TESTIMONY OF

JEAN SEDLACKO

Council Bill 65-2016

September 19, 2016

My name is Jean Sedlacko. My family and I live at 9114 Northfield Road, Ellicott City, in the Dunloggin neighborhood. I am speaking as an individual although I also have the privilege of serving as the President of the St. John's Community Association which serves the Dunloggin community. But, to be clear, I am speaking from my own personal observations and experiences, not as a representative of the Association because the Association has not had a chance to formally discuss or take a position on the bill.

I support the bill and compliment Councilman Jon Weinstein on yet another instance of responding to his constituents in a thoughtful, complete and meaningful way. The east half of the Dunloggin neighborhood, approximately 500 homes, lies within the Tiber-Hudson Watershed and comprises a significant section of the far western edge of the Watershed. I see and hear from others the consequences of infill and other development in our neighborhood in terms of stormwater management and other drainage issues.

- People who are down slope from new development who never had water in their basements are now suffering from such.
- In addition, the infill has created additional run off. In an effort to be responsive, the County did install curbs to control that run off but now the water is running along the curbs, around the corner and flooding other neighbors' front yards.
- And areas that were already soggy are more so.

I personally attended a review session for an infill house near my home. The solution to a double-wide driveway running down a very steep slope, was to have all that water end up in a small rain garden which of course requires homeowner upkeep and cost. All while being situated across from yards that were already water logged.

I am no expert and I don't know if it's a regulation problem, a developer problem or climate change problem. But we all know there's a problem...which could very well be starting with our little Dunloggin neck of the woods and all the other areas on the outermost ring of the watershed. For Historic Ellicott City and our own neighborhood and others, it certainly deserves taking a deep breath, analyzing it and coming up with some reasonable solutions.

I also hope that one area of study is who bears the risk. No pun intended, the "ripple" effect of costs somehow ends up in the innocent homeowner's or business owner's lap whether it's a newly wet basement, a flooded yard or other damage like we've seen. There needs to be a way to make people whole through a bond or some other capitalized guaranty fund if there proves to be a cause and effect from water damage that is "man-made". But that is a discussion for another day!

I hope the Council will support CB 65-2016. It is step in the right, rationale direction. Thank you!

. Dave Woessner' s Testimony

My testimony tonight I will be focusing on Storm water management and its direct relationship to flooding.

When we talk about Storm Water Management (SWM) what we must identify is what rain event we want to control, 1 year,2 year, 10,year, or even 100 year storms.

Controlling a rain event means that when a storm comes, the runoff that leaves a development, is no greater than the runoff that would have left, had no development taken place at all.

That is a very important concept that is often misunderstood. Often times the general perception is that the more development you have, the more runoff and flooding follows.

There is an excellent reason why the perception exists. For many years, leading up to the 1970's it was true. The development took place, no controls were constructed, and runoff increased and flooded Ellicott City

What changed after 1970's was the County recognized the need for storm water management and required 2 and 10 year controls thru out the County.

Later in the mid 1990's the County engineers recognized that Ellicott City was prone to flooding, and made the controls to include 100 year storms.

There are two (2) ways to keep buildings, property and people safe from floods. You can remove them from the flood plain, that is to build elsewhere, or you can remove the flood plain from them, which means making floods smaller and less frequent.

There is one (1) way to make flood plain smaller and less frequent, you must reduce the flow rate coming to the stream.

There is one (1) way to reduce the flow rate coming to the stream, you must provide 100 year storm water management. That means providing storm water management where there is none, or upgrade existing storm water management facilities to the 100 year storm level.

MS4

There are 4 required actions :

1. Public facilities built prior to Storm water management regulations, need to be retrofitted with 100 year SWM control. This will reduce the flooding and will also address the County effluent quality permit

2. Land developed during the period when storms of 2 year and 10 years were required to be controlled must be upgraded to 100 year storm control. Raising the existing embankments a few feet and reworking the outfall structures could be done on publicly owned ground.

I propose adding a line item in the Green Neighborhood Design manual to allow additional scoring for developers who upgrade existing SWM ponds

I believe many developers would find these 2 and 10 years ponds, and with the County's permission, redesign them, and rebuild them as 100 year ponds. This would then allow them to meet green design standards.

The end result would be that the County would both benefit from the beautiful new green neighborhoods that utilize the latest energy technologies, while providing greater buffers and open spaces. In addition, Ellicott City would benefit by the reduction in 100 year storm runoff. The developer would be incentivized by having an opportunity to win building allocations form the Green Neighborhood bucket.

3. Projects that have already received tentative approval or have been approved by the Planning Board and Zoning Board were approved because they provide 100 year storm water management, and would require no change.

4. Future projects could be asked to retain 110% of the 100 year storm. In this way, these projects would reduce flooding even further

IN CLOSING

I believe this bill should be tailored to address those projects that lack SWM. THE PROJECTS THAT PROVIDE 100 YR SW ARE ALREADY DOING THEIR JOB.

My concern about this bill is that I believe it takes our eye, although unintended, off of the ball.

By proposing a moratorium on new projects, that by definition cause zero increase in 100 year storm runoff, we lose focus on the 100's of acres of impervious surface upstream of Ellicott City that have no controls ,or undersized controls, and which leave runoff untreated.

The way you know this is true is that if another storm happens like the last one during this moratorium, the same flood would happen again. Future projects delayed by this moratorium had no impact on the last flood, they didn't exist.

What exists, are acres and acres of uncontrolled or under controlled impervious surfaces immediately at the top of steep hills.

This is where the need is, and this is where our focus should be.

C. Howard County Code, Title 18, Subtitle 9 (current).

5.2 STORMWATER MANAGEMENT CRITERIA

The regulatory definition for MEP consists of two parts. The first is subjective and requires that all reasonable opportunities for using ESD planning techniques and practices are exhausted. Like the definition, the threshold for meeting the MEP standard consists of two parts. First, MEP is met if channel stability and predevelopment groundwater recharge rates are maintained and nonpoint source pollution is minimized. In both the definition and performance threshold, the second condition is the same; structural stormwater practices may be used only if determined to be absolutely necessary. While some flexibility and best professional judgment will be needed to determine when these first conditions are met, the second condition is straightforward. Local plans review and approval agencies should not approve structural BMPs if ESD options are available.

In addition to the State regulations, section 5.2 of the latest edition of the MDE Design Manual also includes standards for MEP compliance. The primary MEP standard is to use ESD to reduce post development runoff to levels found in natural, forested conditions. This requires capturing and treating from 1 to 2.6 inches of rainfall depending on site and design conditions (e.g., soils, proposed imperviousness). When this goal is met, the Cp_v, WQ_v, and Re_v requirements are addressed. Designers will be responsible for determining specific rainfall targets for their projects using the methods outlined in section 5.2.

There is a secondary standard that must be considered when assessing MEP compliance. ESD must be used to treat runoff from 1 inch of rainfall to address both WQ_v and Re_v requirements. This is a minimum level of compliance, not a contingency standard that is used when specific rainfall targets cannot be met. Designers must capture and treat at least 1 inch of rainfall while using ESD to reduce runoff and achieve specified goals.

5.2.1 Stormwater Control Requirements

A. The minimum stormwater control requirements shall require that the planning techniques, nonstructural practices, and design methods specified in the MDE Design Manual be used to implement ESD to the MEP. The use of ESD planning techniques and treatment practices must be exhausted before any structural BMP is implemented. Stormwater Management for development projects shall be designed in accordance with the Howard County Code, Title 18, Subtitle 9. Information found in this design manual is supplemental to the requirements found in the code and MDE Design Manual referenced above.

The county reserves the right, on a case-by-case basis, to require that management measures be provided as necessary to maintain the post-development peak discharges for a 24-hour, 1-year, 10-year, 25-year and/or 100-year frequency storm events at a level that is equal to or less than the respective 24-hour, 1-year, 10-year, 25-year and/or 100-year predevelopment peak discharge rates, through stormwater management practices that control volume, timing and rate of runoff. Storage volume and RCN reductions by the use of Alternative Surfaces and Nonstructural Practices may be considered for only the 1-year event.

The 10-year design storm event shall be employed when there is no control over infrastructure and the conveyance system is at design capacity, or it is determined that downstream flooding (based on recorded historical flooding problems) will occur as the result of the proposed development. The 100-year design storm event is to be employed to prevent flood damage from large frequency storm events, to maintain the boundaries of the 100-year floodplain and protect the physical integrity of BMP structures. Storage volume and RCN reductions by the use of non-structural credit practices shall not be considered when designing for the Overbank or Extreme Flood Protection.

The upstream drainage areas to the Cabin Branch crossing Shaffers Mill Road, a tributary to the Dorsey Branch crossing Dorsey Mill Road and the drainage area associated with Bonnie Branch, which parallels Bonnie Branch Road, shall be required to provide10-year peak management control. Additional stream systems may be included at the sole discretion of Howard County.

The upstream drainage areas to the Tiber Branch above the Patapsco River and the Hudson Branch above the Tiber Branch and tributary drainage areas to the Deep Run above any railroad crossings shall be required to provide 10-year and 100-year peak management control. Additional stream systems may be included at the sole discretion of Howard County.

B. The use of ESD planning techniques and treatment practices shall not conflict with existing State law or local ordinances, regulations, or policies. Howard County shall modify planning and zoning ordinances and public works codes to eliminate any impediments to implementing ESD to the MEP according to the MDE Design Manual.

C. Redevelopment

The goal of the current redevelopment regulations is to gain water quality treatment on existing developed lands while supporting County initiatives to improve urban communities. Redevelopment projects offer unique challenges and stormwater management ordinances need to be tailored to consider County goals, available resources, and application of stormwater practices within Howard County.

Redevelopment Planning Process:
The design and review processes for any redevelopment project need to consider the many constraints that limit effective implementation of stormwater practices. Factors such as underground infrastructure may restrict available facility options, while existing storm drain elevations may dictate how runoff flows through and off a site. This information and other existing conditions should be evaluated during the concept phase of project planning in order to assess all options for ESD implementation and other possible stormwater solutions.

Alternative Management Strategies:
Alternative management strategies may be considered after all opportunities for using ESD have been exhausted during the planning process. Alternative strategies and policies for meeting stormwater requirements may include, on-site and off-site structural BMPs, retrofitting existing structural BMPs, stream restoration, trading policies with other

The design professional should use the forms available in the TR-55 Manual or may use the Howard County standard form Figure 3.05, "Runoff Curve Number and Time of Concentration"

3. Sheet flow length of 100' or less shall be used.

4. When computing the travel time for sheet flow, use the 24-hour rainfall for the 2-year design storm.

5. Schematic diagrams shall be provided for all TR-20 routings. Also, indicate on the TR-20 input and output the hydrographs and routings for all design storms under consideration.

6. The antecedent moisture condition II shall be used.

7. In the TR-20 computer analysis provide the "FULL PRINT" and "SUMMARY" options.

8. Provide verification for all rating curves used in the TR-20 reach routing analysis.

9. Provide the hydrograph at the point of discharge from the site and/or stormwater management facilities for the site.

B. Current rainfall depths for Howard County shall be used for all TR-55 and TR-20 analysis and are listed as follows:

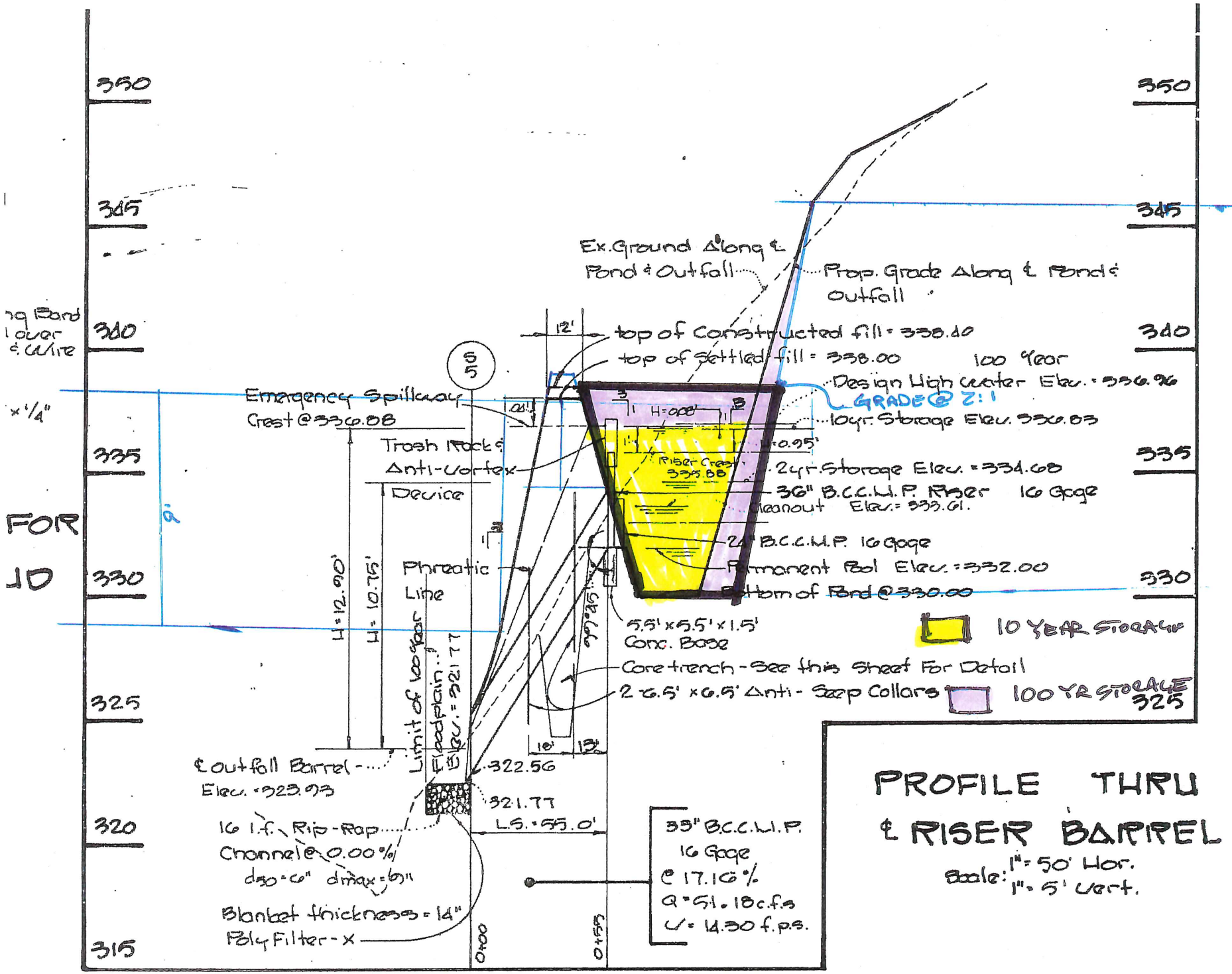
Rainfall for 24-hour Storm Duration

1 yr.	=	2.6 inches
2 yr.	=	3.2 inches
5 yr.	=	4.2 inches
10 yr.	=	5.1 inches
25 yr.	=	5.6 inches
50 yr.	=	6.3 inches
100 yr.	=	7.2 inches

The type II synthetic storm distribution must be used. When using the TR-20 computer program the County recommends the use of the recently developed 0.1 hour rainfall table (Table 3.03). The standard 0.25 hour table available with the latest version of the TR-20 program is acceptable.

C. Additional requirements:

1. The Department of Public Works or the Department of Planning & Zoning/Development Engineering Division has the option of requesting a run of the TR-20 edit program.



PROFILE THRU ℄ RISER BARREL

Scale: 1" = 50' Hor.
1" = 5' Vert.

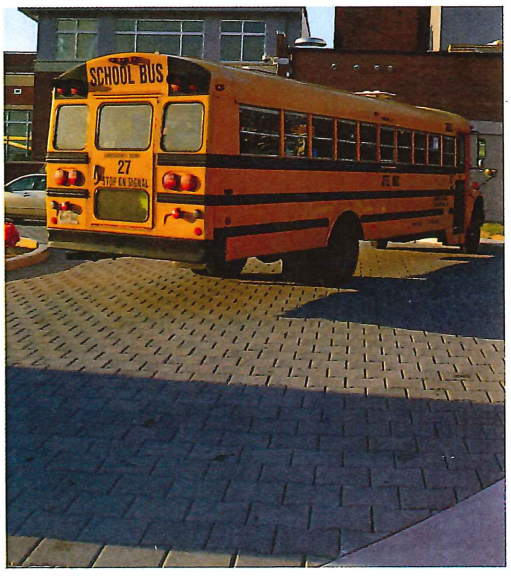
4" B.C.C.M.P. (Orifice)

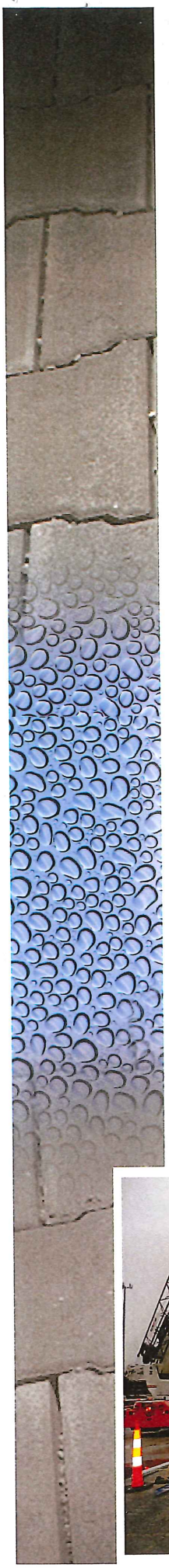
Toll House | The Bluffs of Ellicott Mills

PAVE® DRAIN

STORMWATER'S ARCH ENEMY

Sustainable Stormwater Solutions





Structural and Environmental Benefits

The PaveDrain® system combines modern-day functionality with a structural concept used for centuries to create *the* revolutionary permeable paving solution. This system incorporates a patented arch design in the middle of an articulating concrete block to create an internal storage chamber that can be used as a reservoir for stormwater runoff, while simultaneously providing strength for heavy vehicular loads. The PaveDrain System is designed to be a critical component of Low Impact Development (LID) allowing for the infiltration of stormwater runoff…onsite.

ASTM Standards & ADA Compliance

The PaveDrain system meets the requirements of ASTM D6684-04 and is recognized by the USEPA as a structural Best Management Practice (BMP) for stormwater infiltration. The Americans with Disabilities Act (ADA) Design Guidelines require that surface openings shall not exceed ½" and shall be firm, stable, and slip resistant. The PaveDrain System easily exceeds all these requirements by incorporating a 1/4" gap between individual PaveDrain blocks.

Applications

- ☐ Parking Lots
- ☐ Alley Ways
- ☐ Intersections
- ☐ Low Speed Roadways
- ☐ Emergency Access Lanes
- ☐ Residential Driveways

The PaveDrain system is an aesthetically pleasing Permeable Articulating Concrete Block/ Mat (P-ACB/M)[1] that provides installation ease and flexibility to meet current and future stormwater management regulations. The PaveDrain system provides infiltration, storage, detention, conveyance and a paving surface all in one. When combined, these features allow for a reduction or elimination in stormwater infrastructure costs while minimizing environmental impact. The PaveDrain system works.

[1]P-ACB/M is a registered certification mark of ECS Solutions, LLC

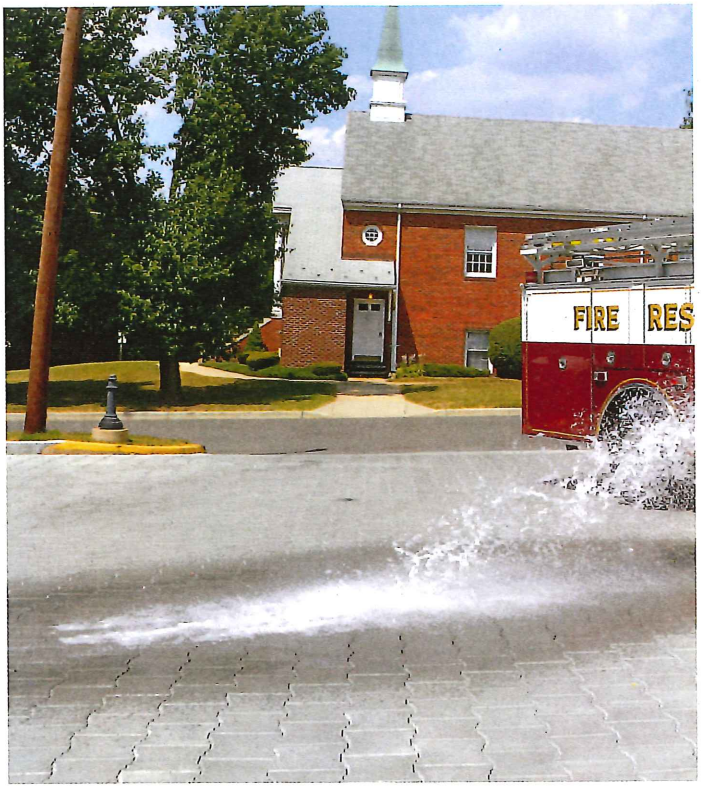
Why the PaveDrain System?

As part of the Clean Water Act, the EPA developed the National Pollution Discharge Elimination System (NPDES) to improve water quality by regulating point sources that discharge pollutants into waters of the U.S. The vast majority of storm water drainage systems are considered to be point sources.

Infiltration Report

The PaveDrain® system was tested in accordance with ASTM C1701/C1701M-09 by an independent third party engineering firm. The test was conducted on a PaveDrain project that had not been maintained for 18 months and still infiltrated in excess of 4,000 inches/hour per one foot diameter. View the entire report by visiting our website at www.pavedrain.com and go to How it Works and then Testing.

	Test #1	Test #2
Inside Dia. of Infiltration Ring (in)	12.5	12.5
Elapsed Time of Test (sec)	7.3	7.8
*Infiltration Rate (in/hr) (I=KM/(D2*t))*	4,449	4,163
Avg. Infiltration Rate (in/hr)	**4,306**	



Bladensburg, Maryland demonstration test

Passes AASHTO HS-20 and H-20 load testing

PaveDrain® System Properties

Thickness.....5.65" (+ 1/8")

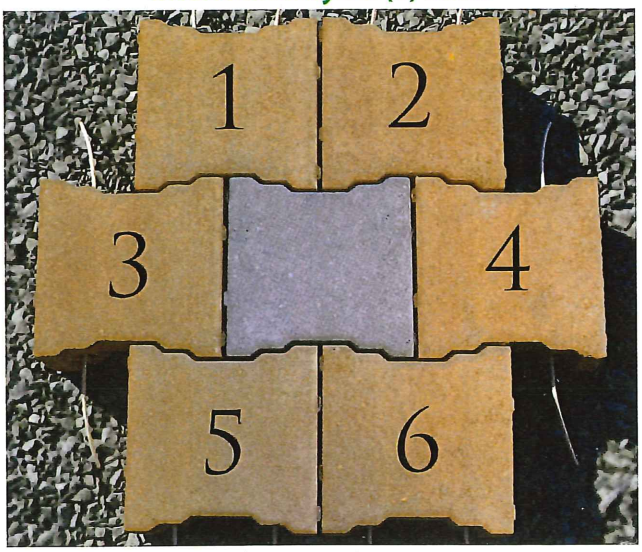
Unit Dimensions.....12.00" x 12.00"

Unit Weight.....45-49 lbs

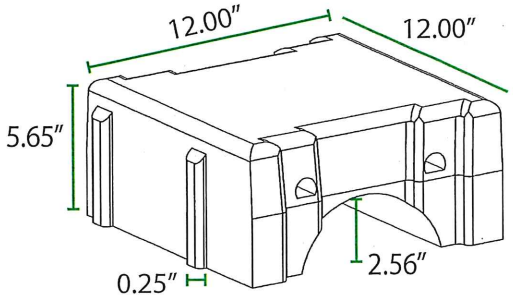
Unit.....1 Sq. Ft. Nominal

Percentage Open Space: 7% Surface, 20% Storage Area

Each individual block is interlocked by six (6) units

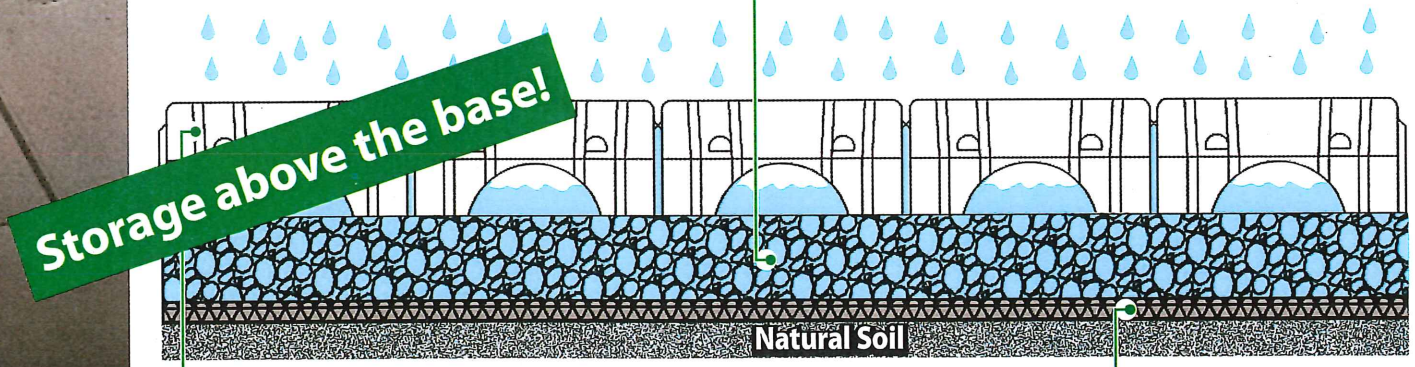


Measurements



Storage Chamber - R3.34"

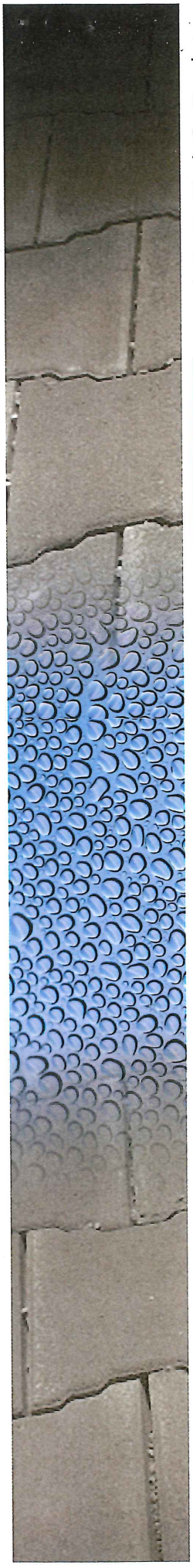
PaveDrain® System Blocks End View Cross Section



6" - 12" bedding stone (thickness determined by engineer) Stone to be 3/4" - 1" clean or recycled stone or concrete.

PaveDrain® System

Engineer approved geogrid or geotextile



Maintenance and Repair

The joints between the PaveDrain® system are designed to be left open. Most installations have required little, if any maintenance. If the joints become clogged, conventional compressed air equipment can be used to blow out the debris. If a significant amount of sediment accumulates in the aggregate bedding stone, the PaveDrain system is the only system that can be mechanically lifted out allowing the subgrade to be cleaned and then the same mats re-installed. Repair of individual PaveDrain blocks can be accomplished without removing the (mat) cables. For more detailed information on these topics go to www.pavedrain.com and select Installation Guidelines, and then click on repair.

LEED Credits: Sustainable Sites

- **CREDIT 6.1** *Stormwater Design, Rate & Quality Control:* 1 Point - Limit distribution of natural water flows by managing stormwater runoff.
- **CREDIT 6.2** *Stormwater Treatment:* 1 Point - Implement a stormater management plan that reduces impervious cover, promotes on-site filtration and eliminates contaminants.
- **CREDIT 5.1** *Site Development:* 1 Point - Protect or restore habitat
- **CREDIT 7.1** *Heat Island Effect, Non Roof:* 1 Point - Reduce heat Islands

MATERIALS & RESOURCES:
- **CREDIT 5.1** *Regional Materials:* 1 Point

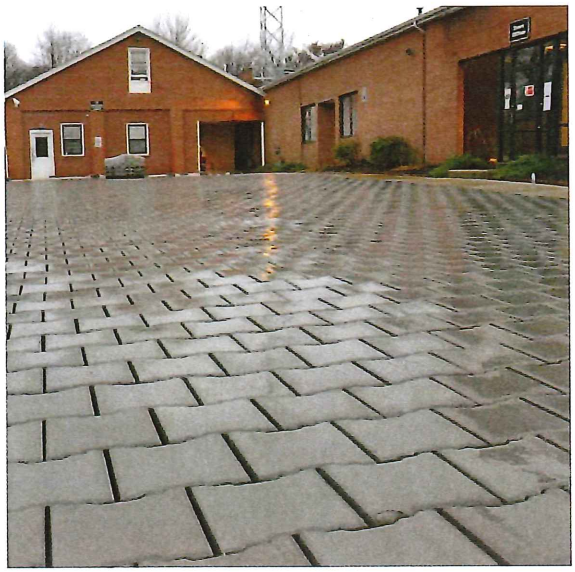
Additional Benefits

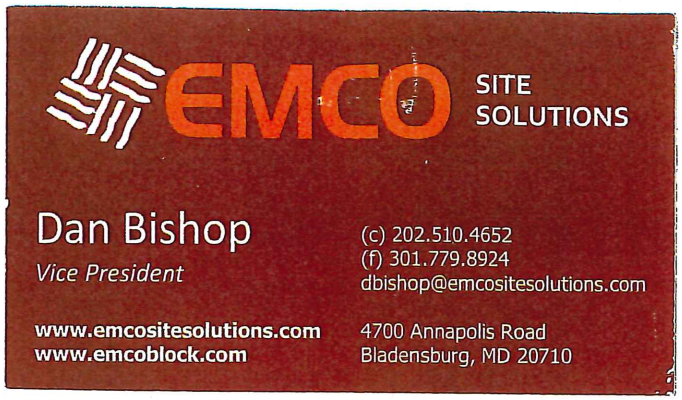
- Initial installations show a drastic reduction in the use of deicing salts over traditional asphalt and concrete surfaces.
- Installed by hand or with conventional construction equipment in all types of weather for fast, economical installations.
- Available in multiple mat sizes for customized applications
- Available in several color options
- No seams to catch on snow plows with either steel or rubber tipped blades.
- Increased skid resistance over traditional pavements.
- Solar Reflectance Index (SRI) range of 36 – 41 for lighter colored units.
- Unlike traditional catch basins, varmints cannot enter drainage system.
- Regional manufacturing supporting local economies.
- Adaptable to small areas (retrofits) where retention ponds are outdated or not practical.

The PaveDrain System is protected by the following U.S. and Canadian Patents; U.S. No. 8,251,607, No. D609,369, No. 8,366,343 & Canadian No. 133082. Additional patents pending.

Represented Locally By;

PaveDrain, LLC
PMB 292
7245 S. 76th Street, Franklin, WI 53132-9041
(888) 575-5339 Office
www.pavedrain.com




EMCO
SITE
SOLUTIONS
Dan Bishop
Vice President
(c) 202.510.4652
(f) 301.779.8924
dbishop@emcositesolutions.com
www.emcositesolutions.com
www.emcoblock.com
4700 Annapolis Road
Bladensburg, MD 20710


PAVE DRAIN
STORMWATER'S ARCH ENEMY
ROCKWOOD
RETAINING WALLS
A better way.
ReCon
Retaining Walls

MARYLAND BUILDING INDUSTRY ASSOCIATION
11825 West Market Place | Fulton, MD 20759 | 301-776-6242

September 21, 2016

Re: OPPOSITION TO CB65 – Ellicott City Development Moratorium

Dear Chairman Ball and Members of the Howard County Council:

On behalf of the Howard County Chapter of the Maryland Building Industry Association (MBIA), I write in opposition to Council Bill 65, which creates a moratorium on the approval of new building and grading permits in the Tiber-Hudson watershed (Ellicott City, generally). The MBIA believes development moratoria are bad public policy while other approaches will more fully address the concerns of community.

Howard County MBIA members are not only builders, developers, engineers and environmental experts in the County, they are also citizens of the County. They, like most others in the County, hope to see Ellicott City continue to serve as a cultural, social and economic hub while also ensuring that the residents and businesses continue to live and work in the safest possible environment. The building industry welcomes its role in re-building Ellicott City in a stronger and safer manner consistent with the best science and technology available. **Specific to this legislation, a building moratorium ignores the lessons from previous Ellicott City flood studies, catastrophic floods dating back to the late 1800s and the best science of the day to target only new development where older public and private developments, as well as largely uncontrollable natural forces, are the real causes of flooding in Ellicott City.**

Since the mid-1990s, new projects in Ellicott City, unlike anywhere else in the County and very few areas in the State, are required to go above and beyond typical stormwater regulations to control runoff for a 100 year storm. Controlling for a 100 year storms is considered the gold-standard in stormwater management and it means that when new projects are built in Ellicott City, **they add no new stormwater runoff to the watershed**. While they are the target of this moratorium, these projects did not cause the flooding in Ellicott City and any other new projects will not create or exacerbate the very real problem of flooding in the Tiber-Hudson watershed.

However, the majority of development in Ellicott City, both publicly and privately owned, is older and was built when the best regulations and science of the day allowed for either uncontrolled or under-controlled stormwater runoff as compared to that in today's projects. It is these areas that add stormwater runoff during a major storm event and as such, should be the areas the County should focus its efforts to reduce the frequency and force of future flooding.

Rather than impose a development moratorium, the MBIA proposes to work with the bill sponsor, the County Council, the County Executive, DPZ, DPW, environmental experts and the local community to use the studies and science we already have as well as the new hydraulic study underway to identify and help construct retrofits to existing, uncontrolled or under-controlled stormwater facilities. This will have a measurable impact on flooding in Ellicott City without punishing Howard County businesses that are not contributing to the flooding problem. The MBIA urges you to vote against this moratorium and to address the actual causes of flooding in Ellicott City.

Thank you for your attention to this vital issue and you continued support of the local home building industry. If you have any questions about these comments and would like to discuss MBIA's position further, please do not hesitate to contact me at (443) 433-6287 or Jamie@i-s-land.com or Josh Greenfeld at (443) 515-0025.

Best regards,

James Fraser, Chair, MBIA of Howard County

Cc: Councilman Jon Weinstein
Councilman Greg Fox
Councilwoman Mary Kay Sigaty
Councilmember Jen Terrassa
County Executive Allan Kittleman
Diane Wilson
Valdis Lazdins, Planning Director

Lisa Markovitz President, The People's Voice Council Bill 65-2016

We support this bill and believe it is necessary to make changes to the Development Process to reduce the likelihood of future flood damage. We request that the Development Process be halted along with permit granting, because as parcels go through the process over the period of time of review under this legislation, the bodies making consideration of petitions, will not have before them any changed laws or regulations to consider prior to approval. Once approval is made through the government agencies, and only permits are held up while laws or regulations are changed, it could be a legal problem to make those parcels abide by new laws or regulations when they have already gone through the process, or make them go through the process again.

In order to safeguard adherence by all coming development not yet permitted in the watershed, to any altered laws and regulations, the process should be halted, and any deadline or scheduling timelines be extended for those parcels so located at this time.

We also would like to see the County include the hiring of independent experts to analyze the facts regarding storm water management, measuring of development run-off, inspections of retention ponds, etc., where that licensed expertise is not available to produce the requested report of suggestions.

We are hopeful that one change that could be made is a measurement and enforcement policy regarding the No-Adverse Impact requirement on development. Developers bring witnesses to hearings claiming there will be no difference in run-off from development than prior to any development being done on a parcel. We need more than guesses, even by experts. There should be measurements taken, before and after, and enforcement made of this requirement and adequate planning regarding the responsibility and cost of maintaining and fixing anything not in compliance. Who should pay, the original developer, an HOA, the County? Also, the storm water management procedures in place on developments should be inspected to insure they are clean and clear, and flowing in the appropriate way, over time.

Another huge area of concern is the labeling of the year number of a storm. If there is a 1% chance of a storm happening per year, that does not mean it will not happen for another 100 years. This is a complete misnomer, publicized and believed. There are two reasons why this is false. First, the more recent occurrences are not being weighted, and given the new normal on storm frequency and degree, it is a more accurate statistical analysis to weight current data. Second, and this is just math, when you take statistics over time, over decades, of 1% per year, the frequency analysis is different, rather than each year's probability. For instance, looking at a supposed 100-year storm, that has 1% chance of happening per year, what is the probability of it happening within 30 years? It is actually 25%. You have to take the probability of year 1 and then raise that to the power of the number of years ahead to determine the actual recurrence interval in statistics. You cannot take the likelihood in one year and apply verbally to a 100% scale, that's not how it works. Therefore, these are actually quite risky dice to roll, and that's not even considering weighted data. We need development to mitigate to higher level storms as they are becoming far less rare as well.

The storm in 2011 produced only 20% less rain in the same amount of time. We all know that there was way more than 20% more damage from the July storm. In my book, we have had 2 storms in 5 years that require a closer look at our regulations. It simply isn't true that this will definitely not happen again in our lifetimes. Thank you for starting the process of doing just that, and please consider the changes suggested in my testimony. Thank you.

CHESAPEAKE BAY FOUNDATION
Saving a National Treasure

Honorable Chairman Dr. Calvin Ball
Howard County Council
George Howard Building
3430 Court House Drive
Ellicott City, MD 21043

September 19, 2016

Re: Bill No. 65-2016 – Tiber-Hudson Watershed Interim Moratorium Act

Dear Chairman Ball and members of the Howard County Council:

I am writing in regard to proposed legislation titled "Tiber-Hudson Watershed Interim Moratorium Act," Bill No. 65-2016, which would temporarily prohibit the issuance of certain development permits. CBF is supportive of this legislation insofar as it acknowledges and attempts to quantify the impact of impervious surfaces on our natural hydrological systems. However, CBF believes the proposed legislation could be improved to truly avoid the negative impacts of development while the proposed study is performed. CBF provides these comments in general support of this proposed legislation and to offer the following friendly amendments:

- CBF recommends that the County save resources and avoid future complications by freezing the development approval process as a whole.
- CBF recommends that the proposed legislation be amended to more closely reflect the state and local laws and policies that require the *reduction* of redevelopment impervious surfaces, rather than allowing an increase in apparent conflict with existing law.
- CBF recommends that the exemption for accessory structures be removed or be limited to accessory structures of a size that would have only de minimus impacts.

It is well established that impervious surfaces such as roads, buildings, and parking lots have a direct impact on a watershed, as impervious surfaces disrupt the natural hydrological cycle by preventing infiltration of stormwater into the ground. Numerous studies have found that higher amounts of impervious surfaces in a watershed diminish the health and water quality of the surface waters in that watershed.[1] Generally, studies have found that water quality starts to significantly degrade when the watershed contains 10% or greater impervious surfaces, although negative impacts can be seen at much lower percentages as well.[2] Much of the degradation is due

[1] Center for Watershed Protection, Impacts of Impervious Cover on Aquatic Systems, 2003; Morgan and Cushman, 2005 (studies of Eastern Piedmont and Coastal Plain streams in Maryland); Moore and Palmer, 2005 (study of headwater streams in Montgomery County MD).
[2] *Id.; see also,* Maryland Biological Stream Survey, indicating poor health in every stream with watershed imperviousness above 15%.

to the fact that impervious surfaces collect and funnel stormwater runoff to local surface waters at a much higher volume, velocity, and temperature than would occur on natural, filtering surfaces.[3] This increase in volume and velocity can frequently leads to localized or regional flooding, sometimes catastrophically.

Historically, the negative impact of impervious surfaces on natural hydrology was not considered during development. Instead, development and the associated drainage systems were designed simply to funnel stormwater runoff away from the development as quickly as possible. Maryland's largest, most urbanized jurisdictions, including Howard County, are required to remediate these older developments by way of the federally authorized Municipal Separate Storm Sewer System (MS4) Permits that mandate the "restoration" of twenty percent of untreated impervious surfaces.[4] Unfortunately, progress under these permits has been slow, and typically does not come close to keeping pace with the addition of new impervious surfaces. At the same time, major storm events that occurred only infrequently in the past have been occurring much more often, sometimes with several "hundred year storm" events occurring in a single summer.

In light of this confluence of factors that threaten local waterways and personal property, it is critical that new development is planned carefully and with consideration of methods to mitigate the negative impacts of impervious surfaces. This proposed legislation would provide critical information about the impact of impervious surfaces in the Tiber-Hudson watershed and the extent to which the catastrophic Ellicott City flooding was caused by impervious surfaces. Only with this information can the County adequately plan and prepare to avoid such tragedies in the future.

CBF supports the intentions of this bill and believes that a study on the impact of impervious surfaces is critical to moving forward in the County without contributing to future catastrophic events. However, there are a few provisions of the bill that CBF believes works against the good intention of the proposed legislation.

The most problematic part of the proposed legislation is that the development approval process will continue during the interim time of the study, as the development plans under review will not be reviewed with the benefit of the information sought by the study. The very purpose of this temporary development moratorium is to determine whether changes need to be made to development design or location. Unlike moratoriums issued pursuant to adequate public facilities ordinances, this moratorium isn't about waiting for a school or pipe to be built so the planned developments can go forward, but seeks to understand whether the very design and location of the developments themselves should be altered. If development plan approvals continue under a "business as usual" framework, and a study finds that adjustments need to be made, then valuable time and resources will have been wasted by the County and developers. This investment of time and resources would also likely result in increased legal battles if the study indicates necessary improvements should be made and approvals need to be rescinded. Even though the County would be well within its authority to control development to avoid catastrophic impacts to the area, the expenditure of resources increase the feelings of investment by developers and engineers. **CBF recommends that the County save**

---

[3] Stormwater runoff also collects a large variety of pollutants as it runs over impervious surfaces, such as grease, pesticides, pet waste, fertilizers, and more, which are delivered directly to surface waters.

[4] Maryland Department of the Environment, *National Pollution Discharge Elimination System Municipal Separate Storm Sewer System Discharge Permit for Howard County Maryland*, Permit No. 11-DP-3318; MD0068322.

resources and avoid future complications by freezing the development approval process as a whole.

CBF questions the proposed legislation's allowance for a 25% increase in impervious surfaces during the reconstruction of damaged property, which appears to be in direct conflict with state and county policy regarding reduction of impervious surfaces during redevelopment. Maryland's Stormwater Management Act of 2007 enacted a requirement to minimize the impact of development through the use of "environmental site design" or "ESD,"[5] which involves the combination of multiple tactics that includes using better site design to minimize impervious surfaces.[6] Regulations issued under this statute include a requirement for redevelopment to result in a 50% reduction in impervious surfaces below the existing conditions where possible.[7] The Howard County Code incorporates this requirement to reduce impervious surface during redevelopment, and directs such reduction to be done unless "site conditions prevent the reduction of impervious area."[8] In terms of retaining the pre-development hydrology of a landscape, the reduction of impervious surfaces is always preferable to constructing treatment facilities, as those facilities require continuous maintenance and typically do not provide the same plethora of benefits as natural filters. Basically, avoiding impacts is more effective and much cheaper than trying to mitigate or make up for those impacts later. **CBF recommends that the proposed legislation be amended to more closely reflect the state and local laws and policies that require the *reduction* of redevelopment impervious surfaces, rather than allowing an increase in apparent conflict with existing law.**

Similarly, CBF has concerns about the allowance for a 50% increase in impervious surfaces for accessory uses on currently developed properties. This increase in impervious surfaces over existing imperviousness is fairly significant, and could conflict with the previously approved site design plans for that property, as well as worsen the conditions being examined by the study. Furthermore, the 50% increase appears to apply to ALL types of development, including commercial properties that have significant amounts of impervious surface already. This means that an unknown and unlimited amount of impervious surface could be added during the interim time of the study, undermining the very purpose of the moratorium. As explained above, state and local site design planning includes ensuring that all practicable options are exhausted to reduce impervious surface, protect existing natural conditions, and mitigate any unavoidable impacts. Modern development planning and approval requires a detailed examination of natural areas on a parcel and how those areas may be used to mitigate the impact of the development on that property. Typically, parcels are built out to the maximum extent practicable while maintaining just enough space to accommodate stormwater management facilities, forest conservation requirements, or other important and protected natural features. Adding accessory buildings or structures after a site plan has been approved can conflict

---

[5] Md. Code. Env. Art. §4-201 et seq. ("The General Assembly finds that the management of stormwater runoff is necessary to reduce stream channel erosion, pollution, siltation and sedimentation, ***and local flooding***, all of which have adverse impacts on the water and land resources of Maryland")(emphasis added).

[6] *See, e.g.,* 2000 Maryland Stormwater Design Manual, Chapter 5: ("ESD includes: optimizing conservation of natural features (e.g. drainage patterns, soil, vegetation); ***minimizing impervious surfaces (e.g. pavement, concrete channels, roofs)***; slowing down runoff to maintain discharge timing and to increase infiltration and evapotranspiration…") (emphasis added).

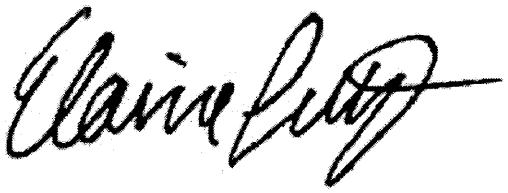
[7] *See* COMAR 26.17.02.05(D)(1) ("Unless otherwise specified by watershed management plans developed according to §E of this regulation, all redevelopment project designs shall do one of the following: (a) Reduce existing impervious area within the limit of disturbance by at least 50 percent according to the Design Manual; (b) Implement ESD to the MEP to provide water quality treatment for at least 50 percent of the existing site impervious area; or (c) Use a combination of both §D(1)(a) and (b) of this regulation for at least 50 percent of the existing site impervious area").

[8] Howard County Code Sec. 18.910(b).

with the requirements of the original plan approval and diminish the property's ability to infiltrate damaging stormwater runoff. Also, Howard County Code exempts "additions or modifications to existing single-family detached residential structures that do not disturb over 5,000 square feet of land area" from the requirements to do stormwater management. Therefore, residential accessory structures will commonly be exempted from stormwater management while still being within the 50% increase of impervious surface standard included in this proposed legislation. **CBF recommends that the exemption for accessory structures be removed or be limited to accessory structures of a size that would have only de minimus impacts.**

In conclusion, CBF applauds the Council's foresight in considering ways to learn from the catastrophic flooding of historic Ellicott City, and encourages the Council to make meaningful changes to outdated development practices. The proposed legislation is a good first step towards incorporating science and current environmental conditions into the County's plans for a sustainable future. CBF supports the proposed legislation, and urges the Council to incorporate the above explained amendments to ensure the legislation meets the goal of avoiding additional negative impacts to downstream communities during the pendency of the study.

Sincerely,



Elaine Lutz, MD Staff Attorney
Chesapeake Bay Foundation

(34)

Good evening. My name is Peter Green and my wife Ann and I have lived at 9117 Northfield Road 21042 for 40 years.

I support bill 65-2016. It is time to ask some serious questions about what is going on so as to be better prepared for the next time.

We don't live in the Tiber-Hudson watershed or in a floodplain, but we carry flood insurance and have spent a not inconsiderable amount of money over the last 40 years getting water away from our house. We had some water problems in the downpour of September 2011, but were unscathed this past July.

In terms of this bill, it is good that it looks at hydrologics (where the water comes from), as well as hydraulics (where it goes). Rainfall assumptions which are the basis of storm water management plans need to be re-examined. This would have impact on the state and county design manuals. I have seen newspaper articles mentioning re-looks of rainfall assumptions that are starting to be done as a result of the recent three-day downpour and flooding in East Baton Rouge Parish, Louisiana. Maybe such is beginning to happen somewhere in NOAA and at universities.

Chapter 10 of Travers' book, *The Patapsco, 2nd Edition* 2016, describes 2 major (1868, 1972) and six minor (1923, 1934, 1952, 1956, 1969, and 1975) floods that have hit Ellicott City. The author omitted reference to the September 2011 flood. History being a good predictor of the future, there will only be more of such and quite possibly of greater severity and frequency as a result of changing weather patterns caused by global warming.

It is time to ask questions and get answers. This bill should enable that.

Testimony by Elizabeth M. Walsh in support of Bill 65-2016
September 19, 2016

My name is Elizabeth Walsh.
I live at 3574 Church Road, in the Ellicott City Historic District.
I testify tonight in support of Council Bill 65-2016.

My testimony concerns four amendments to the proposed legislation that I ask you to consider:

(1) **Do not exempt subdivision plans and permitting approved before September 6, 2016 (Sections 3(E)(3) and 3(E)(5) of the proposed legislation)**. If "development [in fact]… poses a threat to public health, safety, and welfare," then the proposed "Interim Moratorium" should apply to any development in the watershed, including those that just happen to have been permitted before September 6, 2016.

No developer has a "vested right" (referenced in Section 3(B)(2)) to perch a doomed storm water system at the top of a hill, that will cascade down onto Main Street when it fails. No developer has "vested rights" to clear trees and other vegetation, to regrade steep slopes, or to otherwise alter or impair existing stream beds—each in violation of County and State laws.

This County—through the Department of Planning and Zoning and then the Planning Board—historically has readily granted developers waivers from the very laws in place to protect this and other watersheds in the County. That practice has to stop. And it has to stop now.

I don't know—I don't know if you know—how many near-term construction starts would qualify for the proposed exemptions under Section 3(E)(3) and 3(E)(5). But DPZ does. Name them. Require that—before any new construction begins on those projects—(i) a showing be made that the work to be undertaken will not pose a threat to public health, safety, and welfare—taking into account both existing and other developments proposed to be constructed; and (ii) any work completed will comply with any future changes in law resulting from this legislation.

(2) **Require implementation of actual, County-wide stormwater regulations based on present-day precipitation records as part of the required "recommendations for changes in law and procedures" (Section 3(B)(1))**. I understand Howard County has yet to implement its own version of storm water regulations. It's time to do that.

(3) **Enlist input and expertise from entities beyond the lead agency named in Section 3(B)(1)): the Department of Planning and Zoning**. The cynics among us fear that DPZ may be motivated—overt or not—to justify what's been done in the past. That's not what this Interim Moratorium should be about. This legislation is about the future, and how we use modern-day ingenuity to fix a big problem in an old place. Every imaginable resource possible should be consulted to ensure that we get this right.

Preservation Maryland's nimble work to save two Main Street buildings is a terrific example of what good can result when the pool of contributors expands beyond traditional, likely over-extended, County resources. On its own, the County may have very likely razed those buildings within days of the flood.

Already, this County has subject-matter experts assembled in the form of the Historic Ellicott City Flood Workgroup, the Howard County Historic Preservation Commission, and the Howard County Forestry Board, at least. Again, name them, as contributors to this effort. Require appeal to state and federal government resources, private experts in the field, local (maybe national) engineering schools, other municipalities who've grappled with similar issues, and the non-profits who work day in, day out, in this very space. "The Center for Watershed Protection" on North Ridge Road, for example, looks like a good candidate, a ready candidate, who's already invested considerable thought and effort on the subject of the Tiber-Hudson watershed.

Last (4) **Identify those properties, including those along the length of the Tiber-Hudson tributaries, that are strategically significant for watershed protection**. As part of the analysis required by this legislation, specifically include a directive to identify the ownership of, and address potential public acquisition of rights to, property immediately adjoining the Tiber and Hudson branches. Existing landowners might gift, grant easements to, lease, sell, or make whatever other property-specific transfer makes sense of those limited portions of their property including and immediately adjacent to the river beds, to ensure programmatic, consistent stewardship of those waterways—as a whole. If need be, the County might consider even condemning properties within the watershed whose preservation, alteration, or uniformly and consistently-undertaken maintenance will disproportionately enhance efforts to control runoff, preserve historic structures and landscapes, and/or protect the public health, safety, and welfare.

I thank you for your consideration.

Patapsco Heritage Greenway, Inc.
P. O. Box 96, Ellicott City, Maryland 21041 | 410.480.0824
patapscoheritagegreenway.org

September 19, 2016

CB 65-2016: Tiber Hudson Moratorium Act

Chairman Ball and members of the County Council The Patapsco Heritage Greenway (PHG) has worked in this watershed for more than a dozen years, removing more than 30 tons of trash annually, planting hundreds of trees and educating residents about stormwater runoff in countless seminars and workshops. In 2012, PHG worked with the Center for Watershed Protection and the Chesapeake Bay Trust to survey the Tiber Hudson watershed. We don't have answers but we have good questions.

We believe that CB 65-2016 will provide an opportunity to:

1. Gain a better understanding of what happened in Ellicott City on July 30, and why it happened.
2. Allow pending consultants reports to be completed.
3. Provide a better plan for expending state and federal funding.

Flash flooding is the predictable result of a storm that dumps 6.5 inches of rain in an hour and a half. Even with better stormwater management in place, severe flooding would still have occurred. However, better containment systems, clearer channels, and the ability to slow the flow might have minimized the devastation. Also, taking the time to assess and improve our stormwater management systems could successfully mitigate lessor, but much more likely, flood events.

We expect that the County will use this 9-month moratorium to engage national and local stormwater experts, complete reports and assessments now underway and answer critical questions including:

Are our existing systems effective?
Experience suggests that our man-made infrastructure cannot accommodate stormwater as effectively as an unbuilt or natural environment. Regulations that allowed individual developments to convey runoff from 100-year storms created downstream cumulative problems in the watershed. Older developments and commercial properties have no, or minimal, stormwater management in place. Accessing private property to address issues that affect downstream communities need to be addressed. Existing and aging infrastructure fails without care and maintenance.

Are our current regulations sufficient?
Some properties developed today would not have been considered developable just ten years ago. New technologies, denser development and waivers create a new set of problems and raise the question - just because we can build it in the Tiber Hudson watershed, should we? Are there flood

factors unique to this watershed? Ellicott City is built on top of a stream at the foot of a river within a steep and rocky valley. It was built here for a reason- to harness the power of water to build the mills. Because of its unique place in Maryland's heritage, its economic value to the county, and its nationally recognized historic structures, the town will continue to coexist with the river and its tributaries. The slopes and the geologic and hydrologic characteristics of the Patapsco Valley and the Tiber Hudson watershed make it different from any other watershed in Howard County, yet current regulations treat all watersheds equally.

We support Council Bill 65 and are confident that this 9-month interim will be used to raise questions, explore ideas, receive consultant's recommendations, find answers and begin implementing solutions. Ellicott City's heritage, its residents and businesses will by necessity depend upon adequate, effective and up to date stormwater management solutions.

Grace Kubofcik, Board President

CC: Mary Catherine Cochran, Executive Director

HCCA **Howard County Citizens Association**

Since 1961...

The Voice Of The People of Howard County

Howard County Council

September 19, 2016

CB 65 Testimony of HCCA

I am JD Smith, Treasurer of Howard County Citizens Association (HCCA).

HCCA supports CB 65. The purpose of this bill is to allow County government time to study whether development in the Tiber-Hudson watershed needs to be further restricted. We believe, however, that the bill, itself, is too restricted. It should apply to the entire county. The water in the Tiber-Hudson watershed is contained within the larger Patapsco watershed covering portions of Baltimore City and Carroll County, with the largest portions being in Howard, Baltimore and Anne Arundel Counties. To look at Tiber-Hudson alone is short sighted. A moratorium on permitting and inspection should be issued for the entire county.

Since 2001, developers have submitted more than 100 proposals to build homes, shopping centers and other developments near Ellicott City, and most applications have been approved. Officials have acknowledged the county's approach to handling stormwater runoff has been piecemeal in some parts of the county. It has been so because an overall plan and systemic approach to the issue does not exist or has not been adhered to. The approach so far has been a series of tactics without an overall strategy. The unique challenge in the historic district is that stormwater management must happen outside the flood-prone area in order to help it cope with future rains.

HCCA supports the bill primarily because of the moratorium. As to the need for a study, what could possibly be learned that hasn't been learned thousands of times before in thousands of places? There can be no doubt that there is a

relationship between development and flooding. We don't need to study whether or why. Development removes trees and other natural vegetation that serve to reduce flow and retain water. It regrades natural contours. It replaces pervious surfaces with streets, sidewalks and roads. It invites more people. And it often occurs in the absence of adequate public facilities to support it. A report titled 2006 Watershed Restoration Action Study, prepared by DPZ for the Maryland Department of Natural Resources, found that in 2004 the Tiber-Hudson sub-watershed had the second highest percentage of impervious surface cover – 27% - than any other sub-watershed studied. In the ensuing 12 years it has possibly doubled. Technology cannot completely undo the effects of development and leave a stream hydrologically behaving as though the watershed had not been developed.

HCCA believes more time will be required to complete a comprehensive study, much less develop a reasonably comprehensive plan. We propose that, in addition to extending to the entire county, the moratorium should be a year at least. We are curious as to how nine months was the chosen time frame. Rather than use the moratorium to study the issue in the Tiber-Hudson, use it to develop a comprehensive watershed plan for the entire county. Then follow the plan. Every project should be in service of an overall plan. Too many things are studied and too many reports are sitting on shelves gathering dust. Every project that is undertaken should start with the question, "How does this fit in with the plan?" Have definable, measureable goals and evaluate success in terms of defined outcomes instead of task force reports and unrelated projects.

Thank you.

JD Smith

Treasurer, HCCA

7425 Swan Point Way,

Columbia, MD 21045

RER Energy Group | Empower Your World.

COPY OF ORAL TESTIMONY TO THE COUNTY COUNCIL OF HOWARD COUNTY, MD, IN SUPPORT OF BILL NO. 59-2016 (ZRA-164), SEPTEMBER 19, 2016

My name is Dennis Satnick. I am Sr. Consultant to RER Energy Group, who was recently recognized as the 28th Top 50 Solar Developer in the United States *by Solar Power World Magazine*. I wish to say a few words in support of Bill No. 59-2016, commonly referred to ZRA-164.

Before moving to MD some 4-years ago, I had both the honor and responsibility to spend 3-years as a sitting member on the PA Farmland Preservation Board. I was appointed to the Board by former Governor Edward Rendell.

I learned several things while serving on the Board. First, that the size of the average farm in MD as well as PA, DE and NJ, is less than 100 acres. Second, most farm owners do not farm their own property, they lease the land out to a tenant farmer who pay between $200 - $300 per acre. A quick calculation indicates income between $20,000 - $30,000. Not a life changing sum, but enough to temporarily round off some of life's hard edges.

A solar developer, on the other hand, will pay between $750 - $1,500 per acre. For the sake of an apples-to-apples comparison, a farm owner could earn between $75,000 and $150,000 compared to the previously mentioned $20,000 - $30,000. This is a life changing number and one that could possibly mean keeping one's farm to pass down to a future generation, create a legacy or help out financially when retirement will certainly will come.

I believe that amending the Howard County Zoning Ordinance to permit ground mounted solar facilities on County Preservation Parcels in the RR and RC zoning districts will help preserve the "farm family" way of life for those farm owners who face increasing financial difficulties.

Thank you.

RER Energy Group, LLC • 80 Janwall Street, Annapolis, MD 21403 • 301-407-6229 • dsatnick@rerenergygroup.com

(28)

CB 65-2016 Testimony

I thank Jon Weinstein very much for introducing this bill. Downtown Ellicott City is in a very sensitive area environmentally and is prone to flooding, but the development of the past 20 or so years in the name of "moderate income housing" or" Smart Growth" or "infill" or whatever buzzword was popular at the time has greatly increased stormwater management problems all over the area and contributed significantly to the devastating damage we saw recently.

I live in Dunloggin, and part of the watershed goes through our community. My community did not see the damage they had in downtown, but we were affected significantly. I live just outside the watershed. My next-door neighbor has been reimbursed over $14000 from her insurance for damage to her family room. This issue affects many more people than the poor merchants and residents of the historic area.

My husband and I have lived in our home since 1967. It was built in 1957 on the site of the Royal Dunloggin Dairy Farm, which was a dairy farm in large part because the nature of the land made it inappropriate for raising crops, as is most of the area in question. The little median strip on MacAlpine Road in front of our house used to get water and flow a bit once a year or so. Now it flows swiftly after practically every heavy rain. Improperly managed development in this supposedly stable area has increased drainage and water problems in the whole community. The county's land use decisions have served us ill.

I rue the damage in my neighborhood; I weep for the fine people in downtown, which I had proudly shown off to out-of-town relatives just a week before the storm.

I strongly support the call for a study, but I also urge that this be a study done by technically qualified persons and not a gathering of "stakeholders", each of whom seeks to protect parochial interests. I am an engineer and a CPA, and I like to think I can appreciate the value of both scientific considerations and business, but in this instance I believe the nod must be given to the science. First priority must be protecting citizens' lives and property.

A study is a planning step but accomplishes nothing. The real challenge will be in effective implementation. If you do a good study and take the results seriously, I warn that many of the actions may be difficult. You may need to revisit the General Plan and the accompanying zoning map. You will probably also have to reconsider ineffective cosmetic current requirements for stormwater management like the "rain gardens", also known as "Zika-virus incubators" as the "gardens" fill and are improperly maintained.

We can't tear down the homes that were imprudently approved. We can, however, undertake mitigation projects to improve stormwater management, and we can impose better land use and zoning policies to keep new problems from occurring. I imagine that the mitigation could be expensive, but bad decisions can often have a big price tag in the long run. As we used to say at work, "If you can't afford to do it right, how will you afford to do it over?"

Angie Boyter

3914 MacAlpine Road, Ellicott City MD 21042, 410 465-1444

27 Lori Lilly

Good evening, thank you for hearing my testimony.

I have come here many times since 2011 on behalf of Ellicott City flooding issues. I became involved that same year when I happened to be writing a Watershed Restoration Plan for the Tiber Hudson watershed, like literally writing this document, in the office space upstairs of the Wine Bin during the 2011 flood. It wasn't long after when I was hooked up with members of the community who had formed a group called Ellicott City Flood Solutions, who were advocating for explanations, answers, projects and mitigation. I tried to be a resource for the Flood Solutions group as much as I could. I advocated, looked for flood mitigation projects, did research, wrote grants, installed whiskey rain barrels and worked on education efforts. With each one of my actions, I have become more and more vested in helping the community to find a way forward. I have devoted hundreds of hours of my own time to this incredibly complicated problem because even though we may never get this problem fully addressed, I believe that we can do better. I believe we can do a lot better.

Last time I came to testify, I advocated for implementation of one of the recommendations in the S&S Study, and that was a debris maintenance program, debris and lack of maintenance being a known contributor to the 2011 flood. After that testimony, I was able to get that effort initiated with the READY program but it was not easy to implement, required months and months of work and I would not have been able to get the departmental support that I needed to do the work if not for Jon W. and County Executive Kittleman. So actions that seem like they should be no-brainers, require persistence and support from you all at the very top, even to do something as logical and cost effective as debris management, an action that may have prevented the 2016 flood from being even worse than it was.

Jon's legislation is another no-brainer in my mind. We need the time to stop adding additional runoff to this watershed, figure out what is going on and come together as a community to address the problems. I am in full support of CB 65-2016 and make the following requests of the Council and County Executive after the bill is passed.

- Please evaluate the existing stormwater management requirements in the Tiber Hudson watershed and where they currently apply. The watershed is supposed to have 2, 10 and 100 year stormwater management controls however; the watershed itself had not been delineated until after the 2016 flood. So to what area are the current standards applying exactly and what policy measures need to be put in place to account for the newly defined watershed boundary?
- Please consider how we can protect the remaining forested areas in the watershed, most of which are on steep slopes. What incentives and tools can we use for conservation such as easements, outright purchase, fee in lieu, impervious cover ordinances, increased stomwater management standards, special protection designation, others? Please help us to protect the natural areas that remain as we need those to exist as they are.
- Finally, this community needs and deserves a flood mitigation project. Yes, the additional studies will help inform long term solutions, but we have enough studies, project lists, data and information to move forward on any number of projects right now. I would propose starting with this very government complex or the courthouse parking lot area, both which contribute runoff quite directly to the historic district. You can use this public property to demonstrate a real commitment to solutions. Even if they are not the most cost effective projects, these are your very own properties contributing to the problem – what can we do about that right now, not 8 months from now.

9

Denise A Cortis

Subject: FW: Sep 19, 2016 Council Meeting Statement - Denise Cortis

Denise Cortis
Howard County Council September 19, 2016 7:00 PM Howard Building

I am a resident of the Ellicott City Historic District at 3407 Deanwood Road and a board member of the Woods at Park Place Home Owners' Association. I wanted the opportunity to speak with you today to support the recommendation to halt new development licenses and permits in the Tiber-Hudson Watershed until there is time for a thorough evaluation for and creation of a comprehensive flood resistance plan for the Tiber-Hudson Watershed. I believe the county and experts will need to move swiftly with the short life of this interim bill compared with the extent of work needed. While there have been studies and recommendations to the county over the past 15 years, conditions have dramatically changed in the Tiber-Hudson Watershed particularly with new construction at Burgess Mills, the new Roger Carter Center, Ellicott Center, and proposed development on upper Church Road and Ellicott Terrace. I request that you take this seriously and continue the hold permits for new construction until a plan is actually in place and is being implemented.
In addition, I want to share some recommendations for The Council on flood mitigation within The Watershed that apply to existing and in-progress development along with proposed future development. The recommendations I share take into account the increased frequency and intensity of storms resulting in 5 or more inches of rain within 24 hours and that most of the streams and tributaries in The Watershed carry a flash flood risk.

My recommendations follow:

1. A comprehensive flood resistance plan and regulations that apply to all existing, in-progress, and proposed new development in the Tiber-Hudson Watershed. This would integrate storm-water management and flood controls with an intent to manage quantities and quality of water flow from storms.

2. Within a new set of comprehensive integrated flood resistance regulations, all new projects are reviewed in the context of all other in-progress projects, other proposals for new development, and existing development within The Watershed. This approach would be in contrast to current development where each proposal is treated as an individual project with limited consideration of surrounding development that is completed, in-progress, or under review. The 2011 and 2016 floods happened as a result of cumulative factors which will continue to add-up year after year as development and increased frequency and intensity of storms continue.

3. As a part of development proposal reviews, experts will need to evaluate whether proposals will effectively protect the environment versus simply meeting code. Good flood resistance evaluates what will work and using "what-if" scenarios and may require going beyond minimum requirements of code depending on the surroundings. The inability of the Burgess Mill storm water drainage pond to hold its capacity when it burst instead of filling, draining through its output mechanism, and gradually overflowing in the case of an intense storm is an example of where a design needed to be "what will work" in the worst case, e.g. if the pond fills to capacity while rain continues.

4. Department of Planning and Zoning along with its staff and commissions should carefully review requests to waive regulations with an eye to limit waivers and shift the priority from financial gain of property owners and developers to the well-being of the overall community and region. Refuse to grant waivers without a compelling reason and approve only when the waiver will benefit the overall community and region beyond financial interests. For example, there is a proposal for development within the Ellicott City Historic District (PB-418) that has been granted 5 waivers of existing code and design guidelines including tree removal which will nearly clear-cut 8 acres, leveling natural slopes, and building retaining walls where natural slopes are being leveled (some retaining walls created will

be 12-ft). What good are laws, code, and guidelines if they are automatically waived for developers to maximize density?

5. Re-evaluate existing development (old and recent) for storm-water run-off infrastructure to upgraded flood mitigation systems including added or deeper flood water retention ponds, increasing pervious paving in large lots, removal of unnecessary impervious surfaces, upgrade materials for street gutters that channel water using sponge-like absorbent surfaces, etc. Some examples of existing opportunities include reducing the size The District Court parking lot, reducing or replacing impervious surfaces in the Ellicott Center commercial area and the Burgess Mill and Roger Carter Center roads and parking lots. Without re-evaluating existing flood mitigation, property continues to be damaged and resident's safety is at risk. For example, most of the structures on the north side Lower Church are historic. Yet, over the past 5 years, Emory Road at Lower Church Road becomes a raging river when there is 2-4 inches of rain in few hours and those historic structures are now experiencing flood damage.

While policies will set minimum requirements, development plans need to take into account the specific project AND the surrounding area within the entire Watershed.
Because this is the second severe flood on Main St. in five years, flood mitigation strategy and policies will need to influence how Main St. in downtown Ellicott City will be rebuilt and managed. It's unclear how much commercial activity will return to downtown Ellicott City in the near-term. However, progress on gradually opening Main St. to traffic continues. Without sufficient flood management, drivers on Main St. will always be at risk as they were on Saturday, July 30th. The alternative is the need to dispatch county resources to close Main St every time it rains ... in case it floods...which is not a 21st Century solution. As we all were reminded on July 30th, 1-foot of water floats a vehicle and 2-feet of water will wash-away a vehicle including SUVs and trucks.

Residents of the Ellicott City historic district which is in the Tiber-Hudson Watershed have built our life-styles here; it's more than an economic formula for us. And, when it comes to flood resistance policies, lives and the historic legacy are at risk when insufficient resources are in place. In addition to residents of a region we love, we are your constituents. Mr. Kittleman ran for election as County Executive in 2014 on a platform that included a reduction in impervious surfaces within Howard County. More recently, Mr. Kittleman has stated that all development will be according to regulations. We are your constituents and we don't see it. Instead, it feels like we are treated as an enemy and developers are favored while we are maintaining the area daily. We maintain our properties and surrounding areas including trash pick-up in the park and we even have to maintain the periphery of abandoned property in our area (i.e., the Lacey Property has not been maintained in 8+ years); we volunteer to clean up after floods, we donate money for recovery, etc. We live here; developers don't.

These 5 requests are intended to mitigate overall adverse impact on the region and protect the lives of residents and visitors to Ellicott City and contribute to becoming a flood resistant city which means the ability to resist, absorb, accommodate to, and recover from flooding in an efficient manner. I commend county officials on your responses to the flood. However, preventing another disaster is far more important than the most heartfelt elegant response.

Thank you for your support during this very difficult time.