



MEMORANDUM

To: Jeff Howard
McLean & Howard, LLP

Date: June 28, 2016

Project: The Grove At Shoal
Creek

CC: Andrew Linseisen, P.E.
Development Services Department

Sherri Serwaitis
Planning and Zoning Department

From: Austin Transportation Department

Re: Review Comments

The Austin Transportation Department has reviewed the March 28, 2016 (received June 16, 2016) traffic report regarding the "*The Grove at Shoal Creek, Traffic Impact Analysis*", prepared by R-K Traffic Engineering, LLC. The proposal calls for constructing 290 Single Family Homes, a 540 unit apartment building, 410 condo/townhouse dwelling units, a 400 room congregate care facility, a 100 room hotel, 350,000 SF of office, 115,000 SF of shopping center and a 35,000 SF supermarket. The development would be constructed between Bull Creek Road, Shoal Creek and 45th street. The following comments summarize our review findings:

Unresolved Traffic Impact Analysis (TIA) Comments

Analysis Comments

1. The 2018 analysis, as presented in the TIA, does not include the following:
 - Full build out of the Bull Creek Road and West 45th Street intersection
 - The improvements at the Bull Creek Road/Driveway 1 intersection
 - The improvements at the Bull Creek Road/Jackson Avenue intersection
 - The improvements at the Mopac/45th Street intersection
 - The improvements at driveways 2 through 5 along Bull Creek Road

This analysis was however included in the 2024 analysis. Based on the information provided in the current revision of the TIA, ATD understands that these intersection improvements will be fully built out prior to completion of Phase 1 of the development (see other comments below). Please clarify if otherwise.

2. **Repeat Comment ATD7 from March 2016:** It appears from the information provided in the TIA that 14% of the site generated volumes will use Jackson



Avenue. This site generated traffic will significantly increase traffic volume on Jackson Avenue. However, mitigation has not been proposed along Jackson Avenue to address this increase in traffic. We recommend that when a signal warrant study is conducted by the Applicant for the signal at Jackson Avenue and Bull Creek Road, the Applicant also study Jackson Avenue to determine whether mitigation is needed address the increase in traffic.

Geometric Comments

The Applicant will include design plans addressing these geometric comments, and those addressed by the ATD memorandum dated March 28, 2016 as part of the site plans:

Bull Creek Road/West 45th Street Intersection Plan – Preferred Option 2:

1. ATD had conceptually accepted the concept plan (Option 2) at the intersection of 45 Street/ Bull Creek Road, submitted by the Applicant, dated December 15, 2015 (as per Transmittal, dated March 25, 2016).

ATD recommends that acquisition of all necessary ROW (as proposed in the Plan – Option 2 submitted by the Applicant) and construction of the intersection at 45 Street / Bull Creek Road according to the plan be one of the conditions of approval of the PUD.

ATD also recommends that the Applicant provide documentation that this, and all other ROW, has been obtained to allow construction of the proposed improvements at this location as proposed.

2. The northbound right turn is too narrow to allow for a WB-50 design vehicle to make the turn. The lane should be widened by shifting the outermost curb and not the island curb line.
3. The northern curb face of the pork-chop island must be offset by two (2) feet from the travel lane for eastbound traffic.
4. On the eastbound approach, the 100 feet approach taper is insufficient in length. The taper should be lengthened by narrowing the painted island.
5. The concept plan shows four (4) feet wide sidewalk on the northwest of the intersection along 45th Street. All sidewalks must be minimum five (5) feet wide.

Bull Creek Road Improvements Plan (comments start at the north and head south):

1. It is unclear at this time if sufficient ROW will be obtained for the proposed improvements along Bull Creek Road. In addition, since there are a number of comments regarding the proposed design along Bull Creek Road, it is unclear if



the total ROW needed has been adequately identified, particularly at the PHB locations and the traffic signal at Jackson Avenue. If this ROW is not obtained there is concern that the proposed improvements along Bull Creek Road will not be able to be constructed.

ATD requests that the Applicant provide verification that the required ROW along Bull Creek Road, has been dedicated/obtained to allow construction of the proposed improvements at this location as proposed.

2. Tapers shown between the back-to-back turn lanes are insufficient in length. A single taper between the two turn lanes should be provided.
3. The PHB, crosswalks and landings are not shown at Driveway 1. Please show this information.
4. The 185 foot taper on the northbound left turn approach to Jackson Avenue is insufficient in length. Lengthen the taper and narrow the painted island.
5. The traffic signal, crosswalks and landings are not shown at Driveway 2/Jackson Avenue. In addition, no information is presented on Jackson Avenue related to length of turn lanes and tapers. Please present this information.
6. Between Driveway 5 and Driveway 4, the Applicant is proposing a 10-foot wide southbound lane, 11-foot wide lane northbound with a 9-foot wide shoulder. ATD recommends that the Applicant provide 10-foot wide travel lanes including a center two-way left-turn lane.
7. The pedestrian refuge island shown at Driveway 4 does not appear to have offsets to the travel lanes as provided. We recommend that one foot (1') minimum offsets be provided.
8. The PHB, crosswalks and landings are not presented at Driveway 4 in the concept plan. Please present this information.
9. The 167' lane taper south of Driveway 4 appears to be too short. In addition, it is unclear how the improvements south of Driveway 4 will match the existing conditions, including how the existing northbound bicycle lane will transition onto the multi-use path. Please present this information.
10. It is unclear from the information contained in the TIA as to when the concrete safety barrier for the bicycle lane will be constructed along Bull Creek Road. The Applicant has indicated in conversations with ATD that the barrier will be installed when Bull Creek Road is reconstructed to provide the other proposed improvements listed in the TIA. The Applicant will include design plans of this barrier installation with the site plans for the development.



Vehicular Connection to 45th Street from Jackson Avenue Extension

1. The Applicant provided traffic analysis for this proposed connection and included it in Appendix J of the TIA. However, the applicant didn't model full connection of Jackson Avenue from Bull Creek Road to 45th Street in Synchro. Also the TIA did not document how the diversion of the site trips and additional diverted trips (if any) were determined. We recommend that the Applicant review and provide justification of the diverted site trips and any additional diverted trips.
2. The site plan must include the proposed layout and cross section for the Jackson Avenue Extension from Bull Creek Road to West 45th Street. At the connection to West 45th Street, the cross section of Jackson Avenue should be wide enough to accommodate emergency vehicles. Bicycles and pedestrians should be accommodated as part of the complete streets policy.
3. Since no internal plans have been provided for the Jackson Avenue Extension from Bull Creek Road to 45th Street, we recommend that as part of the site plans for the development this roadway (called a driveway in the TIA) be designed such that a consistent cross-section, with bike lanes and sidewalks is provided between Bull Creek Road and 45th Street. In addition, we recommend that the design speed of this new roadway connection be 30 mph.
4. It is Austin Transportation Department's understanding that the Jackson Avenue Extension connection from Bull Creek Road to 45th Street shall be fully funded by the Applicant, including the PHB, as part of the improvements during the implementation of the 2018 improvements.
5. The Austin Transportation Department understands that the Applicant has purchased 2627 45th Street for ROW and additional ROW is being pursued along 45th Street which will be provided for this connection. Austin Transportation Department also understands that movements at this "new" intersection will be restricted to right in/right out only. Plans will need to show how turning movements will be restricted and which design vehicles can be accommodated. ATD requests that the applicant submit plans presenting these details at this proposed connection. If the additional ROW is not obtained we recommend that this access be limited to right-out only.



6. Advisory Comment: ATD had significant comments on the preliminary plan(s) previously submitted for this proposed new access (please submit plans as per comments 2, 3, and 4 above). The comments on the previously submitted plans are as follow:
 - a. The proposed splitter island is shown as 20.5' along 45th Street. This distance is insufficient to prevent vehicles from making an illegal left into the site or an illegal through movement from the site to Chiappero Trail. We recommend that the island be enlarged to prevent these movements.
 - b. The proposed splitter island is proposed to be constructed with type 1 mountable curb. We recommend that the island be constructed with non-mountable curb to prevent illegal movements.
 - c. The lanes on either side of the splitter island appear to be approximately 12'. We recommend that these lanes be widened to accommodate, at a minimum, a fire truck.
 - d. The Pedestrian Hybrid Beacon Signal on the west side of the proposed driveway is too close to the stop bar. This needs to be a minimum of 40' from the stop bar to allow for sight distance. We recommend that the design be modified to meet proper sight distance.

Development Phasing Comments

1. Based on the analysis presented in the TIA, all the improvements need to be constructed in 2018. The Applicant is requesting that these improvements be constructed when Phase 1 development reaches 2,000 vehicle trips per day. These improvements must be constructed when either the 110 single-family homes and half of the residential condominiums (188 units) or when all the residential condominiums (375 units) are complete. These intensities equate to the approximately 2,000 vehicle trips per day requested. It is our understanding that no construction on-site will occur beyond these units until all the improvements identified in the TIA for 2018 are complete. We recommend that these thresholds and restrictions be included in the Final TIA memorandum prepared by DSD and be one of the conditions of approval of the PUD.

Staff will conduct further review of the subject application with regard to geometric constraints that may arise due to inadequate or unavailable right-of-way that may affect the operational objectives of proposed infrastructure improvements. These elements may affect site plan review and approval as they are considered integral to the viability of the subject development as proposed.