

Section 5-Conclusions

Summary of Findings

In order to assess the impact of the proposed development, existing conditions were analyzed based upon actual traffic counts utilizing SYNCHRO traffic analysis software. Then a No-Build Condition was prepared to reflect the future conditions for the year 2018, assuming the proposed development was not constructed. A growth rate of one half percent (0.5%) per year was utilized to represent an increase in the existing traffic volumes and there were no planned roadway improvements identified to be completed by the anticipated year of construction for the proposed development, 2018. Project-generated traffic that is anticipated to be produced by the proposed development was estimated using the latest edition of the **Trip Generation Manual** and distributed within the study area network. Finally, the **Synchro** traffic analysis software was used to calculate levels-of-service using the Build Condition traffic volumes and their associated delays.

The findings of this study state that there are no transportation improvements required for the No-Build Condition that does not include the traffic generated by the proposed development. Each of the identified intersections are expected to operate at acceptable levels of service for the year 2018. Each of the identified intersections, along with the two proposed access locations, were further analyzed with the traffic generated by the proposed development. Each of the identified intersections and the proposed access locations are expected to continue operating at acceptable levels of service with the traffic that is generated by the proposed development. There were no transportation improvements necessary to serve the project-generated traffic, except for a left-turn lane along Prince Avenue at Childs Street that was required by Athens-Clarke County.

Further analyses were conducted at each of the identified intersections utilizing a Complete Street design approach along Prince Avenue. As previously discussed, this approach would provide for one travel lane in each direction and a center, left-turn lane would permit the construction of dedicated bicycle lanes between Barber Street/North Finley Street and Pulaski Street. The results of these analyses indicated that the traffic operations at the identified intersections are anticipated to diminish. For the future year 2018, during the PM peak-period, the intersection of Prince Avenue/W Dougherty Street and Pulaski Street is expected to operate at LOS E. This same intersection operated at LOS C for the same year without the Complete Street option. The Complete Street approach, for the year 2018, results in a northbound approach (along Pulaski Street) that operates at LOS E mainly due to a high volume of left-turn movements. The left-turn movement from Pulaski Street onto Prince Avenue operates at LOS F. As traffic volumes increase for the year 2038, the same intersection, Prince Avenue/W Dougherty Street and Pulaski Street, diminishes from LOS E to LOS F. Both the northbound and westbound approaches at this location operate at LOS F and the eastbound approach along Prince Avenue operates at LOS E. Additionally, with an increase in traffic volumes for the year 2038, the intersection along Prince Avenue at Barber Street/ North Finley Street becomes deficient during the PM peak-period operating at LOS E. This same intersection operated at LOS B without the Complete Street option for the year 2038.

Conclusion

The proposed development is estimated to be fully occupied by the year 2018 and there is a net total of 2,600 daily vehicular trip ends that are expected to be generated by the proposed development. During the AM peak hour, for the year 2018, there are 141 vehicles projected to access the roadways within the study area and during the PM peak hour there are 252 vehicles per hour expected to access the same facilities.

The results of this analysis have revealed that the current roadway facilities within the immediate vicinity of the subject property are expected to operate at acceptable levels of service (LOS D or better) for the year 2018, both with and without the construction of the proposed development. No transportation improvements are required to serve the traffic generated by the proposed development for the year 2018. The number of peak-hour trips associated with "100 Prince" for the Build Condition does not significantly impact the operation of any of the identified intersections. The highest number of trips generated by the proposed development occurs during the PM peak-hour for the year 2018 and these trips amount to approximately 250 vehicles per hour.

Further consideration was given to a Complete Street design approach along Prince Avenue, between Barber Street/North Finley Street and Pulaski Street that would provide for one travel lane in each direction and a center, left-turn lane, which would permit for the construction of dedicated bicycle lanes. Analyses results indicated that traffic operations would diminish at the identified intersections using this approach. Specifically, during the PM peak-period, Prince Avenue/W Dougherty Street at Pulaski Street would operate at LOS E for the year 2018 and at LOS F for the year 2038. The intersection along Prince Avenue at Barber Street/North Finley Street would operate at LOS E for the year 2038 during the same peak-period. Based upon these diminishing levels of service, it is not recommended that the number of lanes along Prince Avenue be reduced.