



To: Members of Dublin City Council
From: Marsha I. Grigsby, City Manager
Date: February 28, 2014
Initiated By: Terry D. Foegler, Director of Strategic Initiatives/Special Projects
Paul A. Hammersmith, PE, Director of Engineering/City Engineer
Jean-Ellen M. Willis, PE, Engineering Manager - Transportation
Re: Congestion Tradeoffs

Congestion

The Community Plan recommends a balance between maintaining reasonable Level of Service (LOS) standards and other quality of life issues. Dublin has already started to embrace the policy that lower levels of service are often acceptable tradeoffs rather than building significantly larger intersections or adding through lanes in certain corridors such as:

1. Avery-Muirfield Drive/Perimeter Loop Road/Hospital Drive intersection future intersection improvements
2. Avery-Muirfield Drive/Perimeter Drive intersection future intersection improvements
3. Dublin Road corridor
4. Brand Road corridor
5. Emerald Parkway corridor
6. Avery Road corridor

The tradeoffs for the above 6 areas are as follows:

1. **Avery-Muirfield Drive/Perimeter Loop Road/Hospital Drive** future intersection improvements. There are several tradeoffs for this intersection, including:
 - a. A full size roundabout footprint has significant impacts to McDonald's parking lot and lesser impacts to Walgreens parking lot (see Figure 1 on page 2)
 - b. A full size traffic signal footprint is 9-lanes, or 108-feet at a minimum (see Figures 2 and 3 on pages 3 and 4)
 - i. Traffic volumes exceed capacity beginning in 2025
 - c. Constrain roundabout footprint to two lanes with no bypass lanes (see figure 3 on page 4)
 - i. Traffic volumes exceed capacity on opening day
 - d. Constrain signalized intersection footprint to existing size
 - i. Traffic volumes exceed capacity by 2017
 - e. Improve Post Road west of Avery-Muirfield Drive to distribute traffic better

2. **Avery-Muirfield Drive/Perimeter Drive** future intersection improvements:

- a. A full size roundabout footprint has significant impacts to McDonald's parking lot and lesser impacts to Walgreens parking lot (see Figure 1 on page 2)
- b. A full size traffic signal footprint is 9-lanes, or 108-feet at a minimum (see Figures 2 and 3 on pages 3 and 4)
 - i. Traffic volumes exceed capacity beginning in 2018
- c. Constrain roundabout footprint to two lanes with no bypass lanes (see figure 3 on page 4)
 - i. Traffic volumes exceed capacity by 2017
- d. Improve Post Road west of Avery-Muirfield Drive to distribute traffic better



Figure 1: Full Roundabout Footprint



Figure 2: Full Signalized Footprint



**Figure 3: Example of Intersection with 9-Lanes
SR 256 and Taylor Station Road in Reynoldsburg**

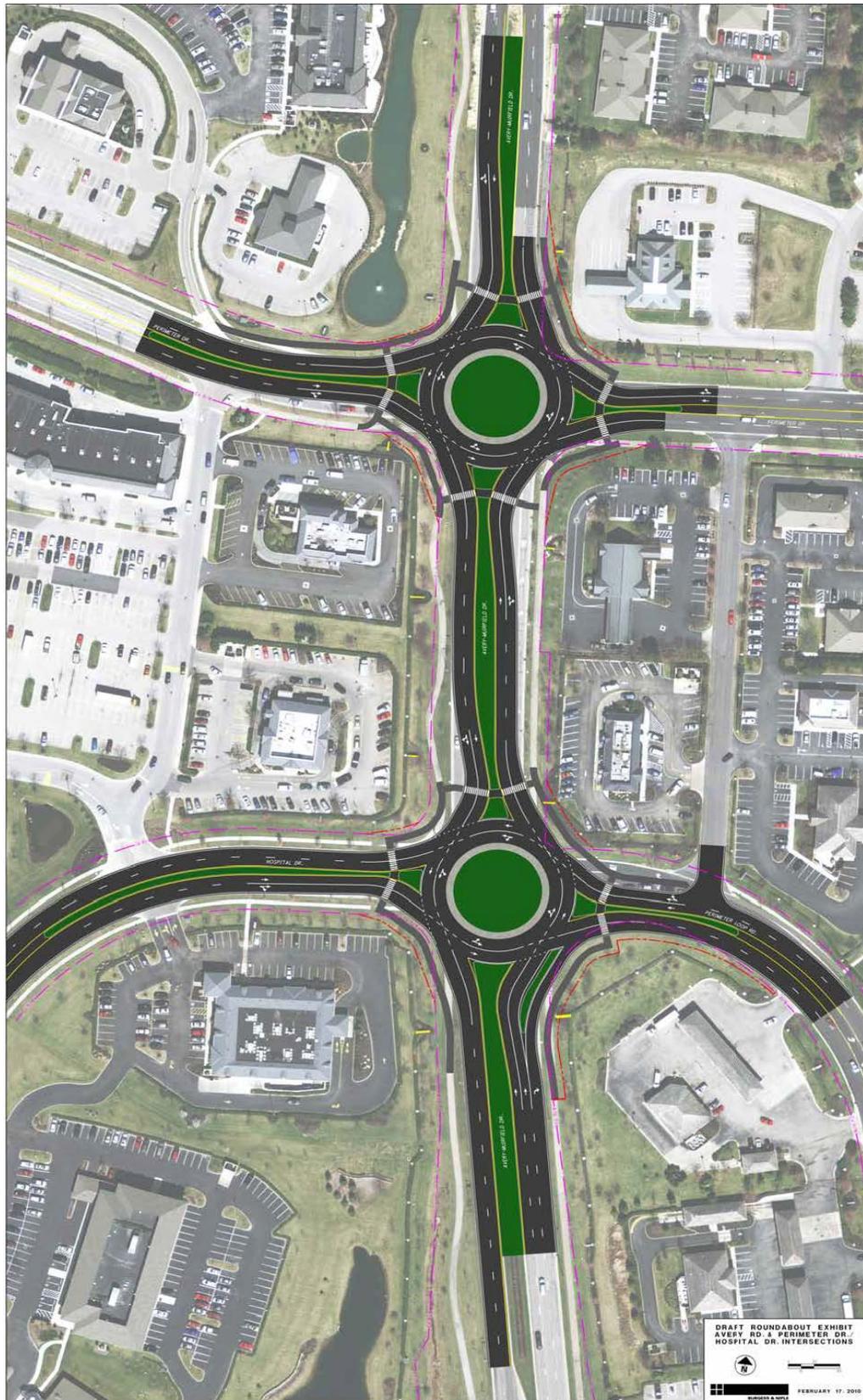


Figure 4: Two-lane Roundabout Footprints in Avery-Muirfield Drive Corridor

3. Dublin Road corridor

- a. This discussion came up during the 2007 Community Plan Update and the discussion of Scenic Roadways from the 1997 Community Plan. The discussion was that this rural corridor must remain a two-lane facility because of the beauty of the corridor. The corridor will experience LOS F in some locations by 2030, especially during the PM peak hour.

4. Brand Road corridor

- a. This discussion came up during the 2007 Community Plan Update and the discussion of Scenic Roadways from the 1997 Community Plan. The discussion was that this rural corridor must remain a two-lane facility because of the beauty of the corridor. The corridor will experience LOS E in some locations by year 2030, especially in the PM peak hour.

5. Emerald Parkway corridor

- a. This roadway represents the maximum size roadway wanted in Dublin. This discussion came up during the 2007 Community Plan Update and the roadway character discussion.

6. Avery Road corridor

- a. Previous modeling work and preliminary engineering determined this roadway should be 6-lanes at the southern corporate boundary to the north to accommodate the traffic demand trying to access US 33/SR 161. With the Emerald Parkway discussion during the 2007 Community Plan, it was determined that this roadway's footprint would be no larger than a four-lane divided roadway with turn lanes. The corridor will experience lower levels of service and increasing congestion by year 2030, with some segments reaching LOS F as a result of the 4-lane divided section.