



DEVELOPMENT REVIEW FORM
TRANSPORTATION IMPACT

DATE:	August 3, 2023	CONDUCTED BY:	Susan Barry, P.E., PTOE
SUBMITTAL DATE:	July 26, 2023	PHONE:	816.969.1800
APPLICATION #:	2023093	EMAIL:	Susan.Barry@cityofls.net
PROJECT NAME:	PRYOR RD MIXED USE	PROJECT TYPE:	Prel Dev Plan (PDP)

SURROUNDING ENVIRONMENT (*Streets, Developments*)

The proposed development is generally located in the southeast quadrant of the MO 150 Highway and Pryor Road intersection. The proposed development is bound by MO 150 Highway to the north, Pryor Road to the west, and residential property to the east and south.

ALLOWABLE ACCESS

The proposed development will primarily be accessed from MO 150 and Pryor Road. The site is planned to be accessed by two driveways; one along Pryor Rd. and one along MO 150. Driveway 1, along Pryor Rd, is proposed approximately 665' south of MO 150 and aligns with Osage Drive on the west side of Pryor. Driveway 2, along MO 150 is proposed approximately 520' east of Pryor Road and is proposed as a right in right out only. A future connection of Osage Drive to the east will be stubbed out with construction of this development.

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

MO 150 Highway is a four-lane median separated roadway owned and maintained by MoDOT. The speed limit is 45 mph and provides for u-turns at most of the breaks in the median, including the Pryor Road intersection both eastbound and westbound. There is existing curb and gutter, sidewalk, and shared use path along MO 150.

Pryor Road is a two-lane major arterial with a 35 mph speed limit, with 6' shoulders on both sides. There is a CIP project programmed for the section of Pryor Road to the north, from MO 150 to Hook Road. This project will widen Pryor Road to four lanes and add sidewalks, shared use path, and turn lanes.

The intersection of MO 150 and Pryor Road is signalized with left turn lanes on all approaches, a southbound right turn lane, a northbound right turn lane, and an eastbound right turn lane.

Osage Drive is the existing access into the Summit Homes development on the west side of Pryor Road and is a two lane collector roadway, and the intersection is stop-controlled with Osage Drive stopping.

ACCESS MANAGEMENT CODE COMPLIANCE?Yes No

Pryor Road is considered a major arterial and access to a major arterial is required to be separated by 660'. The proposed driveway is opposite the existing Osage Drive on the west side and meets this requirement.

All other Access Management Code requirements are met.

TRIP GENERATION

Time Period	Total	In	Out
Weekday	4097	2048	2049
A.M. Peak Hour	261	109	152
P.M. Peak Hour	415	230	185

Trip generation shown was estimated for the proposed development based on the 11th edition of the ITE Trip Generation Manual. The proposed development was estimated based on the ITE Code 220 - Multifamily Housing Low-Rise (280 dwelling units), Code 822 - Strip Retail Plaza (22,500 sq ft), Code 912- Drive-In Bank (5,000 sq ft), and Code 932 - High-Turnover (Sit-Down) Restaurant (4,500 sq ft).

TRANSPORTATION IMPACT STUDY REQUIRED?Yes No

A transportation impact study was completed for the preliminary development plan by McCurdy Engineers, dated June 13, 2023. The traffic study considered the traffic impact of the proposed development, during the A.M. and P.M. peak hour of adjacent street traffic at each intersection surrounding the development and accessing the development.

The need for a right turn lane at the site entrance on MO 150 was evaluated using MoDOT's turning lane guidelines for four-lane roadways for the existing plus site condition. The existing plus site traffic volumes during the afternoon peak hour are expected to warrant a right turn lane during peak periods for the MO 150 access. An eastbound right turn lane (200 feet plus taper) is required at the intersection of MO 150 and the RIRO site access.

The need for right and left turn lanes into the site at Osage Drive was evaluated using the City of Lee's Summit Access Management Code, March 2018, turning lane guidelines. A southbound left turn lane will be required on Pryor Road at Osage Drive. This can be accomplished by restriping the painted median to create a southbound left turn lane (200 feet plus taper). Traffic volumes are not expected to meet the right turning volume criteria, therefore a northbound right turn lane at Osage Drive is not required.

LIVABLE STREETS (Resolution 10-17)COMPLIANT EXCEPTIONS

The proposed development plan will provide all required sidewalks and bikeways, where shown in the Bicycle Transportation Plan, along adjacent roads and reconstructed Main Street. All elements otherwise required by ordinances and standards, including but not limited to property landscaping, lighting, parking, and ADA accessibility have been proposed. No exceptions to the Livable Streets Policy adopted by Resolution 10-17 are requested.

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. The Traffic Impact Study and development plans are subject to the review and approval of MoDOT. Furthermore, any improvements within state's rights-of-way (MO 150 Highway) may be waived or modified or other improvements added at the discretion of MoDOT for MoDOT's approval of permitted work. The listed recommendations applicable to MoDOT ROW are based on MoDOT's review and comment of the development plan and associated traffic impact study. Any condition modified or provided by MoDOT, shall be documented to the City in substitute for the satisfaction of these conditions.
2. Construct an eastbound right turn lane (200 feet plus taper) at MO 150 at the RIRO access.
3. Extend the existing northbound right turn lane (200 feet plus taper) at the intersection of MO 150 and Pryor Road.
4. Restripe the painted median to create a southbound left turn lane (200 feet plus taper) at Pryor Road and Osage Drive.
5. Reserve Right-of-Way for potential improvement to the MO 150 and Pryor Road intersection.
6. Adjust signal timings at MO 150 and Pryor Road. Update traffic signal equipment to a northbound four-section head to provide a right turn overlap. Prohibit U-turns westbound to eliminate the conflict with the right turn overlap.