LSC TRANSPORTATION CONSULTANTS, INC.

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December 9, 2016

Mr. Steve Monahan
Duke Capital Inventors, LLC
1101 5th Ave #300
San Rafael, CA 94901

RE: Duke Court Cannabis Cultivation – Trip Generation Evaluation (LSC Job #167540)

Dear Mr. Monahan:

Per your request, LSC Transportation Consultants, Inc. has prepared an analysis of the traffic generation for the proposed renovation of the building at 2835 Duke Court in Santa Rosa, California. The exterior of the building and access to the building will remain unchanged. The building's previous use was an industrial research and development center. The proposed project would convert the interior of the building to commercial cannabis cultivation.

Previous Trip Generation

The daily and PM peak-hour trip generation associated with the previous use were estimated using standard trip generation rates from the Institute of Transportation Engineer (ITE) *Trip Generation Manual* (9th Edition). Using the 'Light Industrial' land use type and the buildings size, an estimated 171 daily one-way vehicle-trips with 26 occurring in the PM peak hour were likely generated from the previous use, as shown in Table A.

Proposed Trip Generation

Since there is not a standard ITE trip generation rate for cannabis cultivation, a person trip analysis was conducted to estimate the number of trips. The basis for the person trip analysis is the number of employees associated with the proposed project. The maximum number of employees on site at one time is 22 employees. In addition, up to three delivery or product transport trucks will visit the site over a busy week.

Although it is more usual to use an average day to estimate trip generation, a busy day will be used in this analysis to show the worst case scenario. Assuming 1.10 employees per vehicle, as determined by US census data for the Santa Rosa area, 20 employee vehicles access the site for commuting purposes on a busy day for the 22 employees. With an estimated half of the employees making a lunch trip (or another trip to/from the site during the day), an average 3 trips will be made for each employee vehicle for a total of 60 daily one-way vehicle-trips. Additionally, one delivery or product transport vehicle is expected to visit the site over a day, generating 2 more daily one-way vehicle- trips. Adding these 2 trips to the 60 employee trips yields a total of 62 one-way vehicle-trips on a busy day, as shown in Table A.

PM peak hour trip generation for the cannabis cultivation use can be estimated based on its percent of the daily traffic. The ratio of daily trips occurring in the peak hour can be assumed to be similar to that of a light industrial use, per the 'Light Industrial' ITE rate for daily and peak hour trip generation rates would be appropriate. This indicates that 15 percent of the daily trips are made during the PM peak hour. Applying this percentage to the 62 daily vehicle-trips estimates indicates that 9 one-way vehicles trips would be generated in the PM peak hour, as shown in Table A.

TABLE A: Duke Court Cannabis Cultivation - Trip Generation

				Trip Generation Rates[1]				Project Generated Vehicle Trips at Site			
					PM Peak Hour				PM Peak Hour		
Land Use Category	ITE Code	Quantity	Unit	Daily	In	Out	Total	Daily	In	Out	Total
Previous Use											
Light Industrial	110	24.51	KSF	6.97	0.15	0.93	1.08	171	4	22	26
Proposed Use											
Cannabis Cultivation	-	24.51	KSF	-	-	-	-	62	1	8	9
Net Trip Generation with Project		***0***	**KSF**					***-109***	***-3***	***-14***	***-17***

KSF = 1,000 Square Feet

Note 1: Daily trip rates and PM Peak Hour rates for Existing Light Industrial Land Use from Institute of Transportation Engineers (ITE) Trip Generation Manual.

Source: LSC Transportation Consultants, Inc.

Conclusions

As shown in Table A, the proposed use generates fewer trips than the previous use, resulting in a net reduction in trips associated with the proposed project. There will be approximately 109 less one-way vehicle-trips over a busy day and 17 less trips in the PM peak hour.

Please contact our office at (530) 583-4053 if you have any questions or comments pertaining to this analysis.

Respectfully Submitted,

LSC TRANSPORTATION CONSULTANTS, INC.

By: Leslie Suen

Leslie Suen, Engineer