

> Fully fledged roundabout design tool

- > Minimizes iteration cycles in the design process
- > Available in English, French and German languages
- > Fully integrated with AutoCAD® Civil 3D®
- > For single lane, multi-lane and mini-roundabouts
- > Provides unique turbo-roundabout design
- > Keeps traffic safety at the forefront
- > Offers vertical grading design functionality
- > Uses advanced 3D technology
- > Allows you to focus on engineering, not drafting





# EUROPEAN HEADQUARTERS Netherlands +31 (0)10 258 78 78

EUROPEAN OFFICES UK +44 (0)161 222 0208 Germany +49 (0)221 77 109 299

EMAIL US infoEU@transoftsolutions.com

WEBSITE www.transoftsolutions.com

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DESIGNING ROUNDABOUTS HAS NEVER BEEN EASIER

## THE DEFINITIVE SOFTWARE FOR ROUNDABOUT PLANNING AND DESIGN

Trusted by Tyréns AB, Auchan Holding, AECOM and the Ministry of Transport and Communication of Qatar.



Take the creation of **single and multilane roundabouts, turbo roundabouts, mini roundabouts** to another level of productivity with full control and feedback during the roundabout design process. Designing optimal roundabouts that meet traffic operations and safety objectives has never been easier.

Powered by the trusted AutoTURN® engine, TORUS® uses the Vehicle Envelope Method® of design to generate roundabout geometry with vehicle swept paths.

#### **GEOMETRIC DESIGN**

Design roundabouts according to the Vehicle Envelope Method® by specifying design vehicles to govern important roundabout geometries such as the shape of a splitter island, the geometry of kerb alignments or the width of the truck apron. Alternatively, design roundabouts according to regional standards by using predefined templates according to the DMRB (British), the SETRA (French) or the FGSV (German) manuals.

#### VEHICLE SENSITIVE ROUNDABOUT DESIGN

#### **ANALYSIS TOOLS**

Analyse vehicle speed, vehicle swept path, sight lines, and angle of visibility on designed or existing roundabouts.



Vehicle speed analysed on a custom drawn roundabout, providing vital input for improving traffic safety.

## EVALUATE FOR VISIBILITY, SPEED AND MOVEMENTS

Vehicle speed control is one of the most important features of roundabout design. Speed for a roundabout can be calculated and drawn based on offsets from reference geometries and updated dynamically.

Generate various types of sight lines (approaches to crosswalk, yield line, and circulatory lanes). Once placed, you can control their display and edit the properties used to define them.



Place 2D and 3D vehicle movements for gain insights on operations.

Add, view, edit, and delete AutoTURN vehicle movements from a roundabout in order to demonstrate the movements governed by the vehicles specified in the current design guideline.



### **GRADING DESIGN**

Generate roundabout grading with contour lines, crown alignments, and cross slopes to review drainage in 3D. Ensure approach roads enter and exit the roundabout at optimal grades and that the roundabout plateau does not exceed cross slopes affecting vehicle stability. Export grading into LandXML format for vertical CAD platforms or generate Autodesk® AutoCAD® Civil 3D® surfaces, vertical, and horizontal alignments. Civil 3D objects (such as corridors) are updated dynamically using the easy-to-use grading model in TORUS.



TORUS offers full Civil 3D integration, reducing 3D modelling time dramatically.

- TORUS is able to design roundabouts according to DMRB (British), SETRA (French), FGSV (German) and FHWA (US) standards as well as the CROW (Dutch) turbo-roundabout guideline.
- Compatible with Autodesk® AutoCAD and AutoCAD Civil 3D, Bentley® Microstation V8i and CONNECT and Bricsys® BricsCAD





