

Q&A: TORUS Roundabouts _Ensure Safety, Increase Productivity, and Reduce Iterations

Q1: Does TORUS need AutoTURN license?

A1: Yes, TORUS Roundabouts powered by AutoTURN engine. To run TORUS, you need to have minimum AutoTURN 8.0, AutoTURN Pro 3D 8.0 or AutoTURN InSite 2.0 on the same workstation.

Q2: Can I add tangent between the curvatures approaching the roundabout?

A2: Yes, reference lines in TORUS can be arc, lines, polylines, Civil 3D alignments and complex chains means you can design the reference lines using arcs and add tangents between the curvatures.

Q3: How do you tie back the roundabout approaches into existing road?

A3: After designing the roundabout geometry, generate the roundabout grading, design the circulatory and crown alignments and profiles based on the existing ground surface and set elevations at tie-backs.

Q4: Does TORUS work with MicroStation V8i or do you need CONNECT?

A4: TORUS is compatible with MicroStation V8i and CONNECT. For TORUS Roundabouts compatibility information please visit the Transoft Solutions website:

<https://helpdesk.transoftsolutions.com/hc/en-us/articles/115010263067-TORUS-Compatibility-Information>

Q5: Can the software add curb subassemblies for islands?

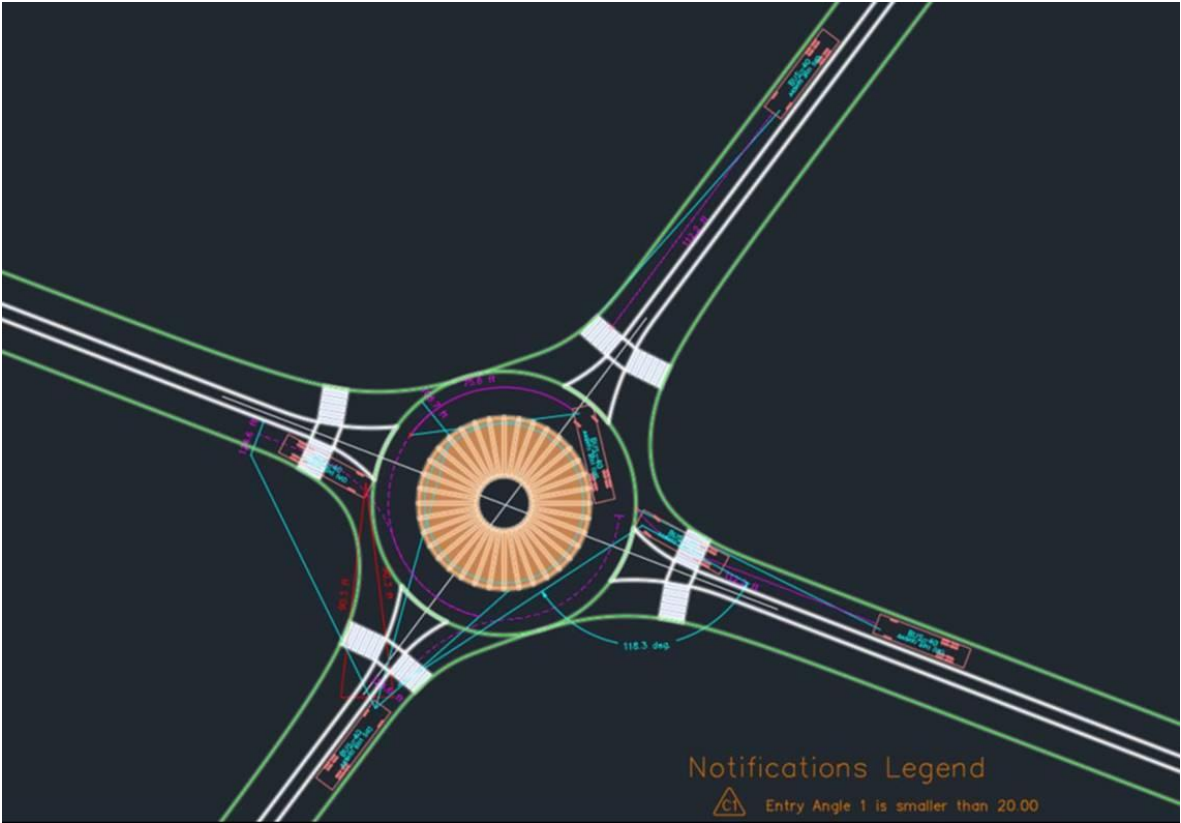
A5: The existing grading tool in TORUS Roundabouts generates the initial grading includes the circulatory and crown alignments and profiles as well as cross slopes. Then, users need to export the alignments and profiles as LandXML file and import them in Civil3D, Inroads, and other products to complete the assemblies and 3D corridor models.

Q6: How does TORUS automate Human Factors considerations?

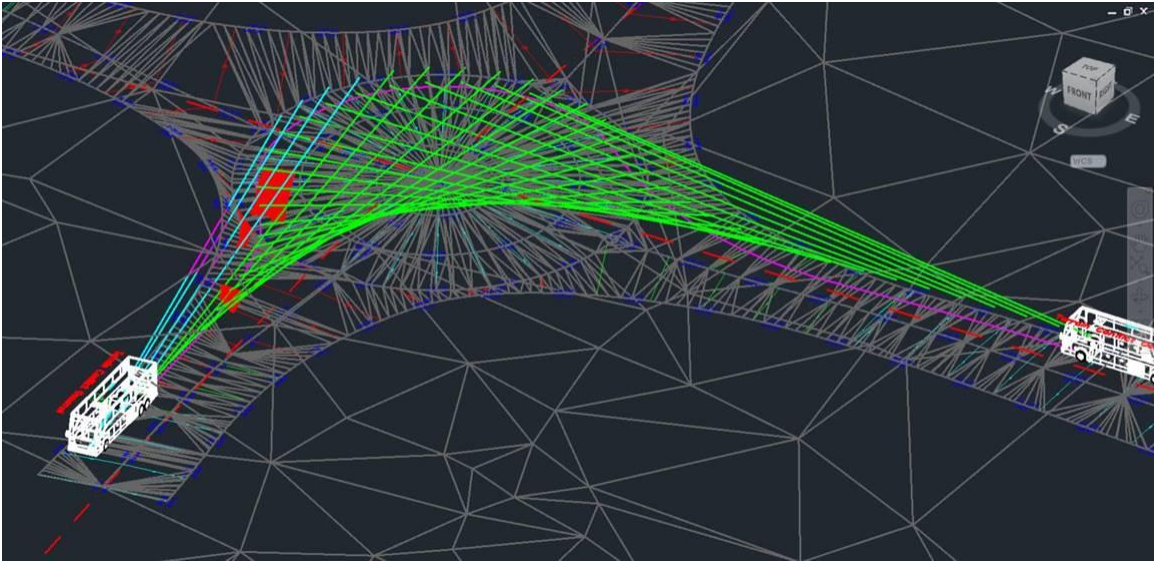
A6: In terms of sight distance guidelines, the current version of TORUS evaluates various types of sight lines for roundabouts. A sight line is a line of sight from a driver's eye to an object or area located at a distance which is sufficient for the driver to see and safely react to potential conflicts. Sight line analysis is important for determining safety constraints in a roundabout. These are different types of sight line in TORUS:

1. Approach to crosswalk (TORUS users can find the best location for crosswalk and accommodate the pedestrians based on the sight line analysis feedback)
2. Approach to yield line
3. Yield line to crosswalk
4. Intersection sight line
5. Circulatory sight line
6. Angle of visibility

The screen shot below illustrates the different 6 sight lines in TORUS.



Also, users can check grading design for ground conflicts against low ground clearance vehicles using AutoTURN Pro as well as 3D sight line analysis:



Q7: Does TORUS automate the design of dedicated left-turn and right-turns lanes?

A7: Current version of TORUS can't automate the dedicated left-turn or right -turn lanes. Designing dedicated lane will be considered in the next versions.

Q8: What about clients that require Arcady traffic analysis?

A8: TORUS Roundabout doesn't support the Arcady traffic analysis. TORUS is compatible with SIDRA Intersection and users can import the roundabout capacity analysis data into the current roundabout design.

Q9: What if multiple design guidelines are used?

A9: TORUS users can define their own design guideline based on several design standards and generate the roundabout. Users need to specify the values for design elements which recommended by different design guidelines.

Q10: Is there a proposed date for next release?

A10: At this point the release date is scheduled internally but we will update you in future.