



LEE'S SUMMIT MISSOURI

DEVELOPMENT REVIEW FORM TRANSPORTATION IMPACT

DATE:	July 18, 2018	CONDUCTED BY:	Michael K Park, PE, PTOE
SUBMITTAL DATE:	July 3, 2018	PHONE:	816.969.1800
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PROJECT NAME:	KESSLER VIEW	PROJECT TYPE:	Prel Dev Plan (PDP)

SURROUNDING ENVIRONMENT (*Streets, Developments*)

The proposed mixed-use development is generally located at the southeast corner of 3rd Street and Longview Boulevard, along Kessler Drive and Fascination Drive. The development is surrounded by single family residential to the east and a partially constructed, otherwise approved, conceptual mixed-use plan consisting of single family residential subdivision to the south, various commercial services to the north, and variety of office, restaurants, retail and apartments to the west.

ALLOWABLE ACCESS

The proposed development will be accessed from Longview Boulevard, Fascination Drive, Kessler Drive and Curry Road. Kessler Drive provides access to the development from nearby 3rd Street and Longview Boulevard. Fascination Drive also intersects Longview Boulevard (and Kessler Drive). Curry Road is an existing dead-end residential street that will be extended, as planned, from the east at the existing Bridlewood Subdivision to Kessler Drive and only provides access to the residential portion of the proposed development. Driveway access to/from the developed and undeveloped properties along Fascination Drive, Kessler Drive and Longview Boulevard have already been constructed as part of the overall conceptual development plan and associated roadway network that exists with exception of one proposed driveway along Kessler Drive which would align with another existing driveway. Driveway access along Longview Boulevard is limited to right-in/right-out traffic by a raised median along Longview Boulevard. The driveways to/from the proposed development, existing intersections and proposed connection of Curry Road to Kessler Drive should have adequate sight distance as shown on the preliminary development plan according to the developer's engineer, whom submitted an evaluation of sight distance that concluded safe conditions would be available upon and thereafter its development construction.

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

Longview Boulevard is a 35 mph four-lane median divided major arterial within the corporate limits of Lee's Summit. North of 3rd Street, Longview Boulevard is named View High Drive; a four-lane median divided 45 mph major arterial owned and maintained by the City of Kansas City, MO. All other streets referenced are within Lee's Summit. 3rd Street is a four/five-lane undivided major arterial with a 40 mph speed limit. The intersection of Longview Boulevard/View High Drive and 3rd Street is traffic signal controlled with multiple turn lanes and medians in each direction of travel. There are also raised medians and turn lanes along 3rd Street at various intersections, including Kessler Drive. Kessler Drive is a two/three lane, 25 mph, commercial collector. The intersection of Kessler Drive and 3rd Street is full access with left and right-turn lanes. The

intersection of Longview Boulevard and Kessler Drive is controlled by a multi-lane roundabout. Fascination Drive is a two-lane commercial street with a 25 mph speed limit that extends between Longview Boulevard and Kessler Drive (also extending west of Longview Boulevard to Longview Road) with direct and primary access to Longview Community College. The intersection of Longview Boulevard and Fascination Drive is controlled by a multi-lane roundabout. Fascination Drive is stop controlled at the intersection of Kessler Drive. Curry Road is a typical two-lane residential street with a 25 mph speed limit. Curry Road is a dead-end street in the Bridlewood Subdivision abutting the subject development and its proposed extension west has been a long-standing plan to be completed at the time development occurs. Minimum required sight distance at all intersections directly impacted by this development shall be maintained clear of obstruction (or provided where such intersection is proposed) and any obstructions avoided or mitigated. There are no known sight distance issues at this time.

ACCESS MANAGEMENT CODE COMPLIANCE?

YES

NO

All aspects of the proposed development comply with the Access Management Code, including the planned extension of Curry Road, with the only exception(s) described below:

The Access Management Code (AMC) requires intersection spacing of at least 300 feet along commercial collectors. The proposed driveway spacing along Kessler Drive does not meet this standard. There is an existing driveway (and the location of a proposed driveway on the opposite side of the street) that will provide access to the proposed development along both sides of Kessler Drive located approximately 240 feet south of Fascination Drive and another intersection (Curry Road) is also spaced short of the minimum standard. The existing and proposed intersection spacing along Kessler Drive is in accordance with previously approved development plans. Kessler Drive also has a residential collector context south of Fascination Drive (a 200-foot minimum spacing requirement in the AMC) and exists within a neotraditional development where access and mobility standards are often balanced with different expectations. Consequently, staff supports a waiver to meet the proposed access spacing in this situation.

Non-residential driveways/intersections along Kessler Drive where the left-turn volume may exceed 30 vehicles in a peak hour (something likely to occur at the proposed daycare) should also have left-turn lanes according to the Access Management Code. Left-turn lanes are not shown on the plan for these locations on Kessler Drive. Kessler Drive has been constructed according to the neotraditional design scoped in the approved conceptual development plan. Staff also supports the omission of a left-turn lane along Kessler Drive in consideration of the built conditions, anticipated traffic volume and surrounding environment.

The Access Management Code requires right-turn lanes for any access along major arterials. Similar to the design of Kessler Drive, Longview Boulevard has already been constructed without a right-turn lane at the intersection of existing driveways that provide direct access to the site. The continued absence of right-turn lanes along the existing corridor at existing intersections is supported by staff for this development.

The minimum throat distance for driveways and separation from nearest intersections has been substantially met for all driveways in the proposed preliminary development plan. Where additional driveway throat distance is necessary, if anywhere, parking may be removed (or relocated) accordingly at the final development plan phase.

TRIP GENERATION

Time Period	Total	In	Out
Weekday	8,412	4,206	4,206
A.M. Peak Hour	437	272	165
P.M. Peak Hour	742	326	416

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; a condition that requires a traffic impact study. 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 and complimentary memorandum for additional traffic analysis of certain phases within the development was completed by Olsson Associates, dated July 19, 2018.

Most of the proposed development plan was previously studied and approved in association with NLV Commercial (e.g. a development area bound from 3rd Street to Fascination Drive and from Longview Boulevard to Kessler Drive), circa. 2007, and Longview Commons (e.g. a development area bound from Fascination Drive to Kessler Drive and east of Longview Boulevard), circa. 2016. These approved developments have been partially constructed (i.e. Movie Theatre, Pharmacy, C-Store, and Fast Food Restaurant). However, the proposed development plan expands upon the previously approved density, modifies some previously approved land uses, and includes areas east of Kessler Drive that have not been previously reviewed or approved. It should be noted that not all of the area included in the Longview Commons development has been included in the subject preliminary development plan, specifically the approved portion of residential and multi-family development has been excluded and remains approved, but unbuilt.

The traffic study considered the following scenarios to assess the development impact and required improvements to mitigate inadequate infrastructure/operations: Existing Conditions, Existing Plus Proposed Development Conditions (i.e. named Existing Plus Phase 1 in the study), Existing Plus Proposed Plus Concept Conditions (i.e. named Existing Plus Phase 2 in the study), and Future Conditions (i.e. named Full Build in the study). The Proposed Conditions includes trips attributed by the subject preliminary development plan (except for portions east of Kessler Drive) and approved development immediately adjacent to the project area; this adjacent area is described as the Kessler Ridge Subdivision (in-construction) to the south, residential/multi-family development portion of Longview Commons to the south, and a vacant fast food restaurant site to the north. The Concept Conditions includes trips attributed by the Proposed Conditions plus the portion of preliminary development plan east of Kessler Drive plus the unapproved, undeveloped, portions of the New Longview Concept Plan south of the project area; this undeveloped area is beyond the limits of preliminary development plan and is described as future phases of the New Longview residential subdivision and numerous commercial developments to the west and south which have never had a preliminary approval. The Future Conditions includes all aforementioned development plus approved development north of 3rd Street (Village at View High).

The proposed development was further assessed considering a phased approach that includes only the portion of development in the preliminary development plan east of Kessler Drive in a complimentary memorandum to the traffic study. This memo also provides an Existing Plus Approved Development scenario; in which the Approved Development west of Kessler Drive consists of land uses and density previously approved for the subject project area. This scenario may be used for comparison purposes with the Existing Plus Proposed Development Conditions.

Each analysis scenario contained in the traffic study and memorandum was evaluated for AM and PM peak hours at nearby intersections along 3rd Street, Longview Boulevard, Fascination Drive and Kessler Drive. 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. Level of service is a measure of acceptable vehicle delay reported as "A" to "F"; with A being optimal operation and F representing failed conditions. The adopted level of service goals by the City of Lee's Summit establishes minimum performance expectations that provide definition to adequate infrastructure.

The traffic study and memo show adequate traffic operations for the Existing Conditions without any improvement needs. All other development scenarios indicate traffic operations are projected below the City's adopted acceptable performance (below LOS D) on one or more stop controlled approaches to the intersection of Kessler Drive at 3rd Street during both peak hours. The inadequate operations can be mitigated with the installation of traffic signal control. No other intersection operations require mitigating improvements to achieve adequate conditions for any scenario studied.

A traffic signal warrant analysis was completed for various development scenarios at the intersection of Kessler Drive and 3rd Street. A traffic signal had been a conditional improvement on the prior development plan approved for the same area as the subject preliminary development plan; the latter also has greater trip generation. The signal warrant analysis was provided for development east and west of Kessler Drive independently and in combination. In each development scenario one or more peak hour warrants are met to varied degree. Depending on how the signal warrant is evaluated at this location, e.g. the applicability of right-turn movements in consideration of vehicle queues and lane configuration modifications for the northbound approach, a portion of the proposed development may be built without warranting a traffic signal. The warranting volumes will materialize as development occurs within the preliminary development plan, but the timing was not forecasted for intermediate development phases.

Typically, when a development warrants a traffic signal based on its projected impact, the traffic signal is a condition of staff recommendation and Council approval to provide adequate infrastructure in support of the project. The traffic signal would be installed prior to occupancy of any portion of the approved commercial development that caused the signal to be warranted. If there is not a phased development plan provided to narrow the window of its impact and timing of need, the signal would be required at the on-set of any development within the plan. The applicant has expressed a desire to defer the traffic signal improvement absent any defined phasing plan that shows when it may be triggered with the understanding that a signal will be warranted at some stage of development prior to completion of the preliminary development plan build-out.

The applicant has requested permission to incrementally develop the preliminary development plan until such time warranting conditions are more certain or a CID is available for funding the signal construction. The applicant prefers not to conduct a phasing plan at this time for the portion of development west of Kessler Drive and associated traffic analysis scenarios given the unknown sequencing of lot builds, market changes, and potential movement in land use/density. A similar request from the developer to defer signal installation was approved by City Council with an option for the developer to escrow the signal installation cost in lieu of construction until warranted for the Longview Commons development. This condition stipulated escrow prior to any development in the commercial portion of the plan and that a signal warrant analysis would be done as development occurs incrementally to determine when the signal installation would be required by developer and escrow returned.

The traffic study and memo generally support the developer's request and recommend continued signal warrant study at the intersection of Kessler Drive and 3rd Street; to provide signal control upon warranting conditions that materialize as development occurs and which is expected upon completion of the project. However, this situation may result in an inadequate infrastructure condition absent the traffic signal after the development is completed and unmitigated by the developer. The escrow option conditioned upon approval of the previous development plan remedied that problem to some extent and insured a signal, adequate infrastructure, could be provided when necessary. The applicant has a similar request for this application. A request that subsequent traffic signal warrant studies be done as the development is incrementally built and installed at such time as warranted, though no escrow be required in the interim.

Staff supports the execution of development east of Kessler Drive without a traffic signal condition at the intersection of Kessler Drive and 3rd Street since the impact of development east of Kessler Drive alone would not warrant its installation. The development west of Kessler Drive warrants a traffic signal at some stage of its execution towards build-out based on the traffic study and memo. Staff recommends a traffic signal installation in support of development west of Kessler Drive; and agrees that a portion of that development may proceed without warranting a traffic signal given existing conditions. Considering the timing is unknown, as discussed, and applicant's request, staff recommends that warranting conditions be assessed through one or more traffic signal warrant studies by developer as development occurs west of Kessler Drive. Signal warrant studies may be requested by staff in consideration of each individual final development plan application within the preliminary development plan, progress of development within the preliminary development plan, past studies, analysis scenarios and traffic counts that may indicate approaching warrants. If a study submitted in association with any final development plan application within the preliminary development plan shows a warrant is met, the signal shall be installed prior to occupancy of that application or any other application within the development. This approach is consistent with previous conditions of approval except that no escrow is required. The risk without escrow is that a signal becomes warranted after a majority of development is completed leaving limited areas of development remaining and the full expense of a signal unfunded; a potentially cost-prohibitive situation that causes small areas of the development to be practically undevelopable. However, this same traffic signal is already a condition of other developments in the general vicinity. Thus, the risk is minimized that any such predicament would occur or last.

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:

A traffic signal warrant study shall be submitted by the developer upon request of the City Traffic Engineer for the intersection of 3rd Street and Kessler Drive. Such request may occur repeatedly in association with any final development plan application for project areas within the preliminary development plan west of Kessler Drive to assess the forecasted impact of trip generation during the incremental progress of preliminary development plan implementation. If the traffic conditions do not warrant a traffic signal based on the study and with concurrence of the City Traffic Engineer, no traffic signal or interconnect shall be required at that time for that final development plan application. If the traffic conditions warrant a traffic signal based on the study and with concurrence of the City Traffic Engineer, the developer shall construct a traffic signal with interconnect to the adjacent traffic signal at Longview Boulevard. The traffic signal and interconnect improvement shall be substantially completed prior to the issuance of occupancy permit(s) associated with the respective final development plan application and prior to the same for any other final development plan application within the preliminary development plan that has not already been approved.