Powell Affidavit
Planning Commission/Zoning Board of Appeals
Public Hearing, January 23, 2019
Petition #18-010 Rezoning Property Located North and South of I-88 and Assignment of Zoning on Newly Annexed Property
Applicant: Crown Community Development

Good evening. My name is Ross Powell I live at 43W976 Oakleaf Dr. in Nottingham Woods (Phone: 630.327.6393; email: r.powell@mchsi.com).

I am a professor in the Department of Geology and Environmental Geosciences at Northern Illinois University. I am not here representing NIU; I am speaking as a local resident with expertise in earth science and climate change.

Being from Nottingham Woods I live in one of the residential neighborhoods that will be directly influenced by the proposed development plans and have also been asked to speak by residents' of Sugar Grove.

My earth and environmental science experience extends for more than 40 years. I state that to indicate my qualifications to talk on such aspects as runoff, erosion, aquifers/groundwater, wetlands and pollution.

I will start by emphasizing that the many environmental, safety and health concerns and questions that we, the current residents have about all of the proposed development "lots", lead to a STRONG need for maintaining the E-1 zoning of these potential development areas; and that we the residents, be assured of having a legitimate say in our future.

Much of the following is based on the part 4 document made available for this meeting – that is the five Land Use Opinions 18-107A through D from the Kane-DuPage Soil & Water Conservation District. I will just mention them as "Part 4" as I go along. I could go through a detailed break down of questions about each individual development lot, but have attempted to shorten this presentation by making general syntheses of my concerns or questions.

According to Part 4, all land in the development lots is designated as having "high value soils/prime farmland". At this stage, my comment may be too late, but I believe all of our land-use planners need to heed that term for our future good – after-all planning is all about the future good. I consider it to be absolutely essential in planning decisions to consider the rate at which such prime farmland is being consumed by developments. There are serious concerns about the legacy we leave for future food supplies due to the rate at which prime farmland is being subsumed in this area that has been termed the "bread-basket of the world". As some board members have locally well-known farming names, you know that once developed, that farmland can't be restored to its original prime

Exhibit H

state because either the quality of the soil has been degraded or it has been totally removed for landscaping.

The development area has significant relief relative to most areas of the two townships involved, and I imagine extensive lowering of grade will be required for large-footprint warehouses. According to part 4 documents, most lots have high areas near their centers and land currently slopes away in all directions. Have assessments been done regarding the effects or impacts on runoff, wetlands, the shallow aquifers and pollution due to the alteration of the grade?

On a related aspect, part 4 documents show that primarily due to the presence of hydric soils, about 50% of each of the five lots contains soils designated as having "severe limitations" for building structures, and about the other 50% of the soils are "somewhat limiting". We need to understand the plans for dealing with those limitations and what consequences may be imposed on surrounding areas.

Most local residents in this area have domestic water well and septic systems for their homes. The aquifers used for their water supplies are shallow, ranging from being within 5ft of the surface, to between 5 and 20ft, and to between 20-50ft of the surface. Much of the recharge of these aquifers is therefore, local. Will recharge of the shallow aquifers be affected by covering broad areas of the local land surface with an impermeable barrier like blacktop?

Furthermore, according to Part 4, the assessment concluded that aquifers of the area have a "sensitivity to contamination" rated as "high" for an average of 25% of the proposed development area. Plus, about 45% of the lot areas have a "moderate" contamination potential. So in total, about 70% of the area could relatively easily contaminate the aquifers. As warehousing and trucking locations are known to be sites of contamination from spills and leakage, great care must be taken to avoid contamination of the shallow aquifers that local residential neighborhoods use for their water supplies. Has there been an assessment of the effects the possible developments will have on groundwater contamination in the shallow aquifers relative to current residents' water supplies?

Part 4 assessments state that removal of soil and vegetation from each of the five lots will enhance surface runoff and increase soil erosion, and they recommend a detailed assessment be conducted and a plan be created, even for the construction phase. The increased runoff and erosion leads to flooding and contamination by stormwaters. Needless to say with neighborhoods nearby, such detailed assessments and planning should be conducted, and results discussed and assessed with residents' input.

Part 4 documents also show streams, floodplains (mostly 100-year) and wetlands occur in different forms and cover different areas on all development lots. Some of the wetland areas appear on the plans as if they will be modified into detention ponds. How will this modify their effectiveness and what is termed their

"Functional Value" as wetlands? Are the ponds sufficient for the anticipated increased runoff from the loss of vegetation and the large area where stormwater infiltration will be eliminated due to buildings or blacktop? Have there been any studies or assessments by the US Army Corps of Engineers?

Also the Kane County 2040 plan has all of these areas designated as either current or proposed "open space" or "resource management areas", and Lot 4 appears to cover a "Green Infrastructure" area (existing woodlands) of the same plan. What is the relevance of these designations to the planned developments? How do the planned developments fit in with the Blackberry Creek Watershed Action Plan developed by the community in conjunction with the Chicago Metropolitan Agency for Planning in 2011?

I now want to take a slightly different tack based on another area of my expertise, but it is related to these surface and groundwater flow and pollution issues. Scientific data from Illinois Surveys in Urbana-Champaign and as summarized in the 2018 National Climate Assessment – Midwest Chapter, show that annual precipitation has increased by up to 15% in the Midwest, and in this region, from the early 1900s to present. That increase has occurred mainly in winter and spring. Precipitation is predicted to continue to increase by up to 30% in the next decades. Much of the increased precipitation will be as rainfall occurring in strong storm events causing flash flooding. These flash flood events are also documented to have increased recently compared with the early 1900s. Has any of this been taken into consideration in planning for the future? It does make the current 100yr- and 500yr-flooding predictions based on historical data a problem to use for predicting future flood magnitudes and frequencies. Modeling needs to be done. These considerations have consequences in terms the size of detention ponds and flooding and contamination potential of local residents.

The same studies also show that average temperatures will be increasing as will the number of days each year being over 100°F - increasing to over 20 days/year in the next decades to may be getting over 60 days/year in the following decades. These occur as Illinois progressively moves to having a climate that may be more like northern Texas or perhaps South Carolina today. With increasingly longer periods of high heat, important health risks occur from increasing ground-level ozone and particulate matter (especially carbon), which are documented to be exacerbated in and around high traffic/truck volumes. In this planning, have these likely ramifications been considered to fully assess the future risks to local residents?

I'll end on a personal point of view, and will likely reiterate the feelings expressed in many affidavits. I moved to this area in a deliberate decision to enjoy the country quietness and solitude; if I had wanted traffic and truck noise, warehousing and lights, and the various types of pollution that comes with such things, there are many more places I could have chosen as options to live. I consider this plan will degrade my life personally, but I also believe it will degrade

the quality of life of the community at large. I do not consider these proposals to be "for the greater good" of residents of either Sugar Grove or Blackberry Townships.

I hope you heed our concerns and that you ask for community help and input in on-going decision-making about our area's future. At this time, on the issue at hand, I ask you to maintain the E-1 zoning.

Thank you for your time and consideration.

Ross D. Powell

STATE OF ILLINOIS
COUNTY OF KANE

This instrument was acknowledged before me on 1-23-19
By PAUL J. FRESKE

Paul J Freske

"OFFICIAL SEAL"
PAUL J FRESKE
Notary Public, State of Illinois
My Commission Expires 9/10/2020