Exhibit E

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23 January 2019

To: Craig Spencer, Supervising Planner

From: Krista Hanni, Planning, Evaluation, and Policy ManagerAdministration Bureau(831) 755-4586

Subject: PLN160807, Synchronicity Holistic

Description	Public Health Impact Review of a cannabis retail permit application within 1,500 feet of
of Work:	another permitted facility. Synchronicity Holistic is located at 26390 Carmel Rancho
	Boulevard, within 1,500 feet of Big Sur Cannabotanicals at 26352 Carmel Rancho Lane,
	Carmel-By-The-Sea, CA 93923

Monterey County Health Department (MCHD) Planning, Evaluation, and Policy (PEP) Unit and Public Health Bureau (PHB) have reviewed the permit application materials submitted for a cannabis retail facility. Staff used the attached review matrix (Appendix A) to develop this public health impact review for use by the Resource Management Agency in their considerations for issuing or not issuing an Administrative permit for the applicant for a proposed retail facility that is within the 1,500 foot setback criteria, as regulated by Monterey County Zoning Ordinances Titles 20 and 21.

Cannabis exposure may contribute to various public health impacts. According to the National Academies of Science, while there is substantial evidence of benefit in certain medical indications, extensive review of the scientific evidence also has substantial evidence of short- and long-term negative health effects of cannabis use. There is general agreement that cannabis smoke is an important risk factor in the development of respiratory disease and there is a potential for dependence (in particular with early and frequent use). Importantly some populations (children and youth, pregnant and breastfeeding women) are in at-risk groups for more negative outcomes related to use or exposure (see all references in attached Appendix A).

Public health goals for cannabis production and use include preventing access and exposure of children and youth, identifiable packaging, protecting and informing consumers of cannabis risks, reducing environmental harms, and protecting third parties from unwanted consequences of legal cannabis use and production.

This review uses the Risk Assessment Matrix (Appendix A) to indicate if another permitted facility within 1,500 feet of an already permitted facility would have low, moderate, or high public health

concerns. The calculation of the score for each indicator and the total score for this review is shown in the Risk Assessment Summary Table below.

Recommendation

Based on our review (see Risk Assessment Summary Table below), the retail permit at **26390 Carmel Rancho Boulevard** would result in a **public health risk assessment score of six (6)**, which falls into the range of a **moderate risk** for potential increased public health impacts due to potential exposures and/or increased use by at risk groups due to normalization of cannabis. Based on this score and thus the potential for public health risk, Monterey County Health Department does not support the issuance of a retail permit for this facility at this time.

Indicator	Data Source: Data	Score
Is location within a school district with frequent (>10 days per month) student marijuana usage > county average?	(Carmel Unified School District, CUSD) kidsdata.org: CUSD = 26% of 11 th graders Monterey County = 20% of 11 th graders	2
Is location within 2000 feet of a non-traditional high school?	CUSD website: there is one continuation high school in the district (Carmel Valley High). It is 5 miles from proposed location.	0
Is location within a school district with high school graduation rates < county average?	CDE Dataquest (<u>www.dq.cde.ca.gov</u>): Graduation rate for CUSD traditional high school = 96% Monterey County = 87%	0
Is location within 2000 feet of a religious institution?	Google Maps: the closest religious organization is All Saints Episcopal Church (1.7 miles).	0
Is location within 2000 feet of other youth serving facility such as martial arts, dance, youth center, YMCA, public library, or skate park?	Google Maps: Carmel Rancho Shopping Center is 0.2 miles (1,056 ft) from the location. Google search of shopping center (www.carmelrancho.com) revealed it houses a Kumon education center and a youth dance school.	1
s it in a census tract with a percentage of children (0-18 years) > county average?	geocoding.geo.census.gov: this address is located in Census Tract 116.02. Factfinder.census.gov: This census tract = 17% Monterey County = 29%	0
Is location in a census tract with minority residents > county average?	Factfinder.census.gov: This census tract = 0.6% Monterey County = 59%	0
Is location located in a census tract with poverty rates higher than county average? (Source: American Community Survey)	Factfinder.census.gov: This census tract = 7% Monterey County = 15%	0
Is location situated within 1000 feet of an intersection with motor vehicle accidents in past two years?	Transportation Injury Mapping System (<u>www.tims.berkeley.edu/tools</u>): There were two accidents within 1,000 feet of this location in last two years.	1

Is the location situated where the number of alcohol permits is at or above the state allowable limit?.	California Department of Alcoholic Beverage Control (<u>www.abc.ca.gov</u>): There are 5 off- sale alcohol licenses in this census tract of 5,266 people which is a ratio of 1:1,053. California has a moratorium on new licenses where the ratio of off-sale is greater than 1:2,500 which would mean this area is already above allowable permits.	1
Is location within 2000 feet of a substance abuse treatment center or provider?	Google Maps: closest facility is an adolescent inpatient facility (3.5 miles).	0
Is location within 2000 feet of a mental health provider?	Google Maps: 0.2 miles (1,056 ft) to Dr. Finely Bernard (psychiatrist). 0.1 mile (528 ft) to Dr. Daniel Robbins (psychologist).	1
Is location within 2000 feet of a jail or other detention center?	Google Maps and searching Monterey County Sherriff website: no jails, youth centers or detention centers were located within 2,000 feet	0
TOTAL		6

Appendix A

Monterey County Cannabis Public Health Risk Assessment Matrix Prepared by the Public health Institute Getting it Right from the Start Project

Recognition and prevention of public health risks due to cannabis use should occur with the transition of cannabis sales to a legal market. Regulatory measures can help reduce resultant harms. Of particular concern is the impact of legalization on youth below age 25, because research suggests that use among youth carries special risks to the developing brain that are not present for older adults.¹ Those who start young and use frequently are at highest risk for addiction and ill effects, and therefore minimizing use by this group should be a key regulatory objective. Heavy use is also highest among youth of color and vulnerable youth in our state and county. For example, nearly 38% of non-traditional high school 11th graders in Monterey County reported 20-30 days of use in the past 30 days (2013-2015) as compared to 14% of 11th graders in traditional high schools (which is higher than the state average of 7.2%).² Individuals with existing substance abuse and mental health issues may also be at higher risk. While legal purchase should be reasonably accessible, cannabis should still be managed from a public health perspective as an addictive substance³ rather than as an ordinary commodity on the marketplace. While retail outlets should be available to serve all types of communities, precautions to prevent undue concentration in vulnerable communities should be in place to prevent community level effects as has been shown to happen for other addictive and commercially available substances, such as alcohol and tobacco. High concentrations of alcohol and tobacco retail facilities in low income communities have been shown to exacerbate existing health and social disparities, such as low birth weight, substance abuse, poor mental health outcomes or low high school graduation rates.

There are many risks associated with cannabis exposure and many of these are relevant in the review process for approval of cannabis retail permit applications in a given area. However, not all risks are easily adapted to a public health risk matrix. Public health indicators that have been associated with cannabis use, but are not included in this matrix include:

- Increased schizophrenia and psychoses
- Low birth weight when smoked during pregnancy Cannabis use during pregnancy is associated with low birth weight infants⁴
- Increased respiratory disease with cannabis smoking¹
- Hospitalization & Emergency Room visits There is evidence that cannabis legalization is associated with increased visits to the emergency room and hospitalization for acute marijuana intoxication.⁵

¹ The Health Effects of Cannabis and Cannabinoids: The Current State of Evidence and Recommendations for Research, The National Academies Press. <u>https://www.nap.edu/catalog/24625/the-health-effects-of-cannabis-and-cannabinoids-the-current-state</u>, Accessed Jan. 11, 2019.

² www.kidsdata.org, Marijuana use in past month by gender and grade level (2013-2015). available at https://bit.ly/2D8WMox

³ Budney, AJ., Borodovsky, JT, The potential impact of cannabis legalization on the development of cannabis use disorders, *Prev Med.* 2017 Nov; 104: 31-36.

⁴ Brown QL, Sarvet, AL, Schmulewitz, D., et al., Trends in marijuana use among pregnant and nonpregnant reproductiveaged women, 2002-2014. *JAMA*. 2017; 317(2): 207-209.

⁵ Kim, H., Monte, A., Colorado cannabis legalization and its effect on emergency care. *Ann. Emerg. Med.* 2016 Jul; 68(1): 71-75.

• Accidental ingestion

Researchers in Colorado looked at data between 2009 and 2015 and found that accidental exposure cases, particularly ingestion of edible forms of marijuana, rose significantly after legalization.⁶

• Emerging evidence of increases in heart disease⁷

The risk matrix provides the potential for public health impacts as criteria to consider when issuing cannabis retail facility permits for applicants seeking an exemption to the 1500-foot retail buffer requirements. When considering whether an additional dispensary should be permitted within 1500 feet of an existing dispensary, consideration must be given to the fact that excessive concentration of dispensaries is a public health risk. A recent study found that higher dispensary density in states with legal cannabis laws was associated with higher likelihood of youth ages 14-18 experimenting with cannabis vaping and edibles (OR_{vaping}: 2.68, 95% CI: 2.12, 3.38; OR_{edibles}: 3.31, 95% CI: 2.56, 4.26). Even density of legal cannabis dispensaries as low as 1/100,000 residents were associated with increases.⁸ Similarly, a review of studies of tobacco retailer density and adolescent smoking found that tobacco retailer density and proximity were correlated with adolescent lifetime smoking, past 30-day smoking, and susceptibility to smoking.⁹ Studies have consistently found a relationship between greater alcohol outlet density with increased alcohol consumption and related harms, including medical harms, injury, crime, and violence.¹⁰

In this risk matrix, the higher the score an applicant gets using the matrix, the greater for potential public health and social risks that can be attached to that location.

Methods

A risk matrix is an organizational tool that can be used to assess potential risks facing a community, the likelihood of those risks, and possible risk reduction strategies. This matrix was developed by looking at indicators of cannabis risk as identified by peer-reviewed literature and assigning each indicator a numerical risk value. The starting point for finding appropriate literature was the comprehensive review of the health risks associated with cannabis and cannabis-derived products prepared by the National Academies of Science, Engineering and Medicine. This 400-plus page review examined nearly 10,000 scientific abstracts to reach its conclusions. In addition to relying on this report, primary sources were identified in the report as well as reviewing additional peer-reviewed literature obtained from PubMed.

After identifying indicators of harm, indicators were given a scoring range of 0 through 1 while those that posed the greatest risk to the community were provided a scoring range of 0 through 2. A score of 0 on any indicator

⁶ Wang, GS, LeLait, MC, Deakyne, S., Unintentional pediatric exposures to marijuana in Colorado, 2009-2015; *JAMA Pediatr*.2016; 170(9).

⁷ Jouanjus, E., Lapeyre-Mestre, M, Micallef, J., et al., Cannabis use: signal of increasing risk of serious cardiovascular disorders, *JAHA* 2014:3(2). Available at: https://www.ahajournals.org/doi/full/10.1161/jaha.113.000638

⁸ Borodovsky JT, Lee DC, Crosier BS, Gabrielli JL, Sargent JD, Budney AJ. (2017). U.S. cannabis legalization and use of vaping and edible products among youth. *Drug Alcohol Depend. 0*(0). doi:10.1016/j.drugalcdep.2017.02.017.

⁹ <u>Gwon SH</u>, <u>DeGuzman PB</u>, <u>Kulbok PA</u>, <u>Jeong S</u> (2017). Density and Proximity of Licensed Tobacco Retailers and Adolescent Smoking. <u>J</u> <u>Sch Nurs.</u> 33(1):18-29. doi: 10.1177/1059840516679710.

¹⁰ <u>Grubesic TH¹</u>, <u>Pridemore WA</u>, <u>Williams DA</u>, <u>Philip-Tabb L</u>. (2013). Alcohol outlet density and violence: the role of risky retailers and alcohol-related expenditures. *Alcohol & Alcoholism, 48*(5):613-9. doi: 10.1093/alcalc/agt055. Epub 2013 Jun 23.

means that the location under consideration is not a risk for that particular indicator. A score of 1 or 2 means that the location is a risk for the particular indicator.

The scores for all the indicators are summed to create an overall score. An overall score between 0 and 2 are considered "low risk," those between 3 and 6 are "moderate risk" and those that score 7 and above are "high risk." When evaluating whether a proposed location should be permitted, the preferred score will be 2 and below.

A variety of publicly-available sources is used to determine whether a proposed location poses a risk on any given indicator. Locations can be pinpointed using county maps and/or Google maps, which also reveal whether certain potentially risky facilities or organizations are nearby (for instance, churches or schools). If a map search indicates the presence of shopping centers the facility website is researched to determine whether there are any youth-serving facilities (dance instruction, martial arts, educational tutoring) in that center. Local area maps are also used to determine whether a proposed location is near a substance abuse treatment center, jail, bail bonds center or other higher-risk facility.

Demographic census data is obtained from <u>www.statistcalatlas.com</u> and <u>www.uscensus.gov</u>. These sites also allow for comparisons with the county and state.

Data on marijuana usage among high school students in the state, county and school district is obtained from <u>www.kidsdata.org</u>, which serves as a collective repository for numerous databases and relies primarily on the California Healthy Kids Survey

California Business and Professional Code §23817.5 mandates a moratorium on new alcohol licenses when offsale permits in a census tract are greater than 1 per 2,500 inhabitants. The California Department of Alcoholic Beverage Control (<u>www.abc.ca.gov</u>) provides data on the current number of alcohol permits per census tract.

TABLE OF INDICATORS FOR MONTEREY COUNTY CANNABIS RETAILER PERMIT APPLICATION PROCESS (EXCEPTIONS APPLICATIONS) (DEC 2018)			
Indicator	Reasons	Score	
Indicator Is location within a school district with frequent (>10 days per month) student marijuana usage > county average? (Source: www.kidsdata.org; California Healthy Kids Survey)	The brain does not complete development until approximately age 25, and data from the field of alcohol use reflect that substance use exposure during this period when the brain undergoes rapid transformation could have a more lasting impact on cognitive performance. This interference in cognitive function during adolescence could very well interfere with these individuals' ability to optimally perform in school and other educational settings. ⁹ Higher cannabis dispensary density is associated with younger age of onset of cannabis vaping. ¹¹ From tobacco we know that among high school students there is a "small but nonetheless significant relationship between the density of retailers within 1 mile of a school and students' reports of smoking initiation." ¹² Tobacco retailer density surrounding schools is	Score No = 0 Yes = 2	
Is location within 2000 feet of a non-traditional high school? (Source: School District Data; Google Maps)	related to student cigarette access behaviors. ¹³ Nearly 38% of non-traditional high school 11 th graders report 20-30 days of use in the past 30 days (2013- 2015) as compared to 14% of 11 th graders in traditional high schools. ¹⁴ Prevalence of adolescent tobacco smoking is highest in communities with highest tobacco outlet density and proximity to schools. ¹⁵	No = 0 Yes = 2	
Is location within a school district with high school graduation rates lower than county average?	Evidence of an association between poor school outcomes and frequent cannabis use. Teens who smoke daily were 60% less likely to graduate high school. ¹⁶	No = 0 Yes = 2	

¹¹ Borodovsky, JT, Lee, DC, Crosier BS, Gabrieli, JL, Sargent, JD, Budney, AJ., U.S. cannabis legalization and the use of vaping and edible products among youth. *Drug Alcohol Depend*. 2017;Aug 1; 177: 299-306.

¹² McCarthy WJ, Mistry R, Lu Y, Patel M, Zheng H, Dietsch B. Density of tobacco retailers near schools: effects on tobacco use among students. *Am J Public Health*. 2009;99(11):2006-2013. doi:10.2105/AJPH.2008.145128.

¹³ Leatherdale ST, Strath JM. Tobacco retailer density surrounding schools and cigarette access behaviors among underage smoking students. Annals of Behavioral Medicine. 2007;33(1):105-111.

¹⁴ Data on Youth Alcohol, Tobacco, and Other Drug Use, <u>www.Kidsdata.org</u>; Accessed Jan. 11, 2019.

¹⁵ Henriksen, L., Feighery, EC., Schleicher, NC., et al.., Is adolescent smoking related to the density and proximity of tobacco outlets and retail advertising near schools?, *Prev Med.*, 2008 Aug;47(2):210-4.

¹⁶ Silins, E, Horwood, LJ, Patton, GC, et al. Young adult sequelae of adolescent cannabis use: an integrative analysis. *Lancet Psychiatry* 2014; 1(4); 286-293.

(Source: CDE California		
School Dashboard; CDE		
Dataquest)		
Is location within 2000	Families should not have to expose their children to	No = 0
feet of a religious	the normalization of cannabis to attend religious	Yes =1
institution? (Source:	services, afterschool or Sunday school type activities,	
Google Maps; Site	or take their children to normal activities. Cannabis	
evaluation)	and other substance use during youth may incur	
	relatively greater interference in neural, social and	
	academic functioning as compared to later	
	developmental periods (i.e. Adulthood). ⁹	
	Higher cannabis dispensary density is associated with	
	younger age of onset of cannabis vaping. ¹³	
Is location within 2000	Families should not have to expose their children to	No = 0
feet of other youth	the normalization of cannabis to take their children	Yes = 1
serving facility such as	to normal activities. Cannabis and other substance	105 - 1
martial arts, dance, youth	use during the adolescent period may incur relatively	
center, YMCA, public	greater interference in neural, social and academic	
library, or skate park?	functioning as compared to later developmental	
	periods (i.e. Adulthood). ⁹	
(Source: Goolge maps,	perious (i.e. Aduithood).	
Site evaluation, local	Lieber complia disconcer, density is presidented with	
business permits)	Higher cannabis dispensary density is associated with	
	younger age of onset of cannabis vaping. ¹³	No. 0
Is it in a census tract with	Studies of tobacco retailer density and adolescent	No = 0
a high percentage of	smoking have found that tobacco retailer density and	Yes = 2
children? (Source: US	proximity were correlated with adolescent lifetime	
Census)	smoking, past 12-month smoking, past 30-day	
	smoking, and susceptibility to smoking. ¹⁷	
Is location in an area with	In Monterey County, African Americans high school	No = 0
minority residents	students are more than twice as likely to report	Yes = 1
(Hispanic, Non-Hispanic	frequent cannabis use (20-30 times in the past 30	
African American, Native	days) as Non-Hispanic Whites. ¹⁴	
American) > county		
average? (Source:	Hispanic high school students in Monterey County	
California Healthy Kids	are also more likely to report frequent cannabis use	
Survey. California	than Non-Hispanic Whites. Hispanic high school	
Department of Education	student frequent use is also higher in Monterey	
(Jul. 2017).	County (3.6%) than statewide (2.7%). ¹⁸	
	Based on known data of higher risk groups by race,	
	we are focusing on Hispanic, Non-Hispanic African	
	American, Native American and Alaskan Native data.	
	American, native American and Alaskan Native Uala.	

¹⁷ <u>Gwon SH</u>, <u>DeGuzman PB</u>, <u>Kulbok PA</u>, <u>Jeong S</u> (2017). Density and Proximity of Licensed Tobacco Retailers and Adolescent Smoking. <u>J Sch Nurs.</u> 33(1):18-29. doi: 10.1177/1059840516679710.

¹⁸ www.Kidsdata.org, Marijuana use in past month, by race/ethnicity (2013-2015).

Is location located in a census tract with poverty rates higher than county average? (Source: American Community Survey)	Low income is associated with higher marijuana usage. There is concern that greater concentration of marijuana dispensaries in low-income or disadvantaged communities can exacerbate marijuana use among vulnerable populations. ¹⁰ From alcohol, we know that lower income communities are already commonly overburdened with alcohol outlets, making lower income people disproportionately exposed to risks related to alcohol outlets. ¹⁹ There is substantial evidence of a statistical	No =0 Yes =1 No= 0
within 1000 feet of an intersection with motor vehicle accidents in past two years? (Source: Transportation Injury Mapping System, UC Berkeley)	association between cannabis use and increased risk of motor vehicle crashes. (NASEM); Cannabis use alone was associated with a four-fold increased odds of a MVC. ²⁰	Yes = 1
Is the location situated where the number of alcohol permits is at or above the state allowable limit?. (Source: California Alcohol Beverage Control license database)	Some literature has shown that alcohol may be a gateway substance to the use of marijuana; thus, "therefore the higher likelihood of marijuana stores locating in neighborhoods with higher densities of alcohol outlets could have implications for uptake of marijuana." ²¹ There is an additive effect of alcohol and	No=0 Yes=1
	marijuana on driving and crash risk. Drivers who test positive for both substances have significantly increased outcomes over drivers using either substance alone. ²² Among 12 th graders that use alcohol and marijuana, the majority use them simultaneously. ²³	
Is location within 2000 feet of a substance abuse treatment center or	There is substantial evidence for a statistical association between increases in cannabis use	No = 0 Yes = 2

¹⁹ Morrison, C., Gruenwald, P., Ponicki, W., Socioeconomic determinants of exposure to alcohol outlets, *J Stud Alcohol Drugs*, 2015 May; 76 (3). 439-446.

²⁰ Asbridge, M., Mann, R., Cuisimano, MD, et al., Cannabis and traffic collision risk: findings from a case-crossover study of injured drivers presenting to emergency departments, *Intl. J. Pub Health*, 2014 Apr; 59(2): 395-404.

²¹ Yuyan, S., Meseck, K., Jankowska, M., Availability of medical and recreational stores and neighborhood characteristics in Colorado, *J. Addic.*, 2016; 2016; 7193740.

²² Chihuri, S.. Guohua, L, Chen, Q., Interaction of marijuana and alcohol on motor vehicle crash risk: a case-control study, *Inj. Epidemiology*, 2017 Dec;4:8.

²³ Patrick, M., Kloska, D., Terry-McElrath, Y, et al., Patterns of simultaneous and concurrent alcohol and marijuana use among adolescents, *Amer. Jnl. Drug & Alcohol Abuse*, 2018 44(4).

provider? (Source: Behavioral Health; Google maps))	frequency and progression to development of problem cannabis use. ⁹ There is also moderate evidence that exposure to the combined use of abused drugs is a risk factor for problem cannabis use. ⁹ For those suffering from substance use disorders, environments with high accessibility to tobacco,	
	alcohol, and illicit drugs can not only facilitate the acquisition of substances but can also contain environmental cues that trigger substance craving. ²⁴	
Is location within 2000 feet of a mental health provider? (Source: Behavioral Health)	There is moderate evidence that major depressive disorder is a risk factor for the development of problem cannabis use. ⁹	No = 0 Yes = 1
	Cannabis use is likely to increase the risk of developing schizophrenia and other psychoses. ⁹	
	For individuals with bipolar disorder, near daily cannabis use may be linked with greater symptoms of bipolar disorder. ⁹	
	Heavy cannabis users are more likely to report thoughts of suicide than nonusers. ⁹	
	Regular cannabis use is likely to increase the risk of developing social anxiety disorder. ⁹	
Is location within 2000 feet of a jail or other detention center? (Source: Local Data)	More than half of state prisoners and two-thirds of sentenced jailed inmates met the criteria for drug dependence or abuse as compared with 5% of the general population over age 18. ²⁵	No = 0 Yes = 2
	For those suffering from substance use disorders, environments with high accessibility to tobacco, alcohol, and illicit drugs can not only facilitate the acquisition of substances but can also contain environmental cues that trigger substance craving. ²⁴	

²⁴ Mennis, J., Stahler, G., Mason, M.. Risky substance use environments and addiction: a new frontier for environmental justice research., *Int J. Environ Res Pub Health*, 2016 Jun; 13(6); 607.

²⁵ US Department of Justice Bureau of Justice Statistics, Special Report: Drug Use, Dependence, and Abuse Among State Prisoners and Jail Inmates, 2007-2009, (June 2017) available at: https://www.bjs.gov/content/pub/pdf/dudaspji0709.pdf

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