

roadway with grade separated interchange at US 50 Highway. Ranson Road becomes Todd George Parkway at the US 50 Highway Interchange. The interchange ramps are traffic signal controlled in close proximity to Ranson Road (and the traffic signal controlled north outer road, Blue Parkway). Ranson Road is an undivided partially improved roadway with changing lane configurations south of US 50 Highway. Portions of Ranson Road have roadside ditches, limited shoulder areas, turn lanes with varied lengths, etc.

Sight distance is adequate all the aforementioned street intersections.

ACCESS MANAGEMENT CODE COMPLIANCE? Yes No

All provisions of the Access Management Code are satisfied.

TRIP GENERATION

Time Period	Total	In	Out
Weekday	506	253	253
A.M. Peak Hour	29	13	16
P.M. Peak Hour	39	18	21

TRANSPORTATION IMPACT STUDY REQUIRED? Yes No

The proposed development will not likely generate more than 100 vehicle trips to the surrounding street system during any given peak hour based on industry standard methods for trip generation estimates, a minimum requirement for traffic impact study in the Access Management Code. However, a traffic impact study was prepared by Priority Engineers, Inc., dated February 28, 2019, in consideration of the existing transportation conditions directly serving the site, uncertain adjacent development, and as means to document traffic operations, recommendations and waiver's requested by the development to City and/or MoDOT policies, standards and/or improvements normally required in support of the project.

The traffic study assessed existing conditions and proposed development conditions of the subject senior living project. There was no assessment of project phasing, accounting of approved and unbuilt projects or future development of adjacent property. Typically, a traffic study would be required of all contiguous undeveloped property so as not to incrementally review parts resulting in omitted or diminished impact otherwise identified by the whole. An exception to this practice is supported for the proposed development due to its a negligible impact and understanding study of the remaining undeveloped property in its entirety can be done comprehensively upon any future plan submitted on any portion thereof. The analysis included morning and evening commuter peak hours at the intersection of Oldham Parkway at Ranson Road and all proposed intersections/driveways along Oldham Parkway. Any future study of adjacent land development would also include interchange analysis; but the subject project did not warrant such an extensive study at this time considering the low volume of estimated trip generation during the peak hours.

The traffic study reports adequate level of service during the existing AM and PM peak hours at the intersection of Oldham Parkway and Ranson Road with exception of the PM peak hour eastbound stop controlled movement. Level of Service (LOS) is an industry accepted performance measure for traffic operations based on delay represented by the A to F lettered scale, with A the best and F the worst. City policy has established a LOS goal C for traffic signal operations and LOS D (where LOS E and F may be acceptable) for stop controlled movements. MoDOT has a similar

performance standard, but LOS D is acceptable for signal operations. These LOS targets indicate acceptable operational performance or adequate operational conditions for the transportation network. The eastbound movement during the PM peak hour exhibits a level of service (LOS) F. It is not uncommon for stop controlled movements along major arterials to exhibit LOS D or below during peak hours. The highest number vehicles to queue during 5% of the peak hour was reported at 15-16 vehicles, but the capacity and queuing analysis did not accurately factor vehicle arrival assumptions throughout the peak so delay and queue lengths may be longer. This LOS and vehicle queue cannot be mitigated but for a change in traffic control (e.g. traffic signal installation) due to the high volume of unimpeded traffic along Ranson Road. An all-way stop intersection is not recommended for this location. A traffic signal is warranted based on the traffic study of existing conditions and may mitigate the substandard LOS. An analysis of traffic signal control and its impact to operations along Ranson Road, particularly vehicle queuing in close proximity to the traffic signal controlled interchange, was not completed in the traffic study.

The traffic study reports similar level of service (LOS) post development during the AM and PM peak hours at the studied intersections with exception of the east and westbound stop controlled movements along Oldham Parkway at Ranson Road. The eastbound movement continues to operate at a LOS F with minimal increase in delay or vehicle queue from existing conditions and the westbound movement has a projected LOS E operation with less than a vehicle queue due to the increase in trip generation from the proposed site. The reported delay and vehicle queues associated with poor LOS may or may not be accurate due to errors in calculation and improper assumptions used in the capacity analysis. As noted for existing conditions, a traffic signal is warranted. A traffic signal is recommended in the traffic study at the intersection of Oldham Parkway and Ranson Road. However, an analysis of traffic signal operations was not completed; thus its impact to system performance is unknown.

MoDOT has received, reviewed and accepted the submitted traffic study. MoDOT concurs with the study recommendation for traffic signal control at the intersection of Oldham Parkway and Ranson Road. Though a traffic signal is warranted and supported by MoDOT, MoDOT has shared its intent to waive the traffic signal requirement for adequate infrastructure in consideration of the minimal trip generation associated with the proposed development and negligible impact to existing conditions that warrant traffic signal control. MoDOT plans to construct a traffic signal at this location within the next 5 years. As owner of the intersection, MoDOT may waive improvement recommendations or require additional improvements to their right-of-way beyond those improvements the City conditions upon development approval as part of its permitting process. Since MoDOT has already expressed its intent in writing to waive any traffic signal requirements imposed by the City upon this development, no such condition of approval is listed by staff as normally would be done for adequate infrastructure.

Access spacing, internal site circulation, intersection sight distance, turn lane requirements, and driveway throat lengths were evaluated in the traffic study for compliance with the Access Management Code. The development has proposed widening of Oldham Parkway adjacent to the site for left-turn lanes in consideration of future improvements to Oldham Parkway, compliance with the Access Management Code recommendations, and partial compliance with the City's Unimproved Road Policy. Until Oldham Parkway is extended towards the east to Blackwell Road, there will be almost no left-turn volume. The study reports sight distance is adequate at all existing and proposed intersections. The development fully complies with the Access Management Code.

The traffic study also reviewed development compliance with the City's Unimproved Road Policy. The study incorrectly applied the Unimproved Road Policy and made no related recommendations or support for its waiver. Though the policy does not currently apply to MoDOT right-of-way, Oldham Parkway will be transferred to City ownership. The proposed development is commercial and Oldham Parkway is a commercial collector constructed to an interim road standard without paved shoulders. The policy adopted by City Council requires all commercial development to improve unimproved or interim roads to urban standards. The study assumed this development is not applicable to the policy because Oldham Parkway meets the interim road standards (less paved shoulders). The applicant proposes to improve Oldham Parkway adjacent to its development to an urban standard similar to that which was constructed on Blue Parkway (the north outer road to US 50 Highway) west of Todd George Parkway. This improvement would be done in coordination with proposed widening of Oldham Parkway for left-turn lanes at site driveways. The remainder of Oldham Parkway would be improved to urban standards as future development occurs between the development and Ranson Road. While this approach does not entirely meet policy, staff supports the extent of proposed policy waiver considering the negligible traffic impact of the proposed development, proposed development roadway improvements (partial policy compliance), impending right-of-way ownership transfer (current applicability of policy), future development opportunity to fully comply with the policy and existing roadway conditions.

The preliminary development plan reflects the roadway improvements and recommendations of the applicant, traffic study, and staff.

As previously noted, the recommended traffic signal at Oldham Parkway and Ranson Road is located upon a MoDOT right-of-way and as determined by MoDOT will not be required of the developer prior to development activity. The traffic signal installation is planned by MoDOT, but funding and schedule for construction is unknown.

LIVABLE STREETS (*Resolution 10-17*)

COMPLIANT

EXCEPTIONS

The proposed development plan includes all Livable Streets elements identified in the City's adopted Comprehensive Plan, associated Greenway Master Plan and Bicycle Transportation Plan attachments, and elements otherwise required by ordinances and standards, including but not limited to sidewalk, landscaping, parking, and accessibility. No exceptions to the Livable Streets Policy adopted by Resolution 10-17 have been proposed.

RECOMMENDATION:

APPROVAL

DENIAL

N/A

STIPULATIONS

Recommendations for Approval refer only to the transportation impact and do not constitute an endorsement from City Staff.

Staff recommends approval of the proposed preliminary development plan subject to the proposed public improvements along Oldham Parkway and extension of Princeton Drive (a public street) generally described and included in the applicants plan submittal.