



October 8, 2018

Mr. Dick Burton  
Cherokee Flight LLC  
8 SW Missouri Route AA  
Kingsville, MO 64061

RE: Burton Townhomes Trip Generation – Lee's Summit, Missouri

Dear Mr. Burton,

As requested, Priority Engineers, Inc. has reviewed your proposed Burton Town Homes residential development in regards to the anticipated traffic impacts and the compliance with the City of Lee's Summit's Unimproved Road Policy.

***Existing Conditions***

The proposed Burton Townhome development located near the intersection of NW Olive Street with NW Orchard Street in Lee's Summit, Missouri. The intersection of NW Olive Street and NW Orchard Street is stop controlled on NW Orchard Street. NW Olive street is a two-lane facility with a posted speed limit of 25 MPH. The Mid-America Regional Council (MARC) has given Olive Street a functional classification of Local Road. NW Olive Street is also listed in the 2015 City of Lee's Summit Thoroughfare Master Plan (2015 TMP) as a local road. North of the proposed development, NW Olive Street intersects NE Chipman Road at a signalized intersection. NE Chipman Road has been designated by MARC as having a function classification of Minor Arterial while the City's 2015 TMP identifies NE Chipman Road as a Major Arterial. NW Orchard street is a two-lane facility with a posted speed limit of 25 MPH. Both MARC and the 2015 TMP identify NW Orchard Street as having a functional classification of Local Road. East of the proposed development NW Orchard Street intersects NE Douglas at a stop-controlled intersection.

***Trip generation***

It is our understanding that the proposed development with consist of 9 multi-family buildings with 4 dwelling units in each building. The vehicle trips generated were estimated using the Institute of Transportation Engineers' Trip Generation Manual, 10<sup>th</sup> Edition. The Multifamily Housing (Low-Rise) Land Use 220 was utilized. Table 1 below illustrates the anticipated trips generation by the proposed development at full occupancy.



**Table 1: Trip Generation**

Land Use	Intensity	Daily	AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out
Multifamily Housing (Low Rise)	36 Units	231	18	4	14	24	15	9
<b>Total</b>		<b>231</b>	<b>18</b>	<b>4</b>	<b>14</b>	<b>24</b>	<b>15</b>	<b>9</b>

**Unimproved Road Policy**

Currently, NW Olive Street and NW Orchard Street meet the City of Lee Summit's definition of an unimproved road due to their pavement width. The City of Lee Summit's 2016 Unimproved Road Policy allows residential developments on unimproved roads when the developments can be processed without a preliminary plat or major plat. It is our understanding that your development will be able to be processed as a minor plat, conforming with the City's Policy. The City only allows developments on unimproved roads until the roadway reaches a traffic volume of approximately 50 percent of the roadway's capacity, or 5,000 vehicles per day. In order to determine if NW Orchard Street and NW Olive Street were approaching the 5,000 vehicle per day threshold, pneumatic tube counters were placed and twenty-four-hour traffic counts were attempted on September 25<sup>th</sup>, 2018. Attached is the data from the pneumatic tube count on NW Orchard Street. The rubber tubes associated with the count on NW Olive were damaged by traffic before the count was completed so the traffic data for NW Olive Street was collected via a traffic video camera. The data collected for NW Olive Street via video camera is also attached. NW Orchard street was found to have a total daily traffic of 285 vehicles with 119 vehicles traveling westbound and 166 vehicles traveling eastbound. NW Olive Street was found to have a total daily traffic of 848 vehicles with 426 vehicles traveling southbound and 422 vehicles traveling northbound. NW Olive Street and NW Orchard Street are expected to operate with volumes that are less than the 50 percent threshold of the Unimproved Road Policy, after factoring in the additional traffic generated with the proposed development.

**Conclusion**

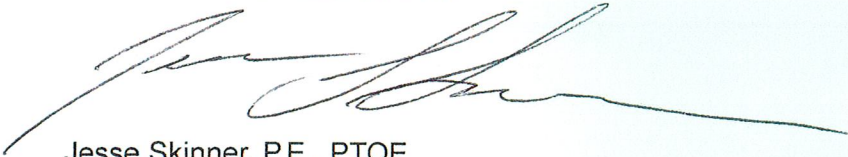
The proposed development will produce minimal increases in both Peak Hour and Daily traffic volumes. The anticipated additional traffic will be distributed between NW Olive Street and NW Orchard Street. NW Olive Street's intersection with NE Chipman Road is signalized. NW orchard Street's intersection with NE Douglas Street is stop controlled. It is anticipated that these existing intersections are sufficient for these minimal increases in traffic.

The Burton Townhome development, as described above, is in compliance with the City of Lee's Summit's Unimproved Road Policy with no further improvements necessary.

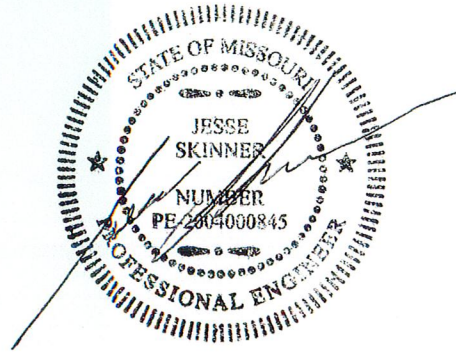
Please let me know if you have any questions or require additional information. I can be reached at (816) 810-4964.

Sincerely,

PRIORITY ENGINEERS, INC.

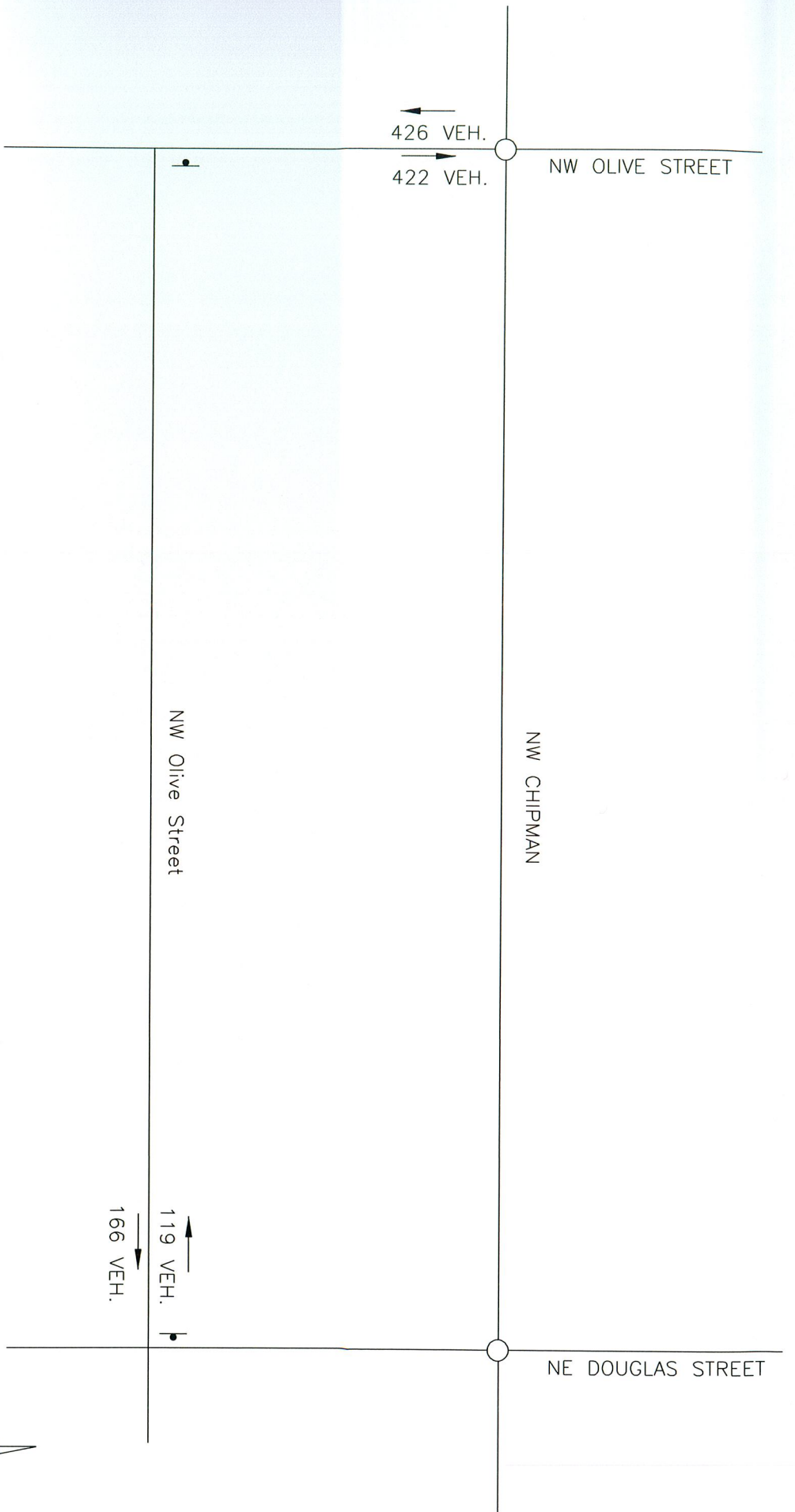


Jesse Skinner, P.E., PTOE  
Senior Traffic Engineer



10-08-18

Attachments



- LEGEND**
- Stop Sign
  - Traffic Signal

24 HOUR TRAFFIC VOLUMES

BURTON TOWN HOMES  
LEE'S SUMMIT, MO

No Scale

Figure 1



**Priority**  
ENGINEERS

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Garden City, MO 64747  
816.738.4400