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Ms. Renee Kamen
Senior Planner, Development Revision Division
Montgomery County Planning Department
8787 Georgia Ave., Silver Spring, MD 20910

RE: Special Exception application S-2863, Costco gas station

Dear Ms. Kamen,

I am writing to you as a concerned citizen and physician. As you know, Costco has proposed to place a ~12.6 million gallon gas station immediately adjacent to the Wheaton Plaza Westfield Mall. The size of this station is 3-4 times larger than any other gas station in the county, and is, indeed, comparable in size to few stations in the state, yet is within 1000 feet of unique and vulnerable populations. No other station of this size exists in such direct proximity to homes and schools as a comparator. The risks presented to the health and well being of my family, neighbors, and vulnerable students of the Stephen Knolls School by the planned Costco Mega Gas station at the Westfield Wheaton mall clearly outweigh any potential benefits. I am able to speak to the risks of health and vulnerability as a Pulmonary-Critical Care physician specializing in the care of patients with lung disease and critical illness. I am also a resident of the Kensington neighborhood which is to be most affected by the eventual emissions from the station as my home is adjacent to the Wheaton Plaza.

This gas station is going to be within 120 feet of my home and about 850 feet from a school for severely handicapped children, the Stephen Knolls School. The Costco gas station will be a mega station with 16 pumps, and is expected to sell at least 12 million gallons/year. Costco gas stations typically attract many patrons who idle, waiting to use the station and will thus increase ambient air pollution including ultrafine particulate matter which are known to have adverse health consequences in children and those with chronic lung diseases.

The emissions from the many cars idling/filling up at the proposed station will contain many noxious volatile components, such as fine and ultrafine particulate matter. The negative health effects of these fine particulates are well known to patients with chronic lung disease such as asthma or COPD. Many of my patients comment that their symptoms are worse in areas of heavy traffic. The adverse health effects of air pollution and fine particulate matter has been increasingly recognized in the published medical literature.¹ Air pollution and fine particulates increase the incidence of respiratory symptoms in children with asthma and exacerbate symptom severity. In the Children's Health Study from southern California long-term exposure to ambient air pollution was associated with negative effects on children's respiratory

¹ Panel Studies of Air Pollution on Children's Lung Function and Respiratory Symptoms: A Literature Review. Shanshan Li, MMS, Gial Williams, PhD, Bin Jalaludin, PhD, Peter Baker, PhD. Journal of Asthma, 2012; 49(9) 895-910.

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development.² Fine particulates (less than 2.5 microns, which would increase as a result of the increased traffic at the proposed Costco gas station) were associated with deficits in lung function and lung function development in children over an 8 year period.³

As a physician I am concerned for the health of my own family, some of whom have asthma, and for my neighbors who may have various chronic lung and other diseases. I am most concerned for the vulnerable students of the Stephen Knolls School who will be within 850 feet of the proposed gas station and will be chronically exposed to the air pollution. The students at Stephen Knolls are the most severely disabled students in the county many of whom have chronic lung disease, are dependent on oxygen, and even require artificial ventilation. Students at Stephen Knolls are often lifelong attendants due to their disabilities and would suffer cumulative effects of exposure to increased air pollution and fine particulates resulting from the Costco mega gas station.

The location of the gas station itself poses environmental risks, including impacts on groundwater quality. The geology of the service station hill, although not completely studied, includes shallow and deep groundwater formations close to where Costco's giant underground gas tanks would be placed. Some have described the area as a honeycomb of small streams, all of which eventually drain into the Potomac river.

Please help our community and the severely handicapped children with vulnerable health conditions at the Stephen Knolls school. Please disapprove Special Exception application S-2863.

Sincerely,



Maria Jison, MD, FCCP
Kensington Heights Resident

² Gauderman WJ, Avol E, Gilliland F, Vora H, Thomas D, Berhane K, McConnell R, Kuenzli N, Lurmann F, Rappaport E, Margolis H, Bates D, Peterse J. The Effect of Air Pollution on Lung Development from 10-18 Years of Age. *New England Journal of Medicine* 2004; 351(11):1057-1067.

³ Effect of Exposure to Traffic on Lung Development from 10 to 18 Years of Age; a Cohort Study. Gauderman WJ, Vora H, McConnell R, Berhand K, Gilliland F, Thomas D, Lurmann F, Avol E, Kunzli N, Jerrett M, Peters J. *Lancet* 2007; 369(9561): 571-577.