Implementation of Roundabouts: City of Greenwood’s Experience

Mark Richards, PE

Trent Newport, PE, LS

Jay Vorisek, PE
Shane Johnson’s editorial cartoons

CARMEL: You just had to be different...

ROUND-ABOUT KING

COMING SOON
GREENWOOD DIVERGING DIAMOND

©SHANE JOHNSON  IBJ.COM

Johnson is IBJ’s editorial cartoonist. He began drawing for IBJ in 2011. You can follow him on Twitter @ShaneJohnson.
Implementation of Roundabouts: City of Greenwood’s Experience

HOW DID WE START?

Mark Richards, PE

Trent Newport, PE, LS

Jay Vorisek, PE
Main Street and Averitt Road intersection
Main Street and Averitt Road Roundabout
WHERE ARE WE GOING NOW?

Mark Richards, PE  
Trent Newport, PE,LS  
Jay Vorisek, PE
Smith Valley and SR 135 intersection
Smith Valley and SR 135
Roundabouts
Smith Valley and Madison Avenue intersection
Smith Valley and Madison Avenue Roundabout
Implementation of Roundabouts: City of Greenwood’s Experience

WHAT HAVE WE LEARNED SO FAR?

Mark Richards, PE
Trent Newport, PE,LS
Jay Vorisek, PE
Roundabout planned for Greenwood’s new I-65 interchange

Drive off Greenwood’s newest intersection when it’s built in a few years, and you’ll be thrown into a loop at the first major interaction.

The city is planning a roundabout at Worthsville and Sheek roads. The idea is to show first-time visitors pulling off the interstate that Greenwood is a progressive city.

A new roundabout will add about $500,000 to a road-widening project that’s estimated to cost $20 million. Community development officer Mark Richards said Greenwood is widening Worthsville Road to four lanes between U.S. 31 and Interstate 65, where a new exit will be built.

The extra expense of a no-stop intersection should be well worth it, redevelopment commission president Lee Money said.

“There’s no question it’s a good idea,” Money said. “There’s safety to consider and several reasons we should do it.”

A roundabout will make the interchange safer, reduce the number of accidents and move traffic through faster, he said. Vehicles won’t pollute the air with idling emissions because they won’t stop time stopped at a red light.

Greenwood won’t have to pay the electricity bill every year to keep the traffic lights lit, Richards said.

“I will help clean traffic and increase the level of safety,” he said. “It will provide a measure of safety by minimizing accidents and reducing traffic speeds.”

The Greenwood Redevelopment Commission decided by consensus Tuesday to add a roundabout to the design of the widened road. Board members didn’t take a vote, but all agreed on the roundabout.

The city also plans roundabouts at Main Street and Avanti Road, and at Stonewall Crossing and Stones Crossing roads.

Roundabout planned for Greenwood’s new I-65 interchange


Additional intersections slated for conversion

Two new roundabouts will be built in Johnson County this year, but a dozen more are planned during the next five years.

Expect to see even more 90-degree turns as intersections become round in the future, too.

Roundabouts are cost-effective to build, safer than traditional four-way intersections and are a great solution for intersections that don’t exactly line up in a cross, engineers said. They keep traffic moving more quickly than stop signs or stoplights at busy intersections and reduce the number of dangerous collisions that occur when a vehicle turning left is stuck in the side.

Roundabouts also can be built fairly quickly, typically requiring 60 days or less once the intersection is closed.

Greenwood will complete two roundabouts this year but has several more in planning stages along Smith Valley Road and the city’s east-west corridor. Franklin is considering up to five roundabouts along the city’s truck bypass, and Whiteland is planning to make over one four-way stop that frequently backs up during peak hours.

Drivers won’t be able to use the intersection at Main Street and Avanti Road in Greenwood this summer, which will be closed for construction after school is out for winter break. Greenwood city engineer and director of community development services Mark Richards said. While the intersection is torn up, the city will be paving work to U.S. 31 and putting in a median that will prevent people from making left turns into Dary Queen, which often causes traffic to stall in the intersection.

Greenwood is finishing the roundabout at Sheek and Worthsville roads, which has been under construction since last year as part of the ongoing Worthsville Road widening project. That project has taken considerably longer, since the city opted to build the roundabout in quarters in order to keep the intersection partially open for traffic, Richards said.

The continuing construction at Worthsville Road caused a delay in another roundabout project, since Whiteland opted not to build its first roundabout at Graham and Whiteland roads yet. The project originally was scheduled for this year, but the state has started major projects on Interstate 63 this year and drivers have been using Graham and Whiteland roads to get around the blockade at Worthsville Road, said Crossroad Engineers vice president Trent Newport, whose firm designed the roundabout.

Instead of being built this summer, that roundabout has been delayed until next spring, Newport said.

http://www.dailyjournal.net/view/local_story/Additional-intersections-slated-for-conversion... 3/2/2016
Confused by roundabouts?

By Corey Elliott, celliott@dailylournal.com
Last Updated: July 20, 2015 - 8:28 pm

One of Greenwood's busiest intersections should become safer and let traffic move through more smoothly, but residents need to understand how to use it.

The city decided to install a roundabout at Main Street and Avanti Road after a traffic study showed more than 30,000 vehicles pass through the intersection every day between 6 and 9 a.m. and 4 and 7 p.m.

After several months of construction, the roundabout is set to be completed Aug. 1.

Residents are encouraged to attend a meeting at 6 p.m. Wednesday at the city building, 300 S. Madison Ave., to learn about it.

CrossRoads Engineers will give a presentation providing information and answer the public's questions regarding the new roundabout.

Thank your friends should see this? Share it with them!


Roundabout coming to busy intersection

By Corey Elliott, celliott@dailylournal.com
Last Updated: January 16, 2016 - 7:26 pm

Every day, residents from three Greenwood subdivisions converge along Yorktown Road and sit at the stop sign, waiting for a break in traffic to turn onto Smith Valley Road.

The city is planning to build a roundabout at the intersection, with the goal of ending that daily routine of waiting and changing an accident.

Construction of the roundabout will begin in June 2017, with the roundabout likely opening in August of that year, city engineer Mark Richards said. The roundabout will take the same amount of time to construct as the new one at Avanti Road and Main Street, which was completed last summer, Richards said.

In 2011, a traffic study revealed the need for improvements at the intersection of Smith Valley and Yorktown roads, near the Barrington east and west subdivisions, Richards said.

"This is one of the top intersections that needs improvement," Richards said.

The design and planning of the roundabout will cost about $1.6 million and will be funded through a federal grant. The city of Greenwood will have to pay about $300,000 for engineering costs and the land needed to build the roundabout, Richards said. Construction will cost about $1.35 million, and 90 percent will be covered through a grant. The city will cover about $270,000 of the construction costs, Richards said.

In the next five years, the city of Greenwood is looking at several intersections that could be transformed into roundabouts, including Yorktown and Avanti roads, Manifold and Main streets and south of the current Greenwood Middle School at Smith Valley Road and Meadison Street, officials said.

Thank your friends should see this? Share it with them!

Topics to be Covered

• Characteristics of Modern Roundabouts
• The Advantages of Roundabouts
• How to Navigate Roundabouts
• Update on Main & Averitt Roundabout Project Schedule
QUESTIONS?

Mark Richards, PE
Trent Newport, PE,LS
Jay Vorisek, PE