



## DREXEL BARRELL & Co.

Engineers - Surveyors

Provide standard County signature blocks

### MEMORANDUM

**TO:** **El Paso County Planning and Community Development**

2880 International Circle, Suite 110

Colorado Springs, CO 80910

**Attn: Gilbert LaForce, Engineer II**

Add PCD File No. VA201

**FROM:** Derek Schuler, P.E., PTOE

**DATE:** July 2, 2020

Update to Daniel  
Torres

**RE:** Traffic Memorandum for Space Village Apartments  
El Paso County, Colorado

This memorandum serves to summarize the land use, probable trip generation, and vehicular access to the proposed apartment complex to be located at 6895 Space Village Avenue. The site is generally located just north of the Peterson Air Force Base (AFB). **See the attached figure for a vicinity map and proposed site layout.** The existing 0.628 acre site is currently a 22 unit hotel that will be redeveloped. The site is zoned as CC CAD-O and is generally surrounded by commercial/office uses and vacant land. The site is requesting a use variance to allow for the proposed apartments.

The existing hotel rooms will be converted to apartments with no significant changes to the building and parking layout. The existing use contains 31 regular parking spaces and 2 handicap accessible spaces. Since the number of units remains the same, it is assumed adequate parking is already provided. There are two existing access points to Space Village Avenue that will be retained with the proposed use. Interparcel drive access exists on the west side connecting the adjacent gas station and other commercial sites.

#### Proposed/Existing Land Use & Trip Generation Comparisons

The proposed land use will be an apartment complex containing 22 rental dwelling units (12 one bedroom and 10 two bedroom). The existing use is best described as a hotel rather than a motel due to the larger size of rooms and facilities provided. **Table 1** below shows the trip generation values for both existing and proposed uses. The table shows the number of expected trips using the latest ITE trip rates. This manual is currently in its 10<sup>th</sup> edition and is an industry accepted informational report published by the Institute of Transportation Engineers. Land use #310 – Hotel, accounts for the existing use. Note that “rooms” instead of “occupied rooms” is used as the independent variable (resulting in lower rate). Using the ITE rates, the existing site is expected to generate about 184 daily trips, 10 trips in the morning peak hour and 13 trips in the evening peak hour. Land use #220 – Multifamily Low Rise (apartments), accounts for the proposed use. The manual states that the average number of residents was 2.72 in their studies. This is considered acceptable for this site’s mix of 1 and 2 bedroom apartments. The new development is anticipated to generate about 161 daily trips, 10 trips in the morning peak hour and 12 trips in the evening peak hour. As shown in **Table 1**, the new

# Traffic Memorandum for Space Village Apartments

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apartments are projected to have 23 fewer daily trips than the existing hotel. The peak hour values give slightly different patterns but not a significant change for traffic operations.

Table 1 - Trip Generation Estimate for Space Village Apartments, El Paso County, CO															
ITE Code / Land Use		Trip Generation Rates <sup>1</sup>			Trips Generated										
					Average Weekday Trips	AM Peak-Hour (7 - 9)					PM Peak-Hour (4 - 6)				
		Avg. Weekday	AM PEAK	PM PEAK		% Trips	Trips	% Trips	Trips	Total	% Trips	Trips	% Trips	Trips	Total
#310 - Hotel	22 RM	8.36	0.47	0.60	184	59%	6	41%	4	10	51%	7	49%	6	13
#220 - MFH Low Rise <sup>2</sup>	22 DU	7.32	0.46	0.56	161	23%	2	77%	8	10	63%	8	37%	5	12
Reduced Trips					23		4		(4)	0		(1)		2	1

<sup>1</sup>Source: "Trip Generation" Institute of Transportation Engineers, 10th Edition, 2017

<sup>2</sup>Multifamily Housing (Low Rise): Average number of residents was 2.72 in studies. Acceptable for this site's mix of 1 and 2 bedroom apartments.

RM = Room; DU = Dwelling Unit

## Existing Roads & Distribution

Space Village Avenue, in front of the subject site, is classified as a minor arterial. It contains two travel lanes plus striped left and right turn lanes. Both access driveways offer full movement onto Space Village Ave. and contain dedicated right turn lanes. Only the eastern access has a dedicated left turn lane for entering the site (this is actually striped as a two way left turn lane). North of the site are ramps to/from US 24 with dedicated turning lanes on Space Village Ave.

The anticipated distribution of site traffic is 90% to/from the west and 10% to/from the east. West of the site is access to Peterson Blvd (and AFB), and westbound US 24 towards central Colorado Springs. Primary movements to the site will be right-in and then left-out to leave the site. The existing access locations will remain appropriate based on both the trip generation and distribution. Finally, there is an existing attached sidewalk along a portion of the site frontage. The county may require that this sidewalk be extended to the eastern property line.

## Conclusion

With the proposed change in use for this site, vehicular traffic will be more than adequately accommodated by the existing access locations and Space Village Avenue. If you have any questions or would like to discuss my analysis further, please don't hesitate to contact me.

Sincerely,  
**Drexel, Barrell & Co.**

*Derek Schuler*

Derek Schuler, P.E., PTOE  
Transportation Group Leader

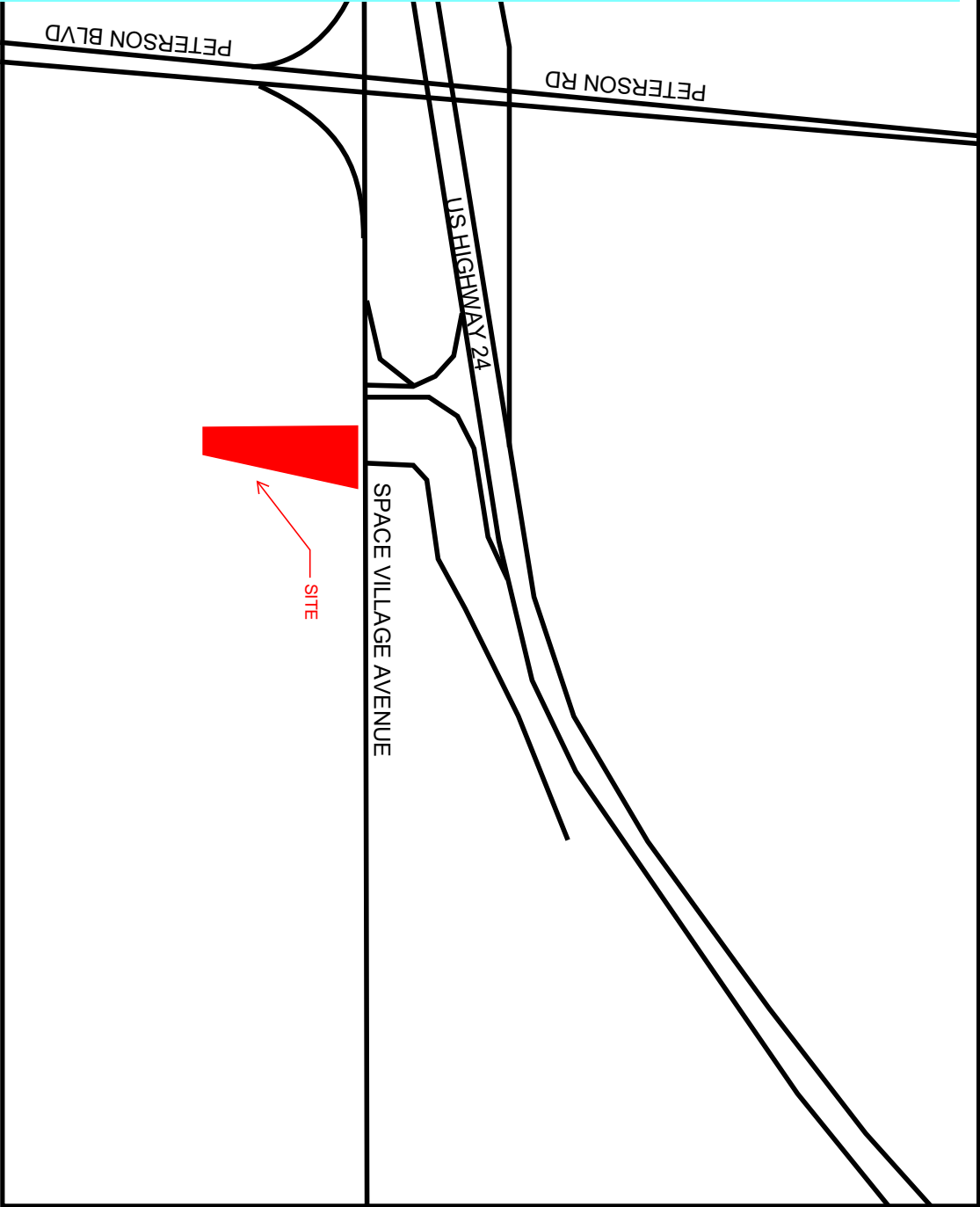
Indicate the characteristics of these of these turn lanes (length, storage etc.). Do they meet ECM criteria? Are there any recommended changes.

Please include the intersection of space village and Peterson Rd, Hwy24 on off ramps, and Marksheffel in your study area as required per ECM Appendix B.2.3.D. Provide a description of each of the roadways along with their roadway classification.

Include/address the following in your traffic analysis:  
-Peak hour link volume and LOS  
-Peak hour access LOS  
-Appropriateness of access locations  
-sight distance evaluations and any recommendations at site access point(s).  
-Appropriateness of the existing roadway signing and striping.  
Refer to ECM B.2.4.D

# VICINITY MAP

- Please provided the following traffic report standards (ECM Appendix B.8)
- Clearly state in the text and supporting documents what the ADT and peak hour traffic are at all access currently,
  - State whether or not any Improvements affected by the project are reimbursable under the current MTCP
  - State whether the MTCP or other approved corridor study calls for the construction of improvements in the immediate area
  - Include discussion of the road impact fee
  - Include LOS for all affected intersections
  - If an intersection does not meet LOS D or better discuss what steps can be taken to bring the intersection to a satisfactory level



VICINITY  
MAP

DESIGNED	RF	1.31.2020
DRAWN	RF	1.31.2020
CHECKED	RF	1.31.2020
PROJECT NUMBER: 3837.00		
SCALE: AS NOTED		

REV #	REVISIONS	DATE
1		
2		
3		
4		
5		
6		

STAMP:

Space Village Apartments  
Vicinity Map

Colorado Springs, CO

Kimley»Horn

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