



August 8, 2022

Doug Ubben, Jr., PE
Phelps Engineering, Inc.
1270 N. Winchester
Olathe, KS 66061

SUBJECT Traffic Engineering Services
 Tudor Road Multifamily Parking Assessment
 Lee's Summit, Missouri

Dear Mr. Ubben:

As requested, Merge Midwest Engineering, LLC has prepared a parking assessment for the proposed Tudor Road Multifamily development. The development is generally located in the southwest quadrant of the Douglas Street & Tudor Road intersection in Lee's Summit, Missouri. The purpose of this assessment is to compare the provided parking ratios as shown on the site plan to similar developments in comparable areas and to other published resources on parking demand.

PROPOSED DEVELOPMENT

The proposed Tudor Road Multifamily development will consist of 358 units of apartments in eight separate 4-story buildings. The site plan for the proposed development is shown on **Exhibit 1**. A mixture of surface parking is provided throughout the site including standard, compact, handicap accessible, detached garage, and attached garage spaces.

The total number of provided spaces as shown on the site plan is 622 spaces. The City of Lee's Summit *Unified Development Ordinance* (UDO) requires a total of 716 spaces for this development. **Table 1** below summarizes the UDO required and the proposed parking spaces:

Table 1: UDO Parking Requirements -vs- Proposed Parking

Unit Type	Number of Units	UDO Required Ratio (spaces/unit)	UDO Required Spaces	Proposed Parking Spaces (per Site Plan)
Studio	2	1.00	2	622
1 Bedroom	209	1.50	314	
2 Bedroom	147	1.50	221	
Visitor	358	0.50	179	
Totals	358		716	622

The UDO requires the development to provide 716 spaces, which equals a required parking ratio of 2.00 spaces per unit. The proposed site plan provides an overall parking ratio of 1.74 spaces per unit.

PARKING COMPARISONS

Parking data from different sources was compared to the UDO requirements to determine if the number of spaces provided would be adequate, even if lower than the UDO requirements.

Institute of Transportation Engineers – Parking Generation

The Institute of Transportation Engineers (ITE) *Parking Generation Manual* (5th Edition) provides parking demand data based on nationwide studies for defined land uses. The peak parking demand for Land Use 221 – Multifamily Housing (Mid-Rise) was determined for a weekday based on the number of units and the number of bedrooms. The data can be found attached at the end of this letter. The resulting peak period parking demand (10:00 p.m. – 5:00 a.m.) is summarized in **Table 2** below:

Table 2: ITE Parking Generation

Land Use	Variable	Average Rate (Spaces/Unit)	Calculated Parking Demand
221 – Multifamily (Mid-Rise)	358 Units	1.31	469
221 – Multifamily (Mid-Rise)	505 Bedrooms	0.75	379

Nearby City Parking Requirements

The parking ratio requirements for apartment developments in nearby cities in the Kansas City area were reviewed and are summarized in **Table 3** below:

Table 3: Parking Requirements for Nearby Cities

City	Parking Ratio	Required Parking Based on 358 Units
Kansas City	1.00 per unit	358
Blue Springs	1.00 per efficiency, 1.5 per 1-bedroom, 2.0 per 2+ bedroom	610
Independence	1.00 per unit	358
Raymore	1.50 per unit	537
Olathe	1.50 per unit	537
Overland Park	1.33 per efficiency, 1.5 per 1-bedroom, 1.8 per 2-bedroom, 2.0 per 3+ bedroom	581

Similar Developments

Parking space data was provided by the developer for similar suburban developments constructed between 2012-2018 and reported in a parking assessment completed by TranSystems dated January 22, 2019. The data is summarized in **Table 4** below:

Table 4: Parking Data for Similar Developments

Property	Location	Number of Units	Parking Provided	Parking Ratio (Spaces/Unit)
82 Flats	Indianapolis, IN	232	317	1.37
Axis	Louisville, KY	300	463	1.54
Ascent	Plainfield, IN	309	523	1.69
Union Green	Brownsburg, IN	172	254	1.48

SUMMARY

The proposed Tudor Road Multifamily development will provide 622 parking spaces which equates to a parking ratio of 1.74 spaces per unit. Although this is less than the City of Lee's Summit UDO requirement of 716 spaces (2.00 spaces per unit), when compared to other studies and comparable sites, it would still provide more spaces than many of those would require, as shown in **Table 5** below:

Table 5: Parking Comparisons

Source	Calculated Parking Demand	Average Rate (Spaces/Unit)
Proposed Site Plan	622	1.74
City of Lee's Summit UDO	716	2.00
ITE Parking Generation Manual Average Rate	379-469	0.70 – 1.31
Comparable Cities Requirements	358 - 610	1.00 – 1.70
Similar Developments	317 - 523	1.37 – 1.69

When reviewing the above data, adequate parking accommodations could be expected with the 622 spaces as shown on the site plan.

Please don't hesitate to contact me should you have any questions or need additional information.

Respectfully submitted,

Merge Midwest Engineering, LLC



Janelle M. Clayton, P.E., PTOE
Manager / Co-Owner