user costs of all alternatives, using a 20-year design life.

MaineDOT will generally allow MPO implementation of a roundabout provided that over a 20-year design life, basic safety standards are met and the roundabout performs equal to or better than the no build alternative. In the event that mobility is reduced compared to the no build alternative, MaineDOT will consider whether reduced mobility is part of the Purpose and Need along with posted speed limits, Highway Corridor Priorities and Customer Service Levels. In accordance with federal requirements, there may be limitations regarding how much federal funding may be allowable for a roundabout if there are significantly lower cost alternatives that realize an equal to or greater benefit.

## **Projects Funded by Municipalities, Municipal Partnering Initiative, Business Partnering Initiative and/ or Private Parties:**

- Traffic Analysis of alternatives via Synchro, SimTraffic or other FHWA-approved Highway Capacity Manual Software. Methods and models must be approved by MaineDOT staff.

MaineDOT will generally allow implementation of a roundabout provided that over a 20-year design life, basic safety standards are met and the roundabout performs equal to or better than the no build alternative. In the event that mobility is reduced compared to the no build alternative, MaineDOT will consider whether reduced mobility is part of the Purpose and Need along with posted speed limits, Highway Corridor Priorities and Customer Service Levels.

Consultant Qualifications and Procurement: All consultant selection processes must be in accordance with state and federal procurement requirements. In order to be considered, consultants and sub-consultants must be prequalified by MaineDOT in the appropriate work area within the last 24 months.