



## Roundabout Committee

Date: August 10, 2021

Location: Online Meeting (Host: Texas A&M Transportation Institute)

### Meeting Minutes

1) Call to Order

2) Welcome and Introductions

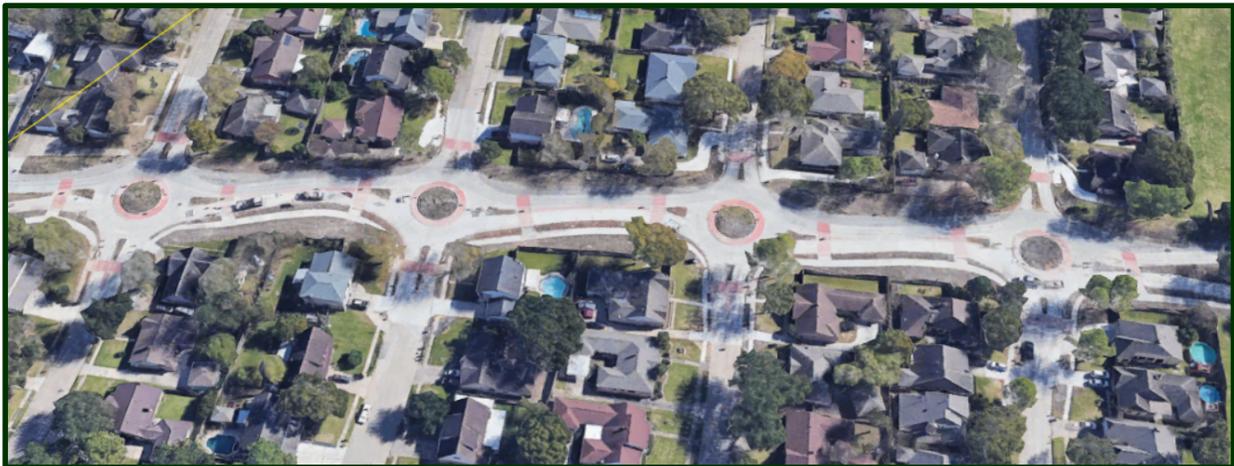
*Number of meeting attendees: 24*

3) Year 2021 Norman Hogue Roundabout Award selection (Jay Von Ahsen, Kimley-Horn)

*Jay Von Ahsen discussed the Year 2021 Norman Hogue Roundabout Project of the Year Award process. The Roundabout Award is named in honor of Norman Hogue, an active TexITE member and strong roundabout supporter whom passed away in 2018.*

*Jay announced that the TexITE Roundabout Award Subcommittee selected the City of Meadows Place, Texas and their Kirkwood Road roundabout corridor project (shown in Exhibit 1) as the Year 2021 Norman Hogue Roundabout Award recipient. Jay also mentioned that Meadows Place conducted several meetings with the public and fire and emergency response personnel in developing the roundabout designs. The TexITE Awards Committee made the announcement earlier this summer, and the award will officially be presented to Meadows Place at the Fall TexITE Meeting in November 2021.*

#### **Exhibit 1: Kirkwood Road Roundabout Corridor – City of Meadows Place, TX**



4) Roundabout Committee Updates (Wade Odell, TxDOT)

*Wade Odell provided upcoming roundabout committee and activity news. The National Roundabouts Week will be held on September 21-25, 2021. Once more information is released, the Facebook Manager and Jason Vaughn will provide the Roundabout Week updates to our members. Wade also mentioned updates from the recent ITE Roundabout Standing Committee meeting, including a chapter report to ITE on upcoming activities with respect to the TexITE Fall Meeting on November 3-5. Wade will also attend the August 11<sup>th</sup> meeting for the TRB Roundabouts and Other Design and Control Strategies Committee.*

*Wade notified members of the planned innovative intersection and traffic safety workshops for the Fall TexITE meeting. The workshops are scheduled to be held on Wednesday November 3; with the innovative intersection workshop in the morning and the traffic safety workshop in the afternoon. Gary Schatz will lead the innovative intersections workshop (that will include roundabout discussions) but the intersection types to be examined in the breakout groups have not been determined yet. Robert Wunderlich with TTI will lead the traffic safety workshop.*

Jason Vaughn added that Joseph Balskus mentioned the following volunteer opportunities during the recent ITE Roundabout Standing Committee meeting. If you are interested in assisting the ITE Roundabout Committee with these opportunities, please contact Joseph Balskus at [jbalskus@vhb.com](mailto:jbalskus@vhb.com).

- Website development work for the Roundabout Committee's page on the ITE E-Community site
- Volunteer assistance with the upcoming National Roundabouts Week
- Volunteer assistance with the ITE Roundabout Committee's joint October webinar with the ITE SimCap subcommittee
- Assistance with developing the new Roundabout Marketing Guide

5) Roundabout Meetings and Webinars (Jason Vaughn, City of Sugar Land, TX)

a) ITE Roundabout Resiliency and Happenings webinar (August 17, 2021)

Jason Vaughn mentioned that the ITE Roundabout Standing Committee has a scheduled webinar for 3pm Eastern Time, next Tuesday August 17. The Roundabout Committee has multiple speakers (including Gary Schatz) discussing resiliency in roundabout design and construction, and Jason will present the Happenings portion, discussing the goals, history, and structure of our TexITE Roundabout Committee.

b) TexITE & ITS Texas Joint Meeting (Sheraton Dallas Hotel, November 3-5, 2021)

c) Fall Roundabout Committee meeting (in person; November 3 or 4, 2021)

Jason also mentioned the upcoming TexITE and ITS Texas joint meeting to be held in Dallas, Texas. This meeting is anticipated to be the first in-person meeting since the start of the pandemic. Jason stated that the next TexITE Roundabout Committee meeting is also anticipated to be in-person at the Dallas conference. He will send the committee meeting date and time once the approved schedule is released for the TexITE Conference.

6) Kittelson Roundabout Database Update process (Minh Le, TTI and Lee Rodegerdts, Kittelson and Associates)

Minh Le introduced Lee Rodegerdts, Principal Engineer for Kittelson and Associates, whom discussed Kittelson's international roundabout database and website map. Lee mentioned that the Kittelson Roundabouts Database and Map started in the late 1990's and in recent years has gone international. Once a user opens the website, he or she can zoom and position the map screen and type s-a-v-e, which brings up a link to save a select location as a view port. Therefore, when the user returns, the Kittelson map site will open to the saved view location.

Lee Rodegerdts next selected the Index page to display the database (which he stated that Kittelson processes about 100-200 sites a week). He showed how to conduct database searches, showed the Google or Bing Map views of the selected locations, and discussed exporting database locations to a Google Earth KML file. Lee then presented Advance Search options for multiple database fields, discussed the Reports option that utilizes PowerBi analyses, and discussed the Year 2020 Kittelson roundabout poster (which shows an estimated 7100 roundabouts in the United States).

Lee showed how to add roundabout locations to the map. The user will zoom into the intersection location and double-click to open the data entry form. Lee showed which fields to change, selecting values from lists, and then submitting the entry. He mentioned that new entries are placed in a holding queue for review by a Kittelson team member. Lee also discussed updating an existing roundabout by selecting the location and viewing details. The user will then click "Report Corrections" that will automatically prepare an email where the user provides the corrected data. The update email will go to the Kittelson team for review and approval.

Lee last mentioned that users at any time can select the Help button in the lower right corner of the database website. Users can also email Kittelson with questions or database updates at [roundabouts@kittelson.com](mailto:roundabouts@kittelson.com). Jason mentioned that Kittelson has updated over 500 roundabout / traffic circle locations in Texas. For members, please visit your region at [www.roundabouts.kittelson.com](http://www.roundabouts.kittelson.com) to view current roundabouts locations and add any new locations to the Kittelson International Roundabout Database.

7) Presentation: Jaap Tigelaar, MSC, Arcadis

- "Bringing the Turbo-Roundabout to the U.S."

Jason Vaughn introduced Jaap Tigelaar, whom has over 13 years of experience at Arcadis. Jaap started with Arcadis in the Netherlands and moved to the USA (in the Atlanta area) in 2019. Since his transfer to the US, Jaap is promoting

the turbo roundabout concept. He has presented at several conferences and webinars and is the co-author of the first FHWA publication on turbo roundabouts. Jaap used his experience with the Dutch turbo roundabouts to look for the best practices and ways to implement them in the US. Currently, Jaap is working with Georgia DOT to update their Roundabout Design Guide and add turbo roundabout elements to their multilane roundabout designs.

Jaap Tigelaar described the characteristics of the Dutch-style turbo roundabouts (shown in Exhibit 2). The Netherlands noticed that when multi-lane roundabouts were implemented, there was an increase in weaving and path overlap crashes. Turbo roundabouts were implemented with improved signage that required drivers to make lane choices upstream and a spiral layout with the circular lanes rotating outwards in a design called a turbo block. Turbo roundabouts also have radial approaches, which provide a shorter crossing distance and smaller conflict area than the multi-lane roundabout approaches. Also turbo roundabouts with two-lane approaches have fewer conflict points (10) versus multi-lane roundabouts (16) with two-lane approaches.

**Exhibit 2: Dutch-style Turbo Roundabout**



Jaap mentioned that Bertus Fortuijn developed the Dutch-style Turbo Roundabout in 1996. Since then, the Netherlands have implemented 385 turbo roundabouts, and 250 turbo roundabouts are also located outside the Netherlands. The Netherlands standard for the Dutch-style turbo roundabout design is CROW Publication 257. The Dutch-style roundabouts have diameters between 155 – 213 feet wide and design speeds of 23-25 mph.

Jaap Tigelaar mentioned that turbo roundabouts have a wide opening width for the inside circulatory lane and utilizes lane separators to channel the vehicles travelling through the roundabout. The lane separators are raised elements that 11.8 inches wide and 2.7 inches in height and placed between the circulatory lanes. In order to accommodate larger vehicles, a traversable element called a droplet (12.5 feet long by 3.5 feet wide and 9.5 inches in height) is installed at the start of the lanes separators. Jaap mentioned that turbo roundabouts have similar vehicle capacities as multi-lane roundabouts. Turbo roundabouts also separate the bike paths from the circulatory area, and the pedestrian crossings are designed as an s-curve facing traffic.

Jaap mentioned that FHWA released a synthesis report titled “Advancing Turbo Roundabouts in the United States.” The Georgia DOT has also updated their Roundabout Design Guide to consider turbo roundabout elements like raised lane separation and rumble strips. The Georgia DOT is analyzing the Turbo Block Case #3 layout, which is based on the WB-67 semitrailer design vehicle and with 200-210 foot inscribed circle diameters. For more information on turbo roundabouts, please contact Jaap Tigelaar at [jaap.tigelaar@arcadis.com](mailto:jaap.tigelaar@arcadis.com).

- 8) Adjourn
  - a) For comments or questions, contact Jason Vaughn at: 832-692-4078 or [jvaughn@sugarlandtx.gov](mailto:jvaughn@sugarlandtx.gov)