



LEE'S SUMMIT MISSOURI

DEVELOPMENT REVIEW FORM TRANSPORTATION IMPACT

DATE: September 22, 2016
SUBMITTAL DATE: September 16, 2016
APPLICATION #: PL2016145
PROJECT NAME: VILLAGE AT VIEW HIGH

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PROJECT TYPE: Rezoning

SURROUNDING ENVIRONMENT (*Streets, Developments*)

The proposed rezoning and commercial mixed-use conceptual development plan is located at the northeast corner of 3rd Street and View High Drive. The surrounding area consists of single family residential subdivision to the east, large lot residential/undeveloped property to the north, golf course to the west and mixed-use commercial development to the south.

ALLOWABLE ACCESS

The proposed development will be accessed from View High Drive, 3rd Street, the extension of Kessler Drive and another proposed east-west public roadway. The extension of Kessler Drive would have full access along View High Drive in alignment with existing access to the golf course on the west side of View High Drive. The proposed east-west public roadway (Village Park Drive) would be located between Kessler Drive and 3rd Street, intersecting View High Drive with limited access to right-in/right-out traffic by a raised median along View High Drive. This roadway would continue east and connect with future roadways to improve access and traffic circulation to/from the Winterset Valley subdivision. A driveway is also proposed along 3rd Street and conforms to the Access Management Code spacing and alignment criteria. All proposed driveways from Kessler Drive and the new east-west public road are also in compliance with the Access Management Code.

EXISTING STREET CHARACTERISTICS (*Lanes, Speed limits, Sight Distance, Medians*)

View High Drive is a four-lane median divided, 45 mph major arterial owned and maintained by the City of Kansas City, MO. View High Drive south of 3rd Street is Longview Boulevard; a four-lane median divided major arterial within the corporate limits of Lee's Summit. 3rd Street is a four-lane major arterial with a 40 mph speed limit. There are raised medians and turn lanes along 3rd Street at various intersections, including Kessler Drive and View High Drive. Kessler Drive is a two/three lane, 25 mph, commercial collector. 3rd Street and Kessler Drive are within Lee's Summit corporate limits. The intersection of Kessler Drive and 3rd Street is full access with left and right-turn lanes. The intersection of 3rd Street and View High Drive is traffic signal controlled with multiple turn lanes upon each approach.

ACCESS MANAGEMENT CODE COMPLIANCE?

Yes

No

The Access Management Code (AMC) requires intersection spacing of at least 300 feet along commercial collectors. The proposed driveway spacing along Kessler Drive and Village Park Drive meets this standard. Driveways along Kessler Drive should also have left-turn lanes according to

the Access Management Code and left-turn lanes are shown on the concept plan with a proposed extension of Kessler as a three-lane roadway. Kessler Drive, a commercial collector, does not require right-turn lanes. Proposed Village Park Drive, a commercial local, does not require right-turn lanes or left-turn lanes, but will include a typical section that accommodates separated left-turn movements through the commercial areas. The minimum throat distance for driveways and separation from nearest intersections is met with exception of the proposed driveway along 3rd Street between View High Drive and Kessler Drive. This driveway should have a minimum throat distance of 125 feet and can be accomplished with some minor site design changes.

The proposed development includes the following turn lane improvements:

- Southbound left-turn lane with at least 300 feet of storage, plus taper, at the intersection of Kessler Drive and View High Drive.
- Northbound right-turn lane with at least 200 feet of storage, plus taper, at the intersection of Kessler Drive and View High Drive.
- Northbound right-turn lane with at least 150 feet of storage, plus taper, at the intersection of Village Park Drive and View High Drive (a right-in/right-out intersection).
- Eastbound left-turn lane with at least 200 feet of storage (limited to 150 feet based on existing road conditions), plus taper, at the intersection proposed between Kessler Drive and View High Drive along 3rd Street.
- Westbound right-turn lane with at least 150 feet of storage, plus taper, at the intersection proposed between Kessler Drive and View High Drive along 3rd Street.
- Westbound right-turn lane with a minimum 200 feet of storage, plus taper, at the intersection of Kessler Drive and 3rd Street.
- The existing eastbound left-turn lane at Kessler Drive and 3rd Street will need some pavement markings.

The length of these turn lanes meets or exceeds the minimum requirements in the Access Management Code and accommodates projected vehicle queues with exception of the eastbound left-turn lane along 3rd Street at the proposed intersection between Kessler Drive and View High Drive. The left-turn lane should be at least 200 feet in length, but existing roadway geometry limits the turn lane to 150 feet in length, plus taper, due to the opposing westbound left-turn lane capacity requirements at the intersection of View High Drive and 3rd Street. Staff supports a waiver for the reduced turn lane capacity. If future traffic safety concerns develop that require additional access management or turn lane capacity, the median may be extended across this intersection to limit access to right-in/right-out.

All other criteria in the Access Management Code have been addressed and are code compliant.

TRIP GENERATION

Time Period	Total	In	Out
Weekday	14,598	7,299	7,299
A.M. Peak Hour	436	205	231
P.M. Peak Hour	1,320	665	655

The trip generation tabulated above represents full development of the conceptual plan. The project has proposed phasing that is described in the Traffic Impact Study and related section of this report.

TRANSPORTATION IMPACT STUDY REQUIRED?

YES

No

The proposed development will likely generate more than 100 vehicle trips to the surrounding street system during any given peak hour. The surrounding street system has been planned and constructed to adequately accommodate the projected traffic impact of this development in consideration of the improvements listed in the access management section of this report and/or recommendations of approval. A traffic study was completed by TranSystems Corp., dated July 21, 2016. The traffic study was also submitted to the City of Kansas City, MO for review and concurrence.

The traffic study considered the following scenarios to assess the development impact and required improvements to mitigate inadequate infrastructure/operations: Existing Conditions, Existing Plus Approved Development Conditions (includes approved development in the area under construction such as Winterset Valley, Goddard School, Residences at Longview Apartments, NLV Commercial, Summit Church and Autumn Leaves), Existing Plus Approved Plus Proposed Development Conditions, and a Future Year 2040 Conditions analysis. The development scenario was considered in two phases; the first phase limited to the apartments only and the second phase including full development. Each scenario was evaluated for AM and PM peak hours at the intersections along View High Drive from Chipman Road to 3rd Street (existing and proposed) as well as intersections along 3rd Street at View High Drive, Kessler Drive, Bridlewood Drive and proposed driveways. The study also included an assessment of site circulation, design, and compliance with access management codes/criteria. The City of Lee's Summit has adopted a level of service goal C or better for traffic signal controlled intersections. Stop controlled approaches with a level of service D or below may be acceptable. The City of Kansas City, MO has a level of service goal D or better. Level of service is a measure of acceptable vehicle delay reported at A-F; with A being the optimal operation and F representing failed operations.

The traffic study shows adequate traffic operations for existing and existing plus approved development scenarios during both peak hours at all of the studied intersections. When approved development trips are considered a few stop controlled movements are expected to exhibit level of service E and F operations. However, the delay is associated with low traffic volumes and there are no mitigations available to improve the movement's levels of service since traffic signals are not warranted at any of the stop controlled locations under this scenario. The proposed development scenario includes many turn lanes improvements, summarized in the conditions of approval and access management sections of this report. In consideration of these improvements and the projected trip generation from the proposed development, some additional stop controlled movements begin to show failing operation. The first phase of development includes a few new intersections and roadways and associated turn lanes should be constructed at that time. The first phase of development may or may not require traffic signal control at the intersection of View High Drive and Chipman Road and the intersection of View High Drive and 109th Street. These potential traffic signals and interconnect between traffic signals may be required by the City of Kansas City, MO. The first phase of development does not warrant traffic signal control at the intersection of 3rd Street and Kessler Drive or any other intersection. The second phase of development, full build, has similar traffic signal considerations along View High Drive associated with the first phase of the development and additional turn lane requirements with new intersections and roadway connections to 3rd Street. The second phase of development also appears to warrant traffic signal control at 3rd Street and Kessler Drive.

The proposed conceptual 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, shared-use path, network connectivity, landscaping, 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 rezoning and conceptual development plan subject to the following conditions:

1. An updated traffic study (depending on the lapse of time from the date of application) shall be required for consideration of any proposed preliminary development plan within the conceptual areas of the re-zoning application and all recommended improvements associated with the traffic study and compliance with the access management code as noted above and summarized in this TIA shall be required. Additional improvements such as traffic signal installation with interconnect at Kessler Drive and 3rd Street, or traffic signals at other study intersections may be required too.