Lessons Learned: Designing & Building Roundabouts 4-Years Later

Background image is of the Northern Cross/N. Riverside RAB:

DESIGNED
CONSTRUCTED
FAIN
BACKGROUND:

• The City of Fort Worth started building modern roundabouts in 2012 with the construction of the Summer Creek/McPherson RAB.

• By the end of 2016, the City of Fort Worth will have
  • 12 multi-lane roundabouts operational, 5 under construction, and 11 in design.
  • 5 single lane roundabouts operational, 2 more under construction, and 1 in design.
5 Major Project Cost Drivers

- Right of Way and Easements
- Franchise Utilities
- Expanded scope due to pavement rehab or other incidental work
- Storm Sewer/Drainage Changes
- Pavement Method/Type
PHASING:

• Whenever possible, close the intersection completely during construction.

• Rule of thumb for RAB construction phase timeline:
  • 10-weeks to construct if the intersection is completely shutdown.
  • 8-weeks per phase when construction occurs in phases.

• Asphalt roundabouts can be constructed quicker and have been performing well.
**WORK ZONES**

- Complete intersection shutdown is the safest way to build a roundabout.

- Variable Message Boards should be present on all legs of the intersection for the ENTIRE duration of the project.

- Project Manager should visit the site regularly throughout construction to observe traffic controls.
SIGNS & MARKINGS

• Now adding striping in the circle for multi-lane roundabouts, but only in front of the splitter island

• Reflective RPM’s are being added to the center island along the mountable curb for visibility.

• Evaluate the type and size of signs for actual driving conditions and location in the corridor.

  Remember, the internal speed of the roundabout is less than 25-MPH!
**Next Steps:**

- Explore the use of LED pavement markers installed flush with the pavement or top of curb where lighting concerns are prevalent.

- Continue monitoring performance of asphalt paved roundabouts versus concrete.

- Look for opportunities to use alternative paving methods such as RCC.

- Evaluate alternative sign styles and sizes to better convey traffic movements to drivers.