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April 8, 2022

239-24  
Electronic Mail

Ms. Patricia Newquist  
Cornerstone Engineering  
5509 Young Street  
Bakersfield, CA 93311

REF: Trip Generation and VMT Analysis for Proposed General Plan Amendment and Zone Change (GPA/ZC) on APN 539-010-08 on the Southwest Corner of Berkshire Road & Ashe Road

Dear Ms. Newquist:

It is our understanding that it is desired to complete a GPA/ZC on the above referenced property to increase the number of multi-family dwelling units. A map showing the limits and designations for the GPA/ZC are attached to this letter. Pursuant to your request, we are preparing this letter to address whether there will be impacts due to the proposed increase in dwelling units for the project. In order to determine if impacts will occur, a comparison of the project generated trips was prepared with the findings presented below. Following is a summary of the current and proposed zoning:

Approved Zoning

Multi-Family Housing – 306 dwelling units

Proposed Zoning

Multi-Family Housing – 336 dwelling units

Trip generation and design hour volumes for the proposed project were calculated using the Institute of Transportation Engineers (ITE) Trip Generation, 11th Edition. The trip generations for the approved and proposed zoning are shown in Tables 1 and 2, respectively. Table 3 shows a comparison of the approved trip generation and the trip generation for the proposed project.



**Table 1  
 Approved Zoning Project Trip Generation**

General Information			Daily Trips		AM Peak Hour Trips			PM Peak Hour Trips		
ITE Code	Development Type	Variable	ADT RATE	ADT	Rate	In % Split/ Trips	Out % Split/ Trips	Rate	In % Split/ Trips	Out % Split/ Trips
220	Multifamily Housing (Low Rise)	306 Dwelling Units	eq	2037	eq	24% 28	76% 89	eq	62% 101	38% 62

**Table 2  
 Proposed Zoning Project Trip Generation**

General Information			Daily Trips		AM Peak Hour Trips			PM Peak Hour Trips		
ITE Code	Development Type	Variable	ADT RATE	ADT	Rate	In % Split/ Trips	Out % Split/ Trips	Rate	In % Split/ Trips	Out % Split/ Trips
220	Multifamily Housing (Low Rise)	336 Dwelling Units	eq	2229	eq	24% 30	76% 97	eq	62% 109	38% 67

**Table 3  
 Approved & Proposed Project Trip Generation  
 ADT & AM/PM Peak Hours**

Scenario	Total Traffic		
	ADT	AM PH	PM PH
Approved (306 units)	2037	117	163
Proposed (336 units)	2229	127	176
<b>Difference</b>	<b>192</b>	<b>10</b>	<b>13</b>

As shown in Table 3, the proposed zoning increases the daily trip generation by 192 trips, and the AM and PM peak hour trips are increased by 10 and 13 trips, respectively. The City of Bakersfield’s threshold for requiring a traffic impact study is whether a project adds 50 or more vehicular trips to an intersection during the peak hour. As shown on Table 3, the project does not reach the 50-trip threshold in either the AM or PM peak hours. Therefore, intersection analysis would not be required.

**VEHICLE MILES TRAVELED (VMT) EVALUATION**

The VMT analysis involved comparing an estimate of VMT attributable to the project to a baseline VMT and assessing whether project VMT would result in a significant transportation

impact under CEQA. Project VMT was estimated by distributing and assigning project traffic to the street network and calculating the average miles traveled per project trip. The project traffic as shown in Table 2 was used to calculate the proposed project VMT. VMT analysis results are summarized in Table 4 below. The baseline VMT for the greater Bakersfield area was provided by KernCOG. OPR guidelines recommend a 15 percent reduction in baseline VMT as the significance threshold for residential projects.

**Table 4**  
**VMT Impact Analysis**

Project VMT	Baseline VMT	Significance Threshold	Significant Impact
6.4	9.76	8.3	No

Source: KernCOG. Significance threshold was determine by reducing the average VMT by 15%.

As shown in Table 4 above, project VMT is below the significance threshold. Therefore, the project is not anticipated to result in a significant transportation impact under CEQA.

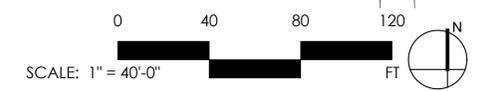
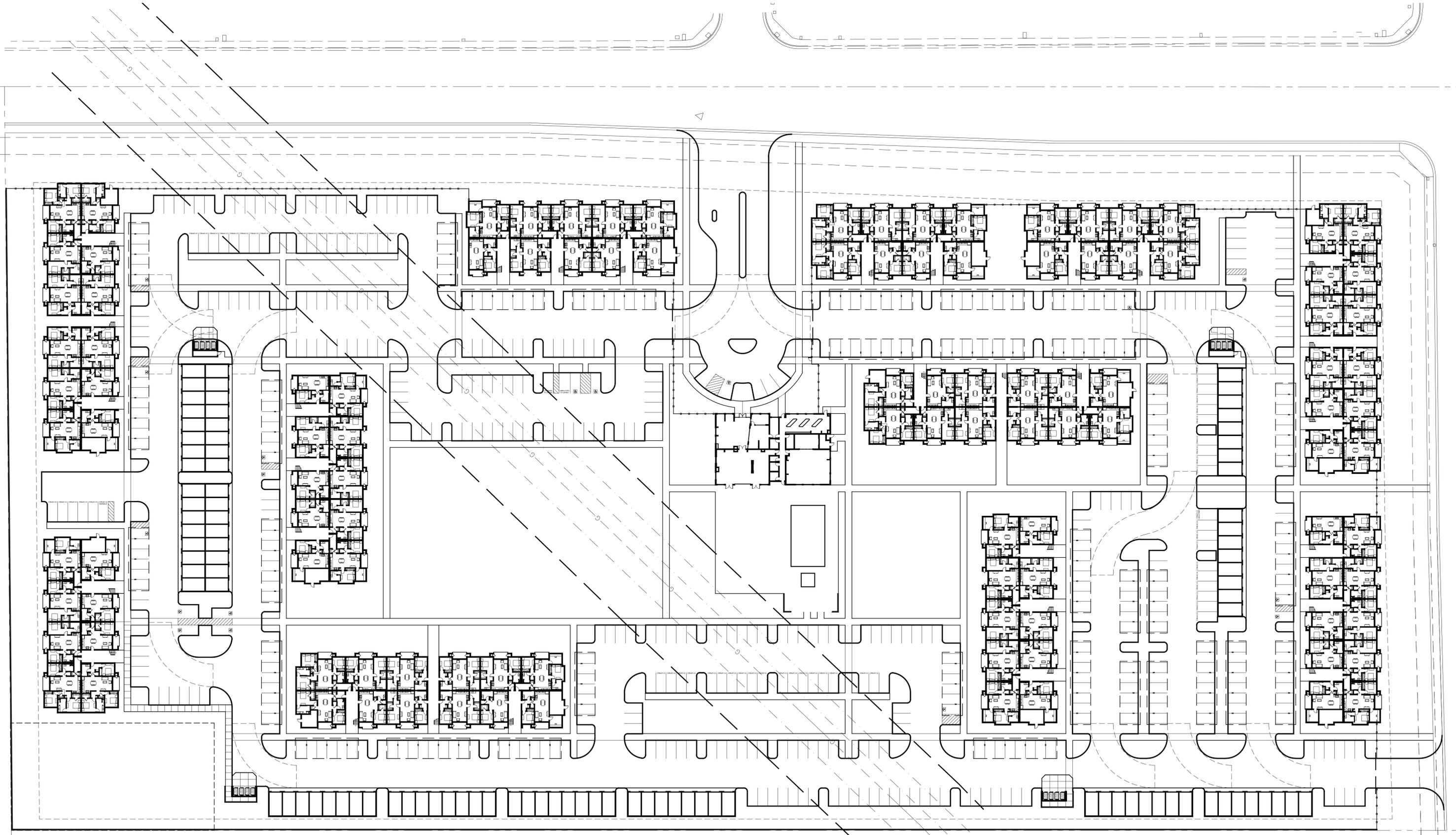
Please contact me should you have any questions.

Very truly yours,

Ian Parks

IJP/SSH





The average internal trip length is  $279.52/59 = 4.74$  Miles

The number of external trips is 104 and they left the map at an average distance of  $394.2/104 = 3.79$  Miles

Using an average external trip distance of 7.34 miles per external trip we get:

$$(763.4 + 279.52) / (104 + 59)$$

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6.4 miles is the combined average trip length

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Everything was accounted for :-)

- 163=163 trips total :-)

- No remnants remaining :-)

#### Trip Length Interval Table

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Miles	# of Internal Trips	# of External Trips
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0.00-0.50		
0.50-1.00		
1.00-1.50	8	
1.50-2.00	2	
2.00-2.50	15	
2.50-3.00		
3.00-3.50		
3.50-4.00		
4.00-4.50		10
4.50-5.00		2
5.00-5.50		10
5.50-6.00	10	33
6.00-6.50		7
6.50-7.00		4
7.00-7.50	24	4
7.50-8.00		
8.00-8.50		
8.50-9.00		8
9.00-9.50		
9.50-10.0		10
10.0-10.5		

10.5-11.0  
11.0-11.5  
11.5-12.0  
12.0-12.5  
12.5-13.0

Trip Path Report

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16 = 12.5 N E=>  
4001,2429,82,83,84,85,589,1352,1357,1351,1337,1344,1330,1327,1331,1334,1122,  
1121,1130,1041,1043,1298  
15 = 7.13 W I=> 4001,2429,82,81,80,268,79,77  
14 = 5.64 E E=> 4001,2429,216,176,177  
10 = 4.14 N E=> 4001,2429,82  
10 = 9.97 N E=>  
4001,2429,82,83,84,85,589,1352,1361,1362,1366,1355,1343,1335,1347,1323,1322  
9 = 7.13 W I=> 4001,2429,82,81,80,268,79,77  
8 = 5.64 E E=> 4001,2429,216,176,177  
5 = 1.34 N I=> 4001,2429,82,81  
5 = 5.96 S E=> 4001,2430,153,155  
5 = 8.96 S E=> 4001,2430,153,152,151,968  
4 = 5.14 N E=> 4001,2429,82,83,84  
4 = 6.14 N E=> 4001,2429,82,83,84,85,589  
4 = 2.37 N I=> 4001,2429,82,413,415,230  
4 = 2.27 N I=> 4001,2429,82,413,415,230  
3 = 5.94 E I=> 4001,2430,114,115,116,119,390,752,757  
3 = 5.94 E I=> 4001,2430,114,115,116,119,390,752,757  
3 = 2.33 N I=> 4001,2429,82,81,80,268  
3 = 2.24 N I=> 4001,2429,82,413,415,230  
3 = 7.46 S E=> 4001,2430,153,155,156,157,762  
3 = 1.34 N I=> 4001,2429,82,81  
3 = 6.14 N E=> 4001,2429,82,83,84,85,589  
3 = 5.96 S E=> 4001,2430,153,155  
3 = 8.96 S E=> 4001,2430,153,152,151,968  
2 = 1.84 N I=> 4001,2429,82,81,80  
2 = 5.64 N E=> 4001,2429,82,83,84,85  
2 = 6.96 S E=> 4001,2430,153,155,156,157  
2 = 5.94 E I=> 4001,2430,114,115,116,119,390,752,757  
2 = 5.94 E I=> 4001,2430,114,115,116,119,390,752,757  
2 = 5.14 N E=> 4001,2429,82,81,80  
2 = 5.14 N E=> 4001,2429,82,83,84  
2 = 6.96 S E=> 4001,2430,153,155,156,157  
1 = 4.64 N E=> 4001,2429,82,413  
1 = 4.64 N E=> 4001,2429,82,413  
1 = 5.31 N E=> 4001,2429,82,413,415

1 = 5.31 N E=> 4001,2429,82,413,415  
1 = 5.64 N E=> 4001,2429,82,83,84,85  
1 = 2.33 N I=> 4001,2429,82,81,80,268  
1 = 7.46 S E=> 4001,2430,153,155,156,157,762  
152 had 163 total trips