



LEE'S SUMMIT MISSOURI

DEVELOPMENT REVIEW FORM TRANSPORTATION IMPACT

DATE: September 22, 2016 **CONDUCTED BY:** Michael K Park, PE, PTOE
SUBMITTAL DATE: September 15, 2016 **PHONE:** 816.969.1800
APPLICATION #: PL2016146 **EMAIL:** Michael.Park@cityofls.net
PROJECT NAME: VILLAGE AT VIEW HIGH APARTMENTS **PROJECT TYPE:** Prel Dev Plan (PDP)

SURROUNDING ENVIRONMENT (*Streets, Developments*)

The proposed multi-family residential development 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. The proposed development is within a planned conceptual mixed-use commercial development.

ALLOWABLE ACCESS

The proposed development will be accessed from View High Drive via the extension of Kessler Drive, 3rd Street via the extension of Kessler Drive (upon subsequent phases of the surrounding commercial mixed-use conceptual development) 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. 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 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 for all driveways in the proposed preliminary development plan.

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).

Additional turn lanes would be provided in future phases of surrounding development that provides access via Kessler Drive to 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 length of these turn lanes meets or exceeds the minimum requirements in the Access Management Code and accommodates projected vehicle queues.

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

TRIP GENERATION

Time Period	Total	In	Out
Weekday	1,966	983	983
A.M. Peak Hour	153	31	122
P.M. Peak Hour	185	120	65

The trip generation tabulated above represents full development of the preliminary development plan.

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 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.

LIVABLE STREETS (*Resolution 10-17*)

COMPLIANT

EXCEPTIONS

The proposed preliminary 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 preliminary development plan subject to the following conditions:

1. Improvements at View High Drive and Chipman Road (e.g. traffic signal installation), View High Drive and 109th Street (e.g. traffic signal installation), and related traffic signal interconnect to adjacent traffic signals along View High Drive, within the jurisdiction of Kansas City, MO recommended by Kansas City, MO shall be substantially constructed or an equivalent escrow deposit provided to Kansas City, MO as determined by Kansas City, MO prior to the issuance of occupancy permits unless otherwise waived by Kansas City, MO.
2. Construct a southbound left-turn lane with at least 300 feet of storage, plus taper, at the intersection of Kessler Drive and View High Drive. The improvement shall be substantially completed prior to the issuance of occupancy permits.
3. Construct a northbound right-turn lane with at least 200 feet of storage, plus taper, at the intersection of Kessler Drive and View High Drive. The improvement shall be substantially completed prior to the issuance of occupancy permits.
4. Construct a 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). The improvement shall be substantially completed prior to the issuance of occupancy permits.
5. Construct a westbound right-turn lane with a minimum 200 feet of storage, plus taper, at the intersection of Kessler Drive and 3rd Street at such time Kessler Drive is extended towards the north and intersects with Village Park Drive. The improvement shall be substantially completed prior to the issuance of occupancy permits associated with the phase of development in which the roadway is extended.
6. Install pavement markings for the existing eastbound left-turn lane along 3rd Street at Kessler Drive at such time and in coordination with Condition #5.