

Council approves design phase of first multilane roundabout

Circular junction to be located at intersection of Ohio Drive, Warren Parkway



Frisco's first multilane roundabout will replace a four-way stop at the intersection of Ohio Drive and Warren Parkway. If successful, more multilane roundabouts will likely be made. Photo by Kelsey Kruzich.

By Anthony Tosie

Engineers will move forward with the design of Frisco's first multilane roundabout following unanimous approval by the City Council at its regular meeting Tuesday.

The vote paves the way for an anticipated six-month design period of the roundabout, which is being considered for the intersection of Ohio Drive and Warren Parkway. A separate vote will still be required before the roundabout can be constructed. If approved, construction would likely begin early next year and conclude next summer.

Brown & Gay Engineers, a firm that has already studied the impact roundabouts could have on traffic flow in the city, will design the roundabout. The design is estimated to cost the city between \$60,000 and \$80,000, while the project's overall budget – including construction – is \$365,000.

Paul Knippel, the city's director of engineering services, said construction of the roundabout will use existing pavement and potentially help the city decide if more will be created.

"We have a list of existing intersections that may warrant a signal at some point in a future," he said. "If this roundabout is successful, as we think it will be, we could potentially apply a roundabout to those intersections. As we work through this, it will become part of our planning process for new intersections [whether to use a roundabout or traffic signal]."

Council members overwhelmingly supported the roundabout, saying it may help the city's traffic flow better as the area continues to grow.

Mayor Maher Maso and Council Member John Keating have been ardent supporters of the intersection's conversion to a roundabout since a recent visit to Carmel, Ind., which has the most roundabouts of any city in the nation with more than 80. The duo met with Carmel's engineers to learn about the impact roundabouts have on traffic flow.

"This has actually helped calm traffic in neighborhoods [in Carmel]," Keating said. "We saw heavy equipment, taxicabs, minivans, bicycles and motorcycles moving through these roundabouts [as well as] pedestrians waiting for their opportunities to cross. We saw traffic flowing."

After their visit to Carmel, Maso and Keating provided city personnel with a 10-minute video they took while driving through roundabouts – a video council members said made them believers in the circular intersection.

Brian Moen, the city's assistant director of engineering services, told the council that the Ohio and Warren intersection was chosen as the location of the city's first multilane roundabout for a variety of reasons. Perhaps most importantly, he said, is that the area around it is developed, making traffic flow easier to project.

"Frisco has put itself on the map by being progressive and being different, but it's never without a great deal of thought," he said. "We measure twice and cut once. In my opinion, we've measured twice on this topic."

– Council Member Jeff Cheney

An area that isn't as developed, he said, wouldn't be a good choice for a roundabout because there's no way of adequately projecting traffic flow.

"I think it would be a year before we can see that before-and-after [at Ohio and Warren]," Moen said. "One thing we do like about this is the traffic volumes are known. Out in the Greenfield area we're not sure what's going to develop – you're taking a risk if it outgrows a roundabout in 10 or 20 years. Here we're pretty confident that's not going to be the case."

In addition to improving traffic, Moen and other city engineers have touted the safety benefits of roundabouts.

Eight of nine intersections monitored for a 2004 study by the New York Department of Transportation saw "substantial reductions in their accident rates" after being converted to multilane roundabouts with four entry/exit points, the same type of roundabout proposed for Ohio and Warren. Similar studies of intersections in the U.S. showed lower fatality accident rates for multilane roundabouts than their traffic signal and four-way stop counterparts.

The potential construction of multilane roundabouts has been a contentious issue with residents. When the city first announced late last year that it was considering creating three at Ohio Drive intersections, several residents spoke out against the plan at City Council meetings. Roundabouts

were also considered for Ohio's intersections with Gaylord Parkway and Prestmont Place, but the city decided to only moving forward with Warren's for now.

Several single-lane roundabouts are located in Frisco subdivisions, though those see significantly less traffic than Ohio's intersections.

At an open house event held March 21, the majority of residents who responded to a questionnaire said they favor the use of roundabouts. Of the 68 questionnaire responses received at the event, 35 were favorable toward the construction of multilane roundabouts, 19 were unfavorable and 14 indicated no preference.

Many of the unfavorable responses to the questionnaire were from residents concerned about their home values, Knippel said at the council's April 2 meeting.

At the council's request, the city's engineering staff also looked into the impact the roundabout could have on pedestrian traffic and housing prices in the area. No connection could be found between housing prices and roundabout installations, and no negative impact on pedestrian traffic was discovered.

Council Member Jeff Cheney said the city's done its due diligence researching the intersection, and now it's time to move forward with the proposal.

"Frisco has put itself on the map by being progressive and being different, but it's never without a great deal of thought," he said. "We measure twice and cut once. In my opinion, we've measured twice on this topic."