

## EXECUTIVE SUMMARY

Primarily, this traffic impact study focuses on Bells Ferry Road, North Booth Road, the study intersections, and the effect the proposed development will have on the traffic operations of the key intersections. Bells Ferry Road between North Booth Road and Heck Road typically serves over 15,000 vehicles per day, while North Booth Road, near Chalker Elementary, typically serves around 10,000 vehicles per day.

The proposed Bells Ferry Road residential development features a similar land use to the existing land uses in surrounding area. This analysis provides guidance on how the nearby intersections will operate once the development's generated trips are added to Bells Ferry Road and North Booth Road.

Site generate traffic was added to the future traffic volumes to determine if the nearby intersections will continue to operate acceptably in the future with the added site traffic volumes. The site driveway on Bells Ferry Rd (option 1) is expected to experience significant delays and is not expected to operate acceptably in the PM peak period due to the lack of gaps on Bells Ferry Road.

Due to the undesirable levels of service at the site driveway (option 1) with a conventional intersection control, the intersection was evaluated as a High-T. By implementing a High-T, the conflict between northbound through traffic and left turning site traffic would be eliminated by the restriction method between the two northbound receiving lanes.

The site driveway intersection (option 1) would also be a candidate for a High-T given the lane configuration on Bells Ferry Road. Instead of having a merging southbound lane, the right-most lane could be designed as a drop / auxiliary lane. Given that the northbound lane expands into two northbound lanes, northbound traffic prior to the intersection could be restricted to the existing lane which would allow for a dedicated receiving lane for the left turning vehicles. Weaving can be allowed once it is safe.

The proposed residential development does not negatively impact the study intersections as the operations will remain at the same levels of service as if the development was not planned. The proposed site driveway (option 1) in the PM peak period under a conventional intersection control can operate acceptably with the implementation of a High-T.

An alternate location for the site driveway on North Booth Rd (option 2) was explored. Option 2 provides site access via North Booth Road instead of Bells Ferry Road and has acceptable levels of service in both the AM and PM peak hours at the study intersections. Either option 1 with the High T or option 2 provide access to the development without having a negative impact to the other intersections in the study network.

This report's findings indicate that the existing roadway network will continue to operate within the same parameters after the proposed development has been built with either site access option. Based on capacity, Bells Ferry Road and North Booth Road are both capable of receiving the additional traffic. For operations, the nearby intersections are capable of absorbing the development's impacts without significant increases in delay.