## FINDINGS AND RECOMMENDATION OFFICE OF PLANNING AND ZONING ANNE ARUNDEL COUNTY, MARYLAND

#### APPLICANT: Effect, Inc.

#### ASSESSMENT DISTRICT: 1<sup>st</sup>

**COUNCILMANIC DISTRICT**: 7<sup>th</sup>

**CASE NUMBER**: 2024-0164-V

**HEARING DATE**: November 7, 2024

### **PREPARED BY:** Donnie Dyott Jr. *GO* Planner

#### **REQUEST**

The applicant is requesting a variance to allow a dwelling with less setbacks than required on property located at 3692 Eighth Avenue in Edgewater.

#### **LOCATION AND DESCRIPTION OF SITE**

The subject site consists of 4,375 square feet of land and is identified as Lot 98 of Parcel 29 in Block 10 on Tax Map 60 in the subdivision of Selby on the Bay. The property is zoned R5 - Residential District, is not located within the Chesapeake Bay Critical Area and is currently unimproved.

#### PROPOSAL

The applicant seeks approval to construct a two-story, single-family, detached dwelling. The proposed house would measure 23 feet wide by 35 feet deep, with a 805 square foot footprint and a height of 26.7 feet.

#### **REQUESTED VARIANCES**

§ 18-4-701 of the Anne Arundel County Zoning Code provides that a principal structure in an R5 District shall be set back a minimum of 20 feet from a corner side lot line. The proposed dwelling would be constructed 13.75 feet from the corner side lot line, necessitating a variance of 7 feet.

#### **FINDINGS**

The subject property is rectangular in shape and is both undersized and narrow for the district. More specifically, the 4,375 square foot lot is smaller than the minimum 7,000 square foot area required, and the 43.75 foot width is narrower than the minimum 60 foot width required for new lots in an R5 District. A review of the 2023 County aerial photograph shows an eclectic mix of dwellings in this older waterfront community. While many dwellings have been constructed on two or more lots, some nearby houses have been constructed on similar single lots.

The applicant's letter explains that, in order to construct a dwelling on this undersized lot, without relief from the required corner side setback, the house would be limited to only 16.75 feet in width and would be out of character of surrounding dwellings in the neighborhood.

The applicant was previously denied a variance to build a new dwelling within the corner side setback under case 2023-0193-V. In that case the applicant proposed a larger dwelling that was three stories in height and located as close as 10 feet from the corner side lot line. The application was denied as the variance was not deemed to be the minimum necessary, specifically that the size and height of the dwelling was too great and was located too close to the corner side lot line. The applicant has revised the application with a smaller footprint and height along with moving the dwelling further from the corner side lot line.

The **Office of Inspections and Permits Engineering Division** provided various comments regarding the stormwater management of the site and that a modification is required for the driveway being located within 50 feet of the intersection. Based on the comments provided the Engineering Division does not support the request.

The **Health Department** commented that additional information is needed, specifically, the tag number and location of all neighboring water supply wells within 100 feet of the property.

For the granting of a zoning variance, a determination must be made as to whether, because of certain unique physical conditions peculiar to or inherent in the particular lot or because of exceptional circumstances, strict implementation of the Code would result in practical difficulties or an unnecessary hardship. In this particular case, development of the site is constrained by the practical limitations of an existing residentially zoned lot that is undersized, narrow, and at a corner location. It is clear that some variance relief is warranted in order to provide enough width for reasonable residential development.

The applicant's previous variance application was denied as it was determined that the size and height of the proposed dwelling was not the minimum variance necessary and that it may negatively impact adjacent property and not be within the character of the neighborhood. The applicant has revised the proposal by reducing both the footprint and the height of the proposed dwelling and increasing the distance to the corner side lot line. The dwelling as proposed is now two stories with a footprint of 805 square feet and is located 13.75 feet from the corner side lot line. Given these reductions and the presence of other two story dwellings in the neighborhood, this Office considers the new proposal to represent the minimum necessary to afford relief and to be in keeping with the character of the neighborhood.

Provided the applicant can satisfy the Department of Inspections and Permits Engineering Division with regard to the stormwater management and the Health Department regarding the well and adjacent wells, the variance would not be detrimental to the public welfare or cause adverse impacts to neighboring properties.

#### **RECOMMENDATION**

Based upon the standards set forth in § 18-16-305 of the Code under which a variance may be granted, this Office recommends *conditional approval* of the proposed zoning variance to § 18-4-701. The approval should be conditioned on the applicant being able to satisfy the Department of Inspections and Permits and Health Department requirements.

DISCLAIMER: This recommendation does not constitute a building permit. In order for the applicant(s) to construct the structure(s) as proposed, the applicant(s) shall apply for and obtain the necessary building permits and obtain any other approvals required to perform the work described herein. This includes but is not limited to verifying the legal status of the lot, resolving adequacy of public facilities, and demonstrating compliance with environmental site design criteria.



SURVEY CONTROL NOTE

THE COORDINATES AND ELEVATIONS SHOWN HEREON ARE BASED ON RTK (REAL TIME KINEMATIC) OBSERVATIONS UTILIZING KEYNET GPS NETWORK. THE HORIZONTAL DATUM IS REFERENCED TO MARYLAND STATE PLANE NAD (83/91) AND THE VERTICAL DATUM IS REFERENCED TO NAVD 88.



UNDERGROUND UTILITIES.



August 15, 2024

Anne Arundel County Office of Planning & Zoning 2664 Riva Road Annapolis, MD 21401

#### RE: 3692 Eighth Ave, Edgewater, MD 21037 Selby on the Bay, Plat 8, Lot 98 Variance Application

Sir or Madam:

Enclosed please find a complete variance application submittal package for proposed development at 3692 Eighth Avenue in Edgewater. This property was previously denied a setback variance request under 2023-0193-V in a decision letter dated March 7, 2024. The subject property is rectangular in shape, is roughly 0.10 Ac in area, and is a corner lot, fronting on both Eighth Ave & Hillside Ave in the community of Selby on the Bay. The property is currently unimproved. It is mapped within the R5 zoning district and is not within the Chesapeake Bay Critical Area or any other overlay district. The property was created by plat, recorded in the plat records of Anne Arundel County (Book: 9, Pg: 5) on October 8, 1932, and therefore is a buildable lot. The property is identified as Lot 98 on the Selby on the Bay, Plat No. 8. The property is served by public sewer and a private well.

The owner proposes to develop the property with a single-family detached residential dwelling. A prefile Site Plan was submitted on June 21, 2024. In an email response, OPZ noted that the scope of the project had been sufficiently revised from the dwelling proposed under 2023-0193-V. The proposed dwelling was revised to decrease the overall mass of the dwelling by making the footprint smaller, as well as reducing the height. Stormwater management will be provided via pervious pavement to treat the driveway, and a bio-swale to treat runoff from the rooftop. The bio-swale shall utilize stone check dams to slow runoff velocity and increase percolation and treatment. The slopes on-site are too steep to implement disconnections. The developer requests a zoning setback variance to Article 18-4-701 of 7ft to the 20ft corner-side yard setback, to construct a new single-family dwelling.

The proposed development meets all the criteria found in Article 18-16-305(a) of the Anne Arundel County Code for the granting of a zoning variance. The following discourse addresses those criteria.

1) The subject property is roughly 43.75 feet in width and 4,375sf in area; both measurements are less than the minimum width (60ft) and minimum area (7,000sf) for the R5 zoning district. Due to this substandard configuration, adherence to the 20ft corner-side yard setback would yield a dwelling 16.75ft in total width, which is not a realistic width for a dwelling, and would not be in keeping with the existing pattern of development within the neighborhood. The requested area variance is necessary to avoid the practical difficulty of designing an overly narrow house.



Additionally, the proposed work complies with the criteria contained in 18-16-305(c) for the granting of all variances. The following discourse addresses those criteria, as well.

 The variance is the minimum necessary to afford relief. In accordance with the decision rendered in 2023-0193-V, the decision found that the proposed mass of the dwelling was too great. The revised dwelling in this application has reduced the footprint, as well as the height, to a standard two-story dwelling, with a height of roughly 26ft. This dwelling will better adhere to the character of the neighborhood.

#### 2) The granting of the variance will not:

i) The variance will not alter the essential character of the neighborhood, as the scope of work is single-family residential dwelling in a residential zoning district. The mass of the proposed dwelling has been reduced to more accurately reflect the character of the neighborhood.

ii) The dwelling will not substantially impair the use or enjoyment of adjacent properties, as the proposed dwelling will adhere to zoning setbacks to other structures, and the proposed dwelling will not detrimentally affect clear sight lines at the intersection.

iii) The property is not located within the Chesapeake Bay Critical Area.

iv) The property is not located within the Chesapeake Bay Critical Area or Bog Protection Area overlay.

v) The construction of a residential dwelling in a residential zoning district is not detrimental to the public health, safety, & welfare. The proposed dwelling will not affect clear sight lines at the intersection.

Article 18-13-305(d) is not applicable, as this variance request is not the subject of an outstanding Critical Area violation.

If you have any questions regarding this variance request, or any of the materials contained within this submittal package, please contact me at 667-204-8042 or <u>wbower@atwell-group.com</u>. Thank you.

Respectfully,

**ATWELL, LLC** Annapolis, MD

William Bower, PE, PLS Sr. Project Manager AFTER RECORDING RETURN TO: Effect, Inc. 1350 Beverly Road Suite 115-316 McLean, VA 22101

Tax ID#: 01-747-07270975

DOCUMENT PREPARED BY: Sage Title Group, LLC 183 Harry S. Truman Parkway, Suite 116 Annapolis, MD 21401 File Number: 347087APSS

# This Deed, MADE THIS 4 day of March, 2022, by and between Frank

Ruff, party of the first part, and Effect, Inc., a Delaware corporation, party of the second part.

WITNESSETH, That in consideration of the sum of TWENTY EIGHT THOUSAND AND 00/100 DOLLARS (\$28,000.00), the receipt of which is hereby acknowledged, the said party of the first part does grant and convey to the said party of the second part, in fee simple, all that parcel of ground situated in Anne Arundel County, Maryland and as described as follows, that is to say:

Lot numbered Ninty-eight (98) in Block lettered "S" in a subdivision known as "SELBY ON THE BAY, First District, Anne Arundel County, State of Maryland" as per plat filed among the Plat Records of said County in Plat No. 470, Plat Book 9, page 5 (incorrectly referenced as[biberDeed (w Taxes) F.S.R. No. 3, folio 26 in prior deeds). The improvements thereon being known as 3692 Eighth Avenue, Edgewater, Maryland 21037. LR Deed (with Taxes)

BEING the same property which by deed dated June 29, 2006 and recorded among the Land - Beed State Records of Anne Arundel County, Maryland in Liber No. 18097, folio 98, was granted and Fransfer Tax 140.00 conveyed by William R. Brown, Controller and Collector of State taxes for Anne Arundel LR - NR Tax - 1kd 0.00 County unto Frank Ruff.

**TOGETHER** with the buildings thereupon, and the rights, alleys, ways, waters, privileges, 1: 200.00 appurtenances and advantages thereto belonging, or in anywise appertaining. 03/24/2022 03:08 CC02-RA

SUBJECT TO all rights, easements, restrictions, covenants and reservations of record. #16000354 CC0501 -

County/CC05.01.10 -

TO HAVE AND TO HOLD the said described lot(s) of ground and premises to the said party of 12 the second part, as Effect, Inc., a Delaware corporation its successors and/or assigns in fee simple.

**AND** the said party of the first part does hereby covenant that he has not done or suffered to be done any act, matter or thing whatsoever, to encumber the property hereby conveyed; that he will warrant specially the property hereby granted; and that he will execute such further assurances of the same as may be requisite.

747-0727-0975 IREDAIENS ARE PAID AS COUNTY BY:

03/23/22 11:52 AM C 0001 R 0003 Val #: 0003-265226 \$280.00 County Transfer Tax

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Recordation

Deed -

Instrument Type: Deed

WITNESS the hand and seal of the said party of the first part:

WITNESS:

Frank Ruff (SEAL) , CITY/COUNTY OF AMAR ANUNAL STATE OF II JONY AND to wit: I HEREBY CERTIFY, that on this subscriber, a Notary Public of the , 20 22, before me, the March \_day of \_ subscriber, a Notary Public of the State of Maryland, in and for  $(M_{M})$ County/City, personally appeared Frank Ruff known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument and acknowledged the foregoing Deed to be his act, and in my UNITED OF A COMMISSION AND A COMMISSION presence signed and sealed the same. IN WITNESS WHEREOF, I hereunto set my hand and official seal:

**Notary Public** 

My Commission Expires:

#### ATTORNEY CERTIFICATION

This is to certify that the within instrument was prepared under the supervision of an Attorney duly admitted to practice before the Court of Appeals in the state of Maryland.

Deborah Kennedy, Esq.

MARYLAND FORM WH-AR	Certification of Exemption Disposition of Maryland R Residence or Principal Re	n from Withhole leal Estate Affi esidence	ding Upon davit of	2022
Based on the of from the tax w General Article provides that c when a deed of	certification below, Transferor of withholding requirements of §10 , Annotated Code of Maryland. ertain tax payments must be wit or other instrument that effect	claims exemption 0-912 of the Tax- Section 10-912 chheld and paid	in ownership of real property is presented requirements of §10-912 do not apply when a certification of Maryland residence or transferred property is the transferor's princi	for recordation. The a transferor provides certification that the pal residence
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2. Descriptio	n of Property (Street address. If	no address is avai	able, include county, district, subdistrict and lot	numbers.)
3692 Eight	th Avenue, Edgewater MD			
3. Reasons fo	or Exemption			
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Under p knowled	enalty of perjury, I certify t ge, it is true, correct, and (	hat I have exan complete.	nined this declaration and that, to the b	est of my
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** Form must b	be dated to be valid.			
Note: Form is Court.	only valid if it was executed on the	ne date the Proper	ty was transferred and is properly recorded with	the Clerk of the
To the Clerk o 01/22	of the Court: Only an un-altered Fo	orm WH-AR should	be considered a valid certification for purposes of	Section 10-912.

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ANNE ARUNDEL COUNTY CIRCUIT COURT (Land Records) SAP 38521, p. 0350, MSA\_CE59\_38963. Date available 03/30/2022. Printed 10/25/2023.

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BOOK: 38521	<b>PAGE: 351</b>
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# **VARIANCE APPLICATION**

Stormwater Management Report 3692 Eighth Ave, Edgewater, MD 21037 G020\*\*\*\*\*

**Prepared for:** 

Effect Inc 1350 Beverly Rd, Suite 115-316 McLean, VA 22101



William Bower, PE, PLS MDPE#58591 MDPLS#21589

# Prepared by:

Atwell, LLC 2661 Riva Rd, Bldg 800 Annapolis, MD 21401

July 5, 2024



# **VARIANCE APPLICATION**

Stormwater Management Report

# TABLE OF CONTENTS

1.0	Existing	g Conditions	3
	1.1	Site description	3
	1.2	Environmental Features	3
	1.3	Site outfall(s)	4
2.0	Enviror	nmental Site Design	4
	2.1	Concept design	4
	2.2	ESD <sub>v</sub> Narrative	4
	2.3	ESD <sub>v</sub> computations	6-17
3.0	Quanti	tative analysis	18
	3.1	Channel Protection Volume (CP <sub>v</sub> )	18
	3.2	Overbank Flood Protection Volume $(Q_p)$	18
	3.3	Extreme Flood Volume (Q <sub>f</sub> )	18

# APPENDICES

Α.	TR-55	Analysis
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19-28

#### 1.0 EXISTING CONDITIONS

#### 1.1 SITE DESCRIPTION

The subject property is rectangular in shape, is roughly 0.10 Ac in area, and is a corner lot, fronting on both Eighth Ave & Hillside Ave in the community of Selby on the Bay. The property is currently unimproved. It is mapped within the R5 zoning district and is not within the Chesapeake Bay Critical Area or any other overlay district. The property was created by plat, recorded in the plat records of Anne Arundel County (Book: 9, Pg: 5) on October 8, 1932, and therefore is a buildable lot. The property is identified as Lot 98 on the Selby on the Bay, Plat No. 8. The property is served by public sewer and a private well.

The property is stabilized with vegetation. The property is sloped from the highpoint at the northern property corner to the low point at the southern property corner, where the rear lot line intersects with the Hillside Ave road right-of-way. The average slope across the property is roughly 10%

#### 1.2 ENVIRONMENTAL FEATURES

First, the resource mapping of the site was completed.

- (a) **Primary Environmental Features identified on-site:** 
  - (i) Streams There are no streams on the subject property.
  - (ii) Stream Order There are no streams on the subject property.
  - (iii) Stream Buffers There are no stream buffers on the subject property.
  - (iv) **Wetlands & Wetland Buffers** There are no wetlands or wetland buffers present on site.
  - (v) **Floodplain** There are no mapped floodplains that affect the site.
  - (vi) **Steep Slopes** There are no steep slopes or steep slope buffers affecting the subject property.
- (b) Secondary Environmental Features identified on-site:
  - (i) **Critical Area** The subject property is not located within the Chesapeake Bay Critical Area.
  - (ii) Soils The soils types and corresponding hydrologic soil groups were mapped and tallied based on the available information from US Department of Agriculture's Natural Resource Conservation Service (NRCS). The soils are predominantly mapped as HSG type-A and Type-C soils.
  - (iii) Forests The property has no forested area on-site.
  - (iv) **Cultural Resources** There are no known cultural or historic resources on he property. There is no visible evidence of cemetaries.
  - (v) **Miscellaneous** No miscellaneous or unusual topographic features are known to exist on-site.

#### 1.3 SITE OUTFALL(S)

There is one existing site outfall:

• Site Outfall #1 is located along the southern property line. Runoff exits the site as shallow, concentrated flow, discharging onto the unimproved property to the south. There are no signs of flooding, sedimentation, or erosion at the Site Outfall

#### 2.0 ENVIRONMENTAL SITE DESIGN

#### 2.1 CONCEPT DESIGN

With no sensitive environmental features on-site the primary goal of stormwater management will be to capture and treat the impervious runoff from the site, and to allow for maximum percolation of runoff into the HSG-A type soils. Due to the 10% average slopes on-site, disconnections would be problematic. However, the low portion of the site, along Hillside Ave, has a longitudinal slope of about 4%, which through grading will allow for the construction of a small bio-swale. To ameliorate velocity in the swale, stone check dams shall be installed. The check dams will slow the runoff, promote ponding and infiltration, and will reduce runoff from the site.

#### 2.2 ESD<sub>v</sub> NARRATIVE

The overall concept for stormwater management is to utilize an interconnected series of disconnections and micro-scale practices to achieve management of the target rainfall depth ( $P_E$ ) and associated volume (ESD<sub>V</sub>). Through site fingerprinting, the sensitive environmental features identified in Section 2.1 of this report shall remain undisturbed. The property owner proposes to construct a new single-family dwelling. Accessory residential site amenities such a driveway is proposed to serve the new dwelling. The soils on-site are classified as HSG-A soils; therefore, pervious pavers are proposed to treat the runoff from the driveway, & a bioswale is proposed to treat runoff from the dwelling. The following is a summary of all ESD Practices that were considered for the proposed development, and the reasons why the practices were or were not utilized.

#### A. Alternative surfaces:

- Green Roofs shall not be utilized, as they are not included in the architectural design.
- **Pervious pavements** shall be utilized for the proposed development. The soils on-site are predominantly mapped as HSG Type-A soils.
  - B. Non-Structural Practices:
- The Disconnection of Rooftop Runoff shall not be provided as the average slope is too great for disconnections.
- The Disconnection of Non-Rooftop Runoff shall not be provided as the average slope is too great for disconnections..
- **The Sheetflow to Conservation Areas** shall not be utilized, as there are no conservation easements on the subject property, and none are proposed.
  - C. Micro-Scale Practices:

- **Rainwater Harvesting** shall not be utilized as a management practice for this site. No grey water reuse is proposed for this single-family residential project. Filters and infiltration devices are more appropriate.
- **Submerged gravel wetlands** shall not be utilized as the soils on-site are relatively permeable, especially at depths greater than two feet. SWM filters and infiltration devices would be more appropriate.
- Landscape infiltration was considered for this project, but was not utilized. The slopes onsite are generally not conducive to a traditional filter, as excessive grade manipulation would be necessary to implement this type of device.
- **Infiltration berms** were not considered for this project, as the surface soil layer is not conducive to infiltration, and impounding impervious runoff near a residential dwelling is not an acceptable design varient.
- **Drywells** shall be utilized in areas where the natural soils are conducive to their use, primarily managing rooftop runoff from the new dwelling.
- **Micro-Bioretention** was considered for this project, but was not utilized. The slopes on-site are generally not conducive to a traditional filter, as excessive grade manipulation would be necessary to implement this type of device.
- **Rain Gardens** was considered for this project, but was not utilized. The slopes on-site are generally not conducive to a traditional filter, as excessive grade manipulation would be necessary to implement this type of device.
- **Swales** shall be utilized for SWM, the grades along the Hillside Ave ROW are conducive to providing a bio-swale, with check dams to control velocities and maximize ponding.

The concept of converting filtration devices to **enhanced filters** shall be utilized. Six inches of stone shall be provided at the bottom of the device to meet recharge volume obligations, and to provide additional storage for Overbank Flood Protection ( $Q_P$ ) obligations.

In conclusion, it is our opinion that the proposed design represents the best solution to overcome the unique complexities inherent in the subject property. Our primary environmental concern is protecting the existing site outfall and downstream properties. First, we sited the proposed improvements at the high point of the property, as close to Eighth Ave as possible. Next, we graduated to analyzing our stormwater management options. In considering stormwater management, due to the HSG-A soils, pervious pavement shall be utilized for the driveway. A bio-swale shall provide treatment of the runoff from the rooftop. Therefore, we feel that the proposed design minimizes the development footprint; maximizes groundwater recharge; captures and treats stormwater runoff to remove non-point pollution; restores, enhances, and maintains the chemical, physical, and biological integrity of receiving waters; protects public health; and enhances domestic, municipal, recreational, industrial, and other uses of water as specified by MDE.

#### 2.3 ESD<sub>v</sub> COMPUTATIONS

Environmental Site Design requirements for the proposed development was computed in accordance with Article 16, Title 4 of the Anne Arundel County Code, COMAR 26.17.02, and the Maryland Stormwater Design Manual, Volumes I & II.

Soils in the development area have a types A, & C hydrologic classifications; the Target RCN for "woods in good condition" is 46. The proposed imperviousness for the development area is 18%. Utilizing Table 5.3 from the State Manual, a target rainfall depth ( $P_E$ ) of 1.4" and a target runoff depth ( $Q_E$ ) of 0.31" were determined. From these initial computations, a minimum Environmental Site Design Volume (ESD<sub>V</sub>) of 110 c.f. of runoff would need to be managed, of which 30 c.f. would need to be Recharge Volume (Re<sub>V</sub>).

Qualitative stormwater management shall be achieved through alternative surfaces and micro-scale practices. Pervious pavement shall be utilized to reduce impervious surfaces, and to provide infiltration of runoff. A bio-swale shall provide treatment of runoff from the dwelling. The pervious pavement provides 73 cf of qualitative management. The Bio-swale is designed with a 4% longitudinal slope, a 2ft bottom width, and a 2ft filter media depth. Stone check dams will assist with velocity amelioration and to promote ponding, infiltration and sediment removal.

Designer:	WB	Date: July 5, 2024	Checked By:	Date:	
Title:	3692 8th /	Ave, Edgewater	Job No.:		
Subject:	ESD Desi	gn		Sheet No.	of

#### Study Data:

Location: 3692 8th	Ave,	Edgewater, MD	)				
County: Anne Ar	undel						
Site Area:		4,375 sf	or	0.1 /	Ac.		
Study Area (A):		4,375 sf	or	0.1 /	Ac.		
Soils: HSG 'A'	' =	3,605 sf	or	0.083 /	Ac.	or	82 % of Site
HSG 'B'	' =	0 sf	or	0 /	Ac.	or	0 % of Site
HSG 'C	=	770 sf	or	0.02 /	Ac.	or	18 % of Site
HSG 'D'	' =	0 sf	or	0 /	Ac.	or	0 % of Site
Hard Surfaces	=	1,201 sf	or	0.03 /	Ac.	T	
Alternative Surfaces	=	396 sf	or	0.01 /	Ac.	MDE	, Chapter 5, Section 5.3
Disconnections	=	0 sf	or	0.00 /	Ac.	MDE	, Chapter 5, Section 5.4.2
Impervious Surfaces							
Requiring Treatment	=	805 sf	or	0.02 /	Ac.	1	

#### Step 1: Determine ESD Implementation Goals

#### A. Determine Pre-Developed Conditions:

Soil Conditions and RCNs for "woods in good condition"

HSG	RCN*	Area	Percent
А	38	0.08 Ac.	82.40
В	55	0.00 Ac.	0.00
С	70	0.02 Ac.	17.60
D	77	0.00 Ac.	0.00

\* RCN for "woods in good condition" (Table 2-2, TR-55)

\*\* Actual RCN is less than 30, use RCN = 38

#### Composite RCN for "woods in good condition"

RCN<sub>woods</sub> = [(38x0.08ac)+(55x0.00ac)+(70x0.02ac)+(77x0.00ac)] / 0.10ac

 $RCN_{woods} = 46$ 

Target RCN for "woods in good condition" =

#### B. Determine Target P<sub>E</sub> Using Table 5.3

P<sub>E</sub> = Rainfall used to size ESD practices

#### Proposed imperviousness (%I)

IART (as measured from site plan):805 sffrom Site Data Table, above%I=Impervious Area / Drainage Area=805sf / 4,375sf=18.4 %=18.%

#### - Determine $P_E$ from Table

Hydrologic Soil Group 'A'										
%I	RCN*	P <sub>E</sub> = 1"	1.2"	1.4"	1.6"	1.8"	2.0"	2.2"	2.4"	2.6"
0%	40			<b></b>						
5%	43									
10%	46									
15%	48	38								
20% -	51	40	38	38						
25%	54	41	40	39						
30%	57	42	41	39	38					
35%	60	44	42	40	39					
40%	61	44	42	40	39					
45%	66	48	46	41	40					
50%	69	51	48	42	41	38				
55%	72	54	50	42	41	39				
60%	74	57	52	44	42	40	38			
65%	77	61	55	47	44	42	40			
70%	80	66	61	55	50	45	40			
75%	84	71	67	62	56	48	40	38		
80%	86	73	70	65	60	52	44	40		
85%	89	77	74	70	65	58	49	42	38	
90%	92	81	78	74	70	65	58	48	42	38
95%	95	85	82	78	75	70	65	57	50	39
100%	98	89	86	83	80	76	72	66	59	40



Use  $P_E = 1.4$  inches of rainfall as the target for ESD implementation

Hydrologic Soil Group 'B'											
%I	RCN*	P <sub>E</sub> = 1"	1.2"	1.4"	1.6"	1.8"	2.0"	2.2"	2.4"	2.6"	
0%	61										
5%	63										
10%	65										
15%	67	55									
20%	68	60	55	55							
25%	70	64	61	58							
30%	72	65	62	59	55						
35%	74	66	63	60	56						
40%	75	66	63	60	56						
45%	78	68	66	62	58						
50%	80	70	67	64	60						
55%	81	71	68	65	61	55					
60%	83	73	70	67	63	58					
65%	85	75	72	69	65	60	55				
70%	87	77	74	71	67	62	57				
75%	89	79	76	73	69	65	59				
80%	91	81	78	75	71	66	61				
85%	92	82	79	76	72	67	62	55			
90%	94	84	81	78	74	70	65	59	55		
95%	96	87	84	81	77	73	69	63	57		
100%	98	89	86	83	80	76	72	66	59	55	

Use  $P_E = 1.0$  inches of rainfall as the target for ESD implementation

Hydrologic Soil Group 'C'										
%I	RCN*	P <sub>E</sub> = 1"	1.2"	1.4"	1.6"	1.8"	2.0"	2.2"	2.4"	2.6"
0%	74									
5%	75									
10%	76	1								
15%	78									
20% ——	79	<b>→</b> 70								
25%	80	72	70	70						
30%	81	73	72	71						
35%	82	74	73	72	70					
40%	84	77	75	73	71					
45%	85	78	76	74	71					
50%	86	78	76	74	71					
55%	86	78	76	74	71	70				
60%	88	80	78	76	73	71				
65%	90	82	80	77	75	72				
70%	91	82	80	78	75	72				
75%	92	83	81	79	75	72				
80%	93	84	82	79	76	72				
85%	94	85	82	79	76	72				
90%	95	86	83	80	77	73	70			
95%	97	88	85	82	79	75	71			
100%	98	89	86	83	80	76	72	70		
Use P <sub>E</sub> =	1.0 inches of	rainfall as the tar	get for	ESD ir	npleme	entatio	า			
		Hydrologic	Soil G	roup 'I	)'					
%I	RCN*	P <sub>E</sub> = 1"	1.2"	1.4"	1.6"	1.8"	2.0"	2.2"	2.4"	2.6"
0%	80									
5%	81									
10%	82									
15%	83									
20%	84	77								
25%	85	78								
30%	85	78	77	77						
35%	86	79	78	78						
40%	87	82	81	79	77					
45%	88	82	81	79	78					
50%	89	83	82	80	78					
55%	90	84	82	80	78					
60%	91	85	83	81	78					
65%	92	85	83	81	78					
70%	93	86	84	81	78					
75%	94	86	84	81	78					
80%	94	86	84	92	79					
85%	95	86	84	82	79					
0.001		<b>0</b> -				77				
90%	96	87	84	82	79	11				
90% 95%	96 97	87 88	84 85	82 82	79 80	78 78				

Use  $P_E = 1.0$  inches of rainfall as the target for ESD implementation

#### Compute Composite P<sub>E</sub>:

HSG	Area	Target P <sub>E</sub>	N	et P <sub>E</sub>
Α	0.08 ac	1.4	0.08 ac x 1.40 / 0.10 ac =	1.2
В	0.00 ac	1.0	0.00 ac x 1.00 / 0.10 ac =	0.0
С	0.02 ac	1.0	0.02 ac x 1.00 / 0.10 ac =	0.2
D	0.00 ac	1.0	0.00 ac x 1.00 / 0.10 ac =	0.0
			Composite P <sub>E</sub> =	1.4

#### C. Compute Q<sub>E</sub>:

Q<sub>E</sub> = Runoff depth used to size ESD practices

 $Q_E = P_E * R_V$  , where:

 $P_{E} = 1.4 \text{ in } (from above)$   $R_{V} = 0.05 + (0.009)(I); I = 18.40 \%$   $= 0.05 + 0.009 \times (18.40)$  = 0.22  $Q_{E} = 1.4 " \times 0.22$  = 0.31 inches

#### ESD Target for the Project

 $P_E = 1.4$  Inches composite  $P_E$ , from above  $Q_E = 0.31$  Inches

D. Compute Minimum ESD<sub>V</sub> & Re<sub>V</sub> for Site: Required Environmental Site Design Volume (ESD<sub>V</sub>) for Drainage Area:

$$ESD_{V} = [(P_{E}) \times (R_{V}) \times (LOD)]/12$$

$$P_{E} = 1.4 \text{ in.} (Composite P_{E}, from above)$$

$$R_{V} = 0.22 (from Q_{E}, above)$$
Study Area (A) = 4,375 sf or 0.1 ac (from Site Tabs)
$$Target ESD_{V} = [(1.40 \text{ in.}) \times (0.22) \times (4,375 \text{ sf})]/12 =$$

$$= 110 \text{ cf}$$

Required Minimum Recharge Volume (Re  $_{\nu})$  for Site:

$$Re_V = [(S) x (R_V) x (LOD)]/12$$

Where:

Composite 'S' =	HSG	Area	<b>Recharge Factor</b>	•	Net 'S'
	Α	0.08 ac	0.42	0.08 ac x 0.42 / 0.10 ac	0.35
	В	0.00 ac	0.29	0.00 ac x 0.29 / 0.10 ac	0.00
	С	0.02 ac	0.14	0.02 ac x 0.14 / 0.10 ac	0.03
	D	0.00 ac	0.08	0.00 ac x 0.08 / 0.10 ac	0.00
				Composite 'S'	= 0.38
	$R_V$ =	0.22 from	n ESD <sub>V</sub> , above		
Study Area	(A) =	4,3	75 sf or 0.1	1 ac (from Site Tabs)	
Min. I	Rev =	[(0.38) x (	0.22) x (4,375)] /12	2	
	=	30	cf		

### Alternative Surfaces:

A-1	ESD	Practice A-1	<b>Green Roof</b>								
	Sub-	Surface			Surface						
	DA #	Description	DA	Thickness	Area	RCN	ESD <sub>∨</sub> /f	ť	$P_E$		$ESD_V$
	A-1A	Garage	0 sf	4 in.	0 sf	88	0.077	7	1.0		0 cf
			sf	3 in.	sf	92	0.050	)	0.6		0 cf
			sf	4 in.	sf	88	0.077	7	1.0		0 cf
		Totals:	0 sf		0 sf				1.0 in		0 cf
							Effective	RCNf	from Tab	le 5.5	5, p. 5.48 (MDE)
A-2	ESD	Practice A-2	Permeable F	avement							., , ,
A-2	ESD Sub-	Practice A-2 Surface	Permeable F	<b>Pavement</b> Subbase	Surface						
A-2	ESD Sub- DA #	Practice A-2 Surface Description	Permeable F	Pavement Subbase Depth	Surface Area	HSG	RCN	ESD	√/ft <sup>2</sup>	P <sub>E</sub>	ESD <sub>V</sub>
A-2	ESD Sub- DA # A-2A	Practice A-2 Surface Description Driveway	Permeable F DA 396 sf	<b>Pavement</b> Subbase Depth 9 in.	Surface Area 396 sf	HSG A	RCN 62	ESD <sub>1</sub> 0.18	√/ft <sup>2</sup>	P <sub>E</sub> 2.3	ESD <sub>V</sub> 73 cf
A-2	ESD Sub- DA # A-2A	Practice A-2 Surface Description Driveway	Permeable F DA 396 sf sf	Subbase Depth 9 in. 12 in.	Surface Area 396 sf sf	HSG A B	RCN 62 55	ESD\ 0.18 0.19	√/ft <sup>2</sup> 83 2 96 2	P <sub>E</sub> 2.3 2.5	ESD <sub>V</sub> 73 cf 0 cf
A-2	ESD Sub- DA # A-2A	Practice A-2 Surface Description Driveway	Permeable F DA 396 sf sf sf	Subbase Depth 9 in. 12 in. 6 in.	Surface Area 396 sf sf sf	HSG A B C	RCN 62 55 93	ESD 0.18 0.19 0.04	√/ft <sup>2</sup> 83 2 96 2 43 0	P <sub>E</sub> 2.3 2.5 ).5	ESD <sub>V</sub> 73 cf 0 cf 0 cf
A-2	ESD Sub- DA # A-2A	Practice A-2 Surface Description Driveway Totals:	Permeable F DA 396 sf sf 396 sf	Subbase Depth 9 in. 12 in. 6 in.	Surface Area 396 sf sf 396 sf	HSG A B C	RCN 62 55 93	ESD 0.18 0.19 0.04	√/ft <sup>2</sup> 83 2 96 2 43 0	P <sub>E</sub> 2.3 2.5 ).5 <b>2.3</b>	ESD <sub>V</sub> 73 cf 0 cf 0 cf <b>73 cf</b>

M-6	ESD Practice M-8 Bio	o-Swale	
	Contributing Drainage Are	a (DA) =	= 2,100 sf or 0.05 Ac.
	Impervious Surfaces	sin DÁ =	= 1.255 sf or 0.03 Ac.
	%I = 1.255 sf / 2.7	100 sf =	= 60 %
	Minimum Surface Area (A	f) =	= 2% of contributing DA
	2 100 sf	v002 =	= 42 sf MINIMIM
	Surface Ar		
	ESD Concont Dosign I	Ectimato	
	ESD <sub>v</sub> concept besign		
		$ESD_V =$	$= [(P_E) \times (R_V) \times (DA)]/12$
	where:	P <sub>E</sub> =	= 15 in x (A <sub>f</sub> /DA) <i>(Eqn. 5.2, MDE)</i>
		=	<u>15 in x (100 s</u> f / 2,100 sf)
		P <sub>E</sub> =	• 0.71 in. (Concept Design Estimate)
		R <sub>v</sub> =	$= 0.05 + (0.009 \times \%)$
		=	$= 0.05 + (0.009 \times 60\%)$
		=	= 0.59
		ESD <sub>v</sub> =	 = (0.71 in. x 0.59 x 2.100 sf) / 12
		====	<b>73 cf</b> (Concent Design Estimate)
		Rev =	$= I(S) \times (B_{-}) \times (DA) I/12 \text{ if } B_{-} > S$
		- von	$= 103 \times (100) \times (100) = 12 \times 100 = 100$
		Rev -	$= [(0.36) \times (0.59) \times (2,100 \text{ st})]/12 =$
		=	= <u>39 CT</u>
	Maximum Allowable	$= ESD_{V} =$	= (2.7in. x 0.59 x 2,100 st) / 12
		=	<b>279 Cf</b> based on 1yr design storm
	ESD <sub>v</sub> ba	sed on v	olume stored
	Bio-Swale	e Design	:
	Longitudinal	Slope =	= 4 %
	Bottom	Width =	= 2 ft
	I	Length =	= 50 ft
	Filter Media	Depth =	= 2.25 ft (planting soil + 3" mulch)
	Pea Gravel	Depth =	= 0.50 ft (6" of #8 gravel)
	Media Po	orosity =	
	Media Storage V	olume =	$= [100 \text{sf x} (2.25 \text{ft.} + 0.50 \text{ft.} \times 0.4]$
	Ponding storage no	= r colli	
	Ponding Storage pe	Donth -	- 0.50 ft
	Average	Depth =	- 0.25 ft
	Cell	lenath =	= 12.50 ft
	Number o	of Cells =	= 4 00 ea
	Side S	Slopes =	= 3:1
	Max. Water Surface	e Area =	= 40 sf
	Ponding Storage V	olume =	= [(40sf + 25sf /2) x 0.25ft.]
	5 5	=	8 cf per cell
			32 cf total
	Total Storage pro	vided =	110cf + 32cf
		=	= 142 cf
	P <sub>E</sub> Pro	vided =	$= \overline{(ESD_V \times 12)/(R_V \times DA)}$ Based on ESD <sub>V</sub> stored
	_	=	= (142cf x 12)/(0.59 x 2,100sf)
		=	<b>1.38 in.</b>
		wided -	= <u>142 cf</u>
		wided =	

M-9	ESD Practice M-9 Enhanced	d Fil	ter		
	Enhanced Filter Area	=	100 sf		
	Enhanced Filter Depth	=	0.5 ft	(#2 Gravel)	
	Gravel Porosity	=	0.4		
	Storage Provided	=	20 cf		
	P <sub>E</sub> Provided	= (	(ESD <sub>v</sub> x 12)/(	(R <sub>v</sub> x DA)	Based on storage provided
		= (	(20cf x 12)/(0.	.59 x 2,100s	f)
		=	0.19 in.		
	ESD <sub>v</sub> Provided	=	20 cf	(Combined ES 279cf)	DV of filter + enhanced filter cannot exceed

Microscale & Non-Structural Practices							
DA #	ESD Practice	DA	$ESD_{V}$	Re <sub>v</sub>	P <sub>E</sub> Value	Q <sub>P</sub> Storage	Total Storage
Α	Permeable Pavement	396 sf	73 cf	73 cf	2.30 in.	0 cf	73 cf
В	Bio-Swale	2,100 sf	142 cf	39 cf	1.38 in.	0 cf	142 cf
В	Enhanced Filter	2,100 sf	0 cf	20 cf	0.19 in.	20 cf	20 cf
	Prov	vided Totals:	215 cf	132 cf		20 cf	235 cf
		Targets:	110 cf	30 cf	1.4 in.		
	P <sub>E</sub> Achieved = (12	x ESD <sub>v</sub> )/(R <sub>v</sub> :	x A) =	(12 x 215	cf) / (0.22	x 4,375sf)	= 2.7 in.

# <u>Step 2:</u> <u>Determine Stormwater Management Requirements after using ESD</u> A. Calculate Reduced RCN

-	Determine reduced RCN from Table 5.3

	Hydrologic Soil Group 'A'									
%I	RCN*	P <sub>E</sub> = 1"	1.2"	1.4"	1.6"	1.8"	2.0"	2.2"	2.4"	2.6"
0%	40			1						
5%	43									
10%	46									
15%	48	38		•						
20% ——	51	<b>→</b> 40	38	38						
25%	54	41	40	39						
30%	57	42	41	39	38					
35%	60	44	42	40	39					
40%	61	44	42	40	39					
45%	66	48	46	41	40					
50%	69	51	48	42	41	38				
55%	72	54	50	42	41	39				
60%	74	57	52	44	42	40	38			
65%	77	61	55	47	44	42	40			
70%	80	66	61	55	50	45	40			
75%	84	71	67	62	56	48	40	38		
80%	86	73	70	65	60	52	44	40		
85%	89	77	74	70	65	58	49	42	38	
90%	92	81	78	74	70	65	58	48	42	38
95%	95	85	82	78	75	70	65	57	50	39
100%	98	89	86	83	80	76	72	66	59	40

Use RCN = 38

		Hydrologic	Soil G	roup 'E	3'					
%I	RCN*	P <sub>E</sub> = 1"	1.2"	1.4"	1.6"	1.8"	2.0"	2.2"	2.4"	2.6"
0%	61									
5%	63									
10%	65									
15%	67	55								
20%	68	60	55	55						
25%	70	64	61	58						
30%	72	65	62	59	55					
35%	74	66	63	60	56					
40%	75	66	63	60	56					
45%	78	68	66	62	58					
50%	80	70	67	64	60					
55%	81	71	68	65	61	55				
60%	83	73	70	67	63	58				
65%	85	75	72	69	65	60	55			
70%	87	77	74	71	67	62	57			
75%	89	79	76	73	69	65	59			
80%	91	81	78	75	71	66	61			
85%	92	82	79	76	72	67	62	55		
90%	94	84	81	78	74	70	65	59	55	
95%	96	87	84	81	77	73	69	63	57	
100%	98	89	86	83	80	76	72	66	59	55

Use RCN = <u>55</u>

ATWELL LLC

		Hydrologic	Soil G	roup 'O	)'					
%I	RCN*	P <sub>E</sub> = 1"	1.2"	1.4"	1.6"	1.8"	2.0"	2.2"	2.4"	2.6"
0%	74									
5%	75									
10%	76									
15%	78	•								
20%——	79	<b>→</b> 70								
25%	80	72	70	70						
30%	81	73	72	71						
35%	82	74	73	72	70					
40%	84	77	75	73	71					
45%	85	78	76	74	71					
50%	86	78	76	74	71					
55%	86	78	76	74	71	70				
60%	88	80	78	76	73	71				
65%	90	82	80	77	75	72				
70%	91	82	80	78	75	72				
75%	92	83	81	79	75	72				
80%	93	84	82	79	76	72				
85%	94	85	82	79	76	72				
90%	95	86	83	80	77	73	70			
95%	97	88	85	82	79	75	71			
100%	98	89	86	83	80	76	72	70		

Use RCN = 70

	Hydrologic Soil Group 'D'									
%I	RCN*	P <sub>E</sub> = 1"	1.2"	1.4"	1.6"	1.8"	2.0"	2.2"	2.4"	2.6"
0%	80									
5%	81									
10%	82									
15%	83									
20%	84	77								
25%	85	78								
30%	85	78	77	77						
35%	86	79	78	78						
40%	87	82	81	79	77					
45%	88	82	81	79	78					
50%	89	83	82	80	78					
55%	90	84	82	80	78					
60%	91	85	83	81	78					
65%	92	85	83	81	78					
70%	93	86	84	81	78					
75%	94	86	84	81	78					
80%	94	86	84	92	79					
85%	95	86	84	82	79					
90%	96	87	84	82	79	77				
95%	97	88	85	82	80	78				
100%	98	89	86	83	80	78	77			

Use RCN = 77

#### Compute Composite RCN:

HSG	Area	RCN	Adjusted RC	CN
Α	0.08 ac	38	0.08 ac x 38 / 0.10 ac = 32	2
В	0.00 ac	55	0.00 ac x 55 / 0.10 ac = 0	
С	0.02 ac	70	0.02 ac x 70 / 0.10 ac = 14	4
D	0.00 ac	77	0.00 ac x 77 / 0.10 ac = 0	
			Composite RCN = 46	6

Calculate  $Cp_V$  using design  $P_E = 2.7$  in. (RCN 46)

 $Cp_V = Q_1 \times A$ 

Where:  $Q_{1} = \frac{[P-(0.2S)^{2}]}{[P+(0.8S)]} \text{ Eqn. 2-3, TR-55, USDA NRCS 1986}$  P = 2.7 in. (Table 2.2)  $S = (1000/RCN) - 10 \quad (Eqn. 2-4, TR-55)$  = (1000/46) - 10 = 11.74  $Q_{1} = \frac{[2.7-(0.2 \times 11.7)]^{2}}{[2.7+(0.8 \times 11.7)]} = \frac{0.124}{12.09} = 0.01 \text{ in.}$  A = 4,375 sf

 $Cp_V = 0.01$  in. x 4,375 sf

= 0.00 cf ESD to the MEP has been met

Cp<sub>V</sub> Storage Requirements for: 3692 8th Ave, Edgewater, MD

Rainfall (P <sub>E</sub> )		Additional C	p <sub>V</sub> Required	Notes:
		ac-ft	ft <sup>3</sup>	
P <sub>E</sub> <u>&gt;</u>	1.4 in.	0	0	Target P <sub>E</sub> for RCN = woods
P <sub>E</sub> =	2.7 in.	0	0	

### 3.0 QUANTITATIVE ANALYSIS

#### 3.1 CHANNEL PROTECTION VOLUME (CPv)

Management of the Channel Protection Storage Volume ( $Cp_V$ ) is not necessary, as the nonstructural credit and interconnected micro-scale practices manage the target  $P_E$ , and therefore channel protection obligations are met through the Reduced Runoff Curve number Method.

#### 3.2 OVERBANK FLOOD PROTECTION VOLUME (QP)

Management of the Overbank Flood Protection Volume  $(Q_P)$  is provided. A small amount of additional stone storage is provided in the enhanced filter to meet adequate outfall requirements. Additionally, the Site Outfall is stable and shows no sign of flooding, sedimentation, or erosion.

#### 3.3 EXTREME FLOOD VOLUME (Q<sub>F</sub>)

Management of the Extreme Flood Volume  $(Q_F)$  is not necessary. All Site Outfalls are adequate, and no floodplains exist downstream of the site. Additionally, all Site Outfalls are stable and show no signs of flooding, sedimentation, or erosion.

# **APPENDIX A**

# **TR-55 Worksheets**

Existing Condition

## Worksheet 2: Runoff curve number and runoff

Project	3692 8th Ave, Edgewater	By_	WB	Date	7/5/2024
Location	Anne Arundel County	Checked	WB	Date	7/5/2024
	Existing Conditions			Site Outfall	

#### 1. Runoff Curve Number (CN)

Soil name and hydrologic group	Cover Description		CN			Area	Product of CN x area
			e 2-2 . 11-8	re 2-3	re 2-4		
(Appendix A)	No.		Tabl Appx.	Figu	Figu	(SQ.FT.)	
А	93	Lawn	39			3605	140595
С	93	Lawn	74			770	56980
				Tota	als =	4,375	197,575
						0.00016	mi <sup>2</sup>

CN (weighted) = total product / total area = 197575 / 4375 = 45.2 Use CN = 45

2. Runoff

Frequency	•
Rainfall, P (24-hour)	ו
Runoff, Q = (P-0.2S) <sup>2</sup> /(P+0.8S) I S=(1000/CN)-10	n

Storm #1	Storm #2	Storm #3
1	10	100
2.7	5.2	7.4
0.01	0.51	1.43

	Project	3692 8th Ave, Edgewater	By	WB		Date	7/5/2024
	Location	Anne Arundel County	Checked	WB		Date	7/5/2024
		Existing Conditions			Sit	te Outfall	
						0	
ΝΟΤΙ	ES: Space for a Include a ma	is many as two segments per flo ap, schematic, or description of	ow type can be u flow segments	sed for ea	ch wo	rksheet.	
<u>Shee</u>	<u>t flow</u> (Ap	plicable to T <sub>c</sub> only)	Segment ID	A-B			
1.	Surface descri	otion (table 3-1)	5	Grass - short	0		
2.	Manning's roug	hness coeff., n (table 3-1)		0.15			
3.	Flow Length, L	(total L<= 100 ft)	ft	100			
4.	Two-Year 24-h	r rainfall, P <sub>2</sub>	in	3.2			
5.	Land Slope, s		ft / ft	0.07	_		
6.	$T_t = 0.007(nL)^{\circ}$	$P_2^{0.8} / P_2^{0.5} s^{0.4}$	hr	0.099	+	=	0.099
<u>Shall</u>	ow concentrated	<u>l flow</u>	Segment ID				
7.	Surface Descri	ption: paved (P) or unpaved (U	)?				
8.	Flow Length, L		ft				
9.	Watercourse s	lope, s	ft / ft				
10.	Average veloci	ty, V (figure 3-1)	ft / sec		_		
11.	$T_t = L / 3600V$		hr		+	=	0.000
Chan	nel flow		Segment ID				
	a. Assumed Q	:	<u> </u>				
	b. Pipe (P) or	Channel (C) ?					
	c. If pipe, ente	r D (in):					
	d. If channel, e	enter bottom width:					
	e. if channel, e	enter side slope 1 (_:1):					
	f. If channel, e	nter side slope 2 (_:1):					
	g. channel dep	th (ft)					
12.	Cross sectiona	l flow area, a	sq ft				
13.	Wetted perime	ter, wp	ft				
14.	Hydraulic radiu	is, r = a / wp	ft				
15.	Channel slope,	, S	ft / ft				
16.	Manning's roug	ghness coeff., n					
17.	V = 1.49 r <sup>0.67</sup> s	<sup>0.5</sup> / n	ft / sec				
18.	Flow length, L		ft				
19.	T <sub>t</sub> = L / 3600V		hr		+	=	0.00
20.	Watershed or s	subarea $T_c$ or $T_t$ (add $T_t$ in steps	6, 11, 19)			hr	0.10

# Worksheet 3: Time of concentration (T $_{c}$ ) or travel time (T $_{t}$ )

Project	3692 8th Ave, Edgev	vater	Ву	WB	Date	7/5/2024
Location	Anne Arundel Cou	nty	Checked	WB	Date	7/5/2024
	Existing Condition	าร			Site Outfa	II
					0	
1.	Data:					
	Drainage Area A <sub>m</sub>	= 0.00016	sq mi			
	Runoff Curve Number CN	= 45	(From Worksheet 2)			
	Time of Concentration $T_c$	= 0.10	hr (From Worksheet	3)		
	Rainfall Distribution	=	(I, IA, II, III)			
	Pond and swamp areas spread throughout watershed	= 0.0%	of A <sub>m</sub> ( 0	acres cove	red)	
				Storm #1	Storm #2	Storm #3
2.	Frequency		yr	1	10	100
3.	Rainfall, P (24-hour)		in	2.7	5.2	7.4
4.	Initial abstraction, I <sub>a</sub>		in	2.444	2.444	2.444
5.	Compute I <sub>a</sub> /P			0.91	0.47	0.33
0			r.	500	044	0.05
6.	(use $T_c$ and $I_a/P$ with Exhibit 4-	<u> </u>	csm/in	508	611	905
_					0.54	
7.	(From Worksheet 2)		In	0.01	0.51	1.43
8.	Pond and swamp adjustment factor	ctor, F <sub>p</sub>		1	1	1
	with table 4-2. Factor 1.0 for 0 9 pond and swamp area)	%				
9.	Peak discharge, q <sub>p</sub>		cfs	0.00	0.05	0.20
	(Where $q_p = q_u A_m Q F_p$ )				•	

# Worksheet 4: Graphical Peak Discharge Method

**Proposed Condition** 

### Worksheet 2: Runoff curve number and runoff

P	roject	3692 8th Ave, Edgewater		By	Ν	'B	Date	7/5/2024		
Loc	cation	Anne Arundel County	Che	ecked	N	'B	Date	7/5/2024		
		Proposed Conditions	-				Site Outfall			
1. Runoff Curve	Numb	<u>er (CN)</u>					0			
Soil name and hydrologic group		Cover Description			CN		CN		Area	Product of CN x area
(Appendix A)	No.			Table 2-2	Figure 2-3	Figure 2-4	(SQ.FT.)			
А	95	Woods		30			900	27000.0		
А	93	Lawn		39			1504	58656.0		
А	92	Impervious		98			805	78890.0		
А	99	Pervious Pavement (9in subbase)		62			396	24552.0		
С	93	Lawn		74			770	56980.0		
	<u>.</u>			I	Tota	als =	4,375	246,078		
							0.00016	mi <sup>2</sup>		
CN (weighted) =	total p	product / total area = 246078 /	4375	=	56	6.2	Use CN =	56		
					WEIGI	HIED (	IN CANNOT BE	LESS IHAN 40		

2. Runoff

Frequency.	/r
Rainfall, P (24-hour)	In
Runoff, Q = $(P-0.2S)^2/(P+0.8S)$ S= $(1000/CN)$ -10	In

Storm #1Storm #2Storm #31101002.75.27.40.141.152.48

Project	3692 8th Ave, Edgewater	By	WB		Date	7/5	5/2024
Location	Anne Arundel County	Checked	WB		Date	7/5	5/2024
	Proposed Conditions			Site	e Outfall		
		-			0		
<b>-0 - - - - - - - - - -</b>	4			• • • • • • •			
ES: Space for a	is many as two segments per	flow type can be us	sed for eac	:h work	ksheet.		
Include a ma	ap, schematic, or description c	of flow segments					
<u>t flow</u> (Ap	plicable to T <sub>c</sub> only)	Segment ID	A-B				
Surface descri	ption (table 3-1)						
Manning's roug	ghness coeff., n (table 3-1)						
Flow Length, L	_ (total L<= 300 ft)	ft					
Two-Year 24-h	$r$ rainfall, $P_2$	in	3.2				
Land Slope, s		ft / ft					
$T_{t} = 0.007(nL)^{c}$	$^{0.8}$ / P <sub>2</sub> <sup>0.5</sup> s <sup>0.4</sup>	hr		+	=	l	
t , , ,	2						I
ow concentrate	<u>d flow</u>	Segment ID	A-B				
Surface Descr <sup>i</sup>	iption: paved (P) or unpaved (	U)?	U				
Flow Length, L	-	ft	100				
Watercourse s	lope, s	ft / ft	0.07				
Average veloc	ity, V (figure 3-1)	ft / sec	4.3				
$T_t = L / 3600V$	• • •	hr	0.006	+	=	0	.006
<u>nel flow</u>	<b>`</b>						
b. Pipe (P) or		H					
C. If pipe, ente	" D (In):	H		_			
		H		_			
e. Il Channel, t	anter side slope i (i).	H		_			
	The side supe $z (\_, 1)$ .	H					
Cross section:	III (II)	sa ft					
Wetted perime	al llow alea, a	<sup>5</sup> Ч п ff					
	r = a / w b	" <u> </u>	+				
Channel slone	15, I – a / wp	ft / ft					
Manning's rou	, s abness coeff n			_			
$V = 1.49 r^{0.67} s$	s <sup>0.5</sup> / n	ft / sec	0.0	0	0		
Flow length, L	7.11	ft	0.0		.0		
$T_t = L / 3600V$		hr	· ·	+	=!	(	0.00
Watershed or	subarea $T_c$ or $T_t$ (add $T_t$ in ster	ps 6, 11, 19)		L	hr	(	0.10
= <u>1</u>	Project Location ES: Space for a Include a ma it flow (Ap) Surface descrip Manning's roug Flow Length, L Two-Year 24-h Land Slope, s T <sub>t</sub> = 0.007(nL) <sup>C</sup> ow concentrated Surface Descrif Flow Length, L Watercourse s Average veloci T <sub>t</sub> = L / 3600V inel flow a. Assumed C b. Pipe (P) or c. If pipe, ente d. If channel, i f. If channel dep Cross sectiona Wetted perime Hydraulic radiu Channel slope Manning's rou- V = 1.49 r <sup>0.67</sup> s Flow length, L T <sub>t</sub> = L / 3600V Watershed or	Project3692 8th Ave, Edgewater LocationLocationAnne Arundel County Proposed ConditionsES: Space for as many as two segments per Include a map, schematic, or description or tflow(Applicable to $T_c$ only)Surface description (table 3-1) Manning's roughness coeff., n (table 3-1) Flow Length, L (total L<= 300 ft) Two-Year 24-hr rainfall, P2 Land Slope, s $T_t = 0.007(nL)^{0.8} / P2^{0.5} s^{0.4}$ ow concentrated flow Surface Description: paved (P) or unpaved (P Flow Length, L Watercourse slope, s Average velocity, V (figure 3-1) $T_t = L / 3600V$ nel flow a. Assumed Q: b. Pipe (P) or Channel (C) ? c. If pipe, enter D (in): d. If channel, enter side slope 1 (_:1): f. If channel, enter side slope 2 (_:1): g. channel depth (ft) Cross sectional flow area, a Wetted perimeter, wp Hydraulic radius, r = a / wp Channel slope, s Manning's roughness coeff., n V = 1.49 r^{0.67} s^{0.5} / n Flow length, L T_t = L / 3600V	Project3692 8th Ave, EdgewaterByLocationAnne Arundel CountyCheckedProposed ConditionsProposed ConditionsES: Space for as many as two segments per flow type can be us Include a map, schematic, or description of flow segmentstflow(Applicable to $T_c$ only)Segment IDSurface description (table 3-1)Segment IDManning's roughness coeff., n (table 3-1)ftFlow Length, L (total L<= 300 ft)	Project3692 8th Ave, EdgewaterByWBLocationAnne Arundel CountyCheckedWBProposed ConditionsProposed ConditionsES: Space for as many as two segments per flow type can be used for eac Include a map, schematic, or description of flow segments $\underline{tflow}$ (Applicable to T <sub>c</sub> only)Segment IDSurface description (table 3-1)A-BManning's roughness coeff., n (table 3-1)ftFlow Length, L (total L<= 300 ft)	Project3692 8th Ave, EdgewaterByWBLocationAnne Arundel CountyCheckedWBProposed ConditionsSiteES: Space for as many as two segments per flow type can be used for each word Include a map, schematic, or description of flow segmentsSegment IDA-BSurface description (table 3-1)Manning's roughness coeff., n (table 3-1)Image: Coeff., n (table 3-1)Image: Coeff., n (table 3-1)Flow Length, L (total L<= 300 ft)	Project3692 8th Ave, EdgewaterByWBDateLocationAnne Arundel CountyCheckedWBDateProposed ConditionsSite Outfall0ES: Space for as many as two segments per flow type can be used for each worksheet.0Include a map, schematic, or description of flow segmentstflow(Applicable to $T_c$ only)Segment IDSurface description (table 3-1)Image: Control of the segment set of the sec of the segment set of the sec of the set of the sec of the segment set of the sec of the set of the sec	Project3692 8th Ave, EdgewaterByWBDate7/5LocationAnne Arundel CountyCheckedWBDate7/5Proposed Conditions0 $0$ ES: Space for as many as two segments per flow type can be used for each worksheet.Include a map, schematic, or description of flow segmentsInclude a map, schematic, or description of flow segmentsInclude a map, schematic, or description of flow segments $thow$ (Applicable to T <sub>o</sub> only)Surface description (table 3-1)Manning's roughness coeff., nTwo-Year 24-hr rainfall, P2Land Slope, sT <sub>1</sub> = 0.007(nL) <sup>0.8</sup> / P2 <sup>0.5</sup> s <sup>0.4</sup> Matercourse slope, sfl / ftOw concentrated flowSurface Description: paved (P) or unpaved (U) ?Flow Length, LMatercourse slope, sfl / ft0.006 +a Assumed Q:b. Pipe (P) or Channel (C) ?c. If pipe, enter D (in):d. If channel, enter side slope 2 (_:1):f. If channel, enter side slope 2 (_:1):g. channel depth (ft)Channel slope, sft / ftManning's roughness coeff., nV=1.49 r <sup>067</sup> s <sup>0.5</sup> / nft / sec0.00.00Flow Length, Lft / ftft / ftftft / ftftftftftftftftftftftftftft </td

# Worksheet 3: Time of concentration (T $_{c}$ ) or travel time (T $_{t}$ )

Project	3692 8th Ave, Edgew	vater	Ву	WB	Date	7/5/2024
Location	Anne Arundel Cour	nty	Checked	WB	Date	7/5/2024
	Proposed Condition	าร			Site Outfa	
					0	
1.	Data:					
	Drainage Area A <sub>m</sub>	= 0.00016	sq mi			
	Runoff Curve Number CN	= 56	(From Worksheet 2)			
	Time of Concentration $T_c$	= 0.10	hr (From Worksheet	3)		
	Rainfall Distribution	=	(I, IA, II, III)			
	Pond and swamp areas spread throughout watershed	= 0.0%	of A <sub>m</sub> ( 0	acres cove	red)	
				Storm #1	Storm #2	Storm #3
2.	Frequency		yr	1	10	100
3.	Rainfall, P (24-hour)		in	2.7	5.2	7.4
4.	Initial abstraction, I <sub>a</sub> (Use CN with table 4-1)		in	1.571	1.571	1.571
5.	Compute I <sub>a</sub> /P			0.58	0.30	0.21
6.	Unit peak discharge, q <sub>u</sub>		csm/in	508	936	969
	(use $T_{\rm c}$ and $I_{\rm a}/P$ with Exhibit 4-	<u>  </u> )				
7.	Runoff, Q		in	0.1	1.2	2.5
	(FIOIN WORKSHEEL 2)					
8.	Pond and swamp adjustment fac	tor, F <sub>p</sub>		1	1	1
	(Use % pond and swamp area with table 4-2. Factor 1.0 for 0 % pond and swamp area)	, D				
9.	Peak discharge, q <sub>D</sub>		cfs	0.01	0.17	0.38
	(Where $q_p = q_u A_m Q F_p$ )				1	

# Worksheet 4: Graphical Peak Discharge Method

Reduced Runoff Curve Number

#### STEP 3a: Peak Management Computations per AACo. SWM Manual Chapeter 7.2.3

Site Outfall A - Peak Management of the 10 year 24 hour Design Storm Allowable Discharge ( $Q_{allowable}$ ):

**Discharge:** From TR-55 Worksheets

Condition	Discharge, Q <sub>P</sub> (cfs)			
Pre	0.05			
Post	0.17			

ESD Practices - Total Storage Volume (V<sub>stored</sub>) & Stored Runoff Depth (Q<sub>stored</sub>):

Total Storage Volume (V<sub>stored</sub>): See ESD Design Worksheet

ESD Practices	<b>V</b> <sub>stored</sub>
Permeable Pavement	73 cf
Bio-Swale	142 cf
Enhanced Filter	20 cf
Total:	235 cf

Stored Runoff Depth (Q<sub>stored</sub>):

 $\begin{aligned} & Q_{stored} = V_{stored} / DA \\ & Q_{stored} = (235 \text{ cf x } 12 \text{ in/ft}) / (0.10 \text{ ac x } 43,560 \text{ sf/ac}) \\ & Q_{stored} = 0.65 \text{ in} \end{aligned}$ 

#### Post Development Runoff Depth (Q<sub>dev</sub>):

Q<sub>dev</sub> for the 10 year 24 hour design Storm:

Q<sub>dev</sub> = 1.15 in (See TR-55 Worksheet 2)

#### Change in Curve Number based on Storage (CN\*):

CN\*:

 $CN^* = 200 / [(P + 2Q + 2) - (5PQ + 4Q^2)^{0.5}]$ where:  $Q^* = Q_{dev} - Q_{stored} =$ 

 $Q^* = 1.15 \text{ in } - 0.65 \text{ in } = 0.50 \text{ in}$  P = 10 year Rainfall Depth = 5.20 in (Table 2-2, MDE)  $CN^* = 200 / [(5.20 \text{ in } + 2 \times 0.50 \text{ in } + 2) - (5 \times 5.20 \text{ in } \times 0.50 \text{ in } + 4 \times 0.50^{2})^{0.5}]$   $CN^* = 44.91 \text{ or } 45$ 

#### Post Development Discharge (Q<sub>p</sub>):

<b>Q</b> <sub>P10</sub>	w/	CN*:
-------------------------	----	------

Area =	4,375 sf
CN* =	45 (from above)
T <sub>c</sub> =	0.100 hr. (TR-55 Worksheet 3)
Rainfall, P =	5.20 in. (Table 2.2, MDE)
Initial Abstraction, I <sub>a</sub> =	2.444 in. (TR-55, Table 4-1)
I <sub>a</sub> /P =	0.47
Unit Peak Discharge, q <sub>u</sub> =	611 csm/in. (TR-55, Exhibit 4-II)
Runoff Depth, Q* =	0.50 in. (from above)
	(0, 1, 1)

Peak Discharge,  $Q_{p10} = [(q_u x (A, acres) x (Q^*, in.)] / 27,878,400 (sf/mi<sup>2</sup>))$ 

Q<sub>p10</sub> = [(611) x (4,375sf) x (0.50in.)] / 27,878,400

<b>Q</b> <sub>p10</sub> =	0.05 cfs
Q <sub>allowable</sub> =	0.05 cfs

The post development discharge is less than/equal the allowable discharge rate. Peak management is adequately addressed via ESD.





J. Howard Beard Health Services Building 3 Harry S. Truman Parkway Annapolis, Maryland 21401 Phone: 410-222-7095 Fax: 410-222-7294 Maryland Relay (TTY): 711 www.aahealth.org

Tonii Gedin, RN, DNP Health Officer

#### <u>MEMORANDUM</u>

TO: Sadé Medina, Zoning Applications Planning and Zoning Department, MS-6301

FROM: Brian Chew, Program Manager Bureau of Environmental Health

DATE: August 29, 2024

- RE: Hayley Kehyannah 3692 Eighth Avenue Edgewater, MD 21037
- NUMBER: 2024-0164-V

SUBJECT: Variance/Special Exception/Rezoning

The Health Department has reviewed the above referenced variance to allow a dwelling with less setbacks than required.

Based on a review of the above referenced request, additional information is needed by the Health Department on:

• The tag number and location of all neighboring water supply wells within 100' of the property.

If you have further questions or comments, please contact Brian Chew at 410-222-7413.

cc: Sterling Seay

#### 2024-0164-V

Help

Menu Cancel

Task Details I and P Engineering Assigned Date Due Date 08/23/2024 09/12/2024 Assigned to Department Assigned to Habtamu Zeleke Engineering **Current Status** Status Date Complete w/ Comments 09/11/2024 Action By Overtime Habtamu Zeleke No Start Time Comments Variance request: Variance to allow a dwelling with less setbacks than required Comments: 1. Stormwater management will be addressed through a bio-swale, permeable pavement, and entranced filter. The site did not show all the proposed SWM practices and please ensure that the SWM report and the proposed SWM on the , site plan shall be matched. 2. All stormwater conveyance systems shall be designed so that no building or habitable structure, either proposed or existing, is flooded or has water impounded against it during the 100-year storm event. 3. Please ensure that the SWM practices are setback/offset from property lines so that if it needs maintenance/reconstruction, easements do not need to be obtained from neighboring properties or impact rights-of-way. 4. Microscale stormwater facility(ies) design should incorporate safe conveyance for overflow discharges from 2, 10, 100-yr 24-hr storm events; plans should show overland relief paths for these storm events and ensure that no structures, or properties are negatively impacted or have water impounded against during these storm events. 5. The County Practices and Procedures Manual requires that pre and postdrainage area maps should have elevations clearly labeled and contour lines must extend a minimum of 200 feet beyond the delineated area, per County Code § 16-3-209 (a). Regarding site grading, existing and proposed elevation, elevation changes (especially on "flat" sites with little to no grade relief, impacts to neighboring properties, or accounting for offsite runoff as a part of the site design). 7. Contours not labeled on the plans and lack of specificity on site topography; No details on addressing site and offsite runoff. 8. Overflow provided but no details regarding conveyance provided. In this case, based on the location and details, the runoff may be conveyed onto the neighboring property, impacting this property. 9. Design professionals should review site runoff and potential (negative, adverse) impacts to neighboring properties, due to changed grades/elevation on a proposed project. 10. Ensure the proposed improvement including runoff, seepage, and slope saturation does not adversely impact the integrity of the slope and potential impact of slope failure. 11. A soil boring is required per practice. The suitability, and siting of proposed SWM practices should be reviewed. Soil boring information including verification of the suitability of in-situ soils for infiltration shall be submitted. Describe the site's hydrologic, and topographic characteristics and provide a recommendation on the feasibility of various BMPs. 12. Based on the plan provided, it appears that the property will be served by a private well and the provided site plan is unclear on sewer is served for the property, please clearly show and label the existing and proposed SHC on the site plan. 13. Driveways shall not be located within 50 feet from intersections of public or private roads (DPW design manual). A MOD is required for both, for public roads, DPW makes the final determination. The stormwater management, utility/Engineering design additional review, and comments for the site shall occur at the grading permit stage.
 Based on the above comments and proposed site design, this office does not support this request. End Time Hours Spent 0.0 Billable Action by Department Engineering Est. Completion Date No Time Tracking Start Date In Possession Time (hrs) Display E-mail Address in ACA Estimated Hours Display Comment in ACA 0.0 Comment Display in ACA All ACA Users Record Creator Licensed Professional Contact

Owner

Task Specific Information

Expiration Date **Reviewer Phone Number** 

**Review Notes Reviewer Email**  Reviewer Name

# Map Title



# IN THE OFFICE OF ADMINISTRATIVE HEARINGS

**CASE NUMBER: 2023-0193-V** 

EFFECT, INC.

FIRST ASSESSMENT DISTRICT

DATE HEARD: FEBRUARY 27, 2024

ORDERED BY:

**DOUGLAS CLARK HOLLMANN** ADMINISTRATIVE HEARING OFFICER

PLANNER: SARA ANZELMO

DATE FILED: MARCH 7, 2024

#### **PLEADINGS**

Effect, Inc., the applicant, seeks a variance (2023-0193-V) to allow a dwelling with less setbacks than required on property with a street address of 3692 Eighth Avenue, Edgewater, MD 21037.

#### **PUBLIC NOTIFICATION**

The hearing notice was posted on the County's website in accordance with the County Code. The file contains the certification of mailing to community associations and interested persons. Each person designated in the application as owning land that is located within 300 feet of the subject property was notified by mail, sent to the address furnished with the application. William Bower testified that the property was posted for more than 14 days prior to the hearing. Therefore, I find and conclude that there has been compliance with the notice requirements.

#### **FINDINGS**

A hearing was held on February 27, 2024, in which witnesses were sworn and the following evidence was presented with regard to the proposed variance requested by the applicant.

#### **The Property**

The applicant owns the subject property which has 43 feet of frontage on the southwest side of Eighth Avenue, northwest of Hillside Avenue, Edgewater (Tax ID: 1747-0727-0975). It is identified on Lot 98 of Parcel 29 in Block 10 on Tax Map 60 in the Selby on the Bay subdivision. The property comprises 4,378

square feet and is zoned R5-Residential District. The subject property is undeveloped.

#### **The Proposed Work**

The applicant seeks approval to construct a three-story, single-family dwelling. The proposed house would measure 26.75' wide by 40' at its deepest point, (986.25 square foot footprint) and a height of 35 feet as shown on the site plan admitted into evidence at the hearing as County Exhibit 2. The proposed dwelling would be constructed 10 feet from the corner side lot line.

#### The Anne Arundel County Code

§ 18-4-701 provides that a principal structure in an R5 district shall be set back a minimum of 20 feet from a corner side lot line.

#### The Variance Requested

The proposed work will require a zoning variance of ten (10) feet to the 20foot corner side lot line setback requirements of § 18-4-701 to construct the proposed three-floor dwelling 10 feet from the corner side lot line as shown on County Exhibit 2.

#### The Evidence Submitted At The Hearing

#### Findings and Recommendations of the Office of Planning and Zoning (OPZ)

Sara Anzelmo, a zoning analyst with OPZ, presented the following:

• The subject property is rectangular in shape and is both undersized and narrow for the district. More specifically, the 4,378 square foot lot is smaller than the minimum 7,000 square foot area required, and the 43.75 foot width is narrower

than the minimum 60 foot width required for new lots in an R5 district. A review of the 2023 County aerial photograph shows an eclectic mix of dwellings in this older waterfront community. While many dwellings have been constructed on two or more lots, some nearby houses have been constructed on similar single lots.

- The applicant's letter explains that, in order to construct a dwelling on this undersized lot, without relief from the required corner side setback, the house would be limited to only 16.75 feet in width and would be out of character of surrounding dwellings in the neighborhood.
- The Office of Inspections and Permits Engineering Division will review stormwater management at the grading permit stage. However, the Division notes that the site may exacerbate existing nuisance flooding concerns, issues with Eighth Avenue or Hillside Avenue, due to the runoff disconnection.
- The Health Department recommends denial of the requested variance because the site plan is not approvable. The proposed well does not meet the required setbacks to the right-of-way or to the existing sewer main.
- For the granting of a zoning variance, a determination must be made as to whether, because of certain unique physical conditions peculiar to or inherent in the particular lot or because of exceptional circumstances, strict implementation of the Code would result in practical difficulties or an unnecessary hardship. In this particular case, development of the site is constrained by the practical limitations of an existing residentially zoned lot

that is undersized, narrow, and at a corner location. It is clear that some variance relief is warranted in order to provide enough width for reasonable residential development.

- However, not all lots are created equally. The purchaser of an individual, undersized, corner lot that is not served by public water should not necessarily expect to be able to construct the same sized house that could be constructed on a larger, wider, non-corner lot. OPZ has concerns over the visual impact of a three-story dwelling with a 35-foot height only ten feet from the Hillside Avenue right-of-way, especially when the dwellings across Hillside Avenue are oriented with Hillside as their front yard. While it is true that there are some similarly-sized dwellings within the neighborhood, there are also many smaller homes located nearby. Given the overall neighborhood context of Selby on the Bay, construction of a smaller dwelling that is better suited for this undersized, narrow, corner lot would not be unreasonable.
- Approval of the variance would not substantially impair the appropriate use or development of any adjacent property. However, a three-story dwelling with a height of 35 feet and footprint of nearly 1,000 square feet on this small corner lot may alter the essential character of the neighborhood. Furthermore, based on the Health Department's comments indicating that the proposed well does not meet the required setbacks to the right-of-way or to the existing sewer main, the proposal may be detrimental to the public welfare.

- While it is clear that some zoning setback relief is warranted, the variance is not considered to be the minimum necessary to afford relief and to allow the lot to be developed with a dwelling. The proposed house size is deemed to be excessive for the small site. The applicant should consider alternative design options to minimize the visual impacts of the requested corner side setback variance, by narrowing the dwelling footprint and by reducing the proposed height/stories.
- Based upon the standards set forth in § 18-16-305 of the Code under which a variance may be granted, OPZ recommends *denial* of the proposed variance.

#### **Other Testimony and Exhibits**

The applicant was represented at the hearing by Peter Chinloy and Garrett Adler, corporate officers. They were assisted by William Bower of Atwell, LLC, the applicant's engineer. Evidence was presented that the proposed dwelling will be built on a corner lot in the subdivision of Selby on the Bay, which was platted in 1932. The applicant's property does not meet the area and width requirements for a lot in an R2 district but this is because Selby on the Bay did not become subject to Code requirements until zoning was adopted 20 years later in 1952. Mr. Bower testified that concerns about traffic safety at the corner were unfounded as shown by an enhanced site plan he entered into evidence because the proposed location will have no effect upon traffic according to State Highway Administration guidelines. Furthermore, the paving on Hillside Avenue was

further from the lot line, increasing separation between the proposed dwelling and traffic, and the paving was not centered on Hillside Avenue. Denying a variance to build the proposed dwelling would cause the applicant an unwarranted hardship and force the applicant to build a dwelling that would be only 16 feet in width, which would be out of character for the neighborhood.

Ms. Megan Gaskin testified that she and her family live immediately next door to the applicant's property. She is opposed to granting the requested variance as the proposed three-story dwelling would tower over her one-story home and would not be consistent with the rest of the neighborhood.

There was no other testimony taken or exhibits received in the matter. The Hearing Officer did not visit the property.

#### **DECISION**

#### **Requirements for Zoning Variances**

§ 18-16-305 sets forth the requirements for granting a zoning variance. Subsection (a) reads, in part, as follows: a variance may be granted if the Administrative Hearing Officer finds that practical difficulties or unnecessary hardships prevent conformance with the strict letter of this article, provided the spirit of law is observed, public safety secured, and substantial justice done. A variance may be granted only if the Administrative Hearing Officer makes the following affirmative findings:

 Because of certain unique physical conditions, such as irregularity, narrowness or shallowness of lot size and shape or exceptional

topographical conditions peculiar to and inherent in the particular lot, there is no reasonable possibility of developing the lot in strict conformance with this article; or

(2) Because of exceptional circumstances other than financial considerations, the grant of a variance is necessary to avoid practical difficulties or unnecessary hardship and to enable the applicant to develop the lot.

The variance process for subsection (1) above is a two-step process. The first step requires a finding that special conditions or circumstances exist that are peculiar to the land or structure at issue which requires a finding that the property whereupon the structures are to be placed or use conducted is unique and unusual in a manner different from the nature of the surrounding properties. The second part of the test is whether the uniqueness and peculiarity of the property causes the zoning provisions to have a disproportionate impact upon the subject property causing the owner a practical difficulty or unnecessary hardship. "Uniqueness" requires that the subject property have an inherent characteristic not shared by other properties in the area. Trinity Assembly of God of Baltimore City, Inc. v. People's Counsel for Baltimore County, 178 Md. App. 232, 941 A.2d 560 (2008); Umerley v. People's Counsel for Baltimore County, 108 Md. App. 497, 672 A.2d 173 (1996); North v. St. Mary's County, 99 Md. App. 502, 638 A.2d 1175 (1994), cert. denied, 336 Md. 224, 647 A.2d 444 (1994).

The variance process for subsection (2) - practical difficulties or unnecessary hardship - is simpler. A determination must be made that, because of

exceptional circumstances other than financial considerations, the grant of a variance is necessary to avoid practical difficulties or unnecessary hardship, and to enable the applicant to develop the lot.

Furthermore, whether a finding is made pursuant to subsection (1) or (2) above, a variance may not be granted unless the hearing officer also finds that: (1) the variance is the minimum variance necessary to afford relief; (2) the granting of the variance will not alter the essential character of the neighborhood or district in which the lot is located, (3) substantially impair the appropriate use or development of adjacent property, (4) reduce forest cover in the limited development and resource conservation areas of the critical area, (5) be contrary to acceptable clearing and replanting practices required for development in the critical area, or (6) be detrimental to the public welfare.

#### **Findings - Zoning Variance**

The applicant's property is substandard in width (43.75 feet as opposed to the required 60 feet for a lot in the R5 district) and area (4,378 square feet as opposed to the required 7,000 square feet). It was platted in 1932. It is a "grandfathered" lot and, as Ms. Anzelmo noted at the hearing, is entitled to "some relief." The question is how much. This turns on what the applicant has proposed.

It should be noted at the outset that the applicant's property has remained undeveloped in the 92 years it has been available as a platted supposedly buildable lot. The applicant paid the prior owner \$28,000 in March 2022 to obtain ownership to the property. The price is considerably less than what has been paid

for lots on which a single-family home has been built. The price obviously reflects what the market thinks the applicant's substandard property is worth.

This does not mean that variances cannot be granted for such a lot, just that the passage of almost 100 years and the purchase price are indications that other people thought this lot was not worth developing.

The surrounding area, however, has been extensively developed. This is typical of "infill development," where the first lot developed is usually the best lot, with less attractive lots being developed later as better lots become unavailable. The overall process can be likened to the squeezing of a tube of toothpaste to get the last drop out.

The following photograph shows the applicant's lot and Ms. Gaskin's property next door:



Ms. Anzelmo's testimony sums up the application: some relief from the Code is justified, given the grandfathered status of the lot and its dimensions. However, a three-story dwelling 7 feet from Ms. Gaskin's property is not the "minimum relief" the Code demands when deciding whether a variance should be granted. Something less than the maximum dwelling that could be built on a lot that met the Code's minimum requirements would be a different story, but trying to build it here is excessive.

The applicant may point out that the only variance needed is to the corner side lot line and that it has been shown that the normal concerns about a variance to a corner side lot line do not apply here, but this Office is not limited to what the Code specifies in distances and area. This Office has been given the power to consider what relief is warranted looking at the overall proposal and its effect on the surrounding neighborhood. § 18-16-306(b) provides that:

(b) **Restrictions, conditions, and limitations.** The Administrative Hearing Officer may impose additional restrictions, conditions, or limitations on an application other than an application to change a zoning district **as may be considered appropriate to preserve, improve, or protect the general character and design of the land or improvements or of the surrounding or adjacent land and improvements**. (Emphasis added.)

Many dwellings in the surrounding neighborhood are one-story in height. While no variance will be necessary for the applicant to build a 35-foot high dwelling, the applicant does need a variance to the 20-foot corner side lot line

setback. A 35-foot high dwelling at the corner shown above will not "fit in" with the neighborhood. It will be a tower that will loom over the intersection of 8<sup>th</sup> Avenue and Hillside Avenue.

While this Office has the power, pursuant to the above-quoted language, to limit the dwelling to two stories or one story, or change other features, the courts have ruled that this Office has jurisdiction to decide only what is presented, not introduce new elements not put forward by the applicant and propose a different application, such as where to place a structure or how large it should be. *Steel, et al. v. Cape Corp.* 111 Md. 1, 677 A.2d 634 (1996), at 646 (a case out of this Office involving Cape St. Claire).

The hardship the applicant is suffering is self-imposed. The application will be denied. The applicant should come back with a design that will fit in with the community. Three stories will not do it.

#### <u>ORDER</u>

PURSUANT to the application of Effect, Inc., petitioning for a variance to allow a dwelling with less setbacks than required on property with a street address of 3692 Eighth Avenue, Edgewater, MD 21037;

PURSUANT to the notice, posting of the property, and public hearing and in accordance with the provisions of law, it is this 7<sup>th</sup> day of March, 2024,

ORDERED, by the Administrative Hearing Officer of Anne Arundel

County, that the application is **denied**.

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# **NOTICE TO APPLICANT**

Any person, firm, corporation, or governmental agency having an interest in this Decision and aggrieved thereby may file a Notice of Appeal with the County Board of Appeals within thirty (30) days from the date of this Decision.

If this case is not appealed, exhibits must be claimed within 60 days of the date of this Order, or they may be discarded.