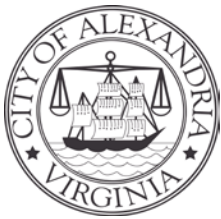


**Attachment #5**

Staff reports for DSP amendment (DSP#2017-0022) and original request (DSP#2016-0025)



**Development Site Plan #2017-0022**  
**Subdivision #2017-0006**  
**Street Name Case #2017-0001**  
**3832-3834 Seminary Road – Karig Estates**

Application	General Data	
<b>Project Name:</b> Karig Estates	PC Hearing:	November 9, 2017
	CC Hearing:	N/A
	Expiration, if approved:	DSP – November 9, 2020 (three years) SUB – May 9, 2019 if not recorded (18 months)
	Plan Acreage:	136,198 SF (3.13 acres)
<b>Location:</b> 3832-3834 Seminary Road	Zone:	R-20 / Single-Family zone
	Proposed Use:	Single-Family Residential
	Dwelling Units:	Four (4)
	Net Floor Area:	6,197 SF (Lot #1) 9,015 SF (Lot #4) 5,633 SF (Lots #2 & #3)
	Small Area Plan:	Seminary Hill / Strawberry Hill
<b>Applicant:</b> 3834 Seminary LLC, represented by Mary Catherine Gibbs, attorney	Historic District:	Not applicable
	Green Building:	Not applicable

**Purpose of Application**

The applicant requests approval of a Development Site Plan amendment to revise the location of the proposed dwelling on Lot #4, approval to subdivide two lots into four lots, and approval of a name for a new public street in connection with the previously-approved Karig Estates project.

**Applications and Modifications Requested:**

1. Amendment to previously-approved Development Site Plan #2016-0025 to revise the location of the proposed dwelling on Lot #4, with a new modification to the front yard requirement for Lot #4 and changes to recommended conditions;
2. Subdivision approval to subdivide two lots into four lots and with the dedication of land to the City for a new public street and public sidewalk; and
3. Approval of a Street Name Case to name a new public street associated with the project.

**Staff Recommendation: APPROVAL WITH CONDITIONS**

**Staff Reviewers:**

Robert M. Kerns, AICP, Division Chief [robert.kerns@alexandriava.gov](mailto:robert.kerns@alexandriava.gov)  
Maya Contreras, Principal Planner [maya.contreras@alexandriava.gov](mailto:maya.contreras@alexandriava.gov)  
Nathan Randall, Urban Planner [nathan.randall@alexandriava.gov](mailto:nathan.randall@alexandriava.gov)

**PLANNING COMMISSION ACTION, NOVEMBER 9, 2017:**

***Development Site Plan #2017-0022:***

On a motion by Commissioner Wasowski, seconded by Commissioner Koenig, the Planning Commission voted to approve DSP#2017-0022 with modifications, amending DSP#2016-0025, and subject to compliance with all applicable codes, ordinances, and other staff recommendations. The motion carried on a vote of 4-2, with Commissioners Brown and McMahon abstaining.

Reason: The Planning Commission agreed with the staff analysis. Two Commissioners abstained given that they had not voted in favor of the previous Development Site Plan request for this site, which was heard in October.

***Subdivision #2017-0006:***

On a motion by Commissioner Wasowski, seconded by Commissioner Koenig, the Planning Commission voted to approve SUB#2017-0006, subject to compliance with all applicable codes, ordinances, and other staff recommendations. The motion carried on a vote of 6-0.

Reason: The Planning Commission agreed with the staff analysis.

***Street Name Case #2017-0001:***

On a motion by Commissioner Wasowski, seconded by Commissioner Koenig, the Planning Commission voted to approve SNC#2017-0006, subject to compliance with all applicable codes, ordinances, and other staff recommendations. The motion carried on a vote of 6-0.

Reason: The Planning Commission agreed with the staff analysis.

Chairwoman Lyman asked staff to speak on the environmental protections on the site, specifically the wetlands and the buffer, the proposed sewer connection, the potential impacts of construction on the wetlands and how the wetlands would be protected, the possibility of marine clay on the site and how that would affect construction of the homes, and whether the concerns of Mr. Simmons of the RPCA department had been taken under advisement during the review.

Vice Chairman Macek noted that the proposed sewer line would function through gravity and effectively parallel an existing storm sewer, which would be the most effective and efficient solution for sewer at the site. Staff confirmed that a lift station would cost between \$30-50 thousand to install, separate from the cost of main installation and operation. Vice Chairman Macek expressed appreciation of the efforts of the applicant to move the fourth house, that he believes the proposed sewer line location is reasonable and that he is comfortable with the proposal.

Commissioner Koenig asked whether staff anticipates that the determination of marine clay would affect the design of the project and whether there were any other issued that would

preclude the safe construction of structures at the site, or the preservation of the wetlands. He noted that he had supported the project previously and would continue to support. He agreed with Commissioner McMahon that the regulations don't provide all of the protections that they might like, and that they might need to be amended in the future.

Commissioner McMahon expressed concern regarding the tensions between various City goals and the approval requirements, and that there did not appear to be appropriate tools to protect the site as they might like to. She stated that it is the nature of staff to not have all opinions brought forward in the professional process and that she believes that staff has done due diligence.

Commissioner Wasowski noted the importance of consistency and transparency for property and homeowners in the development process, and that the requested subdivision is one of the most simple that they have seen, with no allowances needed. Since the previous plan was approved, and this plan only amends Lot #4, and that the proposal fits all of the City requirements, it should be approved.

Commissioner Brown stated that he finds the requested subdivision unobjectionable and that he voted against the site plan previously because he believed that it could be improved. While he finds staff's determination of the blockface was correct, and that the sewer line location is appropriate as it would not necessarily change whether the fourth house was in place or not, that he has concerns about whether the environmental regulations of Section 11-410 have been met. He believes that the amendment improved the plan, but since he voted against it previously, he would abstain from voting.

Chairwoman Lyman expressed a preference to see the trees remain, but that the legal requirements have been met. She noted that both sides had good points and that City staff had done good work, which would continue with the final site plan.

Speakers:

Mary Catherine Gibbs, attorney representing the applicant, spoke in support of the project. She noted that it was approved previously, that the applicant has brought forward the subdivision case within 30 days, as required by the Planning Commission, and that the modification being requested for the setback of the fourth house was proposed by the applicant in response to the concerns of the community. She outlined that the four lots comply with the zoning and lot character requirements, that the applicant has provided information beyond what is typically required at this stage of review, and that the staff analysis had been thorough. She concluded that the current and previous plans were both in compliance with the law and that by suggesting that the fourth house should be removed, the neighbors were proposing a taking.

Andrew MacDonald, resident, objected to the characterization of the neighbors by Ms. Gibbs, stating that he believes the community has a right to object to the project, as he did not find that the geological and environmental aspects of the plan had been properly examined, speaking as a citizen and a geologist. He questioned the sustainability of the site for development and whether the site could support four homes. Given the unique characteristics of the site, he noted that he



believed they should be preserved and that the project is not ready to be approved.

Dave Cavanaugh, neighbor, request that the project be approved with the removal of a house on Lot #4, given the issues of stormwater runoff, slope failure and tree loss. He noted that his home overlooks the ravine, and that he believes that construction of a house on this location will cause water runoff and damage neighboring properties, and there aren't any bio-retention facilities within the limit of disturbance. Removal of a house on Lot 4 would protect additional trees and wildlife habitat, and the current plans include a sewer line within the buffer area. He concluded by noting that other locations should be explored for the sewer line, that this is a unique location with unique characteristics and requested that they be protected.

Yvonne "Bonnie" Petry, resident, noted that she is not an adjacent neighbor but that protection of the site is a larger concern. She requested that the Planning Commission rework the project because of a lack of dialogue between the developer and the citizens. She did not believe that the additional 12' setback for the Lot #4 house was meaningful and stated that the clear-cutting of an ecosystem that helps to stabilize a marine clay slope was problematic. She referenced Tony Fleming's geologic atlas and associated report and expressed concern about development at the site. She noted that Seminary Ridge has had issues with marine clay, that the initial plans did not show a wetland on the site, and asked that the ecological and geological issues be considered.

Alexandria Lipton, neighbor, stated that she does not oppose the project and would prefer a residential use to a public park. She trusts that the Planning Commission, staff and the developer will conduct their review properly and noted that property is an asset and removal of value isn't fair.

Jeremy Flachs, member of the Board of Directors at Beth-El, requested that the site plan not be approved because it does not protect the site environment. He referenced a slide in the presentation to state that the swale covers approximately one-half of the property and that the 4<sup>th</sup> house will still sit in a slope, requiring clear cutting. He believed that the proposed new sewer line should not be routed through the wetland buffer. He noted that Beth-El is not trying to stop development, but is trying to tailor the lot lines to a more sensible site, and stated that if the Commission cares about water quality, the headwaters of Strawberry Run, which originate on this site, should be protected. He concluded that Rod Simmons, a naturalist with the City, understands that damage is being done on the site and requested that the Commission deny the project until Mr. Simmons can testify.

Loren Needles, neighbor on St. Stephens Road, provided a detail of the area from the City's geologic atlas and pictures of his property and wildlife on the site. He requested that the Commission pay attention to the fragility of the soil at the site and stated that the proposed construction is new to the City and should be approached with caution, as many homes in Alexandria have had foundation issues. He requested that additional experts be brought in to review.

Nina Schwartz, neighbor, lives down the hill from the property and has had ongoing seepage and

groundwater problems. She noted that, while the developer is proposing solutions, water is meant to percolate and will find a way to move and damage homes.

Lonnie Rich, attorney representing Beth-El Synagogue, requested protection for the ancient ravine, steep slope and forest. He expressed concern that removal of trees would cause slope collapse, and described the disagreements as between engineers and environmentalists. He noted his disappointment that Rod Simmons wasn't called on to testify and feels it disingenuous to say that he could have appeared as a private citizen. He stated that there are protections provided by the site plan requirements that are not being met and that the site environmental features should have informed the blockface analysis. He requested that the Commission refer the project back to staff for a revision to a 57-foot setback from Seminary Road, rather than a 100-foot setback. He requested that a sewer lift station with a connection to Seminary Road be required in lieu of a sewer line through the buffer, and asked that the project be referred back to staff for additional protections for the ravine.

Christina Lytle, neighbor, stated that the property owner should be able to redevelop, but not at the expense of neighbor, and invited the Commissioners to visit the site. She stated her belief that the current plan does not reflect available science, especially in consideration of the water damage sustained by adjacent neighbors. She asked that an alternate location for the sewer line be found to protect trees from heavy equipment, and that the fourth house is problematic at this location.

Kevin Durkin, adjacent neighbor on Seminary Road, spoke in support of the project, the professionalism of staff and the flexibility of the developer. He noted that the current plan protects trees in the side and rear and front of the site, and that large trees along Seminary Road are a common occurrence along the street, and would be protected under the current plan. He believed that the neighbor concerns are related to trees and view loss and concern about redevelopment.

Gant Redmond, neighbor and owner representative, spoke in favor of the project and requested approval of the plan as proposed by the applicant. He stated that the City had put a storm sewer in the ravine twenty years ago, and that the headwaters of Strawberry Run are located on the grounds of the Virginia Theological Seminary, and that there was no soil slippage when the storm sewer was installed, so it's unlikely there will be a problem now. He pointed out that the developer moved the house on Lot #4 forward as a compromise, but that it is unlikely that the neighbors will be satisfied, and urged the Commission to vote favorably on all three land-use requests.



## **I. RECOMMENDATION & SUMMARY**

Staff recommends **approval** of the Development Site Plan (DSP) amendment, subdivision, and new street name requests associated with the Karig Estates project, which Planning Commission approved last month (October 2017) for the construction of four new single-family residential dwellings at 3832-3834 Seminary Road.

Key issues under consideration and discussed in greater detail in this report include:

- A revised location for the proposed dwelling on Lot #4 in response to some neighbors' concerns about that dwelling's proximity to the swale at the site;
- The subdivision request for all four lots within the Karig Estates project, including consistency with lot character requirements pursuant to Section 11-1710 of the Zoning Ordinance; and
- The request for a new street name, which was inadvertently not included in the approval motion at the Planning Commission public hearing last month.

## **II. BACKGROUND**

### ***A. Recent Approval Background***

On October 3, 2017, Planning Commission approved Development Site Plan #2016-0025 to construct four new single-family dwellings at the Karig Estates project site. The staff report for that approval, which can be found in Attachment #3 at the end of this report, also included a request for and discussion of Street Name Case #2017-0001 to name the new public street associated with the project. That request was inadvertently not mentioned in the approval motion at last month's Commission meeting and was deemed to be not approved. Staff has therefore included the Street Name Case request again in this staff report as a technical matter.

The Commission was also informed during the October hearing that a separate subdivision request was required for the subdivision of the project site into four lots in connection with DSP#2016-0025. As a Development Site Plan request only regularly heard by the Planning Commission, the project was deemed not eligible for the provisions of Section 11-1704(B) which exempts "Council-approved development" from the need for separate subdivision approval.

No separate subdivision application had been brought forward to the Commission nor had one been advertised pursuant to regular public noticing requirements. In response, the applicant requested Commission action that evening on the DSP request and agreed to submit a separate subdivision application within 30 days for separate consideration at a future hearing. Consistent with this approach, the Commission amended Condition #25 to require the submission of a subdivision application within 30 days. The applicant submitted a subdivision application and plat three days after the hearing, on October 6, 2017.

Prior to the October 3<sup>rd</sup> public hearing, several adjoining property owners, including representatives from Beth-El Hebrew Congregation, had contacted staff to ask questions and express a variety of concerns about the proposal. Prominent among those concerns was the proximity of the proposed dwellings, particularly the one on Lot #4, to the topographical feature on the property that has been referred to as a swale or ravine. Some neighbors advocated, both prior to and during the hearing, for a shift in the location of all four dwellings to the north, closer to Seminary Road, in order to limit impacts to the swale. Another neighbor provided written comments expressing opposition to any shifting of the dwellings closer to Seminary Road. Such a shift would only be possible if Planning & Zoning staff designated an alternative blockface along Seminary Road to be used for the purposes of determining the front yard setback for Lot #1.

As noted in the prior staff report for DSP#2016-0025, Planning & Zoning staff was willing to analyze whether an alternative blockface along Seminary Road would be equally appropriate in this instance compared to the blockface used for the front setback in the submitted site plan. Staff stipulated that, if such an alternative blockface determination could be made, the applicant would need to provide a revised site plan submission, which would defer the project from the October docket. However, the applicant was willing to consider site layout changes only if the project was not deferred from the October docket. Given the change was also too significant to be addressed through condition language and resolved through the final site plan process, staff could not recommend any changes to the Planning Commission regarding the site layout at the October public hearing. Ultimately, approval of DSP#2016-0025 at the October public hearing did not include any changes to the location of the proposed dwellings.

In the weeks following Commission approval of DSP#2016-0025, the applicant has reconsidered site layout options for the project in response to both neighborhood and staff feedback. The new proposal, which requires approval of a DSP amendment and a new site plan modification request, would change the location of the proposed dwelling on Lot #4 only. The new proposal is described in detail in Section III of this report.

## ***B. Appeal***

On October 18, 2017, representatives of Beth-El Hebrew Congregation filed an appeal of the Planning Commission's approval of DSP#2016-0025 to City Council. Pursuant to Section 11-409(C) of the Zoning Ordinance, any group of 25 residents/property owners in the City or any owner of property located within 1,000 feet of the project site may file an appeal and must do so within 15 days of the Planning Commission decision.



## **C. Site Context**

### *General Information*

The project site comprises two lots of record: 3832 and 3834 Seminary Road. The 3832 Seminary Road property measures 42,776 square feet (0.98 acres) and is the smaller and narrower of the two lots. An unimproved lot, it has been under the same ownership as the 3834 Seminary Road property for decades. The property at 3834 Seminary Road is the larger of the two properties at the project site at 93,422 square feet (2.15 acres) and is improved with a two-story single-family dwelling. The total project site area is 136,198 square feet (3.13 acres).

The site is surrounded by institutional and residential uses. The Virginia Theological Seminary (VTS) and the synagogue of Beth El Hebrew Congregation are located immediately to the north and east of the site, respectively. Single-family dwellings are located to the south and west, including along Saint Stephens Road and Colonel Ellis Avenue. The upper school campus of Saint Stephen's / Saint Agnes School is located a short distance to the southwest from the site.

### *Topographic and Environmental Features*

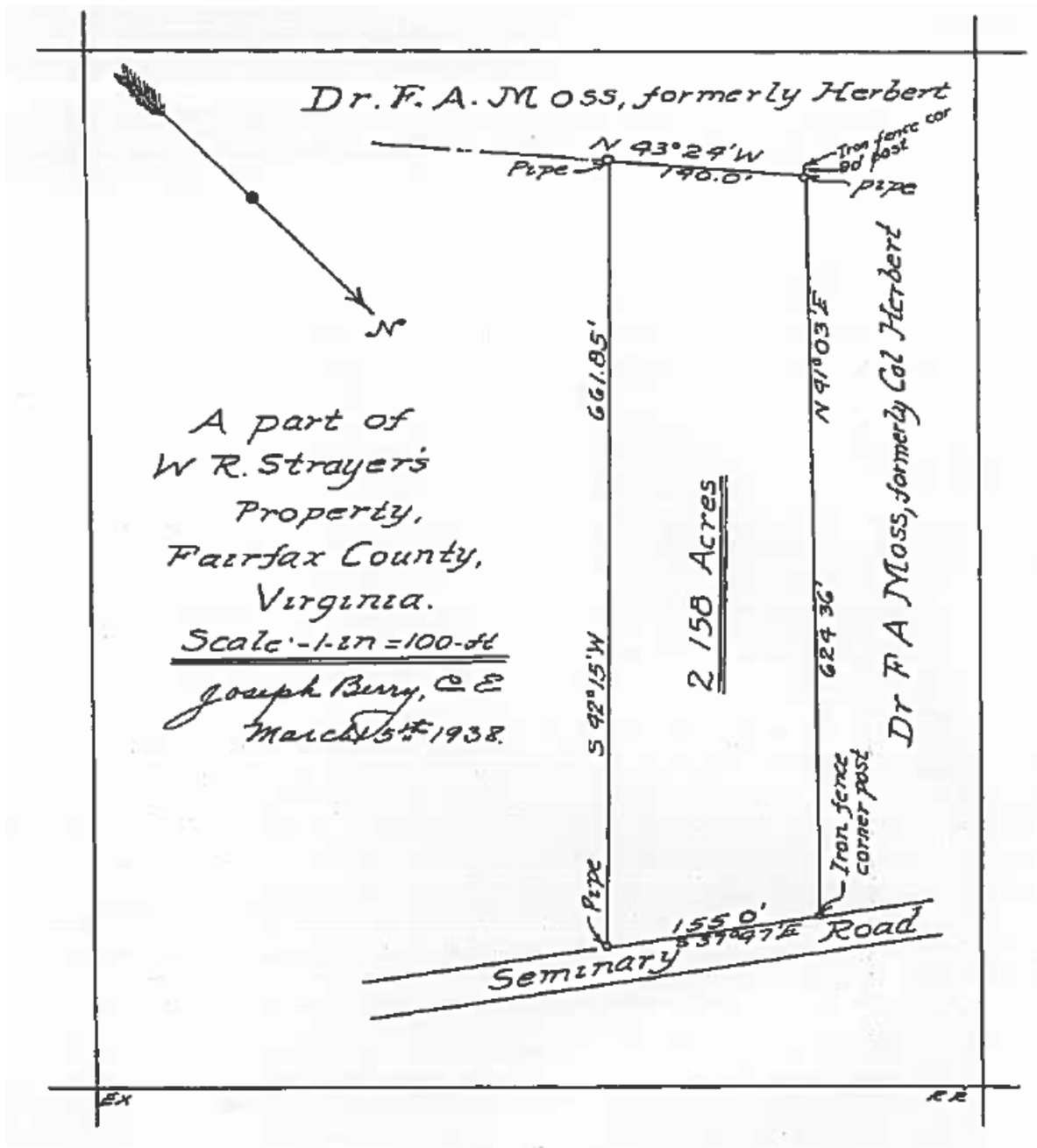
The project site is heavily wooded and contains notable topographical variations. The northeastern, north-central, and central portions of the property slope gently downward to the west and south. As explained in greater detail in the previous staff report for this project, a roughly L-shaped area located along the western and southern portions of the site contains significant grade changes. The area, which has been referred to as a swale or ravine, begins near the northern edge of the property as terrain that is approximately four to six feet lower than surrounding grade. The grade difference increases as the swale continues south such that, at its lowest point, the swale is approximately 25 feet lower than surrounding grade and is defined by relatively steep sides. The swale is not a Resource Protection Area (RPA) or other defined environmental feature and is not subject to protection under current regulations.

Near the southern edge of the project site, within the swale area, environmental features known as a seep point and basin have been identified. The seep is a small point in the earth's surface from which groundwater naturally springs upward and the basin is an immediately-adjacent area on the ground where water from the seep may collect. The amount of water on the ground coming from the seep was small and shallow during a site visit early this year, covered in many places by dead leaves. The seep point, basin and adjacent areas meet the definition of an "isolated wetland." The isolated wetland has been depicted on the preliminary site plan and is subject to regulations described in the staff report for DSP#2016-0025.

### *Subdivision History*

The two existing properties at the project site were created individually, rather than as part of a planned subdivision in 1938 (3834 Seminary) and 1940 (3832 Seminary) prior to the annexation of this area by the City of Alexandria from Fairfax County in 1952. The plat associated with the creation of 3834 Seminary Road can be found in Graphic #1 on the following page. Aside from the dedication of land to the City in the 1950s for street widening purposes, the boundaries of each property at the project site have remained unchanged since their creation over 75 years ago.

Graphic #1: 3834 Seminary Road Plat (1938)



### **III. PROJECT DESCRIPTION**

The applicant, 3834 Seminary LLC, seeks approval of three land-use requests connected to last month's approval of Development Site Plan #2016-0025 to build four single-family dwellings as part of a project known as Karig Estates: a Street Name Case, a Subdivision request, and a Development Site Plan amendment.

With regard to the Street Name Case, the applicant continues to request approval of the name **Karig Place** for the new street to be constructed in connection with the project.

The subdivision request involves the subdivision of two existing lots into four new lots, along with the dedication of land to the City in two locations. The first land dedication from the applicant to the City would be a one-foot wide strip of land along the Seminary Road frontage of the project site, constituting approximately 122 square feet of land in total, for the construction of a new, wider public sidewalk. The second land dedication to the City at the project site would be a 24,944 square-foot area of land on the eastern side of the site on which the applicant would construct the new public street.

The four new lots on which residential dwellings are planned (Lots #1-4) would range from 22,558 square feet to 36,059 square feet in size. Their lot frontages would range from 75 to 210 feet and have lot widths of 121 feet to 208 feet. The lot size, lot frontage, and lot width measurements for Lots #1-4 have not changed in this subdivision request compared to what was depicted within the previously-approved Development Site Plan #2016-0025.

The Development Site Plan (DSP) amendment request is to revise the location of the proposed dwelling on Lot #4 from what Planning Commission approved last month as part of DSP#2016-0025. In the applicant's proposal, the location of the dwelling on Lot #4 would change in four significant ways:

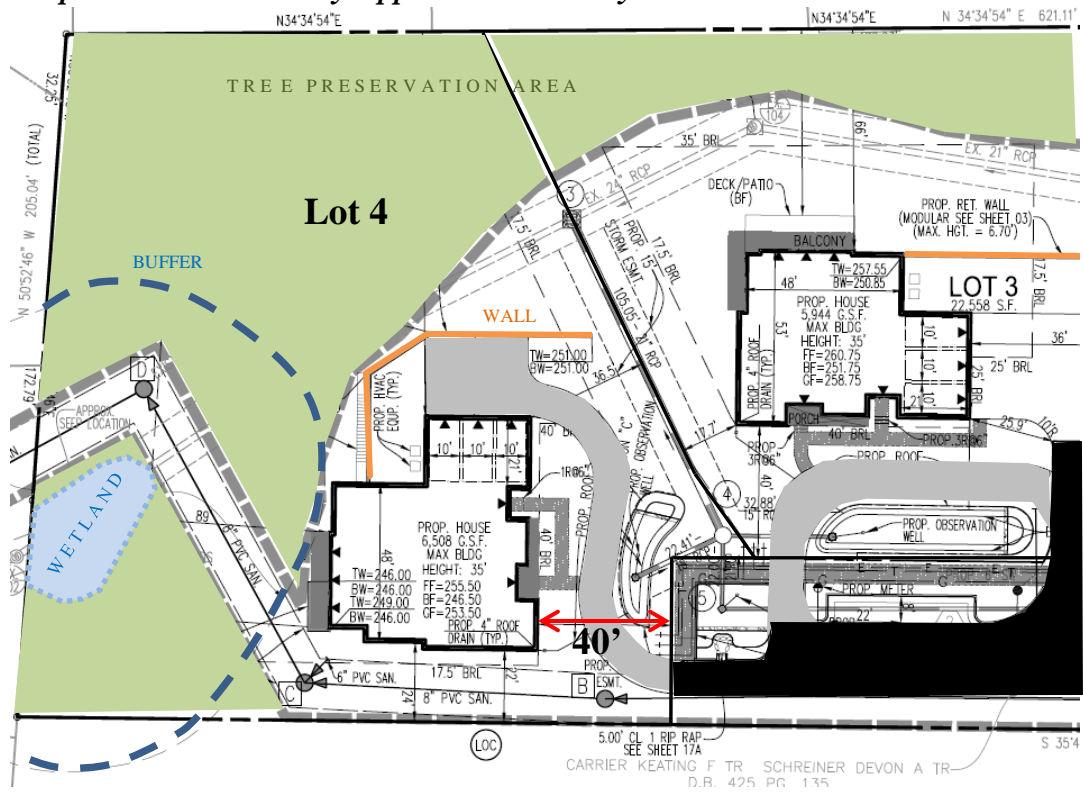
1. The orientation of the dwelling would be flipped such that the entrance to the attached garage would be located on the east side of the dwelling instead of the previously-approved west side of the dwelling;
2. As a consequence of relocating the garage entrance on Lot #4, the previously-approved winding driveway that traverses the front yard, as well as the associated turn-around area, would be eliminated in favor of a shorter, straight driveway from the end of the proposed new street and a smaller turn-around area; and
3. The newly-oriented dwelling would be shifted to the north, closer to the end of the new public street, by approximately 12.5 feet, resulting in a front yard setback of 27.5 feet, which would need to be modified from the 40-foot setback requirement.
4. The previously-approved 13-foot retaining wall would now become much shorter in length and only measure five feet in height, and a new 4.5-foot retaining wall would be added to the east of the dwelling near the eastern property line.



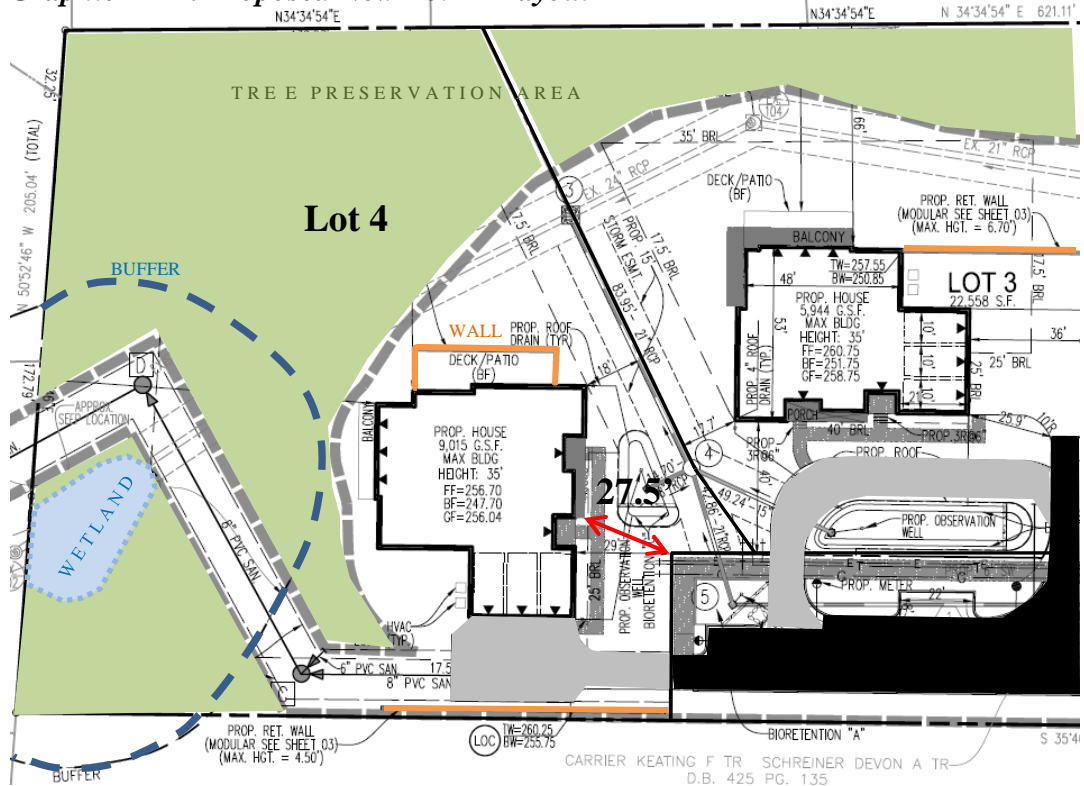
The applicant has submitted revised site plan sheets depicting the above-described changes to Lot #4 as well as other, related changes. A portion of the line of disturbance (also known as limits of clearing and grading) has moved farther away from the swale and from the wetland buffer. One additional existing tree would now be saved to the south of the proposed dwelling on Lot #4, resulting in an increase in the tree canopy at the site from 39.5% to 41%. The grading around the dwelling on Lot #4 is proposed to change given its revised siting. The dimensions and exact locations of the bio-retention areas and associated pipes have also slightly changed on Lots #3 and #4. No other changes involving Lots #1-3 are proposed. A slight change in the amount of paved area in the public street is proposed, and one on-street parking space in front of Lot #3 has been eliminated in the revisions.

Although the building footprint has not significantly changed, the relocation of the dwelling on Lot #4 has changed the front, side, and rear setbacks. In addition, the portion of the dwelling's basement that is located above average finished grade has increased. Based on the definition of floor area, the floor area ratio (FAR) for Lot #4 has therefore increased compared to the previously-approved site plan, from 0.17 to 0.25, which is the maximum allowable FAR in the R-20 zone. A comparison of the previously-approved dwelling location to the currently-proposed dwelling location on Lot #4 can be found in Graphics #2-A and #2-B on the following page.

**Graphic #2-A: Previously-Approved Lot #4 Layout**



**Graphic #2-B: Proposed New Lot #4 Layout**



## **IV. LAND-USE REGULATIONS**

### ***A. General Zoning Regulations***

The project site is zoned R-20 / Single Family. Pursuant to Section 3-102 of the Zoning Ordinance, single-family residential uses are allowed in R-20 without the need of a Special Use Permit. As described in the previous staff report for the project, the 40-foot front setback listed in the R-20 zone (Section 3-106(A)(1)) has been applied as the front setback requirement for the proposed dwelling on Lot #4, which is the focus of the DSP amendment request.

Sections 11-403 and 11-404 require Development Site Plan (DSP) approval for the contemporaneous development of three or more single-family dwellings, as is the case for this project. Section 11-415 stipulates that changes to an approved DSP not deemed to be minor must be processed as a DSP amendment and reviewed by the Planning Commission.

Section 11-416 provides for the potential modification of certain minimum zoning requirements as part of the DSP approval, including the 40-foot front yard setback requirement for Lot #4 that is requested in this application. Several zoning elements of the Lot #4 revisions, Lot #4 as previously approved, and Lots #1-3, which have remained unchanged with regard to zoning, can be found in the table on the following page.

### ***B. Subdivision Standards***

Several sections of the Zoning Ordinance contain requirements and standards for subdivision review. Sections 11-1706 and 11-1709 of the Zoning Ordinance contain several technical subdivision requirements and Section 11-1710(D) stipulates a general requirement that all lots meet zone requirements. Section 11-1710(B) requires that every subdivided lot be “of substantially the same character as to suitability for residential use and structures, lot areas, orientation, street frontage, alignment to streets and restrictions as other land in the subdivision, particularly with respect to similarly situated lots within the adjoining portions of the original subdivision.”

Section 11-1710(B) further explains that the lots within a given subdivision proposal should be compared, for the purpose of determining neighborhood character, to:

“... the established neighborhood created by the original subdivision, evidence of which may be shown by: (1) Subdivision plat documents, including amendments to the subdivision over time, as well as the development that has occurred within the subdivision; and (2) land in the same general location and zone as the original subdivision with the same features so as to be essentially similar to the original subdivision area.”

**C. Zoning Tabulations**

Site Area:	<i>111,204 SF (new lots) + 24,944 SF (street dedication) = 136,198 SF total (3.13 acres)</i>					
Zone:	R-20 / Single-family zone					
Current Use:	One single-family dwelling					
Proposed Use:	Four single-family dwellings on four new lots					
	<i>Permitted / Required</i>	<i>Previously-Approved</i>				<i>Proposed</i>
		<i>Lot 1</i>	<i>Lot 2</i>	<i>Lot 3</i>	<i>Lot 4</i>	<i>Lot 4</i>
Lot Size	20,000 SF min	29,797 SF	22,840 SF	22,558 SF	36,059 SF	36,059 SF
Lot Width	100 feet min (non-corner)	N/A	126'	121'	135'	135'
	120 feet min (corner)	208' 167'	N/A	N/A	N/A	N/A
Lot Frontage	75 feet min	210'	126'	101'	75'	75'
		154'				
FAR	0.25	0.21	0.25	0.25	0.17	0.25
Height	35 feet	35'	35'	35'	35'	35'
Front Yard	104.1 feet (Lot 1 - Seminary Rd)	104.1'	26.2'*	25.9'*	40'	27.5'***
	40 feet (all others)	40'				
Side Yards	12 feet min / 1:2 ratio = 17.5 feet	61.2'	20.8'	36'	21.7'	30'
		18.7'	36.5'	17.7'	36.5'	18'
					115'	109'
Rear Yard	12 feet min / 1:1 ratio = 35 feet	N/A	69'	66.2'	89.2'	101'
Tree Canopy	25% of each lot	63.7%	44%	39.9%	39.5%	41%
Parking	2 spaces / unit	Three garage spaces / unit plus driveway parking				

\*Modification previously-approved

\*\* Modification currently requested

## **D. *Additional Regulations***

Several additional regulations regarding wetlands, stormwater, soil erosion, and a geotechnical report are described in the staff report for DSP#2016-0025 in Attachment #3.

Section 5-2-64 of the City Code grants authority to the Planning Commission to approve new public street names. In new development projects, the applicant typically proposes new public street names, which are then reviewed for factors such as addressing and emergency response considerations. The City agencies involved in the vetting process include the Fire Department, the Police Department, the Department of Emergency Communications, GIS, Archaeology, Code Administration, and Planning & Zoning. Once proposed street names are vetted, they are presented to the Planning Commission for public comment and an official vote.

## **V. STAFF ANALYSIS**

Staff recommends approval of the Development Site Plan amendment, subdivision and street name case requests associated with the Karig Estates project. The subdivision and street name cases do not involve aspects of the previous approval that have changed, but are required here primarily for procedural and administrative reasons. The DSP amendment to revise the location of the dwelling proposed for Lot #4 represents a positive change to the proposal.

### **A. *Development Site Plan Amendment***

#### **Lot #4 Dwelling Placement**

The three primary revisions to Lot #4 proposed in this amendment - flipping the attached garage to the other side of the dwelling, changing the driveway location and shape, and moving the dwelling 12.5 feet closer to the end of the new public street – achieve several outcomes. Given the specific location and shape of the swale, flipping the dwelling and placing the garage entrance on the east side of the building eliminates the need for the winding driveway across the front yard of Lot #4. Placing the garage entrance and driveway area on the eastern side of the dwelling, where land is comparatively less steep, eliminates the need for the 13-foot tall retaining wall that would have been necessary under the previously-approved plan. The relocation of the driveway necessarily reduces its size and amount of paved area on the lot. Staff also prefers the reduced prominence of the driveway in the current proposal that is achieved by moving it from the front yard to the side yard of the property.

The garage entrance and driveway changes allow for the third, and perhaps most significant, change of moving the dwelling 12.5 feet closer to the end of the new public street. The change, which would not have been possible previously given the driveway location, brings the dwelling farther out of the L-shaped swale at the site. Staff discussed in the previous staff report for the project that the swale does not meet any definitions of an environmental feature and is not subject to regulatory protection. Nonetheless, staff supports efforts to reduce impacts on the swale, when reasonably possible, in a general effort to reduce the impact of development on the

environment as good urban planning practice. Given that the land on the northern portion of proposed Lot #4 is comparatively less steep than its central and southern portions, the proposed 12.5-foot difference in the house location would reduce impacts to the swale. In addition, the distance between the wetland buffer and the line of disturbance has increased and allows for the protection of one additional tree to the south of the proposed dwelling compared to the previously-approved plan. The overall tree canopy proposed for the site would increase from 39.5% to 41%.

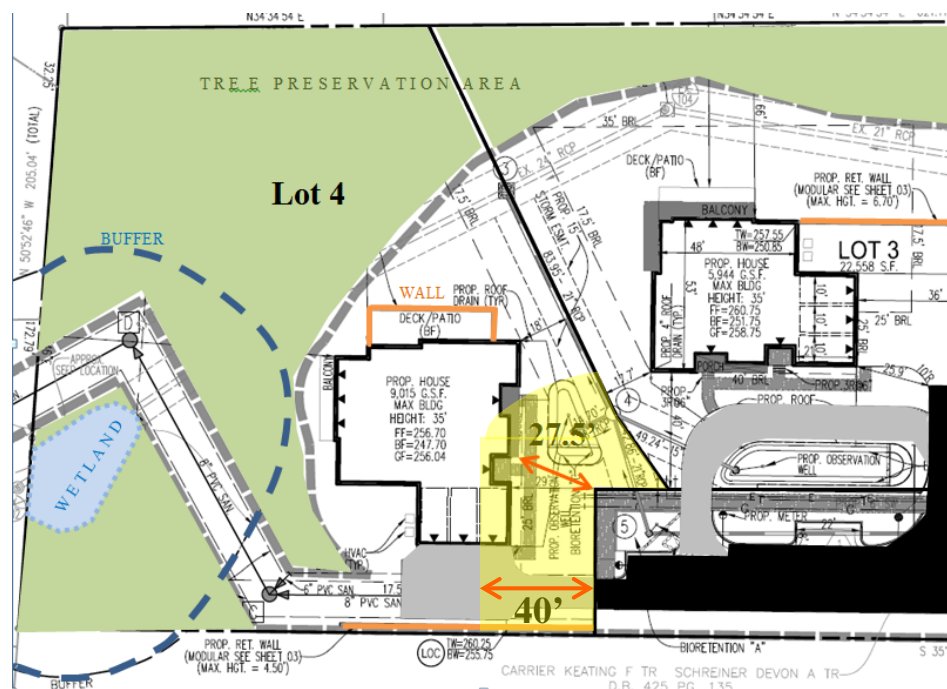
### Front Yard Modification

Staff also supports the request for a new site plan modification for the front yard setback requirement on Lot #4 (see Graphic #3 below), a request in addition to the previously-approved modifications on Lots #2 and #3. It finds that the proposal meets the three criteria for modifications listed in Section 11-416 as described below.

1. Such modifications are necessary or desirable to good site development.

The requested modification of the front yard requirement on Lot #4 from 40 to 27.5 feet is desirable in this instance because it would limit the degree of impact from the development on the swale. Although the swale is not a regulated feature, limiting the changes to the swale to the extent reasonably necessary supports good urban planning practice and good site development.

**Graphic #3: Front Yard Modification Exhibit**



2. *Specific and identified features of the site design make up for those impacts otherwise protected by the regulations for which modification is sought.*

The public right-of-way located in front of the dwelling on Lot 4 would likely have very low traffic, potentially only traffic associated with the proposed dwelling on that lot, given that the vehicle turn-around area is located prior to this portion of the street. This portion of the street would therefore not function as a traditional through street. Staff believes that this circumstance reduces the potential impacts that would be otherwise mitigated through the full 40-foot front yard setback requirement.

3. *Such modifications will not be detrimental to neighboring property or to the public health, safety and welfare.*

The requested setback modifications are internal to the project site and therefore would not be detrimental to neighboring property or to the public health, safety, or welfare. A reasonable front yard setback of 27.5 feet would still be provided at Lot #4.

## ***B. Subdivision Request***

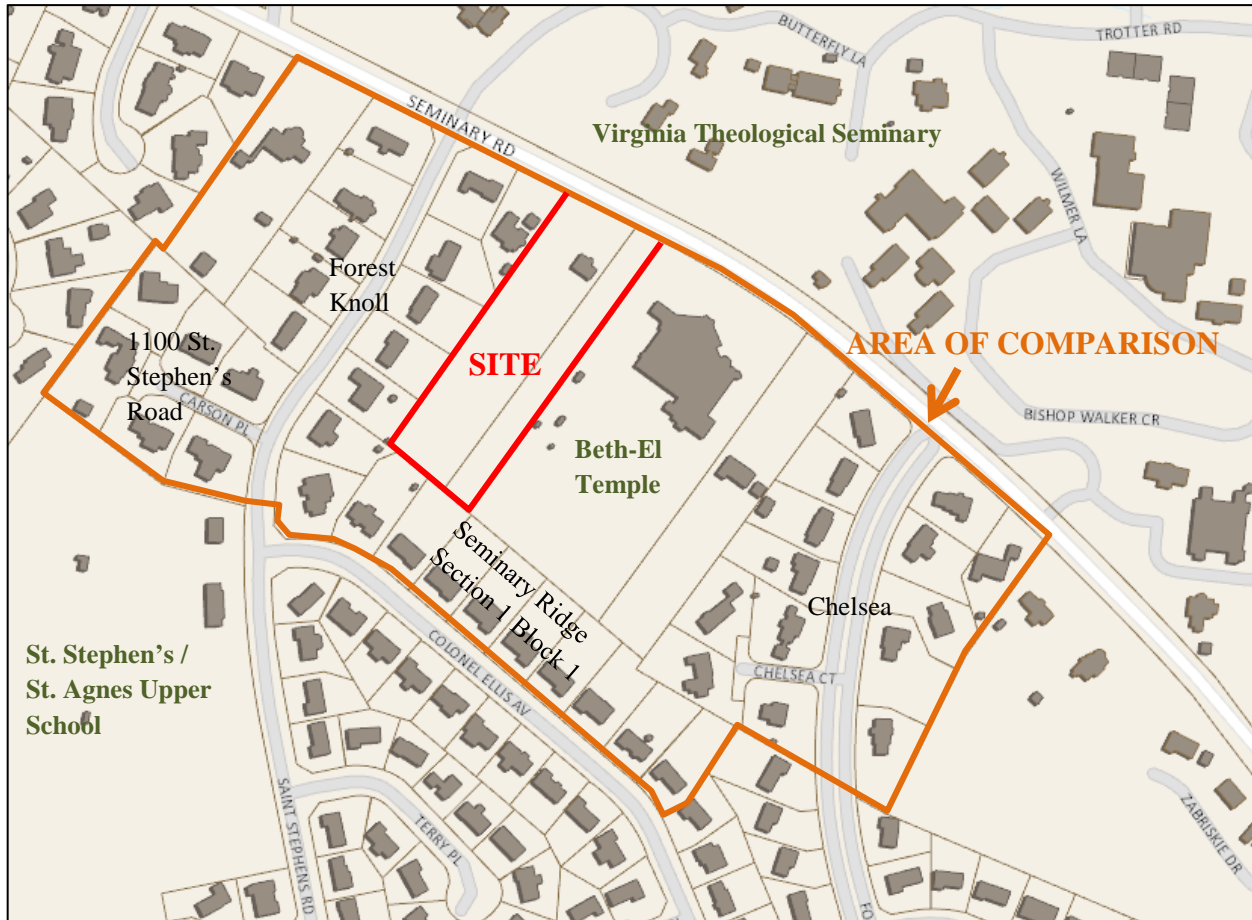
Staff supports the requested subdivision, which has not changed compared to the lots depicted in the Development Site Plan request approved last month. The proposal meets general subdivision requirements, is consistent with the Master Plan, and meets the requirements of the R-20 zone regarding minimum lot size, frontage and width. As part of its review of the case, staff has researched the subdivision history in the area to determine the appropriate area of comparison and the subset of lots within that area that are most similarly-situated to the subject site.

### **Lot Character – Area of Comparison**

Given that both existing lots in the project were created individually many years ago, no traditionally-planned “original subdivision” exists for use in the lot character analysis. Section 11-1710(B)(2) therefore has been applied to this case, which allows for additional land in the same zone as, and with features similar to, the original subdivision area to be used in order to determine an alternative area of comparison.

The area of comparison used in this case consists of a group of 45 contiguous lots, shown in Graphic #4 on the following page, which are located on the south side of Seminary Road to the east, south, and west of the subject lots. The lots all share the same zone, R-20, and are geographically proximate. The area includes several lots containing either the same swale that is present on the subject lots or other variable terrain. The boundaries of the area of comparison reflect all of the lots in the subdivisions known as “Forest Knoll” (1958), “Seminary Ridge Section 1 Block 1” (1973), “Chelsea” (1982), and “1100 St. Stephen’s Road” (1999), as well as three individually-created lots on Seminary Road. The area of comparison excludes the property to the north at Virginia Theological Seminary given the substantially different land-use and development pattern present at that site.

**Graphic #4: Area of Comparison**



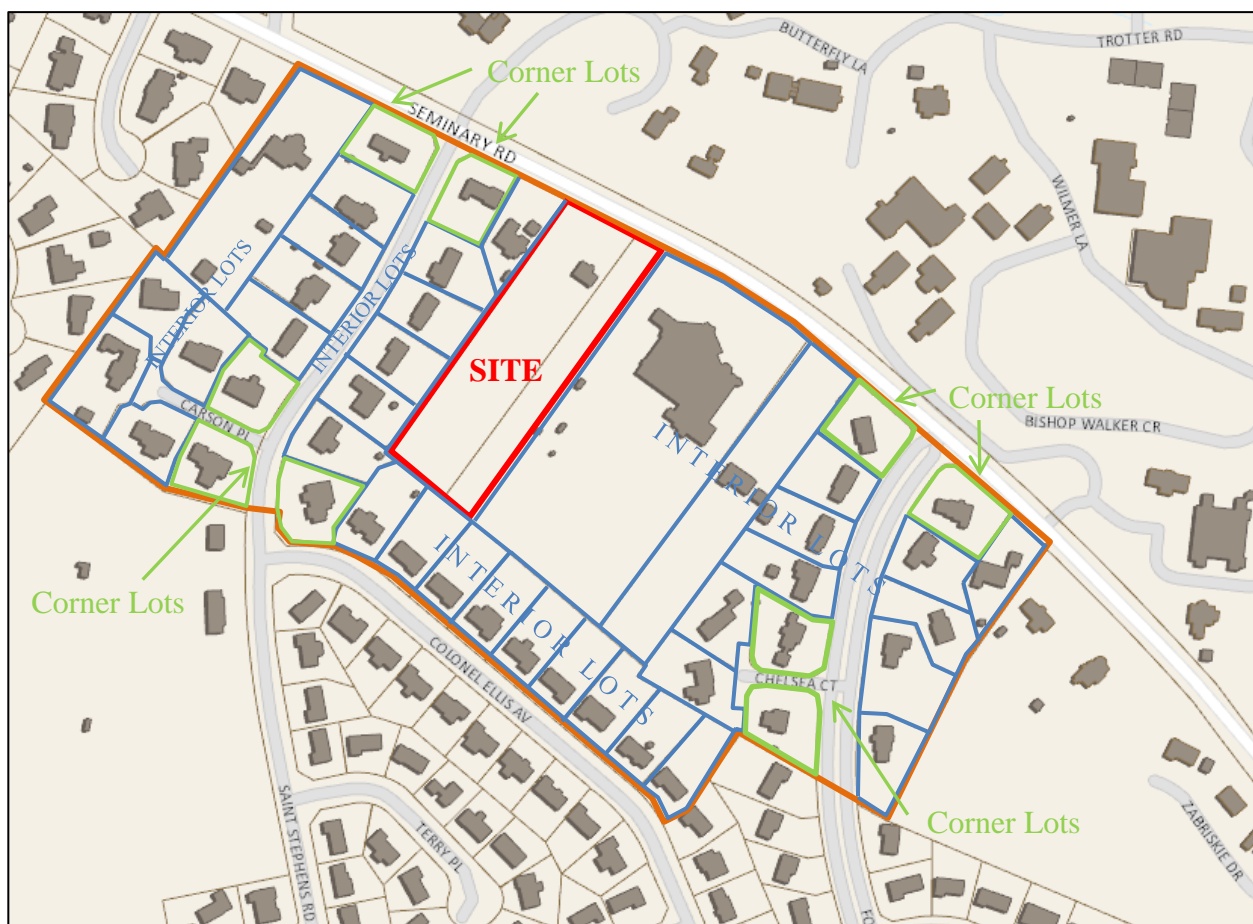


**Lot Character – Similarly-Situated Lots**

In order to answer the lot character question, a second determination is also required regarding which subset of lots within the area of comparison are the most “similarly situated” compared to the proposed lots. Similarly-situated lots are those lots within the area of comparison that share the same siting or position as the proposed lots. As it has done in many other subdivision cases, staff has determined in the current request that corner lots are most similar to other corner lots and interior lots are most similarly-situated to other interior lots.

Given that the current proposal has one corner lot and three interior lots, two different groups of “similarly-situated” lots must be selected for analysis. Staff has determined that nine corner lots are more similarly-situated to proposed Lot #1 than all others within the area of comparison. Likewise, staff has determined that 36 interior lots within the area of comparison are the most similarly-situated to proposed Lots #2-4 than all others. These interior and corner lots are identified in Graphic #5 below.

***Graphic #5: Similarly-Situated Lots***



**Lot Character Analysis**

When comparing only corner lots, proposed Lot #1 is larger than the lot sizes found at the nine other corner lots within the area of comparison as shown in Table 1-A below. Proposed Lot #1 also has greater lot frontage (for the primary frontage) than the nine other lots as shown in Table 1-B, and falls within the upper portion of the range of lot frontages for the secondary frontage as shown in Table 1-C below. Although Lot #1 exceeds the lot sizes and primary lot frontages found at all nine other similarly-situated lots, similar circumstances have existed in other subdivision cases. The subdivision regulations are oriented toward the planning goal of preventing the creation of lots that are too small for their zone and their neighborhood rather than regulating whether new lots are too large.

Table 1-A: Corner Lot Size Comparison

Address	Lot Size (in SF)
4000 Seminary	20,000
3976 Seminary	20,000
3730 Seminary	20,396
3750 Seminary	20,434
4001 Carson	20,688
614 Fort Williams	21,128
616 Fort Williams	21,404
4000 Carson	21,848
1101 St. Stephens	22,034
<b><i>Proposed Lot #1</i></b>	<b><i>29,797</i></b>

Table 1-B: Corner Lot Frontages  
Comparison (Primary Frontage)

Address	Lot Frontage (in feet)
616 Fort Williams	115
3976 Seminary	118
4000 Carson	129
1101 St. Stephens	131
4001 Carson	139
4000 Seminary	143
3730 Seminary	154
3750 Seminary	161
614 Fort Williams	171
<b><i>Proposed Lot #1</i></b>	<b><i>210</i></b>

Table 1-C: Corner Lot Frontage  
Comparison (Secondary Frontage)

Address	Lot Frontage (in feet)
1101 St. Stephens	110
3750 Seminary	115
4000 Seminary	119
4000 Carson	123
4001 Carson	129
3730 Seminary	130
<b><i>Proposed Lot #1</i></b>	<b><i>154</i></b>
3976 Seminary	155
614 Fort Williams	181
616 Fort Williams	183

With regard to the interior lots, staff found that the lot sizes of proposed Lots #2 through #4 also fall within the upper portion of the range of lot sizes found at the other 36 interior lots within the area of comparison as shown in Table 2-A on the following page. The lot frontages of proposed Lots #2 and #3 fall within the middle and upper portions of the range of lot frontages found at the other 36 interior lots. The lot frontage of proposed Lot #4 falls at the low end of the range of lot frontages of the similarly-situated interior lots. Table 2-B on the following page shows the lot frontages for all 36 interior lots within the area of comparison.

The comparison of the new lots in the current proposal to their respective similarly-situated lots within the area of comparison reveals that the new lots are either larger than, or fall within the range of, existing lot sizes and frontages nearby. Lots #1-4 in this proposal therefore meet the tests that they are not smaller than required in their particular zone and not smaller than range of lot sizes and frontages for other lots in their neighborhood. Staff therefore concludes that the subdivision request is compatible with the character of other nearby lots as required in Section 11-1710 of the Zoning Ordinance.

Table 2-A: Interior Lot Size Comparison

Address	Lot Size (in SF)
3908 Seminary	19,994
3909 Colonel Ellis	20,000
3913 Colonel Ellis	20,000
3933 Colonel Ellis	20,000
3929 Colonel Ellis	20,000
3925 Colonel Ellis	20,000
3921 Colonel Ellis	20,000
620 Fort Williams	20,000
622 Fort Williams	20,000
3917 Colonel Ellis	20,000
1211 St. Stephens	20,000
615 Fort Williams	20,000
1124 St. Stephens	20,001
1116 St. Stephens	20,001
1123 St. Stephens	20,002
1115 St. Stephens	20,002
1212 St. Stephens	20,002
4005 Carson	20,004
1201 St. Stephens	20,004
1200 St. Stephens	20,004
3720 Seminary	20,019
4003 Carson	20,074
4002 Carson	20,142
611 Fort Williams	20,263
1109 St. Stephens	20,339
3941 Colonel Ellis	20,530
3937 Colonel Ellis	21,058
3800 Chelsea	21,312
618 Fort Williams	21,621
607 Fort Williams	21,687
3802 Chelsea	21,820
<b>Proposed Lot #3</b>	<b>22,558</b>
<b>Proposed Lot #2</b>	<b>22,840</b>
4004 Carson	28,116
609 Fort Williams	28,754
<b>Proposed Lot #4</b>	<b>36,059</b>
4018 Seminary	83,300
3800 Seminary	85,478
3830 Seminary	236,095

Table 2-B: Interior Lot Frontage Comparison

Address	Lot Frontage (in feet)
4005 Carson	25
<b>Proposed Lot #4</b>	<b>75</b>
3800 Chelsea	78
611 Fort Williams	83
3941 Colonel Ellis	88
3909 Colonel Ellis	89
1201 St. Stephens	96
3913 Colonel Ellis	97
3937 Colonel Ellis	97
3802 Chelsea	97
3933 Colonel Ellis	100
3929 Colonel Ellis	100
3925 Colonel Ellis	100
3921 Colonel Ellis	100
620 Fort Williams	100
622 Fort Williams	100
618 Fort Williams	100
4004 Carson	100
<b>Proposed Lot #3</b>	<b>101</b>
1124 St. Stephens	102
3720 Seminary	102
1123 St. Stephens	103
3917 Colonel Ellis	105
1200 St. Stephens	107
1115 St. Stephens	108
1116 St. Stephens	110
3908 Seminary	114
1211 St. Stephens	116
3800 Seminary	119
1212 St. Stephens	122
<b>Proposed Lot #2</b>	<b>126</b>
4002 Carson	127
1109 St. Stephens	136
4003 Carson	150
615 Fort Williams	157
4018 Seminary	170
607 Fort Williams	189
609 Fort Williams	194
3830 Seminary	337

### ***C. New Street Name***

Staff continues to recommends that the new public street proposed in connection with this project be named **Karig Place** as requested by the applicant. The name, which is a family surname of current and former property owners, is the applicant's preferred choice among the list of names that staff deemed acceptable through its standard vetting process among city departments.

### ***D. Condition Changes***

Staff has recommended several minor changes to recommended conditions compared to the previously-approved DSP#2016-0025 in connection with the current proposal. Conditions #1, #6, #9, and #11 have all been revised to include references to both the preliminary plan submitted with DSP#2016-0025 and the revisions shown in the current request. Condition #19 would return, unless deemed infeasible, one on-street parking space to the proposed public street in front of Lot #3 given that a parking space had been depicted in this location in previously-approved DSP#2016-0025. Revised Condition #24 would require additional revisions at the time of final site plan submission that are related to public easements. The requirement in Condition #25 that the applicant must submit a subdivision application within 30 days of the prior approval has already been satisfied and has therefore been deleted. This condition would now also require two minor changes to be included within the final subdivision and easement plats.

Revised Condition #31 specifies that the applicant would need to include any construction hours more limited than City Code within its construction management plan. Condition #59 has been revised to explicitly state that the sewer line may not be located within the delineated wetland on Lot #4. Condition #82 has been revised to require disclosure to all future owners that no permanent structures may be constructed in public easements. Finally, Condition #83 has been added to staff's recommendation to reflect the Planning Commission's discussion at the October 3<sup>rd</sup> hearing of mitigating impacts on the neighboring Beth-El Hebrew congregation by imposing construction hours more limited than what is allowed in the City Code.

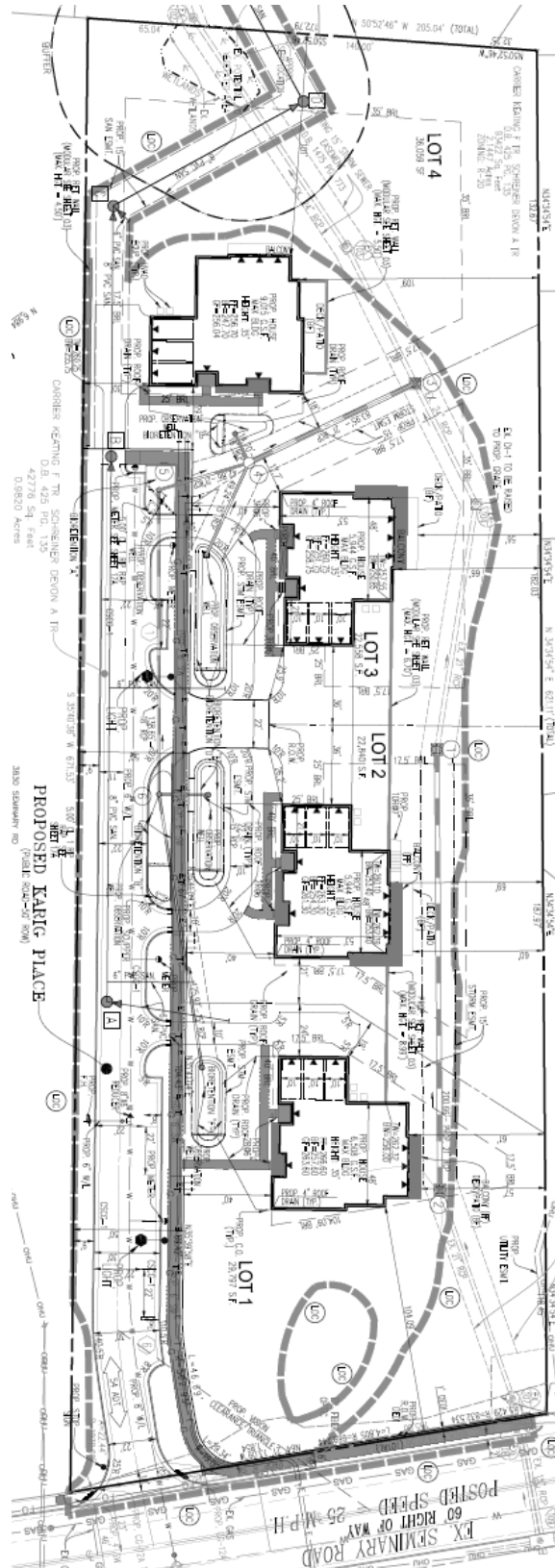
## **VI. CONCLUSION**

Staff recommends approval of the Development Site Plan amendment request, the subdivision request, and the request for a new street name, subject to compliance with all applicable codes and recommended conditions.

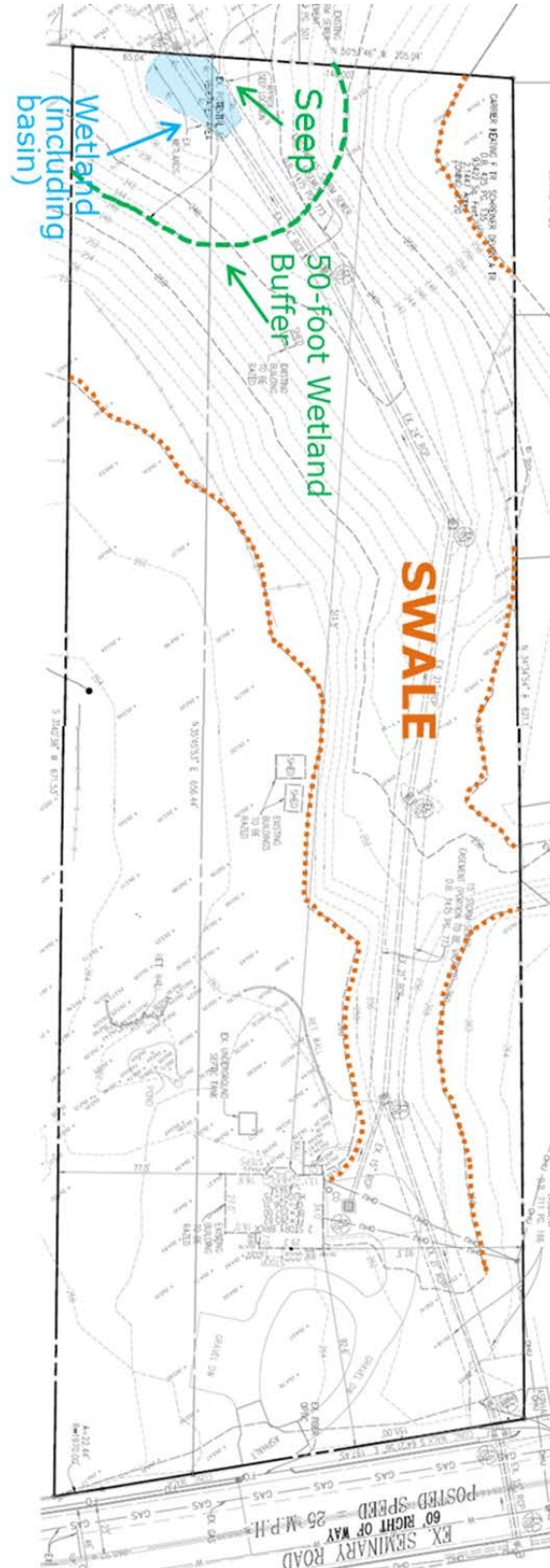
**Staff:** Robert M. Kerns, AICP, Division Chief, Development;  
Maya Contreras, Principal Planner; and  
Nathan Randall, Urban Planner.

## VII. ADDITIONAL GRAPHICS

*Graphic #6 – Revised Karig Estates Site Plan*



**Graphic #7 - Isolated Wetland & Topographic Illustrative Exhibit**



## **VIII. STAFF RECOMMENDATIONS**

1. **CONDITION AMENDED BY STAFF:** The Final Site Plan shall comply with the following conditions of approval and, unless otherwise stipulated in condition language, shall also be in substantial conformance with the preliminary plan submitted as part of DSP#2016-0025 and dated August 1, 2017 as revised by the preliminary plan submitted as part of DSP#2017-0022 and dated October 19, 2017. (P&Z) (DSP#2016-0025)
- A. ***PEDESTRIAN/STREETSCAPE:***
  2. Provide the following pedestrian improvements to the satisfaction of the Directors of P&Z and T&ES:
    - a. Complete all pedestrian improvements prior to the issuance of a certificate of occupancy permit.
    - b. Install ADA accessible pedestrian crossings serving the site.
    - c. Construct all concrete sidewalks to City standards. The minimum unobstructed width of newly constructed sidewalks shall be 6 feet.
    - d. Sidewalks shall be flush across all driveway crossings.
    - e. All newly constructed curb ramps in Alexandria shall be concrete with detectable warning and shall conform to current VDOT standards.
    - f. Curb ramps shall be perpendicular to the street to minimize crossing distances. Any changes must be approved by the Director of T&ES.
    - g. Provide thermoplastic pedestrian crosswalks at all crossings at the proposed development, which must be designed to the satisfaction of the Director of T&ES.
    - h. All crosswalks shall be standard, 6 inches wide, white thermoplastic parallel lines with reflective material, with 10 feet in width between interior lines. All other crosswalk treatments must be approved by the Director of T&ES.
    - i. All below grade utilities placed within a City sidewalk shall be designed in such a manner as to integrate the overall design of the structure with the adjacent paving materials so as to minimize any potential visible impacts. \*\*\* (P&Z)(T&ES)
    - j. Provide a one-foot dedication of ROW adjacent to the sidewalk on Seminary Road.\*\*\* (P&Z)(T&ES) (DSP#2016-0025)
- B. ***OPEN SPACE/LANDSCAPING:***
  3. Develop, provide, install and maintain an integrated Landscape Plan with the Final Site Plan that is coordinated with other associated site conditions to the satisfaction of the Director of P&Z. Landscape plans shall be submitted in accordance with the City of Alexandria's Landscape Guidelines, and at a minimum shall:
    - a. Ensure positive drainage in all planted areas.
    - b. Provide detail, section, and plan drawings for plantings located above-structure and on-grade. Illustrate at-grade and sub-surface conditions, including irrigation, adjacent



- curb/pavement construction, edge restraint system, dimensions, drainage, and coordination with site utilities.
- c. The location of all pole-mounted lights shall be coordinated with all trees. Light poles shall be located a minimum of ten (10) feet from the base of all trees, and the placement and height of light poles shall take into account the mature size and crown shape of all nearby trees.
  - d. All sidewalks and driveways constructed above tree wells/trenches shall be structurally supported. Areas of uncompacted growing medium shall not be used to support sidewalks and driveways without additional structural support. Provide section details both parallel and perpendicular to the street that verify this requirement.
  - e. Identify the extents of any areas of tree wells/trenches within the sidewalk on the landscape and site plans.
  - f. Provide a plan exhibit that verifies the growing medium in street tree wells/trenches, meets the requirements of the City's Landscape Guidelines for soil volume and. The plan shall identify all areas that are considered to qualify towards the soil requirements, with numerical values illustrating the volumes. (P&Z) (DSP#2016-0025)
4. Provide a site irrigation and/or water management plan developed installed and maintained to the satisfaction of the Directors of P&Z and Code Administration.
- a. Provide an exhibit that demonstrates that all parts of the site can be accessed by a combination of building mounted hose bibs and ground set hose connections.
  - b. Provide external water hose bibs continuous at perimeter of building. Provide at least one (1) accessible, external water hose bib on all building sides at a maximum spacing of 90 feet apart.
  - c. Hose bibs, ground set water connections and FDCs must be fully accessible and not blocked by plantings, site utilities or other obstructions.
  - d. Install all lines beneath paved surfaces as sleeved connections.
  - e. Locate water sources and hose bibs in coordination with City Staff. (P&Z) (DSP#2016-0025)
5. Provide material, finishes, and architectural details for all retaining walls, seat walls, decorative walls, and screen walls. Indicate methods for grade transitions, handrails — if required by code, directional changes, above and below grade conditions. Coordinate with adjacent conditions. Design and construction of all walls shall be to the satisfaction of the Directors of P&Z and T&ES.\* (P&Z)(T&ES) (DSP#2016-0025)

**C. TREE PROTECTION AND PRESERVATION:**

6. **CONDITION AMENDED BY STAFF:** Provide, implement and follow a tree conservation and protection program consistent with the preliminary plan submitted as part of DSP#2016-0025 and dated August 1, 2017 as revised by the preliminary plan

submitted as part of DSP#0217-0022 and dated October 19, 2017, and the City of Alexandria Landscape Guidelines to the satisfaction of the Directors of P&Z and RP&CA. A Tree Conservation and Protection Plan shall be approved by the City Arborist prior to Final Site Plan release. (P&Z) (RP&CA) (~~DSP#2016-0025~~)

7. Prior to the commencement of clearing and grading at the site, the applicant shall hire a certified arborist to monitor and ensure compliance with the approved tree conservation and protection program during construction. The applicant shall submit regular updates from the landscaping company to the satisfaction of the Director of Planning & Zoning. (P&Z) (DSP#2016-0025)
8. A fine shall be paid by the applicant in an amount not to exceed \$10,000 for each destroyed tree with at least a 10-inch caliper that is not identified "to be removed" (TBR) on the Preliminary Plan, and/or the City may request that replacement trees of similar caliper and species be provided for damaged trees if the approved tree protection methods have not been followed. The replacement trees shall be installed and if applicable the fine shall be paid prior to the issuance of the last certificate of occupancy permit. \*\*\* (P&Z)(RP&CA) (DSP#2016-0025)
9. **CONDITION AMENDED BY STAFF:** The area of the limits of disturbance and clearing for the site shall be limited to the areas as generally depicted on the preliminary site plan submitted as part of DSP#2016-0025 and dated August 1, 2017, as revised by the preliminary plan submitted as part of DSP#2017-0022 and dated October 19, 2017, and reduced if possible to retain existing trees and grades. (P&Z)(RP&CA) (~~DSP#2016-0025~~)
10. Impose restrictions in the form of recorded conservation covenants ("Covenants") on all areas that are outside the limits of disturbance as generally depicted on the preliminary plan (hereby referred to as the "Conservation Area"). The Covenants shall impose restrictions on the use of the Conservation Area to protect and preserve existing trees and limit any tree removal and active uses within the designated conservation area. The Covenants shall prohibit construction or placement of accessory structures, as defined in the Alexandria Zoning Ordinance, including but not limited to, buildings, structures, fencing and restrict the removal of mature trees (except to the extent as authorized by the Director of P&Z for routine maintenance purposes). A plat delineating the Conservation Area shall be prepared and approved by the Director of P&Z and the City Attorney prior to release of the Final Site Plan. The final approved plat and restriction language shall be recorded among the land records. The following shall also be established as restrictions in the Conservation Area:
  - a. Except as may be necessary for the prevention or treatment of disease, the removal of dead or damaged trees or other good husbandry practices and after consultation with the Director of P&Z, no mature trees shall be removed from the Conservation Area. Supplemental tree plantings may be provided within the Conservation Area

Covenant, but shall consist of native species as identified by the Director of P&Z.  
(P&Z) (DSP#2016-0025)

**D. BUILDING:**

11. **CONDITION AMENDED BY STAFF:** The building design, including the quality of materials, final detailing, and shall be consistent with the elevations submitted as part of DSP#2016-0025 and dated August 1, 2017, the preliminary plan submitted as part of DSP#2017-0022 and dated October 19, 2017, and the conditions contained in this report. The applicant may request, as part of the final site plan process or through a future minor site plan amendment following final site plan approval, limited changes to the building design or building footprint to the satisfaction of the Director of Planning & Zoning. Limited changes may include revisions regarding the following: a) architectural style of the building; b) building materials; c) building color; d) minor building footprint changes; e) the addition or revision of decks, balconies, and porches, or f) the addition of accessory structures. To be eligible for approval under the provisions of this condition, future revisions to the dwelling shall be consistent with the character of other homes in the neighborhood and substantially consistent with the bulk, scale and height shown in the preliminary plan submitted as part of DSP#2016-0025 and dated August 1, 2017 as revised by preliminary plan submitted as part of DSP#2017-0022 and dated October 19, 2017. All future revisions at the site shall be consistent with recommended conditions of this report and all Zoning Ordinance requirements. (P&Z) (~~DSP#2016-0025~~)
12. Provide detailed drawings (enlarged and coordinated plan-section-elevation studies, typically at 1/4"=1'-0" scale, in color, with shadows cast at 45 degrees from both left and above to show true depth of recesses and projections) in color to evaluate the building base, entrance canopy, stoops, window and material details including the final detailing, finish and color of these elements during the Final Site Plan review. Separate design drawings shall be submitted for each building typology or different bay type. (P&Z) (DSP#2016-0025)
13. Building materials, finishes, and relationships shall be subject to review and approval by the Department of Planning and Zoning for substantial conformance to the Preliminary Plan. The following submissions shall be provided to review the materials, finishes and architectural details, prior to selection of final building materials:
  - a. Provide a materials board that includes all proposed materials and finishes at first Final Site Plan. \*
  - b. The materials board shall remain with the Department of Planning and Zoning until the final certificate of occupancy, upon which all samples shall be returned to the applicant.\*\*\*(P&Z) (DSP#2016-0025)
14. Per the City's Green Building Policy adopted April 18, 2009, achieve a green building certification level of LEED Certified / Equivalent to the satisfaction of the Directors of

P&Z, and/or RP&CA and T&ES. Diligent pursuance and achievement of this certification shall be monitored through the following:

- a. Provide evidence of the project's registration with LEED (or equivalent) with the submission of the first Final Site Plan and provide a draft checklist showing how the project plans to achieve the certification.\*
  - b. Provide evidence of submission of materials for Design Phase credits to the U.S. Green Building Council (USGBC) (or equivalent) prior to issuance of a certificate of occupancy. \*\*\*
  - c. Provide evidence of submission of materials for Construction Phase credits to USGBC (or equivalent) within six months of obtaining a final certificate of occupancy.
  - d. Provide documentation of certification within two (2) years of obtaining a final certificate of occupancy.
  - e. Failure to achieve LEED Certification (or equivalent) will be evaluated by City staff, and if staff determines that a good faith, reasonable, and documented effort was not made to achieve these certification levels, then any City-wide Green Building policies existing at the time of staffs' release of Final Site Plan will apply. (P&Z)(T&ES) (DSP#2016-0025)
15. The applicant shall work with the City for recycling and/or reuse of the existing building materials as part of the demolition process, including leftover, unused, and/or discarded building materials. (T&ES)(P&Z) (DSP#2016-0025)
  16. Energy Star labeled appliances shall be installed in all residential units. (T&ES) (DSP#2016-0025)
  17. In order to provide a more sustainable use of natural resources, the applicant shall use EPA-labeled WaterSense or equivalent low flow fixtures. A list of applicable mechanisms can be found at <http://www.epa.gov/WaterSense>. (T&ES) (DSP#2016-0025)
- E. SIGNAGE:**
18. Install a temporary informational sign as required by Section 11-303(D) of the Zoning Ordinance on the site prior to the approval of the Final Site Plan for the project. The sign shall be displayed until construction is complete or replaced with a temporary sign incorporating the required information; the sign shall notify the public of the nature of the upcoming project and shall provide a phone number for public questions regarding the project.\* (P&Z)(T&ES) (DSP#2016-0025)

**F. PARKING:**

19. **CONDITION AMENDED BY STAFF:** The design and allocation of parking shall be subject to the following to the satisfaction of the directors of P&Z, T&ES, and Code Administration:
- a. All parked vehicles shall be prohibited from encroaching on the proposed streets, drive aisles, pedestrian walkways, or emergency vehicle easements, and all purchasers shall be notified of this prohibition.
  - b. Unless determined infeasible by the Directors of Planning & Zoning and Transportation & Environmental Services, one additional on-street parking space east of Lot #3 shall be depicted on the final site plan submission consistent with the depiction of on-street parking in this location on the preliminary site plan submitted with DSP#2016-0025 and dated August 1, 2017. (P&Z)(T&ES) (~~DSP#2016-0025~~)
20. All on-street parking controls and restrictions within the project area shall be determined by the City. Any such controls and restrictions which the applicant desires shall be shown on the Final Site Plan. (P&Z)(T&ES) (DSP#2016-0025)

**G. SITE PLAN:**

21. Per Section 11-418 of the Zoning Ordinance, the Development Site Plan shall expire and become null and void, unless substantial construction of the project is commenced within 36 months after initial approval and such construction is thereafter pursued with due diligence. The applicant shall provide a written status report to staff 18 months after initial approval to update the City Council on the project status if substantial construction has not commenced at such time. (P&Z) (DSP#2016-0025)
22. The circular driveways and associated curb cuts depicted in front of the proposed dwellings on Lots 2 and 3 in the preliminary site plan shall not be shown on the final site plan submission. In place of the curb cuts, the applicant shall depict on-street parking, curb and gutter, sidewalks, street trees and any other streetscape features to ensure a consistent streetscape along the new public street to the satisfaction of the Directors of Planning & Zoning and Transportation and Environmental Services. (P&Z)(T&ES)\* (DSP#2016-0025)
23. The applicant shall use a permeable surface on the shared driveway area adjacent to the attached garages on Lots 2 and 3 or shall otherwise visually distinguish this shared driveway surface from the vehicle turn-around portion of the public right-of-way. (P&Z) (DSP#2016-0025)
24. **CONDITION AMENDED BY STAFF:** The following revisions shall be included as part of the final site plan submission to the satisfaction of the Directors of Planning & Zoning and Transportation & Environmental Services as follows:

- a) The applicant shall explore the use of terracing, and any alternative means it may wish to propose, to mitigate the height of retaining walls at the project site. If the Director of Planning & Zoning deems the use of terraced retaining walls or other mitigation to be necessary, the applicant shall depict such measures as part of the final site plan submission.
  - b) The applicant shall not construct any retaining walls or any other permanent structures within any public easements, including the sanitary sewer easement on Lot #4. The applicant shall include a note on the final site plan submission plan sheet(s) indicating that no retaining walls or other permanent structures are allowed within any public easements, including the sanitary sewer easement on Lot #4;
  - c) Public easements are not required for private bioretention facilities. Remove all public easements from private bioretention facilities. (P&Z) (T&ES)\* (DSP#2016-0025)
25. **CONDITION SATISFIED AND AMENDED BY STAFF:** ~~Submit the subdivision application within 30 days of public hearing, and~~ Submit the plat of subdivision and all applicable easements and dedications prior to the Final Site Plan submission. The plat(s) shall be approved prior to or concurrently with the release of the Final Site Plan. The following revisions shall be depicted on the final subdivision plat to the satisfaction of the Directors of Planning & Zoning and Transportation & Environmental Services:
- a) Remove all contour lines from the final subdivision plat; and
  - b) Update the final plat to reflect amended easement location(s) consistent with the revised site plan submitted as part of DSP#2017-0022 and dated October 19, 2017. \* (P&Z) (T&ES) (PC) (DSP#2016-0025)
26. The plat shall be recorded and a copy of the recorded plat, dedications and deeds shall be submitted with the first request for a building permit.\*\* (P&Z)(T&ES) (DSP#2016-0025)
27. Coordinate location of site utilities with other site conditions to the satisfaction of the Directors of P&Z and T&ES. These items include:
- a. Location of site utilities including above grade service openings and required clearances for items such as transformers, telephone, HVAC units and cable boxes.
  - b. Minimize conflicts with plantings, pedestrian areas and major view sheds.
  - c. Do not locate above grade utilities in dedicated open space areas and tree wells.
  - d. If applicable, all utilities shall be screened from the public ROW to the satisfaction of the Director of P&Z. (P&Z)(T&ES) (DSP#2016-0025)
28. Provide a lighting plan with the Final Site Plan to verify that lighting meets City standards. The plan shall be to the satisfaction of the Directors of T&ES and/or P&Z in consultation with the Chief of Police and shall include the following:

- a. Clearly show location of all existing and proposed street lights and site lights, shading back less relevant information.
  - b. Determine if existing lighting meets minimum standards within the City right-of-way adjacent to the site. If lighting does not meet minimum standards, additional lighting shall be provided to achieve City standards or to the satisfaction of the Director of T&ES.
  - c. A lighting schedule that identifies each type and number of all fixtures, mounting height, and strength of fixture in Lumens or Watts.
  - d. All proposed cobra head light fixtures in the City right of way shall be approved Dominion LED light fixtures.
  - e. Manufacturer's specifications and details for all proposed fixtures including site, landscape, pedestrian, sign(s) and security lighting.
  - f. A photometric plan with lighting calculations that include all existing and proposed light fixtures, including any existing street lights located on the opposite side(s) of all adjacent streets. Photometric calculations must extend from proposed building face(s) to property line and from property line to the opposite side(s) of all adjacent streets and/or 20 feet beyond the property line on all adjacent properties and rights-of-way. Show existing and proposed street lights and site lights.
  - g. Photometric site lighting plan shall be coordinated with architectural/building mounted lights, site lighting, street trees and street lights to minimize light spill into adjacent residential areas.
  - h. If site lights are included in the photometric plan to comply with City's lighting standards then these lights shall be put on photovoltaic switches.
  - i. Provide location of conduit routing between site lighting fixtures so as to avoid conflicts with street trees.
  - j. Detail information indicating proposed light pole and footing in relationship to adjacent grade or pavement. All light pole foundations shall be concealed from view.
  - k. The lighting for the areas not covered by the City of Alexandria's standards shall be designed to the satisfaction of Directors of T&ES and P&Z.
  - l. Provide numeric summary for various areas (i.e., roadway, walkway/ sidewalk, alley, and parking lot, etc.) in the proposed development.
  - m. Light fixtures for open canopies shall be recessed into the ceiling for any areas that can be seen from the public ROW.
  - n. Full cut-off lighting shall be used at the development site to prevent light spill onto adjacent properties. (P&Z)(T&ES)(Police)(Code) (DSP#2016-0025)
29. The Emergency Vehicle Easement (EVE) shall not be painted. When an EVE is shared with a pedestrian walkway or consists of grasscrete or a similar surface treatment, the EVE shall be defined in a manner that is compatible with the surrounding ground plane. (P&Z) (DSP#2016-0025)

**H. CONSTRUCTION MANAGEMENT:**

30. Submit a construction phasing plan to the satisfaction of the Director of T&ES, for review.\* (T&ES) (DSP#2016-0025)
31. **CONDITION AMENDED BY STAFF:** Submit a separate construction management plan to the Directors of P&Z, T&ES and Code Administration prior to Final Site Plan release. The plan shall:
- a. No street lights shall be removed without authorization from the City of Alexandria.
  - b. If street lights are to be removed from the public right of way then temporary lights shall be provided until the installation and commissioning of new lights.
  - c. Include an analysis as to whether temporary street or site lighting is needed for safety during the construction on the site and how it is to be installed.
  - d. Include an overall proposed schedule for construction;
  - e. Include a plan for temporary pedestrian circulation;
  - f. Include the location and size of proposed construction trailers, if any;
  - g. Include a preliminary Maintenance of Traffic Plan (MOT) as part of the construction management plan for informational purposes only, to include proposed controls for traffic movement, lane closures, construction entrances and storage of materials.
  - h. The sidewalks shall remain open during construction or pedestrian access shall be maintained to the satisfaction of the Director of T&ES throughout the construction of the project.
  - i. Copies of the plan shall be posted in the construction trailer and given to each subcontractor before they commence work.
  - j. The plan shall also include notes explaining any reduced construction hours approved as conditions of this request. (P&Z)(T&ES) (~~DSP#2016-0025~~)
32. Provide off-street parking for all construction workers without charge to the construction workers. Construction workers shall not be permitted to park on-street, and the applicant shall be responsible for ensuring that all contractors use the off-street parking provided. For the construction workers who use Metro, DASH, or another form of mass transit to the site, the applicant shall subsidize a minimum of 50% of the fees for mass transit. Compliance with this condition shall be a component of the construction management plan, which shall be submitted to the Department of P&Z and T&ES prior to Final Site Plan release. This plan shall:
- a. Establish the location of the parking to be provided at various stages of construction, how many spaces will be provided, how many construction workers will be assigned to the work site, and mechanisms which will be used to encourage the use of mass transit.
  - b. Provide for the location on the construction site at which information will be posted regarding Metro schedules and routes, bus schedules and routes.



- c. If the off-street construction workers parking plan is found to be violated during the course of construction, a correction notice will be issued to the developer. If the violation is not corrected within five (5) days, a "stop work order" will be issued, with construction halted until the violation has been corrected. \* (P&Z)(T&ES) (DSP#2016-0025)
33. No major construction staging shall be allowed within the public right-of-way on Seminary Road. The applicant shall meet with T&ES to discuss construction staging activities prior to release of any permits for ground disturbing activities. \*\* (T&ES) (DSP#2016-0025)
34. A "Certified Land Disturber" (CLD) shall be named in a letter to the Division Chief of Infrastructure Right of Way prior to any land disturbing activities. If the CLD changes during the project, that change must be noted in a letter to the Division Chief. A note to this effect shall be placed on the Phase I Erosion and Sediment Control sheets on the site plan. (T&ES) (DSP#2016-0025)
35. Prior to commencing clearing and grading of the site, the applicant shall hold a meeting with notice to all adjoining property owners and civic associations to review the location of construction worker parking, plan for temporary pedestrian and vehicular circulation, and hours and overall schedule for construction. The Departments of P&Z and T&ES shall be notified a minimum of 14 calendar days prior to the meeting date, and the meeting must be held before any permits are issued. (P&Z)(T&ES) (DSP#2016-0025)
36. Prior to commencement of landscape installation/planting operations, a pre-installation/construction meeting will be scheduled with the project planner in the Department of Planning & Zoning to review the scope of installation procedures and processes. This is in addition to the pre-construction meeting required above. (P&Z) (DSP#2016-0025)
37. Identify a person who will serve as a liaison to the community throughout the duration of construction. The name and telephone number, including an emergency contact number, of this individual shall be provided in writing to residents, property managers and business owners whose property abuts the site and shall be placed on the project sign, to the satisfaction of the Directors of P&Z, and/or and T&ES. (P&Z)(T&ES) (DSP#2016-0025)
38. Implement a waste and refuse control program during the construction phase of this development. This program shall control wastes such as discarded building materials, concrete truck washout, chemicals, litter or trash, trash generated by construction workers or mobile food vendor businesses serving them, and all sanitary waste at the construction site and prevent offsite migration that may cause adverse impacts to neighboring properties or to the environment to the satisfaction of Directors of T&ES and Code Administration. All wastes shall be properly disposed offsite in accordance with all

applicable federal, state and local laws. Provide information on the program in construction management plan. If program is implemented in coordination with green building certification, include documentation as appropriate per the City's Green Building Policy and conditions herein. (T&ES) (DSP#2016-0025)

39. Temporary construction and/or on-site sales trailer(s) shall be permitted and be subject to the approval of the Director of P&Z. The trailer(s) shall be removed prior to the issuance of a final certificate of occupancy permit. \*\*\* (P&Z) (Code) (DSP#2016-0025)
40. Submit a wall check prior to the commencement of construction of the first floor above grade framing for the building(s). The wall check shall include the building footprint, as depicted in the released Final Site Plan, the top-of-slab elevation and the first floor elevation. The wall check shall be prepared and sealed by a registered engineer or surveyor, and submitted to Planning & Zoning. Approval of the wall check by Planning & Zoning is required prior to commencement of framing. (P&Z) (DSP#2016-0025)
41. Submit an as-built development site plan survey, pursuant to the requirements outlined in the initial as-built submission for occupancy portion of the as-built development site plan survey checklist to the Department of Transportation and Environmental Services Site Plan Coordinator prior to requesting a certificate of occupancy permit. The as-built development site plan survey shall be prepared and sealed by a registered architect, engineer, or surveyor. Include a note which states that the height was calculated based on all applicable provisions of the Zoning Ordinance. \*\*\* (P&Z) (T&ES) (DSP#2016-0025)
42. Contractors shall not cause or permit vehicles to idle for more than 10 minutes when parked. (T&ES) (DSP#2016-0025)
43. If there are outstanding performance, completion or other bonds for the benefit of the City in effect for the property at such time as it may be conveyed or sold to a party other than the applicant, a substitute bond and associated documents must be provided by that party or, in the alternative, an assignment or other documentation from the bonding company indicating that the existing bond remains in effect despite the change in ownership may be provided. The bond(s) shall be maintained until such time that all requirements are met and the bond(s) released by the City. (T&ES) (DSP#2016-0025)

***I. WASTEWATER / SANITARY SEWERS:***

44. The applicant shall submit a letter to the Director of Transportation & Environmental Services prior to release of the Final Site Plan acknowledging that this property will participate, if the City adopts a plan prior to release of the building permit, to require equal and proportionate participation in an improvements plan to mitigate wet weather surcharging in the Holmes Run Trunk Sewer sanitary sewer shed. (T&ES) (DSP#2016-0025)

45. The sewer connection fee must be paid prior to release of the site plan.\* (T&ES) (DSP#2016-0025)

***J. SOLID WASTE:***

46. In order for the City to provide solid waste collection service, the development must meet all the minimum street standards. The containers must be placed inside the units or within an enclosure that completely screens them from view. The developer must purchase the standard containers from the City or provide containers that are compatible with City collection system and approved by the Director of T&ES. Payment shall be made to the City or proof of payment for approved containers provided, prior to issuance of the Certificate of Occupancy for each dwelling. (T&ES) (DSP#2016-0025)
47. Where the City of Alexandria provides the solid waste collection services; all refuse/recycling shall be placed at the City Right-of-Way. The official setout location of the containers shall be approved by the Director of T&ES. (T&ES) (DSP#2016-0025)

***K. STREETS / TRAFFIC:***

48. Maintain a separation of 150 feet between the beginning of street corner radius and any driveway apron radius on arterial and collector roadways, with a minimum of 100 feet permitted, subject to the approval of the Director of T&ES. (T&ES) (DSP#2016-0025)
49. A minimum separation of 30 feet shall be maintained on residential streets between the beginning of the street corner radius and any driveway apron radius. (T&ES) (DSP#2016-0025)
50. If the City's existing public infrastructure is damaged during construction, or patch work required for utility installation then the applicant shall be responsible for construction/ installation or repair of the same as per the City of Alexandria standards and specifications and to the satisfaction of Director, Transportation and Environmental Services. (T&ES) (DSP#2016-0025)
51. A pre-construction walk/survey of the site shall occur with Transportation and Environmental Services Construction & Inspection staff to document existing conditions prior to any land disturbing activities. (T&ES) (DSP#2016-0025)
52. Show turning movements of standard vehicles. Turning movements shall meet AASHTO vehicular guidelines and shall be to the satisfaction of the Director of T&ES. (T&ES) (DSP#2016-0025)

***L. UTILITIES:***

- 53. Locate all private utilities without a franchise agreement outside of the public right-of-way and public utility easements. (T&ES) (DSP#2016-0025)
- 54. No transformer and switch gears shall be located in the public right of way. (T&ES) (DSP#2016-0025)

***M. SOILS:***

- 55. Provide an updated geotechnical report, including recommendations from a geotechnical professional for proposed cut slopes and embankments. (T&ES) (DSP#2016-0025)

***N. WATERSHED, WETLANDS, & RPAs:***

- 56. The stormwater collection system is located within the Strawberry Run watershed. All on-site stormwater curb inlets and public curb inlets within 50 feet of the property line shall be duly marked using standard City markers, or to the satisfaction of the Director of T&ES. (T&ES) (DSP#2016-0025)
- 57. Project lies within an area described on historical maps as containing marine clays. Construction methodology and erosion and sediment control measures must account for the presence of marine clay or highly erodible soils. (T&ES) (DSP#2016-0025)
- 58. Provide Environmental Site Assessment Notes that clearly describes, maps or explains highly erodible and highly permeable soils; steep slopes greater than 15 percent in grade; known areas of contamination; springs, seeps or related features; and a listing of all wetlands permits required by law. (T&ES) (DSP#2016-0025)
- 59. **CONDITION AMENDED BY STAFF:** Provide documentation regarding the source of onsite wetland delineation and a description of any actions to be taken to minimize and/or mitigate the impact of the development on existing wetlands as required by Article XIII of the City of Alexandria Zoning Ordinance. No disturbance is allowed within the delineated wetland boundary on Lot 4. The construction of the sewer line must occur outside of the onsite delineated wetland. (T&ES) (~~DSP#2016-0025~~)

***O. STORMWATER MANAGEMENT:***

- 60. The City of Alexandria's stormwater management regulations regarding water quality are two-fold: 1) state phosphorus removal requirement and 2) Alexandria Water Quality Volume Default. Compliance with the state phosphorus reduction requirement does not relieve the applicant from the Alexandria Water Quality Default requirement. The Alexandria Water Quality Volume Default, as determined by the site's post-development

impervious area shall be treated in a Best Management Practice (BMP) facility. (T&ES) (DSP#2016-0025)

61. Provide BMP narrative and complete pre and post development drainage maps that include areas outside that contribute surface runoff from beyond project boundaries to include adequate topographic information, locations of existing and proposed storm drainage systems affected by the development, all proposed BMPs and a completed Virginia Runoff Reduction Method (VRMM) worksheet showing project compliance. The project must use hydrologic soil group "D" in the spreadsheet unless a soils report from a soil scientist or geotechnical engineer delineates onsite soils otherwise. (T&ES) (DSP#2016-0025)
62. The stormwater Best Management Practices (BMPs) required for this project shall be constructed and installed under the direct supervision of the design professional or his designated representative. Prior to release of the performance bond, the design professional shall submit a written certification to the Director of T&ES that the BMPs are:
  - a. Constructed and installed as designed and in accordance with the released Final Site Plan.
  - b. Clean and free of debris, soil, and litter by either having been installed or brought into service after the site was stabilized. \*\*\*\* (T&ES) (DSP#2016-0025)
63. Surface-installed stormwater Best Management Practice (BMP) measures, i.e. Bio-Retention Filters, Vegetated Swales, etc. that are employed for this site, require installation of descriptive signage to the satisfaction of the Director of T&ES. (T&ES) (DSP#2016-0025)
64. Submit two (2) originals of the stormwater quality BMP Maintenance Agreement for each lot, to include the BMP Schedule and Guidelines Addendum with the City to be reviewed as part of the Final #2 Plan. The agreement must be executed and recorded with the Land Records Division of Alexandria Circuit Court prior to approval of the Final Site Plan.\* (T&ES) (DSP#2016-0025)
65. The Applicant shall be responsible for maintaining stormwater Best Management Practices (BMPs) until activation of the Homeowners Association (HOA), if applicable, or sale to a private owner. Prior to transferring maintenance responsibility for the BMPs to the HOA or owner, the Applicant shall execute a maintenance service contract with a qualified private contractor for a minimum of three (3) years, and transfer the contract to the HOA or owner. A copy of the contract shall also be placed in the BMP Operation and Maintenance Manual. Prior to release of the performance bond, a copy of the maintenance contract shall be submitted to the City. \*\*\*\* (T&ES) (DSP#2016-0025)

66. If units will be sold as individual units and a homeowner's association (HOA) established the following two conditions shall apply:
- a. The Applicant shall furnish the Homeowner's Association with an Owner's Operation and Maintenance Manual for all Best Management Practices (BMPs) used on site. The manual shall include at a minimum: an explanation of the functions and operations of the BMP(s); drawings and diagrams of the BMP(s) and any supporting utilities; catalog cuts on maintenance requirements including any mechanical or electrical equipment; manufacturer contact names and phone numbers; a copy of the executed maintenance service contract; and a copy of the maintenance agreement with the City.
  - b. The Developer shall furnish each home purchaser with a brochure describing the stormwater BMP(s) installed on the site, outlining the responsibilities of the homeowners and the Homeowners Association (HOA) with respect to maintenance requirements. Upon activation of the HOA, the Developer shall furnish five copies of the brochure per unit to the HOA for distribution to subsequent homeowners. (T&ES) (DSP#2016-0025)
67. **DUPLICATE CONDITION DELETED BY STAFF:** ~~The Developer shall furnish the owners with an Owner's Operation and Maintenance Manual for all Best Management Practices (BMPs) on the project. The manual shall include at a minimum: an explanation of the functions and operations of the BMP(s); drawings and diagrams of the BMP(s) and any supporting utilities; catalog cuts on maintenance requirements including mechanical or electrical equipment; manufacturer contact names and phone numbers; a copy of the executed maintenance service contract; and a copy of the maintenance agreement with the City. (T&ES) (DSP#2016-0025)~~
68. Submit a copy of the Operation and Maintenance Manual to the T&ES Stormwater Management Division on digital media prior to release of the performance bond. \*\*\*\*(T&ES) (DSP#2016-0025)
69. Prior to release of the performance bond, the Applicant is required to submit a certification by a qualified professional to the satisfaction of the Director of T&ES that any existing stormwater management facilities adjacent to the project and associated conveyance systems were not adversely affected by construction operations. If maintenance of the facility or systems were required in order to make this certification, provide a description of the maintenance measures performed. \*\*\*\*(T&ES) (DSP#2016-0025)

***P. CONTAMINATED LAND:***

70. Indicate whether or not there is any known soil and groundwater contamination present on the plan. The applicant must submit supporting reports for associated environmental

investigations or assessments performed to substantiate this determination. (T&ES) (DSP#2016-0025)

71. If environmental site assessments or investigations discover the presence of contamination on site, the final site plan shall not be released, and no construction activity shall take place until the following has been submitted and approved by the Director of T&ES:
  - a. Submit a Site Characterization Report/Extent of Contamination Study detailing the location, applicable contaminants, and the estimated quantity of any contaminated soils and/or groundwater at or in the immediate vicinity of the site.
  - b. Submit a Risk Assessment indicating any risks associated with the contamination.
  - c. Submit a Remediation Plan detailing how any contaminated soils and/or groundwater will be dealt with, including plans to remediate utility corridors. Utility corridors in contaminated soil shall be over excavated by 2 feet and backfilled with "clean" soil. Include description of environmentally sound methods of off-site transport and disposal of contaminated soils and debris (including, but not limited to types of vehicles appropriate for handling specific materials and ensuring vehicle loads are covered).
  - d. Submit a Health and Safety Plan indicating measures to be taken during remediation and/or construction activities to minimize the potential risks to workers, the neighborhood, and the environment.
  - e. The applicant shall screen for PCBs as part of the site characterization if any of the past uses are within the identified high risk category sites for potential sources of residual PCBs, which includes the following SICs: 26&27 (Paper and Allied Products), 30 (Rubber and Misc. Plastics), 33 (Primary Metal Industries), 34 (Fabricated Metal Products), 37 (Transportation Equipment), 49 (Electrical, Gas, and Sanitary Services), 5093 (Scrap Metal Recycling), and 1221&1222 (Bituminous Coal).
  - f. Applicant shall submit three (3) electronic and two (2) hard copies of the above. The remediation plan must be included in the Final Site Plan. \* (T&ES) (DSP#2016-0025)
72. Should any unanticipated contamination, underground storage tanks, drums or containers be encountered at the site during construction, the Applicant must immediately notify the City of Alexandria Department of Transportation and Environmental Services, Office of Environmental Quality. Should unanticipated conditions warrant, construction within the impacted area shall be stopped until the appropriate environmental reports identified in a. through f. above are submitted and approved at the discretion of the Director of Transportation and Environmental Services. This shall be included as a note on the Final Site Plan. (T&ES) (DSP#2016-0025)
73. If warranted by a Site Characterization report, design and install a vapor barrier and ventilation system for buildings and parking areas in order to prevent the migration or

accumulation of methane or other gases, or conduct a study and provide a report signed by a professional engineer showing that such measures are not required to the satisfaction of Directors of T&ES and Code Administration. (T&ES) (DSP#2016-0025)

***Q. NOISE:***

74. All exterior building-mounted loudspeakers shall be prohibited and no amplified sound shall be audible at the property line. (T&ES) (DSP#2016-0025)

***R. AIR POLLUTION:***

75. If fireplaces are utilized in the development, the Applicant is required to install gas fireplaces to reduce air pollution and odors. Animal screens must be installed on chimneys. (T&ES) (DSP#2016-0025)

***S. ARCHAEOLOGY:***

76. A consultant has completed a short Documentary Study for the property. Based on the Documentary Study, Alexandria Archaeology requires the applicant to hire a professional archaeological consultant to conduct a systematic metal detector survey of the property with the primary focus on any possible Civil War related activities that might have taken place. (Archaeology) (DSP#2016-0025)
77. If significant resources are discovered during the Archaeological Evaluation, the consultant shall complete a Resource Management Plan, as outlined in the City of Alexandria Archaeological Standards. Preservation measures presented in the Resource Management Plan, as approved by the City Archaeologist, will be implemented. (Archaeology) (DSP#2016-0025)
78. The Final Site Plan or any other permits involving ground disturbing activities (such as coring, grading, filling, vegetation removal, undergrounding utilities, pile driving, landscaping and other excavations as defined in Section 2-151 of the Zoning Ordinance) shall not be released until the City archaeologist confirms that all archaeological field work has been completed or that an approved Archaeological Evaluation plan and any required Resource Management Plans will be implemented to recover significant resources before or in concert with construction activities.\*(Archaeology) (DSP#2016-0025)
79. Call Alexandria Archaeology immediately (703-746-4399) if any buried structural remains (wall foundations, wells, privies, cisterns, etc.) or concentrations of artifacts are discovered during development. Work must cease in the area of the discovery until a City archaeologist comes to the site and records the finds. The language noted above shall be included on all Final Site Plan sheets involving any ground disturbing activities. (Archaeology) (DSP#2016-0025)



80. During construction, the applicant shall not allow any metal detection and/or artifact collection to be conducted on the property, except as required in Condition #76 or otherwise authorized by Alexandria Archaeology. Failure to comply shall result in project delays. The language noted above shall be included on all Final Site Plan sheets involving any ground disturbing activities. (Archaeology) (DSP#2016-0025)

***T. DISCLOSURE REQUIREMENTS:***

81. If environmental site assessments or investigations discover the presence of onsite contamination, the applicant or its agent shall furnish each prospective buyer with a statement disclosing the prior history of the site, including previous environmental conditions and on-going remediation measures. Disclosures shall be made to the satisfaction of the Director of Transportation and Environmental Services. (T&ES) (DSP#2016-0025)
82. **CONDITION AMENDED BY STAFF:** The applicant shall notify prospective buyers of the respective properties of the following information to the satisfaction of the Director of Planning & Zoning:
- a. The proposed new street, including the turn-around area located between Lots 2 and 3, is public right-of-way and that it is subject to the restrictions of Condition #19a of this report;
  - b. The required setback from Seminary Road on Lot 1 represents both a minimum and maximum requirement under current regulations; ~~and~~
  - c. Mapped wetlands exist on Lot 4; and
  - d. That no retaining walls or other permanent structures may be constructed within any public easements, including the sanitary sewer easement on Lot #4. (P&Z) (DSP#2016-0025)

***U. MISCELLANEOUS***

83. **CONDITION ADDED BY STAFF:** Maximum allowable construction hours at the project site shall be limited as follows to the satisfaction of the Directors of Planning & Zoning and Transportation & Environmental Services:
- a. General construction activities shall only occur between the following hours:
    - i. Monday through Friday from 7 am to 6 pm; and
    - ii. Saturdays from 1 pm to 6 pm.
    - iii. No construction activities are permitted on Sundays.
    - iv. The allowable construction hours listed above notwithstanding, no construction activities shall occur on federal holidays or on religious holidays agreed upon in advance to the satisfaction of the Directors of Planning & Zoning and Transportation & Environmental Services.

- b. Pile Driving shall only occur during the following hours:
  - i. Monday through Friday from 9 am to 6 pm; and
  - ii. Saturdays from 1 pm to 4 pm.
  - iii. No pile driving is permitted on Sundays.
  - iv. The allowable pile driving hours listed above notwithstanding, no pile driving activities shall occur on federal holidays or on religious holidays agreed upon in advance to the satisfaction of the Directors of Planning & Zoning and Transportation & Environmental Services.
  
- c. Excavation work in the public right of way shall only occur during the following hours:
  - i. Monday through Friday 7 am to 5 pm; and
  - ii. Saturdays from 1 pm to 5 pm.
  - iii. No excavation in the right of way is permitted on Sundays.
  - iv. The allowable hours for excavation in the public right-of-way listed above notwithstanding, no such activities shall occur on federal holidays or on religious holidays agreed upon in advance to the satisfaction of the Directors of Planning & Zoning and Transportation & Environmental Services. (P&Z)(T&ES)

**CITY DEPARTMENT CODE COMMENTS**

Legend: C Code Requirement R Recommendation S Suggestion F – Finding

**Planning and Zoning**

*(carried forward and revised from previously-approved DSP#2016-0025)*

- ~~F - 1. The applicant is reminded the double check whether a small corner of the proposed patio on Lot 4, as shown on the preliminary plan dated August 1, 2017, is located within the 50-foot isolated wetland buffer. If so, the applicant shall remove this portion of the patio from the buffer.~~
- C - 1 As-built documents for all landscape and irrigation installations are required to be submitted with the Site as-built and request for Performance Bond release. Refer to City of Alexandria Landscape Guidelines, Section III A & B. \*\*\*\* (P&Z) (T&ES)
- C - 2 Tree conservation and protection plans shall identify all trees to be removed, and all trees to be protected / preserved. Construction methods to reduce disturbance within driplines shall also be identified. An on-site inspection of existing conditions shall be held with the City Arborist and Natural Resources Division Staff prior to the preparation of the Tree Conservation and Protection Plan.
- C - 3 The landscape elements of this development shall be subject to the Performance and Maintenance bonds, based on criteria established by the City and available through T&ES. Release of Performance and Maintenance Bonds are subject to inspections by City staff per City Code requirements. A final inspection for landscaping is also required three (3) years after completion. \*\*\*\* (P&Z) (T&ES)

**Transportation and Environmental Services**

*(carried forward and revised from previously-approved DSP#2016-0025)*

- F - 1. Since the record drawings, maps, and other documents of the City of Alexandria, State, and Federal agencies show the true north pointing upwards, therefore, the Site Plan shall show the true north arrow pointing upward as is customary; however, for the sake of putting the plan together and/or ease of understanding, the project north arrow pointing upward, preferably east, or west may be shown provided it is consistently shown in the same direction on all the sheets with no exception at all. The north arrow shall show the source of meridian. The project north arrow pointing downward will not be acceptable even if, it is shown consistently on all the sheets. (T&ES)
- F - 2. The Final Site Plan must be prepared per the requirements of Memorandum to Industry 02-09 dated December 3, 2009, Design Guidelines for Site Plan Preparation, which is available at the City's following web address:

<http://alexandriava.gov/uploadedFiles/tes/info/Memo%20to%20Industry%20No.%2002-09%20December%203,%202009.pdf>

- F - 3. The plan shall show sanitary and storm sewer, and water line in plan and profile in the first final submission and cross reference the sheets on which the plan and profile is shown, if plan and profile is not shown on the same sheet. Clearly label the sanitary and storm sewer, or water line plans and profiles. Provide existing and proposed grade elevations along with the rim and invert elevations of all the existing and proposed sanitary and storm sewer at manholes, and water line piping at gate wells on the respective profiles. Use distinctive stationing for various sanitary and storm sewers (if applicable or required by the plan), and water line in plan and use the corresponding stationing in respective profiles. (T&ES)
- F - 4. The Plan shall include a dimension plan with all proposed features fully dimensioned and the property line clearly shown. (T&ES)
- F - 5. Include all symbols, abbreviations, and line types in the legend. (T&ES)
- F - 6. Asphalt patches larger than 20% of the total asphalt surface, measured along the length of the road adjacent to the property frontage and/or extending to the centerline of the street, will require full curb to curb restoration. (T&ES)
- F - 7. All storm sewers shall be constructed to the City of Alexandria standards and specifications. Minimum diameter for storm sewers shall be 18" in the public Right of Way (ROW) and the minimum size storm sewer catch basin lead is 15". The acceptable pipe materials will be Reinforced Concrete Pipe (RCP) ASTM C-76 Class IV. Alternatively, AWWA C-151 (ANSI A21.51) Class 52 may be used if approved by the Director of T&ES. For roof drainage system, Polyvinyl Chloride (PVC) ASTM D-3034-77 SDR 26 and ASTM 1785-76 Schedule 40 pipes will be acceptable. The acceptable minimum and maximum velocities will be 2.0 fps and 15 fps, respectively. The storm sewers immediately upstream of the first manhole in the public Right of Way shall be owned and maintained privately (i.e., all storm drains not shown within an easement or in a public Right of Way shall be owned and maintained privately). (T&ES)
- F - 8. All sanitary sewers shall be constructed to the City of Alexandria standards and specifications. Minimum diameter of sanitary sewers shall be 10 inches in the public Right of Way and sanitary lateral 6 inches for all commercial and institutional developments; however, a 4 inch sanitary lateral will be acceptable for single family residences. The acceptable pipe materials will be Polyvinyl Chloride (PVC) ASTM D-3034-77 SDR 26, ASTM 1785-76 Schedule 40, Ductile Iron Pipe (DIP) AWWA C-151 (ANSI A21.51) Class 52, or reinforced concrete pipe ASTM C-76 Class IV (For 12 inch or larger diameters); Class III may be acceptable on private properties. The acceptable minimum and maximum velocities will be 2.5 fps and 10 fps, respectively. Laterals shall

be connected to the sanitary sewer through a manufactured “Y” or “T” or approved sewer saddle. Where the laterals are being connected to existing Terracotta pipes, replace the section of main and provide manufactured “Y” or “T”, or else install a manhole. (T&ES)

- F - 9. Lateral Separation of Sewers and Water Mains: A horizontal separation of 10 feet (edge to edge) shall be provided between a storm or sanitary sewer and a water line; however, if this horizontal separation cannot be achieved then the sewer and water main shall be installed in separate trenches and the bottom of the water main shall be at least 18 inches above of the top of the sewer. If both the horizontal and vertical separations cannot be achieved then the sewer pipe material shall be Ductile Iron Pipe (DIP) AWWA C-151 (ANSI A21.51) Class 52 and pressure tested in place without leakage prior to installation.(T&ES)
- F - 10. Crossing Water Main Over and Under a Sanitary or Storm Sewer: When a water main over crosses or under crosses a sanitary / storm sewer then the vertical separation between the bottom of one (i.e., sanitary / storm sewer or water main) to the top of the other (water main or sanitary / storm sewer) shall be at least 18 inches for sanitary sewer and 12 inches for storm sewer; however, if this cannot be achieved then both the water main and the sanitary / storm sewer shall be constructed of Ductile Iron Pipe (DIP) AWWA C-151 (ANSI A21.51) Class 52 with joints that are equivalent to water main standards for a distance of 10 feet on each side of the point of crossing. A section of water main pipe shall be centered at the point of crossing and the pipes shall be pressure tested in place without leakage prior to installation. Sewers crossing over the water main shall have adequate structural support (concrete pier support and/or concrete encasement) to prevent damage to the water main. Sanitary sewers under creeks and storm sewer pipe crossings with less than 6 inch clearance shall be encased in concrete. (T&ES)
- F - 11. No water main pipe shall pass through or come in contact with any part of sanitary / storm sewer manhole. Manholes shall be placed at least 10 feet horizontally from the water main whenever possible. When local conditions prohibit this horizontal separation, the manhole shall be of watertight construction and tested in place. (T&ES)
- F - 12. Crossing Existing or Proposed Utilities: Underground telephone, cable T.V., gas, and electrical duct banks shall be crossed maintaining a minimum of 12 inches of separation or clearance with water main, sanitary, or storm sewers. If this separation cannot be achieved then the sewer pipe material shall be Ductile Iron Pipe (DIP) AWWA C-151 (ANSI A21.51) Class 52 for a distance of 10 feet on each side of the point of crossing and pressure tested in place without leakage prior to installation. Sanitary / storm sewers and water main crossing over the utilities shall have adequate structural support (pier support and/or concrete encasement) to prevent damage to the utilities. (T&ES)
- F - 13. The rip rap shall be designed as per the requirements of Virginia Erosion and Sediment Control Handbook, Latest Edition. (T&ES)

- F - 14. Dimensions of parking spaces, aisle widths, etc. within the parking garage shall be provided on the plan. Note that dimensions shall not include column widths. (T&ES)
- F - 15. Show the drainage divide areas on the grading plan or on a sheet showing reasonable information on topography along with the structures where each sub-area drains. (T&ES)
- F - 16. Provide proposed elevations (contours and spot shots) in sufficient details on grading plan to clearly show the drainage patterns. (T&ES)
- F - 17. All the existing and proposed public and private utilities and easements shall be shown on the plan and a descriptive narration of various utilities shall be provided. (T&ES)
- F - 18. A Maintenance of Traffic Plan shall be provided within the Construction Management Plan and replicate the existing vehicular and pedestrian routes as nearly as practical and the pedestrian pathway shall not be severed or moved for non-construction activities such as parking for vehicles or the storage of materials or equipment. Proposed traffic control plans shall provide continual, safe and accessible pedestrian pathways for the duration of the project. These sheets are to be provided as "Information Only." (T&ES)
- F - 19. The following notes shall be included on all Maintenance of Traffic Plan Sheets: (T&ES)
- a. The prepared drawings shall include a statement "FOR INFORMATION ONLY" on all MOT Sheets.
  - b. Sidewalk closures will not be permitted for the duration of the project. Temporary sidewalk closures are subject to separate approval from Transportation and Environmental Services (T&ES) at the time of permit application.
  - c. Contractor shall apply for all necessary permits for uses of the City Right of Way and shall submit MOT Plans with the T&ES Application for final approval at that time. \*
- F - 20. Add complete streets tabulation to the cover sheet with the Final 1 submission. (T&ES)
- F - 21. New curb cuts on Seminary Road (not including the proposed new public street) are not recommended since these will impede traffic flow. (T&ES)
- F - 22 With the Final 1 submission, provide a load plane diagram for the retaining wall.
- C - 1 Per the requirements of the City of Alexandria Zoning Ordinance Article XI, the applicant shall complete a drainage study and adequate outfall analysis for the total drainage area to the receiving sewer that serves the site. If the existing storm system is determined to be inadequate then the applicant shall design and build on-site or off-site improvements to discharge to an adequate outfall; even if the post development stormwater flow from the site is reduced from the pre-development flow. The Plan shall

demonstrate to the satisfaction of the Director of T&ES that a non-erosive stormwater outfall is present. (T&ES)

- C - 2 Per the requirements of Article 13-114 (f) of the AZO, all stormwater designs that require analysis of pressure hydraulic systems, including but not limited to the design of flow control structures and stormwater flow conveyance systems shall be signed and sealed by a professional engineer, registered in the Commonwealth of Virginia. The design of storm sewer shall include the adequate outfall, inlet, and hydraulic grade line (HGL) analyses that shall be completed to the satisfaction of the Director of T&ES. Provide appropriate reference and/or source used to complete these analyses. (T&ES)
- C - 3 If the City of Alexandria receives complaints on lighting levels after the commissioning of the lights prior to the release of the performance bond then the applicant shall make additional improvements to adjust lighting levels to the satisfaction of the Director of T&ES to comply with Section 13-1-3 of the City Code. (T&ES)
- C - 4 Location of customer utility services and installation of transmission, distribution and main lines in the public rights of way by any public service company shall be governed by franchise agreement with the City in accordance with Title 5, Chapter 3, Section 5-3-2 and Section 5-3-3, respectively. The transformers, switch gears, and boxes shall be located outside of the public right of way. (T&ES)
- C - 5 (a) Per the requirements of Section 5-3-2, Article A, Chapter 3 of the City of Alexandria Code, all new customer utility services, extensions of existing customer utility services and existing overhead customer utility services supplied by any existing overhead facilities which are relocated underground shall, after October 15, 1971 be installed below the surface of the ground except otherwise exempted by the City Code and to the satisfaction of the Director, Department of Transportation and Environmental Services.  
(b) Per the requirements of Section 5-3-3, Article A, Chapter 3 of the City of Alexandria Code, all new installation or relocation of poles, towers, wires, lines, cables, conduits, pipes, mains, and appurtenances used or intended to be used to transmit or distribute any service such as electric current, telephone, telegraph, cable television, traffic control, fire alarm, police communication, gas, water, steam or petroleum, whether or not on the streets, alleys, or other public places of the City shall, after October 15, 1971, be installed below the surface of the ground or below the surface in the case of bridges and elevated highways except otherwise exempted by the City Code and to the satisfaction of Director, Department of Transportation and Environmental Services. (T&ES)
- C - 6 Flow from downspouts, foundation drains, and sump pumps shall be discharged to the storm sewer per the requirements of Memorandum to Industry 05-14 that is available on the City of Alexandria's web site. The downspouts and sump pump discharges shall be piped to the storm sewer outfall, where applicable after treating for water quality as per the requirements of Article XIII of Alexandria Zoning Ordinance (AZO). (T&ES)

- C - 7 Per the requirements of Title 4, Chapter 2, Article B, Section 4-2-21, Appendix A, Section A 106(6), Figure A 106.1 Minimum Standards for Emergency Vehicle Access: provide a total turning radius of 25 feet to the satisfaction of Directors of T&ES and Office of Building and Fire Code Administration and show turning movements of standard vehicles in the parking lot as per the latest AASHTO vehicular guidelines. (T&ES)
- C - 8 The applicant shall provide required storage space for both trash and recycling materials containers as outlined in the City's "Solid Waste and Recyclable Materials Storage Space Guidelines", or to the satisfaction of the Director of Transportation & Environmental Services. The plan shall show the turning movements of the collection trucks and the trucks shall not back up to collect trash or recycling. The City's storage space guidelines are available online at: [www.alexandriava.gov/solidwaste](http://www.alexandriava.gov/solidwaste) or by contacting the City's Solid Waste Division at 703-746-4410, or via email at [commercialrecycling@alexandriava.gov](mailto:commercialrecycling@alexandriava.gov). (T&ES)
- C - 9 The applicant shall be responsible to deliver all solid waste, as defined by the City Charter and Code of the City of Alexandria, to the Covanta Energy Waste Facility located at 5301 Eisenhower Avenue. A note to that effect shall be included on the plan. The developer further agrees to stipulate in any future lease or property sales agreement that all tenants and/or property owners shall also comply with this requirement. (T&ES)
- C - 10 The applicants shall submit a Recycling Implementation Plan (RIP) form to the Solid Waste Division, as outlined in Article H of Title 5 (Ordinance Number 4438), which requires all commercial properties to recycle. Instructions for how to obtain a RIP form can be found at: [www.alexandriava.gov/solidwaste](http://www.alexandriava.gov/solidwaste) or by calling the Solid Waste Division at 703.746.4410 or by e-mailing [CommercialRecycling@alexandriava.gov](mailto:CommercialRecycling@alexandriava.gov). (T&ES)
- C - 11 Bond for the public improvements must be posted prior to release of the site plan.\* (T&ES)
- C - 12 Plans and profiles of utilities and roads in public easements and/or public Right of Way must be approved prior to release of the plan.\* (T&ES)
- C - 13 Provide a phased erosion and sediment control plan consistent with grading and construction plan. The erosion and sediment controls shall be confined to the owner's property. Extension of erosion and sediment controls in the public right of way, if required, must be approved as part of the Construction Management Plan. (T&ES)
- C - 14 Per the Memorandum to Industry, dated July 20, 2005, the applicant is advised regarding a requirement that applicants provide as-built sewer data as part of the final as-built process. Upon consultation with engineering firms, it has been determined that initial site survey work and plans will need to be prepared using Virginia State Plane (North Zone)



coordinates based on NAD 83 and NAVD 88. Control points/Benchmarks which were used to establish these coordinates should be referenced on the plans. To insure that this requirement is achieved, the applicant is requested to prepare plans in this format including initial site survey work if necessary. (T&ES)

- C - 15 The thickness of sub-base, base, and wearing course shall be designed using “California Method” as set forth on page 3-76 of the second edition of a book entitled, “Data Book for Civil Engineers, Volume One, Design” written by Elwyn E. Seelye. Values of California Bearing Ratios used in the design shall be determined by field and/or laboratory tests. An alternate pavement section for Emergency Vehicle Easements (EVE) to support H-20 loading designed using California Bearing Ratio (CBR) determined through geotechnical investigation and using Virginia Department of Transportation (VDOT) method (Vaswani Method) and standard material specifications designed to the satisfaction of the Director of Transportation and Environmental Services (T&ES) will be acceptable. (T&ES)
- C - 16 All pedestrian, traffic, and way finding signage shall be provided in accordance with the Manual of Uniform Traffic Control Devices (MUTCD), latest edition to the satisfaction of the Director of T&ES. (T&ES)
- C - 17 No overhangs (decks, bays, columns, post or other obstructions) shall protrude into public Right of Ways, public easements, and pedestrian or vehicular travelways unless otherwise permitted by the City Code. (T&ES)
- C - 18 All driveway entrances, curbing, etc. in the public ROW or abutting public ROW shall meet City design standards. (T&ES)
- C - 19 All sanitary laterals and/or sewers not shown in the easements shall be owned and maintained privately. (T&ES)
- C - 20 The applicant shall comply with the City of Alexandria’s Noise Control Code, Title 11, Chapter 5, which sets the maximum permissible noise level as measured at the property line. (T&ES)
- C - 21 ~~All construction activities must comply with the~~ The Alexandria Noise Control Code Title 11, Chapter 5, Section 11-5-4(b)(15), ~~which~~ permits construction activities to occur between the following hours:
- a. Monday Through Friday from 7 AM To 6 PM and
  - b. Saturdays from 9 AM to 6 PM.
  - c. No construction activities are permitted on Sundays and holidays.
- Section 11-5-4(b)(19) further restricts the Pile Driving to the following hours :
- d. Monday Through Friday from 9 AM To 6 PM and

- e. Saturdays from 10 AM To 4 PM
- f. No pile driving is permitted on Sundays and holidays.

Section 11-5-109 restricts work in the right of way for excavation to the following:

- g. Monday through Saturday 7 AM to 5 pm
- h. No excavation in the right of way is permitted on Sundays. (T&ES)

- C - 22 The applicant shall comply with the Article XIII of the City of Alexandria Zoning Ordinance, which includes requirements for stormwater pollutant load reduction, treatment of the Alexandria Water Quality Volume Default and stormwater quantity management. (T&ES)
- C - 23 The applicant shall comply with the City of Alexandria, Erosion and Sediment Control Code, Section 5, Chapter 4. (T&ES)
- C - 24 All required permits from Virginia Department of Environmental Quality, Environmental Protection Agency, Army Corps of Engineers, and/or Virginia Marine Resources shall be in place for all project construction and mitigation work prior to release of the Final Site Plan. This includes the state requirement for a state General VPDES Permit for Discharges of Stormwater from Construction Activities (general permit) and associated Stormwater Pollution Prevention Plan (SWPPP)\_for land disturbing activities equal to or greater than one acre. See memo to industry 08-14 which can be found on-line here: <http://alexandriava.gov/tes/info/default.aspx?id=3522>. \*(T&ES)
- C - 25 The applicant must provide a Stormwater Pollution Prevention Plan (SWPPP) Book with the Final 1 submission. The project's stormwater management (SWM) plan and the erosion and sediment control (E&SC) plan must be approved prior to the SWPPP being deemed approved and processed to receive coverage under the VPDES Construction General Permit. Upon approval, an electronic copy of the approved SWPPP Book must be provided with the Mylar submission and the coverage letter must be copied onto the plan sheet containing the stormwater management calculations. An electronic copy and a hardcopy of the SWPPP Binder Book must be included in the released site plans, and the approved hardcopy SWPPP Binder Book must accompany the construction drawings onsite. Separate parcel owners will be required to seek separate VPDES Construction General Permit Coverage unless a blanket entity incorporated in Virginia has control of the entire project. (T&ES-Storm)
- C-26 The final subdivision plat shall comply with the provisions of Section 11-1709 of the City's Zoning Ordinance. (T&ES)
- C-27 Any future development/redevelopment on the subdivided lots shall comply with the requirements of City of Alexandria Zoning Ordinance Article XIII Environmental Management Ordinance and the relevant laws of the Commonwealth of Virginia and the City of Alexandria, as applicable, for storm water management regarding water quality improvement and quantity control at the time of submission of the first final plan. (T&ES)

C-28 The development and redevelopment of the subdivided lots shall not adversely impact the storm water drainage or create a nuisance on the public and private properties. (Sec. 5-6-224)

C-29 All secondary utilities serving the subdivided lots shall be placed underground. (Sec. 5-3-3)

**VAWC Comments:**

1. VAWC has no comments on the preliminary submission.

**AlexRenew Comments:**

1. Ensure all discharges are in accordance with City of Alexandria Code Title 5, Chapter 6, Article B.
2. The applicant shall coordinate with the City of Alexandria T&ES to ensure that planned flow capacity does not exceed City of Alexandria allotted AlexRenew Holmes Run Trunk Sewer during wet and average flow conditions.
3. Dewatering and other construction released discharge limits could be regulated by AlexRenew Pretreatment. Engineer/Owner is required to contact Alexandria Renew Enterprises (AlexRenew) Pre-Treatment Coordinator at (703) 549-3382.

**Fire Department**

- F-1 No further comments

**Code Administration (Building Code):**

- F-1 No further comments received

**Police**

- F-1 No further comments received

**Archaeology**

- F-1 The subject property is located less than 200 ft. to the west from the Thomas Huntington farmstead in the 1860s, and directly across Seminary Road from the Episcopal Seminary which the Union Army used as a headquarters and hospital through the Civil War. Thomas Huntington was a prominent Alexandria citizen throughout the nineteenth century. He was born in 1814, married twice, fathered eight children, and lived to be 90 years old. During the Civil War Huntington operated the Virginia House tavern on King

and Peyton streets. After the Civil War Huntington repeatedly sued the US Government for damages to his business for the amount of \$1,600, but never was able to win a settlement in court due to his Secessionist leanings. Huntington lived a colorful life, one that epitomizes the entrepreneurial spirit of Alexandria in the nineteenth century. The subject property may contain evidence that can provide material information about Thomas Huntington and his family, or given the proximity to the Episcopal Seminary, Civil War encampments may be present on the property.

- F-2 If this project is a federal undertaking or involves the use of any federal funding, the applicant shall comply with federal preservation laws, in particular Section 106 of the National Historic Preservation Act of 1966. The applicant will coordinate with the Virginia Department of Historic Resources and the federal agency involved in the project, as well as with Alexandria Archaeology.
- C-1 All required archaeological preservation measures shall be completed in compliance with Section 11-411 of the Zoning Ordinance.

Asterisks denote the following:

- \* Condition must be fulfilled prior to release of the Final Site Plan
- \*\* Condition must be fulfilled prior to release of the building permit
- \*\*\* Condition must be fulfilled prior to release of the certificate of occupancy
- \*\*\*\* Condition must be fulfilled prior to release of the bond

***Attachments:***

***#1: Application materials***

***#2: Letters from the public***

***#3: Previously-approved DSP#2016-0025 Staff Report***

**APPLICATION****DEVELOPMENT SITE PLAN****DSP #** 2017-0022**Project Name:** Karig Estates

DSP2017-0022

SUB2017-0006

SNC2017-0001

**PROPERTY LOCATION:** 3832-3834 Seminary Road**TAX MAP REFERENCE:** 040.02-04 03 & -04**ZONE:** R-20**APPLICANT**Name: 3834 Seminary LLCAddress: 20072 Blackwolf Run Pl., Ashburn, VA 20147**PROPERTY OWNER**Name: CARRIER, KEATING F., TRUSTEE and SCHREINER, DEVON A., TRUSTEEAddress: 9126 TAYLOR ST. MANASSAS, VA 20110**PROPOSED USE:** Amendment to approved Development Site Plan to move location of house on Lot 4 as shown on the attached revised sheets of the submission set.

☒ **THE UNDERSIGNED** hereby applies for Development Site Plan approval in accordance with the provisions of Section 11-400 of the Zoning Ordinance of the City of Alexandria, Virginia.

☒ **THE UNDERSIGNED**, having obtained permission from the property owner, hereby grants permission to the City of Alexandria to post placard notice on the property for which this application is requested, pursuant to Article XI, Section 11-301 (B) of the 1992 Zoning Ordinance of the City of Alexandria, Virginia.

☒ **THE UNDERSIGNED** also attests that all of the information herein provided and specifically including all surveys, drawings, etc., required of the applicant are true, correct and accurate to the best of his/her knowledge and belief.

Mary Catherine Gibbs, Hart Gibbs Pierce &amp; Karp, PC

Print Name of Applicant or Agent

Signature

700 N. Fairfax St., Suite 600703-836-5757703-548-5443

Mailing/Street Address

Telephone #

Fax #

Alexandria, VA22314

City and State

Zip Code

mcgibbs@hartlanduselaw.com

Email address

October 18, 2017

Date

**DO NOT WRITE IN THIS SPACE - OFFICE USE ONLY**

Application Received: \_\_\_\_\_

Received Plans for Completeness: \_\_\_\_\_

Fee Paid and Date: \_\_\_\_\_

Received Plans for Preliminary: \_\_\_\_\_

ACTION - PLANNING COMMISSION: \_\_\_\_\_

Development Site Plan (DSP) # 2017-0022

**ALL APPLICANTS MUST COMPLETE THIS FORM.**

**The applicant is: (check one)**

☐ the Owner     ☒ Contract Purchaser     ☐ Lessee or     ☐ Other: \_\_\_\_\_ of the subject property.

State the name, address and percent of ownership of any person or entity owning an interest in the applicant, unless the entity is a corporation or partnership in which case identify each owner of more than three percent.

SSG Properties, LLC - 2324 Columbia Pike, Arlington, VA 22204 - 70%

Alliance RE Development, LLC - 20072 Blackwolf Run Place, Ashburn, VA 20147 - 30%

If property owner or applicant is being represented by an authorized agent, such as an attorney, realtor, or other person for which there is some form of compensation, does this agent or the business in which the agent is employed have a business license to operate in the City of Alexandria, Virginia?

☒ **Yes.** Provide proof of current City business license.

☐ **No.** The agent shall obtain a business license prior to filing application, if required by the City Code.



# OWNERSHIP AND DISCLOSURE STATEMENT

Use additional sheets if necessary

**1. Applicant.** State the name, address and percent of ownership of any person or entity owning an interest in the applicant, unless the entity is a corporation or partnership, in which case identify each owner of more than three percent. The term ownership interest shall include any legal or equitable interest held at the time of the application in the real property which is the subject of the application.

Name	Address	Percent of Ownership
<sup>1</sup> 3834 Seminary LLC	20072 Blackwolf Run Pl. Ashburn, VA 20147	
<sup>2</sup> SSG Properties LLC	2324 Columbia Pike Arlington, VA 22204	70%
<sup>3</sup> Alliance RE Development LLC	20072 Blackwolf Run Pl. Ashburn, VA 20147	30%

**2. Property.** State the name, address and percent of ownership of any person or entity owning an interest in the property located at 3832-3834 Seminary Rd. (address), unless the entity is a corporation or partnership, in which case identify each owner of more than three percent. The term ownership interest shall include any legal or equitable interest held at the time of the application in the real property which is the subject of the application.

Name	Address	Percent of Ownership
<sup>1</sup> CARRIER KEATING F TR	9126 TAYLOR ST MANASSAS VA 20110	2/3
<sup>2</sup> SCHREINER DEVON A TR	9126 TAYLOR ST MANASSAS VA 20110	1/3
<sup>3</sup>		

**3. Business or Financial Relationships.** Each person or entity listed above (1 and 2), with an ownership interest in the applicant or in the subject property is required to disclose any business or financial relationship, as defined by Section 11-350 of the Zoning Ordinance, existing at the time of this application, or within the 12-month period prior to the submission of this application with any member of the Alexandria City Council, Planning Commission, Board of Zoning Appeals or either Boards of Architectural Review.

Name of person or entity	Relationship as defined by Section 11-350 of the Zoning Ordinance	Member of the Approving Body (i.e. City Council, Planning Commission, etc.)
<sup>1</sup> 3834 Seminary LLC	None	
<sup>2</sup> SSG Properties LLC	None	
<sup>3</sup> Alliance RE Development LLC	None	

**4. Keating Carrier, Trustee and Devon Schreiner, Trustee** None

NOTE: Business or financial relationships of the type described in Sec. 11-350 that arise after the filing of this application and before each public hearing must be disclosed prior to the public hearings.

As the applicant or the applicant's authorized agent, I hereby attest to the best of my ability that the information provided above is true and correct.

10/18/17  
Date

Mary Catherine Gibbs  
Printed Name

  
Signature



## APPLICATION

### SUBDIVISION OF PROPERTY

SUB #

2017-0006

**PROPERTY LOCATION:** 3832 and 3834 Seminary Road

**TAX MAP REFERENCE:** 040.02-04-04 and -03

**ZONE:** R-20

#### APPLICANT:

**Name:** 3834 Seminary, LLC

**Address:** 20072 Blackwolf Run Place, Ashburn, VA 20147

#### PROPERTY OWNER:

**Name:** Keeting Carrier Trustee and Devon Schriener, Trustee

**Address:** 9126 Taylor Street, Manassas, VA 20110

#### SUBDIVISION DESCRIPTION

Request to resubdivide two existing lots into four lots with a new public street.

☒ **THE UNDERSIGNED** hereby applies for Subdivision in accordance with the provisions of Section 11-700 of the Zoning Ordinance of the City of Alexandria, Virginia.

☒ **THE UNDERSIGNED**, having obtained permission from the property owner, hereby grants permission to the City of Alexandria to post placard notice on the property for which this application is requested, pursuant to Article XI, Section 11-301 (B) of the 1992 Zoning Ordinance of the City of Alexandria, Virginia.

☒ **THE UNDERSIGNED** also attests that all of the information herein provided and specifically including all surveys, drawings, etc., required of the applicant are true, correct and accurate to the best of his/her knowledge and belief.

Mary Catherine Gibbs, Hart, Gibbs, Pierce & Karp PC  
Print Name of Applicant or Agent

700 N. Fairfax St., Suite 600

Mailing/Street Address

Alexandria, VA 22314

City and State

Zip Code

Signature

703-836-5757

Telephone #

703-548-5443

Fax #

mcgibbs@hartlanduselaw.com

Email address

Date

10/5/17

#### DO NOT WRITE IN THIS SPACE - OFFICE USE ONLY

Application Received: \_\_\_\_\_

Fee Paid and Date: \_\_\_\_\_

ACTION - PLANNING COMMISSION: \_\_\_\_\_



Subdivision #

2017-0006

**ALL APPLICANTS MUST COMPLETE THIS FORM.**

Supplemental forms are required for child care facilities, restaurants, automobile oriented uses and freestanding signs requiring special use permit approval.

**1. The applicant is: (check one)**

- ☐ the Owner    ☒ Contract Purchaser    ☐ Lessee or    ☐ Other: \_\_\_\_\_ of  
the subject property.

State the name, address and percent of ownership of any person or entity owning an interest in the applicant, unless the entity is a corporation or partnership in which case identify each owner of more than three percent.

SSG Properties, LLC 2324 Columbia Pike, Arlington, VA 22204 - 70%

Alliance RE Development LLC 20072 Blackwolf Run Pl., Ashburn, VA 20147

If property owner or applicant is being represented by an authorized agent, such as an attorney, realtor, or other person for which there is some form of compensation, does this agent or the business in which the agent is employed have a business license to operate in the City of Alexandria, Virginia?

- ☒ **Yes.** Provide proof of current City business license.  
☐ **No.** The agent shall obtain a business license prior to filing application, if required by the City Code.

## OWNERSHIP AND DISCLOSURE STATEMENT

Use additional sheets if necessary

**1. Applicant.** State the name, address and percent of ownership of any person or entity owning an interest in the applicant, unless the entity is a corporation or partnership, in which case identify each owner of more than three percent. The term ownership interest shall include any legal or equitable interest held at the time of the application in the real property which is the subject of the application.

Name	Address	Percent of Ownership
<sup>1</sup> SSG Properties, LLC	2324 Columbia Pike Arlington, VA 22204	70%
<sup>2</sup> Alliance RE Development LLC	20072 Blackwolf Run Pl. Ashburn, VA 20147	30%
<sup>3</sup>		

**2. Property.** State the name, address and percent of ownership of any person or entity owning an interest in the property located at 3832 and 3834 Seminary Road (address), unless the entity is a corporation or partnership, in which case identify each owner of more than three percent. The term ownership interest shall include any legal or equitable interest held at the time of the application in the real property which is the subject of the application.

Name	Address	Percent of Ownership
<sup>1</sup> Keeting Carrier, Trustee	9126 Taylor Street Manassas, VA 20110	2/3
<sup>2</sup> Devon Schriener, Trustee	9126 Taylor Street Manassas, VA 20110	1/3
<sup>3</sup>		

**3. Business or Financial Relationships.** Each person or entity indicated above in sections 1 and 2, with an ownership interest in the applicant or in the subject property are require to disclose any business or financial relationship, as defined by Section 11-350 of the Zoning Ordinance, existing at the time of this application, or within the 12-month period prior to the submission of this application with any member of the Alexandria City Council, Planning Commission, Board of Zoning Appeals or either Boards of Architectural Review. **All fields must be filled out completely. Do not leave blank. (If there are no relationships please indicated each person or entity and "None" in the corresponding fields) .**

For a list of current council, commission and board members, as well as the definition of business and financial relationship, [click here](#).

Name of person or entity	Relationship as defined by Section 11-350 of the Zoning Ordinance	Member of the Approving Body (i.e. City Council, Planning Commission, etc.)
<sup>1</sup> 3834 Seminary, LLC	None	
<sup>2</sup> SSG Properties LLC	None	
<sup>3</sup> Alliance RE Development LLC	None	
<sup>4</sup> Keeting Carrier, Trustee & Devon Schreiner, Trustee	None	

**NOTE:** Business or financial relationships of the type described in Sec. 11 -350 that arise after the filing of this application and before each public hearing must be disclosed prior to the public hearings.

As the applicant or the applicant's authorized agent, I hereby attest to the best of my ability that the information provided above is true and correct.

10/5/17  
Date

Mary Catherine Gibbs  
Printed Name

  
Signature

Subdivision # 2017-0006**WAIVER OF RIGHT TO AUTOMATIC APPROVAL****SUBMITTED TO  
THE DEPARTMENT OF PLANNING AND ZONING  
CITY OF ALEXANDRIA, VIRGINIA****PROJECT NAME:** Karig Estates**PROJECT ADDRESS:** 3832-3834 Seminary Road**DESCRIPTION OF REQUEST:**  
Request to re-subdivide two lots into four single family lots and a new public street.

**THE UNDERSIGNED** hereby waives the right to the 45 day automatic approval provision of Section 11-1708 (B)(2) of the Zoning Ordinance of the City of Alexandria, Virginia, for the application stated above.

Date: October 5, 2017☐ Applicant☒ AgentSignature: Mary Catherine GibbsPrinted Name: Mary Catherine Gibbs



# APPLICATION

NEW STREET NAME

SNC2017-0001

LOCATION: 3832-3834 Seminary Road

TAX MAP REFERENCE: 040.02-04-03 & -04

ZONE: R-20

APPLICANT'S NAME: 3834 Seminary LLC

ADDRESS: 20072 Blackwolf Run Pl., Ashburn, VA 20147

## REASON FOR REQUEST FOR NEW STREET NAME:

The Applicant is seeking to create a new public street for a four house subdivision and the new street needs a name.



I affirm that I, the applicant or authorized agent, am responsible for the processing of this application and agree to adhere to all the requirements and information herein.

Mary Catherine Gibbs

Print Name of Applicant or Agent  
Hart, Gibbs, Pierce & Karp, PC  
700 N. Fairfax St., Suite 600

Mailing/Street Address

Alexandria, VA 22314

City and State Zip Code

mcgibbs@hartlanduselaw.com

Email Address

703-836-5757

Telephone #

703-548-5443

Fax #

March 3, 2017

Date

For **New Street Names** and **Change of Street Names**: These items are not public hearing items and therefore are not required to be noticed by newspaper, posting, or letters to adjoining owners. However, it is the policy of P&Z to advertise in the newspaper and post the site, but not to mail out notices. See 'Noticing Requirements' for Instructions.

**New Street Names** are heard by PC only.

**Change of Street Names** are heard by PC and CC.



DO NOT WRITE IN THIS SPACE - OFFICE USE ONLY

Application Received: \_\_\_\_\_

Legal advertisement: \_\_\_\_\_

Fee Paid: \$ \_\_\_\_\_

ACTION - PLANNING COMMISSION: \_\_\_\_\_

ACTION - CITY COUNCIL: \_\_\_\_\_

Completeness - DSP2016-0025

Seminary Road- Stewart's Walk

3832 & 3834 N. Seminary Road

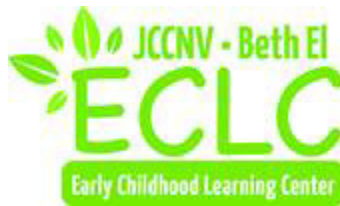
Planners: Nathan Randall & Maya Contreras

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**From:** Nathan Randall  
**Sent:** Thursday, October 19, 2017 4:42 PM  
**To:** Kristen Walentisch  
**Cc:** Robert Kerns; Maya Contreras  
**Subject:** FW: NEW DEVELOPMENT ON SEMINARY RD

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**From:** Dina Backer [<mailto:dina.backer@jccnv.org>]  
**Sent:** Thursday, October 19, 2017 4:39 PM  
**To:** Nathan Randall  
**Subject:** NEW DEVELOPMENT ON SEMINARY RD



Dear Mr. Randall,

I am writing at this time concerning the plans to develop the property at 3832 -3834 Seminary Road (Karig Estate) I am the Director of the Early Childhood Learning Center that is housed in the Beth El Hebrew Congregation building, located at 3830 Seminary Road.

We have 90 children this year in our program with expected growth next year and moving forward. We are a Reggio Emilia inspired school that values nature and the open space around us. We use all of our grounds, trails, wooded gathering areas as well as the playground on a regular basis. Our outdoor space is a 2<sup>nd</sup> classroom and it is one of the aspects of our program that pleases parent. Parents select our program because of our outside space.

The plans for the new development are of great concern to us. Our existing playground will be adjacent to the new road. Ongoing safe access to our playground is imperative to our program. The excessive noise and vibrations that will come from clearcutting dozens of huge trees and, ultimately building will not only be disruptive but dangerous as well. Even if all safety protocols are followed, there is still a potential for flying debris and foreign objects landing in our play space that could be dangerous to our children. Furthermore, to not have access to our outdoor space puts us in violation of our state licensing standards that require at least 30 minutes of outdoor time in the morning and at least 30 minutes of outdoor time in the afternoon .

We are concerned as well about the numbers of shade trees that we depend on that are slated to be removed. The playground is shaded by trees owned both by Beth El and the Karig Estate property. I would advocate for saving as many of those mature trees as possible.

There is also a Vulture Habitat located among those same trees. Not only is that Vulture Habitat part of our outdoor learning (teaching about habitat conservation, lifecycles etc.), it is unconscionable to destroy the habitat of a native species.

It is my understanding that one of the mansions is scheduled to be placed on the wooded hillside which will disrupt the continuity of forest and our trails. I would like to support the request to move that mansion up and off the hillside towards Seminary Rd.

Clearly, this development is raising a lot of concerns for us as a school community. With a growing preschool, one that takes children as young as 16months, we are providing a much needed service in this area for people who are looking for quality learning experiences for their children. It is imperative that we continue to provide the care and education on which our program has gained its good reputation and that parents expect from us. This involves continued, safe access to our playground and our outdoor classroom space.

I am happy to continue the conversation or be helpful in any way possible. Please do not hesitate to contact me

Thank you for your time and your consideration.

*Dina Backer*

*Dina L. Backer  
Jewish Community Center of NOVA  
Director, Early Childhood Learning Center, Alexandria  
Beth El Hebrew Congregation  
3830 Seminary Rd  
Alexandria, VA 22304  
703-537-3084*

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**DOCKET ITEM #12**  
**Development Site Plan #2016-0025**  
**Street Name Case #2017-0001**  
**Karig Estates – Single-Family Dwellings**  
**3832-3834 Seminary Road**

Application	General Data	
<b>Project Name:</b> Karig Estates	PC Hearing:	October 3, 2017
	CC Hearing:	N/A
	If approved, DSP Expiration:	October 3, 2020 (three years)
	Plan Acreage:	136,198 SF (3.13 acres)
<b>Location:</b> 3832-3834 Seminary Road	Zone:	R-20 / Single-Family zone
	Proposed Use:	Single-Family Residential
	Dwelling Units:	Four (4)
	Net Floor Area:	6,197 SF (Lots #1 & #4) 5,633 SF (Lots #2 & #3)
	Small Area Plan:	Seminary Hill / Strawberry Hill
<b>Applicant:</b> 3834 Seminary LLC, represented by Mary Catherine Gibbs, attorney	Historic District:	Not applicable
	Green Building:	Not applicable

**Purpose of Application**

The applicant requests approval of a Development Site Plan with modifications and a new street name in order to construct four single-family residential dwellings and associated improvements, including construction of a new public street.

**Applications and Modifications Requested:**

1. Development Site Plan with modifications to front yard requirements for Lots 2 and 3; and
2. Street Name case to name a new public street associated with the project.

**Staff Recommendation: APPROVAL WITH CONDITIONS**

**Staff Reviewers:**

Robert M. Kerns, AICP, Division Chief [robert.kerns@alexandriava.gov](mailto:robert.kerns@alexandriava.gov)  
Maya Contreras, Principal Planner [maya.contreras@alexandriava.gov](mailto:maya.contreras@alexandriava.gov)  
Nathan Randall, Urban Planner [nathan.randall@alexandriava.gov](mailto:nathan.randall@alexandriava.gov)

Previous Staff Report



## **I. RECOMMENDATION & SUMMARY**

Staff recommends **approval** of the Development Site Plan and request for a new street name in order to construct four single-family residential dwellings on four new lots with a new public street at 3832-3834 Seminary Road, subject to compliance with the staff recommendations.

Key issues under consideration and discussed in greater detail in this report include:

- Site layout, including the siting of individual dwellings and the new public street;
- Environmental and topographical features at the site;
- Preservation of existing trees; and
- Neighborhood concerns about stormwater and soil erosion.

## **II. BACKGROUND**

### ***A. Site Context***

The project site currently comprises two lots of record: 3832 and 3834 Seminary Road. The 3832 Seminary Road property measures 42,776 square feet (0.98 acres) and is the smaller and narrower of the two lots. It is currently vacant and has been under the same ownership as the adjacent property at 3834 Seminary for decades. The property at 3834 Seminary Road is the larger of the two properties at 93,422 square feet (2.15 acres) and is improved with a two-story single-family dwelling. The total project site area is 136,198 square feet (3.13 acres).

The site is surrounded by institutional and residential uses. The Virginia Theological Seminary (VTS) is located immediately to the north of the site. The synagogue of Beth El Hebrew Congregation, is located immediately to the east. Single-family dwellings are located to the south and west, including along Saint Stephens Road and Colonel Ellis Avenue. The upper school campus of Saint Stephen's / Saint Agnes School is also located a short distance to the southwest from the site.

The project site is heavily wooded, containing dozens of mature trees as well as many smaller trees and shrubs. None of the trees have been identified as specimen trees that are specifically protected under current regulations.

The site also contains notable topographical features. The northeastern, north-central, and central portions of the property slope gently downward to the west and south. A roughly L-shaped area located along the western and southern portions of the site contains significant grade changes. The area, which has been referred to as a swale or ravine, begins at the northern edge of the property as terrain that is approximately four to six feet lower than surrounding grade. The grade difference increases as the swale continues south such that, at its lowest point, the swale is approximately 25 feet lower than surrounding grade and is defined by relatively steep sides.

The swale may have functioned as a natural intermittent stream or wetland in the past. Today, adjacent property owners have reported the presence of standing water in this area and staff has observed that stormwater flows into an underground pipe located approximately in the center of the swale. City staff has determined that the swale itself does not meet the definition of an intermittent or perennial stream, a Resource Protection Area (RPA), or other specific environmental feature and is therefore not subject to protection under current regulations.

Near the southern edge of the project site, within the swale area, environmental features known as a seep point and associated basin have been identified. The seep is a point in the earth's surface from which groundwater naturally springs upward. The basin is the approximate area on the ground immediately around the seep where water from the seep may collect. The seep is very small in size and the basin around it is a few feet wide. The amount of water on the ground coming from the seep was small and shallow during a site visit early this year, covered in many places by dead leaves. The seep point and basin meet the definition of an "isolated wetland" subject to regulation described later in this report.

## ***B. Project Description***

The applicant, 3834 Seminary LLC, proposes to demolish the existing dwelling on the site and subdivide the two existing lots into four lots in order to construct four new single-family dwellings. A new street, proposed to be named Karig Place, would be constructed on a nearly 25,000 square-foot portion of land along the eastern edge of the site. The new street, which includes a vehicle turn-around area, would be dedicated to the City as public right-of-way.

The proposed two-story single-family dwellings would measure up to 35 feet in height and range from approximately 5,600 to 6,200 net square feet in size. They would be designed in a Colonial-inspired style that includes multiple rooflines. The building facades would be clad in a mixture of cementitious siding and either brick or stone. Railings for decks and balconies, as well as certain roof structures, are proposed to be made of metal. Although the buildings shown in the preliminary plan are very similar to each other in style, the applicant intends to offer some design customization to the final home purchasers. Such customization could result in modest changes to the final design and materials, and would be reviewed administratively.

A small portion of the dwelling on Lot 1 would be located on the emerging eastern slope of the previously-described swale. Approximately half of the dwellings on Lots 2 and 3, and nearly all of the dwelling on Lot 4, would be located on the eastern/northern slope of the swale. The applicant therefore proposes the re-grading of land in the vicinity of the rear of these dwellings and would construct retaining walls in at least three locations.

All four dwellings would have three-car attached garages accessed from the new public street. Although the driveways to access garages on Lots 1 and 4 would have traditional curb cuts from the new street, the driveways to the garages on Lots 2 and 3 would be accessed directly from the end of the vehicle turn-around area. The applicant has also proposed a second, circular-shaped

driveway in front of each of the dwellings on Lots 2 and 3.

The applicant proposes streetscape improvements along Seminary Road, most notably a new six-foot sidewalk instead of the current four-foot sidewalk, as well as new street trees. A one-foot strip of land along the entire Seminary Road frontage of the site (not already dedicated for the new public street), measuring approximately 163 square feet of land in total, would be dedicated to the City to allow for the wider sidewalk. In addition, the applicant would provide curb and gutter, two new street lights, at least eight new on-street parking spaces, and street trees.

### ***C. Project Evolution***

The project site was approved for redevelopment consisting of five single-family lots pursuant to Site Plan #93-0016 nearly 25 years ago. The project did not move forward and the site plan approval expired. The site layout in that 1993 approval shares some similarities with the current proposal, most particularly the location of the proposed new public street.

The applicant's initial concept plans depicted five single-family dwellings for the site. As part of its review, staff determined that the secondary front setback (along Seminary Road) for proposed Lot 1 was larger than the applicant anticipated in its early plans. This circumstance necessitated the applicant's shifting of all of the proposed dwellings farther south. The fifth dwelling was dropped from the proposal due to this shift and due to the inability to meet side setback requirements.

The location of the proposed new street on the site was also extensively discussed during the early review phases of the project. Staff ultimately agreed with the applicant's preference that the street be located in the currently proposed location on the eastern side of the site.

The presence of the isolated wetland at the southern end of the site became known to staff as a part of the applicant's Preliminary plan, consistent with site plan submission requirements. Neighboring property owners also informed City staff of the presence of standing water at the site, which it observed at the property at the location of the isolated wetland during a January 2017 site visit.

### **III. LAND-USE REGULATIONS**

#### **A. *Zoning Regulations***

The project site is zoned R-20 / Single Family. Pursuant to Section 3-102 of the Zoning Ordinance, single-family residential uses are allowed in R-20 without the need of a Special Use Permit. The typical front setback requirement for single-family dwellings is the average of the front setbacks of other buildings on the same blockface, consistent with Section 7-2503 of the Zoning Ordinance. In this instance, however, the proposed public street does not yet exist and there is no blockface for averaging purposes for Lots 2, 3, and 4, as well as for the primary front of Lot 1. The 40-foot front setback listed in the R-20 zone (Section 3-106(A)(1)) has therefore been applied as the front setback requirement in these instances.

As a corner lot, Lot 1 has both a primary and a secondary front setback requirement. The secondary front, located along an existing blockface on Seminary Road, is subject to the averaging provisions of Section 7-2503. The blockface, which is between Saint Stephen's Road and Fort Williams Parkway, is longer than 600 feet and therefore triggers the provisions of Section 7-2503(C) in which the Director may designate an appropriate alternative blockface for the purposes of determining the secondary front yard setback. The Director has designated in this case that an appropriate blockface continues to be the one located between Saint Stephen's Road and Fort Williams Parkway. The average of all of the front yard setbacks along this blockface is 104.1 feet.

Sections 11-403 and 11-404 require Development Site Plan (DSP) approval for the contemporaneous development of three or more single-family dwellings, as is the case for this project. The City's review authority in Development Site Plan (DSP) cases is more limited compared to Development Special Use Permit (DSUP) cases. DSP cases are reviewed against the standards within Section 11-400 of the Zoning Ordinance, whereas DSUP cases are additionally reviewed against the SUP standards in Section 11-500, which provide for greater discretionary authority. For example, two matters routinely required as part of DSUP cases, but not in cases like the current DSP request, are a formal architectural review and a public art contribution. In addition, City policies regarding affordable housing and green building do not apply to this project given the single-family dwelling use and number of units proposed.

Section 11-416 provides for the potential modification of certain minimum zoning requirements as part of the DSP approval, including the one requested in this application: the 40-foot front yard setback requirement (Section 7-800) as measured from the public street turn-around at Lots 2 and 3. Section 7-2507 also requires a minimum tree canopy equal to 25% of each new proposed lot. Several zoning elements of the proposal can be found in the table on the following page.

## B. Zoning Tabulations

Site Area:	111,204 SF (new lots) + 24,944 SF (street dedication) = 136,198 SF total (3.13 acres)				
Zone:	R-20 / Single-family zone				
Current Use:	One single-family dwelling				
Proposed Use:	Four single-family dwellings on four new lots				
	Permitted / Required	Proposed			
		Lot 1	Lot 2	Lot 3	Lot 4
Lot Size	20,000 SF min	29,797 SF	22,840 SF	22,558 SF	36,059 SF
Lot Width	100 feet min (non-corner)		126'	121.3'	134.8'
	120 feet min (corner)	207.9'			
		167'			
Lot Frontage	75 feet min	209.8'	125.9'	100.9'	75.1'
		154'			
FAR	0.25	0.21	0.25	0.25	0.17
Height	35 feet	35'	35'	35'	35'
Front Yard	104.1 feet (Lot 1 - Seminary Rd)	104.1'	26.2'*	25.9'*	40'
	40 feet (all others)	40'			
Side Yards	12 feet min / 1:2 ratio = 17.5 feet	61.2'	20.8'	36'	21.7'
		18.7'	36.5'	17.7'	36.5'
Rear Yard	12 feet min / 1:1 ratio = 35 feet		69'	66.2'	89.2'
Tree Canopy	25% of each lot	63.7%	44%	39.9%	39.5%
Parking	2 spaces / unit	Three garage spaces / unit plus driveway parking			

\*Modification requested

## C. Master Plan Designation

The property is located within the Seminary Hill / Strawberry Hill Small Area Plan Chapter of the Alexandria Master Plan, which designates the site for low-density residential use. In addition, the 3832 Seminary Road property was noted in the city-wide Open Space Plan as part of an inventory of vacant parcels of land. However, the Open Space Plan did not identify the property as a priority for open space acquisition nor have any changes occurred since the plan's approval

in 2002 to re-prioritize the site for open space acquisition. RPCA staff has also confirmed that they are not seeking to utilize this site for open space.

## **D. *Additional Regulations***

Several additional regulations regarding new street names, wetlands, stormwater, soil erosion, and a geotechnical report are particularly relevant to the project site and are discussed in detail below.

### **New Public Street Name**

Section 5-2-64 of the City Code grants authority to the Planning Commission to approve new public street names. In new development projects, the applicant typically proposes new public street names, which are then reviewed for factors such as addressing and emergency response considerations. The City agencies involved in the vetting process include the Fire Department, the Police Department, the Department of Emergency Communications, GIS, Archaeology, Code Administration, and Planning & Zoning. Once proposed street names are vetted, they are presented to the Planning Commission for public comment and an official vote.

### **Wetlands**

The previously-mentioned seep point and basin located on the southern end of the project site comprise a federally-protected wetland, referred to as an “isolated wetland,” under the jurisdiction of the United States Army Corps of Engineers pursuant to Section 404 of the Federal Clean Water Act. The Corps has examined the isolated wetland, which was mapped by a Certified Wetland Delineator and shown on the preliminary site plan submission, and determined in its “jurisdictional letter” that the wetland boundaries are correct. Although the applicant is not proposing disturbance to the wetland as a part of this proposal, any disturbance to it would require approval of a wetland permit from the Corps.

Neither the Federal Clean Water Act nor the Chesapeake Bay Act requires a buffer around the isolated wetland. However, the City of Alexandria imposes a more stringent local requirement in Section 13-109(E)(11) of the Zoning Ordinance, which requires a 50-foot buffer around the isolated wetland in which buildings are prohibited. It should be noted that the construction of sewer lines is allowable within the wetland buffer area pursuant to Section 13-123(A)(2). The 50-foot buffer area required around the wetland is similar in type to the buffer required around a resource protection area (RPA). However, staff has performed multiple site visits and has determined that no on-site feature meets the definition of a perennial or intermittent stream. The wetland onsite is not tidal nor is it connected to a perennial stream. Therefore, by definition, there is no RPA designation on the subject property.

### **Stormwater**

Stormwater runoff is subject to compliance with a variety of requirements regarding both water quantity and water quality contained in the Virginia Stormwater Management Act regulations, the Chesapeake Bay Preservation Act (CBPA), and Article XIII of the Alexandria Zoning Ordinance, known as the City’s Environment Management Ordinance.

With regard to water quantity, stormwater runoff from post-development conditions cannot create adverse impacts on adjoining and downstream properties compared to the pre-development conditions. In addition, stormwater runoff into storm sewer infrastructure cannot increase from pre-development to post-development conditions. To demonstrate compliance, the applicant must complete channel and flood protection analyses as part of its preliminary and final site plan submissions and demonstrate the availability of an adequate storm sewer outfall. In accordance with City's policies, practices, and regulatory requirements, the applicant completes hydrologic analyses for pre and post-development runoff generation for two-year, 10-year and 100-year storm events. Different and progressively increasing rainfall depths, exceeding the minimum depths recommended for this region by the Northern Virginia Rainfall Atlas, are built into the analyses for each of these scenarios. Some of the methods by which the applicant would prevent such an increase in stormwater runoff during these storm events include possibly detaining water on site and slowing down the velocity of storm water conveyance to provide non-erosive velocities.

The most notable components of the previously-mentioned stormwater regulations that concern water quality involve the reduction in phosphorous loading from the site and the treatment of runoff from onsite impervious areas. The applicant is required to demonstrate on preliminary and final site plan submissions that the project is providing stormwater quality Best Management Practices (BMPs) at the site that would remove pollutants such as phosphorus from runoff consistent with treatment requirements.

#### **Geotechnical Analysis**

Applicants are required, through a standard condition on Development Site Plans and Development Special Use Permits, to provide a geotechnical report as part of the final site plan approval process for all DSP and DSUP projects. The geotechnical report includes information regarding the types of soils, including any marine clay that may exist, around the project site. It is typically used at the time of final site plan review and building permit review processes to ensure that the new structures would be properly constructed and supported for the specific site on which they are located.

#### **Erosion and Sediment Control**

If Planning Commission approves the DSP request, the applicant would be required to demonstrate compliance with erosion and sediment control requirements found in Title 5, Chapter 4 of the City Code (which were added to the code in June 2007), as well as the stabilization of disturbed grounds pursuant to City of Alexandria and the Commonwealth of Virginia requirements, prior to approval of the final site plan for the project. To meet requirements, an erosion and sediment control plan must be submitted with the final site plan that depicts the design and implementation of practices to control soil and water erosion from the site to protect adjoining and downstream properties as well as any natural water resources.

## **IV. STAFF ANALYSIS**

Staff recommends approval of the proposal to develop the project site with four new single-family residential dwellings. The applicant's plans have generated concern among adjacent property owners, particularly with regard to environmental matters such as stormwater quantity, soil erosion, and tree preservation. Questions have also been raised among neighbors regarding the swale and the isolated wetland. As noted in greater detail in this section of the staff report, the proposal meets or would be required to meet (at the time of final site plan approval) all environmental requirements. The applicant has also agreed to a tree protection covenant for portions of the site as a condition of DSP approval. Ultimately, the proposal represents an appropriate development plan that is consistent with land-use regulations, the Alexandria Master Plan, and the scope of review for a Development Site Plan (DSP) request.

### ***A. Building Design***

The placement and orientation of the proposed structures meet zoning requirements and the dwellings' design falls within the general range of architectural styles found in Alexandria. Staff encouraged the applicant to include within the preliminary site plan submission a few design options, such as varying façade materials and window styles, in order to differentiate the proposed dwellings from one another. The applicant has indicated that, given that architectural review is not a requirement of DSP requests, it may also offer future homeowners further design customization, which would further help differentiate the dwellings. Staff has memorialized this future flexibility and related limitations in Condition #11 of this report.

### ***B. Site Design***

Staff supports the applicant's proposed site design for the four single-family dwellings and new public street. The current site layout was reached following considerable discussion regarding a number of factors including the location of the new public street, the vehicle turn-around necessary for emergency vehicles, the presence of the isolated wetland and the swale on the project site, and the secondary front setback requirement. The resulting layout represents an appropriate and functional plan to develop the site.

#### **Street Location**

Staff and the applicant reviewed the site to determine where the proposed new public street would create the least disturbance to the site and the existing trees. The circumstance of the backyards of the proposed homes abutting the backyards of existing homes to the west on Saint Stephen's Road, only achievable by locating the street on the eastern side of the property, yields a larger uninterrupted area of tree cover. Locating the public street there instead of on the western side would also result in less grading work and less of a change to the area known as the swale. For these reasons, staff agreed that the street should be located on the eastern side of the property.



### **Vehicle Turn-Around**

Several designs for a vehicle turn-around toward the end of the new public street, necessary for emergency vehicles and refuse trucks in particular, were reviewed in the early stages of the project. Several proposed options would have placed the turn-around on private property and would have had the appearance of a wider private driveway rather than a turn-around area for public use. The current turn-around proposal is supportable given that it is completely within the public right-of-way, is a full 22 feet wide, and has an adequate width and depth for trucks. It also serves as the access to the garages for Lots 2 and 3, representing an efficient use of paved area. The privately-owned portion of the driveway for these lots will be surfaced with permeable paving, or other special treatment, to distinguish it from the public right-of-way.

### **Isolated Wetland and Swale**

The location of the isolated wetland at the southern end of the site on proposed Lot 4 and the presence of the swale on the western and southern portions of the project site have been important considerations in staff's review of the overall site layout and the siting of the proposed dwellings. Staff supports the proposed site layout given that it meets or exceeds requirements regarding these two features. As previously mentioned, the isolated wetland is protected by a 50-foot buffer in which buildings cannot be located. The applicant has sited the dwelling on Lot 4 outside of that buffer and further understands that any decks, patios, porches, or accessory buildings must be kept outside of it as well.

The swale on the western and southern portions of the project site, although a naturally-occurring topographical feature, does not meet any definitions of environmental features today and is not protected under current regulations. Staff believes that, despite the lack of formal regulations, changes to the swale from its current condition should be limited to the extent reasonably necessary for the construction of the proposed dwellings in order to support lower-impact development as good urban planning practice. The proposal meets this test given that only some areas of the swale would be impacted while others would remain intact. It is true that portions of the dwellings on Lots 1, 2, and 3 and almost all of the dwelling on Lot 4 would be located on the eastern or northern side of the swale. However, the central or lowest portions of the swale (except for the presence of new and relocated underground pipes) and the entire western slope of the swale would remain intact. The balance that has been struck in this proposal, which allows the site to be developed while keeping some naturally-occurring areas intact, is reasonable given that the swale is not a protected feature.

### **Secondary Front Setback Requirement**

The designation of all properties between Saint Stephen's Road and Fort Williams Parkway as the blockface to use for determining the secondary front setback requirement is appropriate. The use of this blockface captures the character of development in this portion of Seminary Road, which includes a mix of buildings located as close as 40-65 feet from Seminary Road, as well as those much farther away (nearly 300 feet away). The resulting average front setback requirement of 104.1 feet is also appropriate by striking a balance between the shortest and longest setbacks in the immediate area.

Neighbors of the project site have shared with City staff their desire for an alternative blockface to be used for averaging purposes. The apparent effect of such a change would be a reduced front setback from Seminary, potentially allowing all four dwellings to be moved closer to Seminary Road. The ultimate purpose in shifting the dwellings farther north may be to move them farther outside of the swale. The applicant has recently stated that, consistent with neighbor requests, it may agree to use a shorter secondary front setback and to potentially move all of the dwellings farther forward, but only if site plan request remains on the October Planning Commission docket.

Staff is willing to consider the request from the neighbors and the applicant regarding the blockface determination, but this potential change would result in a significant re-design of the site layout. Due to the timing of the discussion of this matter and the potential extent of the ensuing changes to the site plan, staff would not be able to fully consider the matter without a deferral from the October Planning Commission docket.

### ***C. Parking and Driveways***

The applicant meets zoning-required parking requirements with the provision of three parking spaces within the attached garages for each dwelling. There is sufficient space for three additional vehicles parking in tandem fashion in the driveway immediately adjacent to the garages. The applicant is also creating at least eight on-street parking spaces in connection with the new public street.

Most of the applicant's proposed driveway plans are acceptable to staff as well. Some of the driveways would be surfaced with permeable paving which would also function as a stormwater BMP. The driveway connection on Lots 2 and 3 between the attached garages and the turn-around allows for an efficient use of paved area. However, the applicant has proposed on these two lots a second, circular driveway that would traverse the front yard, beginning with a curb cut on the main section of the new public street and ending with another curb cut on the vehicle turn-around area. Staff believes that this second driveway would add too much pavement within the prominent front yard area and is unnecessary for parking or access reasons. Furthermore, it may be possible to achieve at least one additional on-street parking space if the additional curb cuts are removed. Staff has therefore recommended in Condition #22 that the two circular driveways on Lots 2 and 3 be removed prior to the submission of the final site plan.

### ***D. Tree Preservation***

Staff stressed to the applicant early in its review process the importance of retaining as many mature trees as possible at the project site. Although a significant amount of tree canopy is proposed to be removed from the site in order to build the four single-family dwellings, the applicant would mitigate this loss through the preservation of certain areas of existing trees, particularly on the western and southern portions of the site, and the installation of new trees. The combination of new and preserved trees would exceed the minimum 25% tree crown coverage requirement for each lot. As noted in the Zoning Table, the tree crown coverage

provided would range from about 64% on Lot 1 to about 40% on Lot 4. If measured by the entire project site, approximately 39% tree crown coverage, or 47% coverage if the new street area is excluded, would be provided.

Given the number and location of existing trees on the lot, virtually any redevelopment plan for the property would involve tree loss. Furthermore, staff is limited in its ability to require tree preservation within the City beyond the protection of specimen trees, meeting the 25% minimum requirement, and ensuring those trees an applicant agrees to preserve are, in fact, preserved. Toward that end, staff has recommended in Condition #10 that the applicant record a tree preservation covenant for those areas specifically identified as tree save areas on the final site plan submission. The recordation of a covenant would ensure that these trees would be protected well into the future as opposed to only during construction of the four new dwellings.

### ***E. Stormwater***

The preliminary site plan submission for this project meets both stormwater quantity and quality requirements. With regard to stormwater quantity, the applicant proposes, and has shown in plan computations, to discharge less runoff in the post development condition compared to existing conditions. Achieving reduced runoff is possible in this instance, despite an increase in impervious area from new dwellings and driveways, given that six bio-retention areas would be installed at the site. The majority of the runoff from the new impervious areas would be directed forward on the properties and into the new bio-retention ponds, where the water would be held and also treated. The project therefore meets the stormwater quantity requirements within Article XIII of the Alexandria Zoning Ordinance.

With regard to quality, the applicant proposes stormwater quality Best Management Practices (BMPs) that demonstrate compliance with all applicable stormwater treatment requirements and regulations also through the installation of the six bioretention areas as well as permeable pavement. Four of the bioretention areas will treat runoff piped from the roofs of the proposed houses, portions of the lawns, and portions of the driveways. Two of the bioretention areas will treat runoff from the proposed public street. The pervious pavement will be placed within portions of the driveway area. These proposed BMPs would provide sufficient stormwater treatment to meet both the state phosphorous reduction requirements as calculated using the Virginia Runoff Reduction Method (VRRM) and the city's impervious area treatment requirements – the Alexandria water quality volume default.

The geotechnical reports submitted by the developer's engineer demonstrate that the proposed bioretention areas are located in areas where the soil has infiltration rates ranging from 0.6 inches per hour to 3.4 inches per hour. Per Virginia Department of Environmental Quality (VDEQ) BMP Clearinghouse guidelines, these soils are suitable for bioretention areas that use infiltration. These stormwater BMPs will provide both treatment of stormwater and stormwater runoff reduction through short term ponding and infiltration.

## ***F. Erosion and Sediment Control***

Although the applicant is not required to submit an erosion and sediment control plan with the preliminary plan, it would be required with the first final site plan. The project would need to meet the erosion and sediment control requirements, outlined by the Virginia Department of Environmental Quality in the “Virginia Erosion and Sediment Control Handbook” by utilizing some of the most commonly used erosion and sediment control practices. Some of the practices are: perimeter silt fencing; temporary stormwater diversion dikes; storm drain inlet protection; silt traps and/or sedimentation basins; and temporary and permanent soil stabilization through seeding, mulching and sodding. Compliance with approved erosion and sediment controls is monitored during construction by inspectors from the Department of Transportation and Environmental Services. City staff also visits construction sites after rainfall events to enforce compliance.

Given the combination of proper erosion and sediment controls and the circumstance of the post-development stormwater quantity not exceeding the pre-development levels according to applicable regulations, it is not expected that adjacent properties would be negatively impacted by stormwater or erosion.

## ***G. Geotechnical Report***

Although normally only required as part of the final site plan review, the applicant submitted a geotechnical/soils report prepared by Geo Design & Engineering, Inc. during staff’s review of the preliminary plan. The report provided recommendations for the construction of retaining walls, demolition of structures, groundwater, excavations, foundations, footings, wall design, waterproofing, slab design, pavement, and drilled piers at the time of building construction to protect the proposed dwellings, the site, and, consequently, adjoining properties. It would be reviewed again as part of the final site plan and building permit processes in the future.

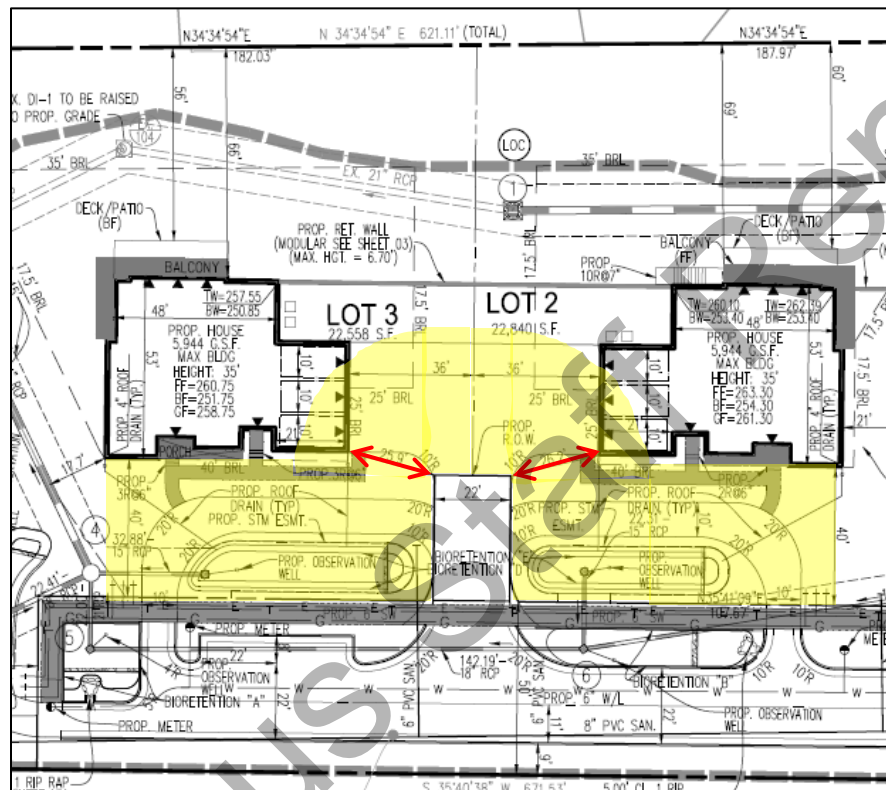
## ***H. Modifications***

Staff also supports the request for site plan modifications for the front yard setback requirements on Lots 2 and 3. It finds that the proposal meets the three criteria for modifications listed in Section 11-416 as described below.

### ***1. Such modifications are necessary or desirable to good site development.***

The requested modifications of the front yard requirement would occur in only two instances: the distance between the corner of the dwelling on Lot 2 and the closest corner of the public right-of-way in the vehicle turn-around area, and a similar measurement between the dwelling on Lot 3 and the closest point of the turn-around. The modification would reduce the setback from 40 feet to approximately 26 feet, a reduction of about 14 feet, at the closest point. To meet the ordinary 40-foot setback requirement, a larger portion of each dwelling and associated grading changes would need to be shifted into the area known as the swale. Staff believes that the modification is

**Graphic B: Front Yard Modification Exhibit**



- The public right-of-way located in front of the affected corners of the dwellings on Lots 2 and 3 would be used as a vehicle turn-around area, with low traffic, rather than as a traditional through street. Staff believes that this circumstance reduces the potential impacts that would be otherwise mitigated through the full 40-foot front yard setback requirement.

- The requested setback modifications are internal to the project site and therefore would not be detrimental to neighboring property or to the public health, safety, or welfare.

## ***I. New Street Name***

Staff recommends that the new public street proposed in connection with this project be named **Karig Place** as requested by the applicant. The name, which is a family surname of current and former property owners, is the applicant's preferred choice among the list of names that staff deemed acceptable through its standard vetting process among city departments.

## **V. COMMUNITY**

The proposal to build four single-family dwellings in this location has generated a significant level of interest from neighbors and other interested parties. The applicant shared information about the proposal with two neighborhood groups: the Seminary Hill Civic Association on December 8, 2016 and the Seminary Ridge Civic Association on March 20, 2017. Seminary Ridge also posed several questions in an April 3, 2017 letter, to which City staff has replied.

Representatives from Beth-El synagogue have contacted City staff on several occasions and met with City staff in early May 2017 to ask questions and share concerns about the proposal. Matters discussed at the May meeting and in emails included: the presence of the isolated wetland and swale on the site, the determination of whether the swale meets the definition of an intermittent stream, tree preservation, and the blockface to be used for determining the front setback requirement from Seminary Road on Lot 1.

In addition, a group of neighbors living to the south and west of the project site, within the boundaries of Seminary Ridge Civic Association but acting independently, have contacted City staff with questions and concerns. The group, which has been named Responsible Stewardship, has raised matters similar to the ones noted by Beth-El representatives. They have also stressed concerns about construction techniques, stormwater runoff, and soil erosion, based in part on the difficulties with runoff and foundation issues that some group members have experienced at their homes in the past.

The property has also been posted with public notice signs announcing the proposal. In addition, notification will be sent to all adjacent property owners with information about the proposal, hearing dates and contact information. Staff will also present the request to the Federation of Civic Associations at its September 2017 meeting.

## **VI. CONCLUSION**

Staff recommends approval of the Development Site Plan request, with modifications, and the request for a new street name, subject to compliance with all applicable codes and recommended conditions.

**Staff:** Robert M. Kerns, AICP, Division Chief, Development;  
Maya Contreras, Principal Planner; and  
Nathan Randall, Urban Planner.

## **VII. GRAPHICS**

*Graphic A - Proposed Site Plan*

Previous Staff Report

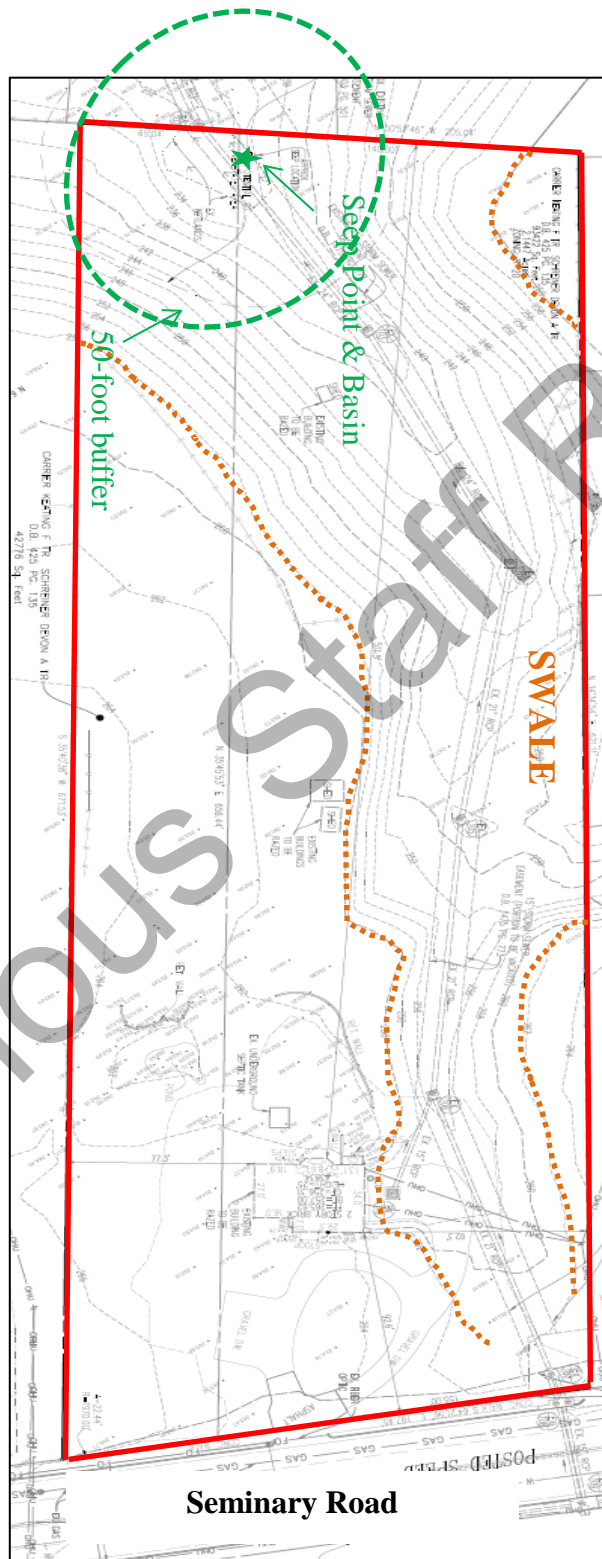


***Graphic B - Dwelling Design Option #1***



***Graphic C - Dwelling Design Option #4***

**Graphic D - Isolated Wetland & Topographic Illustrative Exhibit**



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**From:** Nathan Randall  
**Sent:** Wednesday, November 01, 2017 1:17 PM  
**To:** Kristen Walentisch; Robert Kerns  
**Subject:** FW: Comments: 3832 & 3834 Seminary Road-Karig Estates

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**From:** Dave Cavanaugh [<mailto:dacava1@yahoo.com>]  
**Sent:** Wednesday, November 01, 2017 12:40 PM  
**To:** Karl Moritz; Maya Contreras; Nathan Randall  
**Cc:** [allisonsilberberg@alexandriava.gov](mailto:allisonsilberberg@alexandriava.gov); Justin Wilson  
**Subject:** Comments: 3832 & 3834 Seminary Road-Karig Estates

**3832 & 3834 Seminary Road- Karig Estates**

DSUP2016-00025-Preliminary Review (Completeness 3)

Applicant is requesting to subdivide the site into 4 lots and to add a new street

Project Managers: Nathan Randall & Maya Contreras

Comment: I ask the proposed subdivision plan be amended. The proposed new residence on Lot 4 should be moved away (or deleted) from the edge of the ravine to avoid increased drainage of water into the ravine and protect the structure of the unstable soils in that area. The proposed residence is on the precipice of the ravine creating additional runoff and erosion in the back of Lot 4. Viewing the erosion in the nature area behind Beth El shows the likelihood of further erosion and loss of soils into the ravine.

Although there is a 50' radius protecting the wetland seep at the bottom of the ravine, it would be a terrible mistake to construct a sewer through the middle. This will have unforeseen consequences on the wetland area and create additional water erosion on adjacent properties. The sewer line should be relocated so as not to disturb existing adjacent property owners.

The development is in a mostly undisturbed natural drainage into Strawberry Run. The scale of development and the technical geotechnical studies will increase runoff into the drainage area and ravine. The technical conclusions that the plan will reduce water runoff defies common sense and should be subject to an unbiased technical peer review.

Thank you

# Memorandum

**To:** The Mayor of the City of Alexandria  
City Council Members of the City of Alexandria  
The City of Alexandria's Planning Commission  
The Chair and Members of the City of Alexandria's Planning Commission  
The City of Alexandria's Director of Planning and Zoning

**From:** Yvonne "Bonnie" Petry  
City of Alexandria Resident

**Subject: Input Urging City Officials to Reject Development Site Plan #2017-0022 and Protect the Sensitive and High Quality Natural Area on the 3832 and 3834 Seminary Road Property**

I am writing to urge that you not allow the plan for the proposed four-house development project at 3832 and 3834 Seminary Road (Development Site Plan #2017-0022) to proceed without significant modifications to protect the site's natural resources, the real interests of residents located downhill/downstream from the project, and the interest of future residents at that property.

While this plan, if allowed to proceed, promises numerous negative impacts on the adjacent neighbors and future owners of homes unwisely placed on fill on top of Marine Clay, **putting a halt to this current plan is of interest to ALL Alexandrians because this site is an extremely high quality intact natural area in a city that has few of them left.**

This area is a sensitive natural area that includes the spring underlying Seminary Ridge's gravely terrace and the intermittent stream that runs through the ravine from the headwaters of Strawberry Run. The area has an outstanding mix of mature native trees and vegetation.

To those who may not have been following this project closely, the proposed development, if allowed to proceed, would place four large (5900 to 6500 sq. ft.) single family homes on this sensitive property, which currently has one home. In order to carry out their current plan, the developers would need to:

- Clear-cut an intact natural area with significant mature native tree canopy
- Run a sewer line through a sensitive wetland (the spring that feeds Strawberry Run and the ravine's intermittent streambed)
- Dig a wide swath through an adjacent neighbor's yard to run the sewer line
- Pile fill dirt in this intermittent streambed on top of the bed's Arell/Marine Clay
- And then place homes on top of fill placed on unstable Marine Clay

At this point, it is distressing that the city seems poised to allow this plan to proceed despite its many downsides. The plan is entirely incongruent with the city's tree canopy goals, natural resource management goals, open space master plan goals (one of the goals is to preserve stream valleys), and stormwater goals. The geological/slope stability issues with building on the site have also been greatly minimized in city staff's report.

This issue is of interest to all Alexandrians because the preservation of this spring/headwaters area (or its destruction) greatly impacts the water quality of Strawberry Run and ultimately the Potomac River at a time that our city is failing to meet its water quality goals year after year.

This interest is reflected in Goal Number 4 of the city's own council-approved Open Space Master Plan, which reads "Protect and expand stream valleys and other environmentally sensitive areas." Yet the city is poised to

allow a project to go forward that will to run a 15'-wide clear-cut path and several feet deep of ditching not only through the city's supposed "protective" stream buffer - destroying this entire sensitive natural feature.

And it is of interest to all Alexandrians because it completely disregards our city's own tree canopy goal – a goal designed to protect our city's ecological health and livability (and by extension city residents' health).

With regards to the issues impacting the property's neighbors, the clear cutting of unstable slopes and subsequent fill work promises nothing but entirely predictable runoff and erosion problems for those other city residents unlucky enough to live downstream.

Early in this process, a number of the neighbors consulted with the same geologist the city hired to produce its recent (2015) and comprehensive (!) "Geologic Atlas of the City of Alexandria, Virginia and Vicinity." This expert geologist has identified a number very concerning problems with this proposed project's impacts on slope stability. Yet his report appears to have gained no traction with Planning and Zoning Staff, whom neglected to even consult the city's own geologic atlas in its review of this plan.

It is confounding that city staff would not take more interest in the geologic issues relevant to this project given the long-time Marine Clay/slope issues in the neighborhood South of Seminary Road and North of Duke Street. In talking to neighbors living on that slope, I have heard the horror stories of the cost and scope of mitigation work required to address structural issues caused by the Marine Clay there. In some cases, mitigation work costs have run in the tens of thousands of dollars, with at least one bill even reaching \$100,000.

### **Recommendations**

With regards to the path forward, I join my fellow residents in asking that this project be halted while it still can be and not allowed to go through in its current state.

Alexandria residents deeply concerned about this project have offered a number of constructive suggestions as to the path forward and I ask that this project be remanded back to city staff for **meaningful** adjustments.

One potentially helpful adjustment would be to limit the project to a maximum of three homes. Another would be to move the fourth home significantly closer to Seminary Road.

**These adjustments to the homes' placement, however, are only important if they can allow all the homes to be built to tie into the city's sewer system on Seminary Road.**

**To be clear, I am urging, in the strongest terms possible, that the city not allow the clear-cutting and destruction of the ravine (and by extension, the spring and intermittent stream). Adjustments to housing placement only have meaning if they preserve the ravine where the highest quality mature trees and sensitive wetland exist and prevent the placement of a sewer line in that ravine.**

**Finally, I can see one other option here, and it deserves full consideration – you, as city officials, could place this project on hold and work in a sincere manner to reach out to other potential buyers of the property (individuals or philanthropic/conservation organizations) to try and broker a deal to preserve this sensitive and high quality natural area.**

I am only asking that you, as city officials, abide by your own ecological plans and strategic goals. Your actions will make it abundantly clear as to whether you really do care about the environment, existing residents, and our city's livability or whether your support for the environment only entails lip service.

Sincerely,

Yvonne "Bonnie" Petry

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**From:** Dave Cavanaugh via Call.Click.Connect. <CallClickConnect@alexandriava.gov>  
**Sent:** Sunday, November 05, 2017 10:13 AM  
**To:** CCC PZ PlanComm  
**Subject:** Call.Click.Connect. #132605: Planning Commission Inquiries, Dockets at 3834 SEMINARY RD Hearing Schedule November 9, 2017Subdi  
**Attachments:** map.png

Dear [Call.Click.Connect.](#) User

A request was just created using [Call.Click.Connect.](#) The request ID is 132605.

**Request Details:**

This is a "public" request. Information may be provided to anyone who requests it.

- Name: Dave Cavanaugh
- Approximate Address: 3834 SEMINARY RD (See [map below](#))
- Phone Number: 7034613310
- Email: dacava1@yahoo.com
- Service Type: Planning Commission Inquiries, Dockets
- Request Description: Hearing Schedule November 9, 2017  
Subdivision Plan  
DSUP2016-00025-Preliminary Review (Completeness 3)  
Applicant is requesting to subdivide the site into 4 lots and to add a new street  
Project Managers: Nathan Randall & Maya Contreras

Comment: I ask the proposed subdivision plan be amended to delete Lot#4. Lot#4 as currently designed and laid out is the singularly most damaging element in the subdivision plan. The recent revision to the site plan and subdivision plan is a desperate attempt to mollify City officials to approve the subdivision plan. The lot is on a high point overlooking the swale and ravine. Soil disturbance caused by construction, steep slopes and impervious surfaces will increase water runoff from Lot#4. This will increase the area of saturated soils within the wetland and buffer area and increase the potential of storm water damage to the properties along Colonel Ellis.

Comment: In lieu of eliminating Lot#4, the proposed residence should be moved back from the crest of the hill. Moving the proposed residence 12.5 feet does not solve the problem of controlling runoff and erosion into the ravine. The house is immediately adjacent to the Line of Construction (LOC) with no setback from the steep slopes. In addition, the existing storm drain in the swale collects water from the Virginia Theological Seminary and the existing home and adjacent properties along St. Stephens and undergounds it into the seep/wetland.

To reduce water runoff from Lot#4 into the wetland seep area, the proposed residence on Lot#4 should be moved further back from the ravine. Appropriately sized infiltration trenches or other Best Management Practices (BMPs) should be incorporated into the lot plan within the LOC to slow water runoff into the ravine and swale. Reducing the storm water drainage off Lot#4 will minimize erosion off the hill. It will also minimize expansion of the wetland/seep area, and saturated soils on adjacent Colonel Ellis properties, and hopefully maintain an acceptable level of water quality into the Strawberry Run watershed.

Comment: Like Lots #2 and #3, the applicant should be required to install permeable surfaces on driveways and sidewalks on Lot#4. This would demonstrate a good faith effort to achieve LEED Certification.

Comment: Flipping the house around on the lot and placing the garage close to the street is an improvement. However, there is no filtration trench to slow runoff from the house and deck/porch into the swale. This will increase runoff into the wetland further saturating soils in the ravine and adjacent properties along Colonel Ellis. I ask that the Subdivision Plan be amended to include an infiltration trench to control run off from the elevated deck/patio on the west side of the west side of the house. The trench would help slow storm water runoff from the

home and patio draining into the swale.

Comment: Although there is a 50' radius protecting the wetland seep at the bottom of the ravine, it would be a terrible mistake to construct a sewer anywhere near the seep or the buffer area. This will have unforeseen consequences on the wetland area, impact water quality, increase the area of saturated soils and increase the potential for further erosion on adjacent properties. Other feasible locations should be explored that do not threaten the wetland and unreasonably disrupt existing adjacent property owners.

Comment: The development is in a mostly undisturbed natural drainage into Strawberry Run. The scale of construction and the large size of the proposed homes will increase runoff into the drainage area and ravine. The technical conclusions in the Site Plan that the engineered BMP's will reduce water runoff defies common sense and should be subject to further analysis and peer review.

Comment: On page 9 there is a comparison of the Previously Approved Lot#4 Layout and the New Lot#4 Layout. The previously approved house square footage was 6,508 GSF. The Proposed New Lot#4 Layout proposes a substantial increase to 9,015 square feet. Reducing the size and footprint of the proposed residence to the average size of the homes on lots 1-3 may provide additional distance or setback from the edge of the hill and space for infiltration trenches or other mitigating water and erosion control features.

- Attachment: [IMG\\_3626.JPG](#)
- Expected Response Date: Friday, November 10



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**From:** Cynthia Evans via Call.Click.Connect. <CallClickConnect@alexandriava.gov>  
**Sent:** Monday, November 06, 2017 5:02 PM  
**To:** CCC PZ Dev  
**Subject:** Call.Click.Connect. #132684: Development Project Inquiries Our property at 1211 Saint Stephens Road

Dear **Call.Click.Connect.** User

A request was just created using **Call.Click.Connect.** The request ID is 132684.

**Request Details:**

This is a "public" request. Information may be provided to anyone who requests it.

- Name: Cynthia Evans
- Approximate Address: No Address Specified
- Phone Number: 7033703113
- Email: [cynthiaevans52@gmail.com](mailto:cynthiaevans52@gmail.com)
- Service Type: Development Project Inquiries
- Request Description: Our property at 1211 Saint Stephens Road abuts the ravine which makes up a good part of the property at 3832-3834 Seminary Road (aka Kerig Estates).

When we purchased our home in 1997, we were informed by our realtor as well as the seller's realtor that the property to the back of ours was unbuildable and would be wooded in perpetuity. Sadly, that now appears to have been untrue. The woods, wetlands, and ravine that we love is in danger of being lost at this point. There are old growth trees there from the 1860s. There is an intermittent stream and an underground spring and stream on our property which feed into the headwaters of Strawberry Run and on into the Potomac River. Anyone with even a rudimentary understanding of water quality knows that wetlands are nature's filters. Destroying any wetland area has repercussions beyond the immediate property. The proposed development cannot help but impact the wetland area. The developer plans to run the sewer line from the huge new homes down through the wetland. This is unacceptable.

The woods are also home to wildlife that those of us who live here are lucky enough to enjoy. The balance of nature is maintained as long as the woods remain. Rodents are kept under control by predators such as some we have here. It seems that the entire city benefits directly from maintaining tree canopy, maintaining healthy trees whose roots help to stabilize the highly unstable marine clay slope (is the developer planning to go down to bedrock?), and maintaining a greenway for our wild creatures.

We moved here because we believed that Alexandria was dedicated to the preservation of green space. We are happy to pay our property taxes which go to sustain parks and wild spaces throughout the city. Privately, we used to clear invasives from the ravine behind our home for the elderly woman who lived on the property that is now slated for destruction. Should the city see its way clear to purchase that property outright in order to preserve it, we would be more than happy to volunteer as much time as necessary to help save that treasure for everyone in Alexandria.

I hope P&Z will reverse its previous approval in order to stop the devastation that this development will cause. This is a unique piece of property and an opportunity for the city. The city would be better served by purchasing the property itself in order to conserve its wildness.

Very truly yours,  
Cynthia B. Evans



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**From:** Nathan Randall  
**Sent:** Monday, November 06, 2017 4:12 PM  
**To:** Kristen Walentisch  
**Subject:** FW: Rational Stewardship  
**Attachments:** Seminary Approval 10.docx

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**From:** Karl Moritz  
**Sent:** Monday, November 06, 2017 12:46 PM  
**To:** Robert Kerns; Maya Contreras; Nathan Randall  
**Subject:** FW: Rational Stewardship

Please share with TES as appropriate.  
Thank you!

**Karl W. Moritz**  
Planning Director | City of Alexandria  
Room 2100 | 301 King Street | Alexandria, VA 22314  
Desk: 703-746-3804 | Cell: 571-329-3052

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**From:** pat tokarz [<mailto:jptokarz@comcast.net>]  
**Sent:** Monday, November 06, 2017 12:45 PM  
**To:** Karl Moritz <[Karl.Moritz@alexandriava.gov](mailto:Karl.Moritz@alexandriava.gov)>; Kdbec@aol.com; Burns Kathy; [john.lytle@morganstanley.com](mailto:john.lytle@morganstanley.com); Lisa Ring <[lisaaring@aol.com](mailto:lisaaring@aol.com)>; [Nrjennings@comcast.net](mailto:Nrjennings@comcast.net); [usna62@verizon.net](mailto:usna62@verizon.net); [alexacordelia@gmail.com](mailto:alexacordelia@gmail.com); Andrew Macdonald <[ahmacdonald@mac.com](mailto:ahmacdonald@mac.com)>; Ann and Steve Reed <[AReed@AnneReedConsulting.com](mailto:AReed@AnneReedConsulting.com)>; ann ellis <[annellis51@gmail.com](mailto:annellis51@gmail.com)>; Bertha Braddock <[Berthabraddock.bb@gmail.com](mailto:Berthabraddock.bb@gmail.com)>; 'Betsy Lohmann' <[Betsy4005@comcast.net](mailto:Betsy4005@comcast.net)>; Bill Dickinson , William Dickinson <[bill.c.dickinson@gmail.com](mailto:bill.c.dickinson@gmail.com)>; Bill Stiers <[billstiers@earthlink.net](mailto:billstiers@earthlink.net)>; bonnie petry <[bonnie.petry@outlook.com](mailto:bonnie.petry@outlook.com)>; 'Brenda Wilson' <[BrendaWilson09@gmail.com](mailto:BrendaWilson09@gmail.com)>; Brendan Otoole <[jbrendanotoole@gmail.com](mailto:jbrendanotoole@gmail.com)>; Bruce Mccarthy <[Mccarthy3912@aol.com](mailto:Mccarthy3912@aol.com)>; Cappie Stiers <[mcstiers@aol.com](mailto:mcstiers@aol.com)>; Carter Flemming <[Carterflemming@gmail.com](mailto:Carterflemming@gmail.com)>; Charles Evans <[charlese33@gmail.com](mailto:charlese33@gmail.com)>; Chris Connell <[cvconnell@gmail.com](mailto:cvconnell@gmail.com)>; Christina Lytle <[tinalytle@aol.com](mailto:tinalytle@aol.com)>; Christine Michaelis <[christinemichaelis@comcast.net](mailto:christinemichaelis@comcast.net)>; Cill Dara <[cilldara3030@gmail.com](mailto:cilldara3030@gmail.com)>; [cynthiaevans52@gmail.com](mailto:cynthiaevans52@gmail.com); [dacava1@yahoo.com](mailto:dacava1@yahoo.com); Dave Levy <[bentbiking@yahoo.com](mailto:bentbiking@yahoo.com)>; David Speck <[dgspeck@gmail.com](mailto:dgspeck@gmail.com)>; debora h aspagno <[deborahaspagnoli@gmail.com](mailto:deborahaspagnoli@gmail.com)>; doctor Stoll <[krkstoll@yahoo.com](mailto:krkstoll@yahoo.com)>; Eduardo Han <[eduhan@yahoo.com](mailto:eduhan@yahoo.com)>; 'Eileen Wallace' <[egwallace@verizon.net](mailto:egwallace@verizon.net)>; Elizabeth Wright <[wright22304@gmail.com](mailto:wright22304@gmail.com)>; Goree, Paul F - WASHINGTON DC <[paul\\_goreeiii@ml.com](mailto:paul_goreeiii@ml.com)>; [irishoat@aol.com](mailto:irishoat@aol.com); Janice Lachance <[Janice@JaniceLachance.com](mailto:Janice@JaniceLachance.com)>; [Jeremy.Flachs@Flachslaw.com](mailto:Jeremy.Flachs@Flachslaw.com); [jlepanto@bostonpacific.com](mailto:jlepanto@bostonpacific.com); 'Joan Otoole' <[joandotoole@gmail.com](mailto:joandotoole@gmail.com)>; John and Nancy Scruggs <[nancywscruggs@gmail.com](mailto:nancywscruggs@gmail.com)>; John Scruggs <[Jscruggs3929@gmail.com](mailto:Jscruggs3929@gmail.com)>; [jptokarz@comcast.net](mailto:jptokarz@comcast.net); [kirk.beckhorn@squirepb.com](mailto:kirk.beckhorn@squirepb.com); Leslie Pierre <[lesliepierre@aol.com](mailto:lesliepierre@aol.com)>; Lonnie Rich <[lcrich@rrbmdk.com](mailto:lcrich@rrbmdk.com)>; Loren Needles <[Loren@lorenneedles.com](mailto:Loren@lorenneedles.com)>; Lynette Goree <[lgoree6@gmail.com](mailto:lgoree6@gmail.com)>; Marianne and Buck Coates <[m-b-coates@comcast.net](mailto:m-b-coates@comcast.net)>; Nancy Connell <[neconnell@gmail.com](mailto:neconnell@gmail.com)>; Nepenthe; Nina Schwartz <[artstop@impulsegraphics.com](mailto:artstop@impulsegraphics.com)>; Patty collette <[Pattycollette@me.com](mailto:Pattycollette@me.com)>; Rebecca Hierholzer at Newport villiage. <[Magicbeca@aol.com](mailto:Magicbeca@aol.com)>; Robert McLaughlin <[robertmclaughlin2011@gmail.com](mailto:robertmclaughlin2011@gmail.com)>; Shirley Downs <[shirleydowns@verizon.net](mailto:shirleydowns@verizon.net)>; Steve Reed <[sreed@steptoe.com](mailto:sreed@steptoe.com)>; Steven <[stevenakey@hotmail.com](mailto:stevenakey@hotmail.com)>; Suzanne McLaughlin <[smclaughlin8@gmail.com](mailto:smclaughlin8@gmail.com)>; Tokarz Lynn <[lhtokarz@gmail.com](mailto:lhtokarz@gmail.com)>; WALTER LOHMAN <[wlohmman@kirkland.com](mailto:wlohmman@kirkland.com)>  
**Cc:** 'Mike Ibrahim' <[mibrahim@alliancerealestatedevelopment.com](mailto:mibrahim@alliancerealestatedevelopment.com)>; Allison Silberberg

<[allison.silberberg@alexandriava.gov](mailto:allison.silberberg@alexandriava.gov)>; 'juston.wilson@alexandriava.gov.'

**Subject:** Rational Stewardship

KARL,

Thank you for your quick reply and your attention to this important matter.

Two of the twelve contiguous neighbors prefer the first house to be set back 104 feet for aesthetic or historic reasons.

The rest of the neighbors, Beth El, scientists, and a large number of concerned citizens, who have been vigorously sharing their concerns and scientific findings with you and your staff over the past twelve months, strongly feel moving all four houses closer to Seminary road would be a significant improvement.

An independent geologist and a local soil and water engineer have both studied this site plan in depth, and have repeatedly said moving all four houses as far away from the steepest slope as possible would be the safer, more prudent course. City staff recognizes that moving the fourth house is beneficial for all the same reasons that moving all four houses would be even better ( see attached ).. The builder repeated said that he would prefer moving all four houses, if it did not cause more unreasonable delay to this project. I think if the Commissioners had time to realize that all the players ( other than two neighbors ) were in agreement as to the major benefits of moving the four houses closer to Seminary road and connecting the sanitary sewer to the Seminary road sewer , and that the builder and staff had already studied preliminary plans to accomplish this, they would have found a way to allow this process to proceed more rapidly.

Staff has already approved the legality of moving the first house closer to Seminary road by exploring various formulas to determine the appropriate blockface setbacks. ( see attached ).

The attached report documents several shortcomings of conducting business at such a late hour i.e. Forgetting to consider the name of the new road, failing to submit a required plan for subdivision ( which should have been available for study and public comment prior to the meeting), and asking the builder to start all over with a new site plan submission for changes that could have been submitted as amendments to the approved site plan ( as the subsequent submission of an amendment to move and re-configure the fourth house was done) .

We understand that at 12:30 at night the Commission was unable to give this issue the thought and consideration that it deserved. It will be an unnecessary disgrace if the citizens of Alexandria , the builder, and the city staff were denied an opportunity to develop an improved outcome because of the late hour of the meeting and the need to get the commissioners home.

I ask again. If the Mayor were successful and Mike Ibrahim could quickly submit an amendment showing the planned movement and plans to connect the sanitary sewer to the Seminary road sewer ( thus protecting more trees and the wetlands ), how quickly could your staff render a decision ?

The benefits to the environment and the improvements in slope stability and decreased water runoff warrant all of us to do the best we can to improve this development as much as possible. If you and Mike could work together in a reasonable time frame, the citizens of Alexandria would greatly benefit.

Thank you for your help in this matter.

Pat Tokarz

**The strongest argument is the property is unsuitable** for development as proposed, is important to the local environment (habitat- trees- drainage), and construction would increase storm water runoff and erosion on adjacent properties.

**The proposed sewer line that will run through the protected**

**Wetland/forested spring should be abandoned in favor of a lift station that pumps the sewage to the sanitary main on Seminary Road.**

*The current plan for sewage disposal is to run a line through the protected forested spring/wetland area. This will destroy the feature: the trenching activity will irreparably destroy the ground surface and soil structure, while the trench itself*

*(presumably gravel filled) will act as a drainage tile and dewater the wetland. Of necessity, the trench will be cut into the underlying clay, which acts as a confining unit in the vicinity of the spring. All of this could be avoided by instead installing a lift station, which is a reliable and widely used method of dealing with sewage lines in areas of inconvenient topography.*

Moving all of the lots away from the top of the ravine (Lot 4) and closer to Seminary Road would decrease soil disturbance, better protect the natural drainage into the ravine, reduce the length of the proposed road, and reduce the cost of footings and retaining walls to support the construction.

Clustering the houses closer to Seminary Road would also decrease tree loss, reduce soil disturbance and the potential for erosion and slope failure. Adopting this modification as an amendment to the site plan also provides a visual buffer and protects wildlife habitat in the Strawberry Run watershed behind the homes on St. Stephens, Colonel Ellis and behind the Beth El Synagogue nature garden.

While the modification of moving the fourth house 12 feet will be a small improvement, the proposed construction will still cause irreparable harm to the ravine, increase storm water runoff onto adjacent properties causing erosion and potentially undermine and cause slope failure in the disturbed construction areas.

The proposed BMPs are inadequate. Even assuming they may initially work, the infiltration trenches and grass channels will fill with sediment, be expensive to maintain, become a breeding ground for insects, and storm water drainage will gradually get worse.

We request the city work with a local water and soil engineer to develop a more realistic plan.

We feel all the stakeholders can share the goal of having an even better development to bring to market than the current plan. One that addresses the realistic concerns of the city, the neighbors, the owners, the developer, and the environmentally minded citizens (who spent a lot of time, effort and tax money approving the realistic goals of this being an "eco city" with 40 % tree canopy and protections of natural waterways, wetlands, wildlife and topography by private landowners).

It seems to us that the focus needs to be on environmentally constructive ways for the city, the developer and concerned citizens to act with responsible stewardship of the land and the interests of the community.

Pat

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**From:** Karl Moritz [<mailto:Karl.Moritz@alexandriava.gov>]

**Sent:** Monday, November 06, 2017 9:38 AM

**To:** pat tokarz

**Cc:** Mike Ibrahim; Allison Silberberg

**Subject:** RE: Karig Estates

Hello,

Thank you for your thoughtful note; it is much appreciated. The applicant has submitted an amendment to the approved site plan which moves the fourth home closer to Seminary Road. The Planning Commission will be considering this proposed amendment at its November 9 hearing. The staff report on this proposed amendment, which recommends approval, is located [here](#).

You may recall testimony at the hearing from the adjacent neighbor to the west, who opposed moving the first house closer to Seminary. The applicant's proposal achieves both the objective of moving the fourth house closer and leaving the first house where it is in the approved plan.

Thanks again,

Karl

**Karl W. Moritz**

Planning Director | City of Alexandria  
Room 2100 | 301 King Street | Alexandria, VA 22314  
Desk: 703-746-3804 | Cell: 571-329-3052

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**From:** pat tokarz [<mailto:jptokarz@comcast.net>]

**Sent:** Saturday, November 04, 2017 3:30 PM

**To:** Karl Moritz <[Karl.Moritz@alexandriava.gov](mailto:Karl.Moritz@alexandriava.gov)>

**Cc:** Mike Ibrahim <[mibrahim@alliancerealestatedevelopment.com](mailto:mibrahim@alliancerealestatedevelopment.com)>; Allison Silberberg <[allison.silberberg@alexandriava.gov](mailto:allison.silberberg@alexandriava.gov)>

**Subject:** Karig Estates

Dear Mr. Moritz

Thank you for your service to the city.

I have asked the Mayor to ask the Pand Z Commission to re-consider their decision late at night on Oct. 3/4<sup>th</sup> that the movement of the four houses closer to Seminary road could not be considered as an amendment to the site plan as passed, as were the missing subdivision plan, the forgotten motion to name a street and the plan to move and re-configure the fourth house.

If she were successful and Mike Ibrahim could quickly submit an amendment showing the planned movement and plans to connect the sanitary sewer to the Seminary road sewer ( thus protecting more trees and the wetlands ), how quickly could your staff render a decision ?

The benefits to the environment and the improvements in slope stability and decreased water runoff warrant all of us to do the best we can to improve this development as much as possible. If you and Mike could work together in a reasonable time frame, the citizens of Alexandria would greatly benefit.

Thank you for your help in this matter.

Pat Tokarz,  
3937 Col. Ellis Ave.  
Alexandria.

## Seminary Approval 10/17

- A. A. Recent Approval Background: On October 3, 2017, Planning Commission approved Development Site Plan #2016-0025 to construct four new single-family dwellings at the Karig Estates project site. The staff report for that approval, which can be found in Attachment #3 at the end of this report, also included a request for and discussion of Street Name Case #2017-0001 to name the new public street associated with the project. That request was inadvertently not mentioned in the approval motion at last month's Commission meeting and was deemed to be not approved. Staff has therefore included the Street Name Case request again in this staff report as a technical matter. The Commission was also informed during the October hearing that a separate subdivision request was required for the subdivision of the project site into four lots in connection with DSP#2016-0025. As a Development Site Plan request only regularly heard by the Planning Commission, the project was deemed not

eligible for the provisions of Section 11-1704(B) which exempts “Council-approved development” from the need for separate subdivision approval. No separate subdivision application had been brought forward to the Commission nor had one been advertised pursuant to regular public noticing requirements. In response, the applicant requested Commission action that evening on the DSP request and agreed to submit a separate subdivision application within 30 days for separate consideration at a future hearing. Consistent with this approach, the Commission amended Condition #25 to require the submission of a subdivision application within 30 days. The applicant submitted a subdivision application and plat three days after the hearing, on October 6, 2017. DSP#2017-0022 SUB#2017-0006 / SNC#2017-0001 Karig Estates 3832-3834 Seminary Road 4

- B. Prior to the October 3rd public hearing, several adjoining property owners, including representatives from Beth-El Hebrew Congregation, had contacted staff to ask questions and express a variety of concerns about the proposal. Prominent among

those concerns was the proximity of the proposed dwellings, particularly the one on Lot #4, to the topographical feature on the property that has been referred to as a swale or ravine. Some neighbors advocated, both prior to and during the hearing, for a shift in the location of all four dwellings to the north, closer to Seminary Road, in order to limit impacts to the swale.

- c. Another neighbor provided written comments expressing opposition to any shifting of the dwellings closer to Seminary Road. Such a shift would only be possible if Planning & Zoning staff designated an alternative blockface along Seminary Road to be used for the purposes of determining the front yard setback for Lot #1.
- d. As noted in the prior staff report for DSP#2016-0025, Planning & Zoning staff was willing to analyze whether an alternative blockface along Seminary Road would be equally appropriate in this instance compared to the blockface used for the front setback in the submitted site plan. Staff stipulated that, if such an alternative blockface determination could be made, the applicant would need to provide

a revised site plan submission, which would defer the project from the October docket. However, the applicant was willing to consider site layout changes only if the project was not deferred from the October docket. Given the change was also too significant to be addressed through condition language and resolved through the final site plan process, staff could not recommend any changes to the Planning Commission regarding the site layout at the October public hearing. Ultimately, approval of DSP#2016-0025 at the October public hearing did not include any changes to the location of the proposed dwellings.

- E. In the weeks following Commission approval of DSP#2016-0025, the applicant has reconsidered site layout options for the project in response to both neighborhood and staff feedback. The new proposal, which requires approval of a DSP amendment and a new site plan modification request, would change the location of the proposed dwelling on Lot #4 only. The new proposal is described in detail in Section III of this report.



- F. B. Appeal On October 18, 2017, representatives of Beth-El Hebrew Congregation filed an appeal of the Planning Commission's approval of DSP#2016-0025 to City Council. Pursuant to Section 11- 409(C) of the Zoning Ordinance, any group of 25 residents/property owners in the City or any owner of property located within 1,000 feet of the project site may file an appeal and must do so within 15 days of the Planning Commission decision.

DSP#2017-0022 SUB#2017-0006 / SNC#2017-0001  
Karig Estates 3832-3834 Seminary Road 5 C.

- G. Site Context General Information

- H. The project site comprises two lots of record: 3832 and 3834 Seminary Road. The 3832 Seminary Road property measures 42,776 square feet (0.98 acres) and is the smaller and narrower of the two lots. An unimproved lot, it has been under the same ownership as the 3834 Seminary Road property for decades. The property at 3834 Seminary Road is the larger of the two properties at the project site at 93,422 square feet (2.15 acres) and is improved with a two-story single-family dwelling. The total project site area is 136,198 square feet (3.13 acres). The site

is surrounded by institutional and residential uses. The Virginia Theological Seminary (VTS) and the synagogue of Beth El Hebrew Congregation are located immediately to the north and east of the site, respectively. Single-family dwellings are located to the south and west, including along Saint Stephens Road and Colonel Ellis Avenue. The upper school campus of Saint Stephen's / Saint Agnes School is located a short distance to the southwest from the site.

**Topographic and Environmental Features** The project site is heavily wooded and contains notable topographical variations. The northeastern, north-central, and central portions of the property slope gently downward to the west and south.

- i. As explained in greater detail in the previous staff report for this project, a roughly L-shaped area located along the western and southern portions of the site contains significant grade changes. The area, which has been referred to as a swale or ravine, begins near the northern edge of the property as terrain that is approximately four to six feet lower than surrounding grade.

- J. The grade difference increases as the swale continues south such that, at its lowest point, the swale is approximately 25 feet lower than surrounding grade and is defined by relatively steep sides. The swale is not a Resource Protection Area (RPA) or other defined environmental feature and is not subject to protection under current regulations.
- K.
- L. Near the southern edge of the project site, within the swale area, environmental features known as a seep point and basin have been identified. The seep is a small point in the earth's surface from which groundwater naturally springs upward and the basin is an immediately-adjacent area on the ground where water from the seep may collect. The amount of water on the ground coming from the seep was small and shallow during a site visit early this year, covered in many places by dead leaves. The seep point, basin and adjacent areas meet the definition of an "isolated wetland." The isolated wetland has been depicted on the preliminary site plan and is subject to regulations described in the staff report for DSP#2016-0025. Subdivision History The two

existing properties at the project site were created individually, rather than as part of a planned subdivision in 1938 (3834 Seminary) and 1940 (3832 Seminary) prior to the annexation of this area by the City of Alexandria from Fairfax County in 1952. The plat associated with the creation of 3834 Seminary Road can be found in Graphic #1 on the following page. Aside from the dedication of land to the City in the 1950s for street widening purposes, the boundaries of each property at the project site have remained unchanged since their creation over 75 years ago.

- A. General Zoning Regulations The project site is zoned R-20 / Single Family. Pursuant to Section 3-102 of the Zoning Ordinance, single-family residential uses are allowed in R-20 without the need of a Special Use Permit. As described in the previous staff report for the project, the 40-foot front setback listed in the R-20 zone (Section 3-106(A)(1)) has been applied as the front setback requirement for the proposed dwelling on Lot #4, which is the focus of the DSP amendment request. Sections 11-403 and 11-404 require Development Site Plan (DSP) approval for

the contemporaneous development of three or more single-family dwellings, as is the case for this project. Section 11-415 stipulates that changes to an approved DSP not deemed to be minor must be processed as a DSP amendment and reviewed by the Planning Commission. Section 11-416 provides for the potential modification of certain minimum zoning requirements as part of the DSP approval, including the 40-foot front yard setback requirement for Lot #4 that is requested in this application. Several zoning elements of the Lot #4 revisions, Lot #4 as previously approved, and Lots #1-3, which have remained unchanged with regard to zoning, can be found in the table on the following page.

B. Subdivision Standards Several sections of the Zoning Ordinance contain requirements and standards for subdivision review. Sections 11-1706 and 11-1709 of the Zoning Ordinance contain several technical subdivision requirements and Section 11-1710(D) stipulates a general requirement that all lots meet zone requirements. Section 11-1710(B) requires that every subdivided lot be “of substantially the same character as to suitability for

residential use and structures, lot areas, orientation, street frontage, alignment to streets and restrictions as other land in the subdivision, particularly with respect to similarly situated lots within the adjoining portions of the original subdivision.” Section 11-1710(B) further explains that the lots within a given subdivision proposal should be compared, for the purpose of determining neighborhood character, to: “... the established neighborhood created by the original subdivision, evidence of which may be shown by: (1) Subdivision plat documents, including amendments to the subdivision over time, as well as the development that has occurred within the subdivision; and (2) land in the same general location and zone as the original subdivision with the same features so as to be essentially similar to the original subdivision area.” DSP#2017-0022 SUB#2017-0006 / SNC#2017-0001 Karig Estates 3832-3834 Seminary Road 11 C. Zoning Tabulations Site Area:

B.

C. 111,204 SF (new lots) + 24,944 SF (street dedication)  
= 136,198 SF total (3.13 acres) Zone: R-20 / Single-

family zone Current Use: One single-family dwelling  
 Proposed Use: Four single-family dwellings on four  
 new lots Permitted / Required Previously-Approved  
 Proposed Lot 1 Lot 2 Lot 3 Lot 4 Lot 4 Lot Size 20,000  
 SF min 29,797 SF 22,840 SF 22,558 SF 36,059 SF  
 36,059 SF Lot Width 100 feet min (non-corner) N/A  
 126' 121' 135' 135' 120 feet min (corner) 208' N/A  
 N/A N/A N/A 167' Lot Frontage 75 feet min 210'  
 126' 101' 75' 75' 154' FAR 0.25 0.21 0.25 0.25 0.17  
 0.25 Height 35 feet 35' 35' 35' 35' 35' Front Yard  
 104.1 feet (Lot 1 - Seminary Rd) 104.1' 26.2'\* 25.9'\*  
 40' 27.5'\*\* 40 feet (all others) 40' Side Yards 12 feet  
 min / 1:2 ratio = 17.5 feet 61.2' 20.8' 36' 21.7' 30'  
 18.7' 36.5' 17.7' 36.5' 18' 115' 109' Rear Yard 12  
 feet min / 1:1 ratio = 35 feet N/A 69' 66.2' 89.2' 101'  
 Tree Canopy 25% of each lot 63.7% 44% 39.9%  
 39.5% 41% Parking 2 spaces / unit Three garage  
 spaces / unit plus driveway parking \*Modification  
 previously-approved \*\* Modification currently  
 requested DSP#2017-0022 SUB#2017-0006 /  
 SNC#2017-0001 Karig Estates 3832-3834 Seminary  
 Road 12 D.

D.

- E. Additional Regulations Several additional regulations regarding wetlands, stormwater, soil erosion, and a geotechnical report are described in the staff report for DSP#2016-0025 in Attachment #3.
- F. Section 5-2-64 of the City Code grants authority to the Planning Commission to approve new public street names. In new development projects, the applicant typically proposes new public street names, which are then reviewed for factors such as addressing and emergency response considerations. The City agencies involved in the vetting process include the Fire Department, the Police Department, the Department of Emergency Communications, GIS, Archaeology, Code Administration, and Planning & Zoning. Once proposed street names are vetted, they are presented to the Planning Commission for public comment and an official vote.
- V. STAFF ANALYSIS Staff recommends approval of the Development Site Plan amendment, subdivision and street name case requests associated with the Karig Estates project. The subdivision and street name cases do not involve aspects of the previous approval that have changed, but are required here



primarily for procedural and administrative reasons.

The DSP amendment to revise the location of the dwelling proposed for Lot #4 represents a positive change to the proposal

A. Development Site Plan Amendment Lot #4 Dwelling Placement The three primary revisions to Lot #4 proposed in this amendment - flipping the attached garage to the other side of the dwelling, changing the driveway location and shape, and moving the dwelling 12.5 feet closer to the end of the new public street – achieve several outcomes. Given the specific location and shape of the swale, flipping the dwelling and placing the garage entrance on the east side of the building eliminates the need for the winding driveway across the front yard of Lot #4. Placing the garage entrance and driveway area on the eastern side of the dwelling, where land is comparatively less steep, eliminates the need for the 13-foot tall retaining wall that would have been necessary under the previously-approved plan. The relocation of the driveway necessarily reduces its size and amount of paved area on the lot. Staff also prefers the reduced prominence of the driveway in the current

proposal that is achieved by moving it from the front yard to the side yard of the property. The garage entrance and driveway changes allow for the third, and perhaps most significant, change of moving the dwelling 12.5 feet closer to the end of the new public street. The change, which would not have been possible previously given the driveway location, brings the dwelling farther out of the L-shaped swale at the site. Staff discussed in the previous staff report for the project that the swale does not meet any definitions of an environmental feature and is not subject to regulatory protection. Nonetheless, staff supports efforts to reduce impacts on the swale, when reasonably possible, in a general effort to reduce the impact of development on the DSP#2017-0022 SUB#2017-0006 / SNC#2017-0001 Karig Estates 3832-3834 Seminary Road 13 environment as good urban planning practice. Given that the land on the northern portion of proposed Lot #4 is comparatively less steep than its central and southern portions, the proposed 12.5-foot difference in the house location would reduce impacts to the swale. In addition, the distance between the wetland buffer and the line of disturbance has increased and allows for the protection

of one additional tree to the south of the proposed dwelling compared to the previously-approved plan. The overall tree canopy proposed for the site would increase from 39.5% to 41%. Front Yard Modification Staff also supports the request for a new site plan modification for the front yard setback requirement on Lot #4 (see Graphic #3 below), a request in addition to the previously-approved modifications on Lots #2 and #3. It finds that the proposal meets the three criteria for modifications listed in Section 11-416 as described below.

1. Such modifications are necessary or desirable to good site development. The requested modification of the front yard requirement on Lot #4 from 40 to 27.5 feet is desirable in this instance because it would limit the degree of impact from the development on the swale. Although the swale is not a regulated feature, limiting the changes to the swale to the extent reasonably necessary supports good urban planning practice and good site development.

**Please route this letter to the Mayor, Members of City Council, Director of Planning and Zoning, and the Chair and Members of the Planning Commission**

Karig Estates Development on Geologically Unstable Hillside Puts Residents at Unacceptable Risk  
November 5, 2017

I strongly urge the city to reconsider its pending approval of the development project known as "Karig Estates" at 3832-3824 Seminary Road, which lies in a high landslide risk area. The current proposal to grade, fill, and squeeze four large homes into one of the last remaining natural ravines on the largest and most unstable escarpment in the city will disrupt a major hydrologic artery on a steep marine clay slope, directly above an established neighborhood that is already experiencing stormwater and slope stability issues. This is playing with fire: disturbances of the soil and natural hydrology at the crowns of marine clay slopes are a well known trigger for landslides and other ground failures that can damage or destroy buildings, property, and infrastructure, something I have personally observed in the city. Some background is in order.

From 2006 to 2008, and again from 2014 to 2016, I conducted research on the geology, hydrology, and geologic hazards in the City of Alexandria. This included compiling hundreds of geotechnical reports in the City's archive which detail subsurface conditions in nearly every neighborhood. I also walked literally every street, alley, park, and the yards of willing landowners, observing the geologic materials and processes that have acted over millennia to produce the modern landscape. The results were ultimately incorporated into the various maps, documents, and databases that comprise the online Geologic Atlas of Alexandria ([www.alexandriava.gov/89974](http://www.alexandriava.gov/89974)). I hope you have availed yourself of this unique resource, which among other things is intended to help planners, builders, engineers, and policy makers identify and address the geologic conditions and hazards in the City.

Among the places I visited during my research are the property known as Karig Estates and many neighboring properties. All of these places are situated on the Hospital Escarpment, a massive, oversteepened bluff as much as 200 feet high underlain by thick "marine clay" and dotted with abundant evidence of both prehistorical and modern landslides and debris flows. You can see some of this evidence yourselves, simply by driving up almost any city street that traverses the escarpment and observing the commonly rippled pavement and areas of sharply leaning trees, all of which signify an unstable hillside actively moving downhill.

The mechanics of slope failures in this terrain are well documented and will not be repeated here. A summary can be found in the delineation of landslide hazard areas on Plate 7 of the Geological Atlas and in several references therein. Suffice to say that many case studies in northern Virginia, some published by the US Geological Survey and others observed by me during my walkabouts in the city, show: 1) a strong spatial correlation between landslides and developments sited on or too close to the edges of inherently unstable marine clay slopes; and 2) landslides are commonly triggered by disruption of the natural hydrology at the tops of slopes, which changes the water pressure in the marine clay and overlying materials. This process is often amplified by hurricanes and other low-frequency but high impact precipitation events that occur with some regularity in the region.

There are many examples of this in Alexandria, where excavations, grading, and placement of structures and artificial fill at the tops of escarpments at various times during the last several decades have resulted in the failure of the slopes below. In one instance about a quarter mile from the Karig Estates site, a prominent landslide resulted from the emplacement of artificial fill along the side of a ravine similar to the one on the Karig site; the landslide persisted for the better part of a decade before it was finally remediated at considerable cost, but not before traveling hundreds of feet downslope and severely damaging more than an acre of forest and sending many tons of sediment downstream. It

was fortunate no residences or other structures were situated below. The geotechnical report available in the city archive tells the tale.

Such isolation from neighboring structures is not the case with the Karig Estates property, which is perched on the crown of a steep slope that descends to the homes along Colonel Ellis Drive, a neighborhood that already experiences problems with both unstable backyard slopes and wetness during large storms. Moreover, the development of this site as currently contemplated cannot help but severely disrupt shallow groundwater flow and an ecologically important spring, because it involves grading and emplacing a significant mass of fill within a prominent ravine, which represents a major hydrologic artery directly above the steepest section of the slope. Coupled with the conversion of some 2 to 3 acres of mature forest (which has stabilized this part of the slope for centuries) into impervious and less pervious surfaces, the development is expected to dramatically transform the hydrology of both the site and the adjacent slope below, greatly heightening the risk of destabilizing the slope and putting the subjacent landowners and their properties in jeopardy from both debris flows and damaging amounts of stormwater runoff.

I reviewed the site plan and its accompanying geotechnical report and found them woefully deficient in addressing these issues. The authors seem blissfully unaware of the geologic setting and history of landslides in the geologic terrain in which the site resides. In fact, neither the site plan nor comments provided by city staff acknowledge the potential for off-site impacts; instead, they treat this steeply-sloping site as if it exists in a geological vacuum. I assure you, it does not: geological processes do not respect property boundaries, most especially when they involve landslides and stormwater runoff moving down steep slopes. A few small infiltration basins situated in or just above nearly impermeable clay are not going to hold back the runoff from a major storm – much less that from a hurricane. It is not a question of *if* these kinds of storms will occur, the only question is, *when?* Once that question is answered, then the questions become, *what happens if the slope fails?* and *who is responsible - the developer, the city, or the neighbors who will bear the brunt of the resulting debris flows and stormwater runoff?* This question is especially concerning to adjacent landowners in light of the fact that landslides may not initiate until years or decades after the causative disturbance.

Given the well documented hazards associated with building on the Hospital Escarpment, policymakers would be well advised to consider these questions now and not after the fact, when remediating the consequences will be significantly more costly and disruptive.

This leads to a last point: it behooves the City to take a proactive approach in how it deals with the closely intertwined questions of geologically problematic terrain and open space preservation, rather than the reactive approach so apparent in the current debacle regarding the Karig Estates site, which serves no one well and works at cross purposes to the City's stated development, environmental, and quality of life goals (e.g., open space, expanded protection for ravines, Eco City, 40% tree canopy, etc.)

One small step to start bringing all of these competing goals into alignment is to steer high impact development away from geologically fragile places like the Hospital Escarpment, which, not coincidentally, contains some of the most extensive remnant tree canopy and open space in the city. As someone who has served as both staff and consultant to plan commissions, I observe that creating win-win solutions by averting problems before they occur is what planning and zoning are supposed to be all about. I welcome your questions. Yours truly,

Tony Fleming, Licensed Professional Geologist  
Author, Geologic Atlas of the City of Alexandria  
260-693-3257    loneswantony@cs.com

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**From:** Pat Tokarz via Call.Click.Connect. <CallClickConnect@alexandriava.gov>  
**Sent:** Monday, November 06, 2017 2:40 PM  
**To:** CCC PZ PlanComm  
**Subject:** Call.Click.Connect. #132670: Planning Commission Inquiries, Dockets The Development of Property Located at 3

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Dear [Call.Click.Connect](#). User

A request was just created using [Call.Click.Connect](#). The request ID is 132670.

**Request Details:**

This is a "public" request. Information may be provided to anyone who requests it.

- Name: Pat Tokarz
- Approximate Address: No Address Specified
- Phone Number: 5712211969
- Email: jptokarz@comcast.net
- Service Type: Planning Commission Inquiries, Dockets
- Request Description: The Development of Property Located at 3832-3834 Is Dangerous and Environmentally Undesirable

We ask the Commission to work with the developer to approve his plan to move all four houses closer to Seminary Rd.

We further ask the Commission to work with the developer to abandon the proposed sewer line that will run through the protected wetland/forested springs in favor of a lift station that pumps the sewage to the sanitary main on Seminary Road.

The current plan for sewage disposal is to run a line through the protected forested spring/wetland area. This will destroy the feature: the trenching activity will irreparably destroy the ground surface and soil structure, while the trench itself (presumably gravel filled) will act as a drainage tile and dewater the wetland. Of necessity, the trench will be cut into the underlying clay, which acts as a confining unit in the vicinity of the spring. All of this could be avoided by instead installing a lift station, which is a reliable and widely used method of dealing with sewage lines in areas of inconvenient topography.

Many homes in Seminary Ridge were built on steep slopes of unstable soil against the advice of the City's Environmental Services Director. For the past forty years, homeowners have paid dearly to correct sliding foundations, leaking basements and runoff problems that were reasonably foreseeable. These problems generally take years to develop. Current residents continue to pay the price, while the City and the developer take no responsibility.

As a result of our experiences, we believe that the proposal for the development of four large homes on the property located at 3832-3834 is dangerous for the prospective homeowners, as well as the residents of the St. Stephens Road and the Colonel Ellis Avenue sections of our Seminary Ridge neighborhood, and inconsistent with the City's own Eco-City Charter and Environment Action Plan.

Because the construction of the proposed homes is environmentally detrimental to our Seminary Ridge neighborhood, we have formed a coalition of concerned neighbors working in cooperation with the Beth El Hebrew Congregation and other interested stakeholders to preserve one of Alexandria's last green spaces and a

natural habitat for many species of birds, trees, and other wildlife with whom we share our neighborhood.

Collectively, we oppose approval of the site plan for the development of this property, as submitted, for several reasons.

#### Dangerous Soil Conditions

The proposed houses would be built on the steep slope of a ravine abutting properties on Seminary Road, Saint Stephens Road, and Colonel Ellis Ave. The project would be built on soil with a high content of Arell (Marine) clay, which has a high shrink/swell potential, making it extremely difficult to stabilize foundations. This slope has been classified by the city engineer as at the highest risk for slope failure (landslide).

A professional geologist has evaluated the proposed measures to manage stormwater as woefully inadequate to handle the greatly increased runoff caused by converting a sloping, mature forest to impervious surfaces. This will worsen the already problematic groundwater conditions for “downstream” neighbors on Colonel Ellis Avenue. The proposal also minimizes existing infiltration and inflow problems with the storm sewers in this area.

As existing homeowners, we are concerned about the high retaining walls needed, and the risks of disturbing a huge volume of marine clay. Given the many problems experienced over the past three decades by homeowners of our neighborhood with structural problems caused by shifting marine clay and with the inadequacy of groundwater runoff controls, we have major reservations about the adequacy of the City’s building code for addressing our many concerns.

Several developers have evaluated this property in the past and decided that the expense and risks involved made these lots essentially unbuildable. Home prices have increased, but a fluctuating housing market doesn’t make this site any more reasonable or safe to develop.

#### Environmentally Sensitive Space

Allowing this development as proposed is not in the best interests of the citizens of Alexandria and is incongruent with Alexandria’s Eco-City Charter and goals set forth in its Open Space and Natural Resources Management Plan.

Page 2

(Ver.4.25)

The City’s 2017 update to its Open Space Master Plan includes a number of goals that are relevant to our neighborhood’s efforts, specifically:

- Goal 4: Protect and Expand Stream Valleys and other Environmentally Sensitive Areas (p. 5).
- Goal 15: Protect Privately Owned Open Space (p. 6).

<https://www.alexandriava.gov/uploadedFiles/recreation/parks/021017x%20Alex%20OS%202017%20Implem%20Strat%20Exec%20Sum%20Reduced%20Size.pdf>

As citizens, we feel that some land just should not be developed for housing. It is too valuable as a key part of the natural ecology of Alexandria. This land is not a vacant lot. It has springs that form the headwaters of Strawberry Run. It has streams and wetlands that provide food and water to a complex community of plants, insects, birds, and mammals. It is a natural green space that is home to deer, fox, chipmunks, frogs, turtles, and many species of songbirds. It also provides an important flyway and wildlife corridor for the larger community. Citizens and public officials are the only stewards of our land and natural resources.

Our coalition’s foremost priority is to work with the City of Alexandria to prevent the endangerment of people from the harm of building on land that experts agree is unsound for the construction of new homes.

Monticello Park and Ft. Williams Park are two good examples of responsible land use planning where the City has prudently preserved as open space land that was ill-suited for residential construction for the preservation of important parts of the wildlife corridors and greenspace networks of Alexandria.

We believe that the City’s own research and studies clearly indicate that that the 3832-3834 Seminary Road property is within the meaning of environmentally significant property as discussed in the Open Space and Natural Resources Management goals, we thus hope that we can count on elected and appointed officials of the City to honor their Eco-City Charter goals for ecological sustainability and not compromise their principles by approval of the construction of housing units on this site.

In the Seminary Hill area where there are few public parks, a nature preserve devoted to protecting the watershed, water quality, wildlife habitat, and native plants in our community would be in the environmental interest of the City of Alexandria, and make a statement for responsible development in Alexandria.

It is our commitment as neighbors and informed citizens to work for the achievement of an end result that meets the long-term needs of our community,

Thank you for your efforts,

The Coalition for Rational Stewardship

- Expected Response Date: Saturday, November 11

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**From:** Nathan Randall  
**Sent:** Monday, November 06, 2017 3:34 PM  
**To:** Dave Cavanaugh  
**Cc:** Karl Moritz; Robert Kerns; Maya Contreras; Kristen Walentisch  
**Subject:** RE: 3832 & 3834 Seminary Road

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Mr. Cavanaugh-

Thank you for your two emails in recent days regarding the Karig Estates project. We have forwarded them to the Planning Commission in anticipation of this Thursday's public hearing.

Nathan

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**From:** Dave Cavanaugh [<mailto:dacava1@yahoo.com>]  
**Sent:** Sunday, November 05, 2017 10:40 AM  
**To:** Pat Tokarz; Loren Needles; Jeremy Flachs; Denis Otoole; Cill Dara; Bonnie Petry; Cynthia Evans  
**Cc:** Karl Moritz; Nathan Randall; Maya Contreras  
**Subject:** 3832 & 3834 Seminary Road

I sent the following comments via Call Click Connect.

### **3832 & 3834 Seminary Road- Karig Estates**

DSUP2016-00025-Preliminary Review (Completeness 3)

Applicant is requesting to subdivide the site into 4 lots and to add a new street

Project Managers: Nathan Randall & Maya Contreras

**Comment:** I ask the proposed subdivision plan be amended to delete Lot#4. Lot#4 as currently designed and laid out is the singularly most damaging element in the subdivision plan. The recent revision to the site plan and subdivision plan is a desperate attempt to mollify City officials to approve the subdivision plan. The lot is on a high point overlooking the swale and ravine. Soil disturbance caused by construction, steep slopes and impervious surfaces will increase water runoff from Lot#4. This will increase the area of saturated soils within the wetland and buffer area and increase the potential of storm water damage to the properties along Colonel Ellis.

**Comment:** In lieu of eliminating Lot#4, the proposed residence should be moved back from the crest of the hill.

Moving the proposed residence 12.5 feet does not solve the problem of controlling runoff and erosion into the ravine. The house is immediately adjacent to the Line of Construction (LOC) with no setback from the steep slopes. In addition, the existing storm drain in the swale collects water from the Virginia Theological Seminary and the existing home and adjacent properties along St. Stephens and undergrounds it into the seep/wetland.



To reduce water runoff from Lot#4 into the wetland seep area, the proposed residence on Lot#4 should be moved further back from the ravine. Appropriately sized infiltration trenches or other Best Management Practices (BMPs) should be incorporated into the lot plan within the LOC to slow water runoff into the ravine and swale. Reducing the storm water drainage off Lot#4 will minimize erosion off the hill. It will also minimize expansion of the wetland/seep area, and saturated soils on adjacent Colonel Ellis properties, and hopefully maintain an acceptable level of water quality into the Strawberry Run watershed.

**Comment:** Like Lots #2 and #3, the applicant should be required to install permeable surfaces on driveways and sidewalks on Lot#4. This would demonstrate a good faith effort to achieve LEED Certification.

**Comment:** Flipping the house around on the lot and placing the garage close to the street is an improvement. However, there is no filtration trench to slow runoff from the house and deck/porch into the swale. This will increase runoff into the wetland further saturating soils in the ravine and adjacent properties along Colonel Ellis. I ask that the Subdivision Plan be amended to include an infiltration trench to control run off from the elevated deck/patio on the west side of the west side of the house. The trench would help slow storm water runoff from the home and patio draining into the swale.

**Comment:** Although there is a 50' radius protecting the wetland seep at the bottom of the ravine, it would be a terrible mistake to construct a sewer anywhere near the seep or the buffer area. This will have unforeseen consequences on the wetland area, impact water quality, increase the area of saturated soils and increase the potential for further erosion on adjacent properties. Other feasible locations should be explored that do not threaten the wetland and unreasonably disrupt existing adjacent property owners.

**Comment:** The development is in a mostly undisturbed natural drainage into Strawberry Run. The scale of construction and the large size of the proposed homes will increase runoff into the drainage area and ravine. The technical conclusions in the Site Plan that the engineered BMP's will reduce water runoff defies common sense and should be subject to further analysis and peer review.

**Comment:** On page 9 there is a comparison of the Previously Approved Lot#4 Layout and the New Lot#4 Layout. The previously approved house square footage was 6,508 GSF. The Proposed New Lot#4 Layout proposes a substantial increase to 9,015 square feet. Reducing the size and footprint of the proposed residence to the average size of the homes on lots 1-3 may provide additional distance or setback from the edge of the hill and space for infiltration trenches or other mitigating water and erosion control features.

Graphic #2-B is from the Site Plan

## 1



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**From:** Pat Tokarz via Call.Click.Connect. <CallClickConnect@alexandriava.gov>  
**Sent:** Monday, November 06, 2017 2:17 PM  
**To:** CCC PZ PlanComm  
**Subject:** Call.Click.Connect. #132665: Planning Commission Inquiries, Dockets I send this letter to vice mayor, Wilson

Dear **Call.Click.Connect.** User

A request was just created using **Call.Click.Connect.** The request ID is 132665.

**Request Details:**

This is a "public" request. Information may be provided to anyone who requests it.

- Name: Pat Tokarz
- Approximate Address: No Address Specified
- Phone Number: 5712211969
- Email: [jptokarz@comcast.net](mailto:jptokarz@comcast.net)
- Service Type: Planning Commission Inquiries, Dockets
- Request Description: I send this letter to vice mayor, Wilson as more background material for this issue.

To: 'Justin.wilson@alexandriava.gov'  
Subject: FW: Seminary Approval 10/3/17 rec. fpr moving 4th house.

Justin,  
I am writing you as an update on a matter that will be coming before the city council soon.

Thank you so much for your time and support with our efforts. It meant a lot to us that you took the time to view the ravine and offered your insight. We took to heart your observation that a way could be found to move the four houses closer to Seminary road and re-configure the sanitary sewer to connect with the one on Seminary road ( thus preserving more of the mature forest and wetlands ) if the city really wanted to work with the developer to make this happen.

It will indeed take great leadership skills to prevent more needless destruction through " business as usual ". I am attaching a copy of a letter we sent you eight mos. ago, as it is still relevant.

I am also attaching a recent staff report showing the builder was willing to move all four houses closer to Seminary road if it did not cause too great a delay. Instead, P and Z staff recommends moving the fourth house 12.5 feet for all the reasons that a move of all four houses would be a better outcome.

Builder and staff were able to agree on a plan to move the fourth house in five days. This is a small step in the right direction.

They should be able to agree on a plan to move all four houses North and move the sanitary sewer to attach to the one on Seminary road ( which would protect the wetlands and its buffer ) in a similarly rapid fashion as an amendment to the approved site plan.

It is not necessary to ask the builder to start the process all over again for a fourth time.

Maybe you could convince the staff and commissioners to take a harder look at the science here. Tony Fleming and Ken Fraine ( Geologist and soil and water experts, respectively ) both recommend avoiding building on the steep slope of lot four and part of lot three. The further away from the steep slope, the better. The benefits of moving the four houses and shifting the sewer away from the wetlands deserve an extra effort from the Commission.

Open the docket and see the staffs latest report. Decisions were made after midnight when people were

exhausted. The Commission forgot to approve the change in the name of the new street and the builder forgot to submit a plan for subdivision. These issues were deemed minor enough to be allowed as amendments later, without slowing down the approval process.

Staff judged moving the 4th house 12.5 feet away from the wetland as good for the city, and approved as an amendment to the approved site plan, but moving all four houses closer to Seminary Rd. as too great a change without submitting a whole new site plan, which the builder, who has agreed to move all 4 houses, refused to do as causing too big a delay.

We should request the P&Z Commission to judge the plan to move all four houses closer to Seminary Rd. as so beneficial to the city and the neighborhood that it also be considered as an amendment to the approved plan to shorten any unnecessary delay.

A better outcome for Alexandria is slipping between our fingers

Thank you for your efforts for all of Alexandria,

Pat Tokarz

3937 Col. Ellis Ave.  
Alexandria, Va.

- Expected Response Date: Saturday, November 11

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**From:** Nate Macek <natemacek@hotmail.com>  
**Sent:** Tuesday, November 07, 2017 3:00 PM  
**To:** Kristen Walentisch  
**Subject:** FW: Karig Estate, #8 on Nov. 9 docket  
**Attachments:** Rod Simmons Report.170310.pdf; Tony Fleming Report.171105.docx

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Received by Planning Commission.

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**From:** Lonnie Rich [mailto:lcrich@rrbmdk.com]  
**Sent:** Tuesday, November 07, 2017 2:41 PM  
**To:** Mary Lyman <mlyman@gnarusllc.com>; dwbapc@gmail.com; mindyllyle@comcast.net; mmcmahonpc@gmail.com; natemacek@hotmail.com; Koenig Stephen <swkoenig72@gmail.com>; Maria Wasowski <mariawasowski@comcast.net>  
**Cc:** Jeremy Flachs <jeremy.flachs@flachslaw.com>  
**Subject:** Karig Estate, #8 on Nov. 9 docket

Dear Chair and Members of the Planning Commission,

I am writing on behalf of Beth El Hebrew Congregation regarding the Karig Estate project, #8 on Thursday's docket. I do want to thank staff for efforts made to improve the development plan by reconfiguring the 4th house to save one tree and get the house 12 feet closer to Seminary.

However, our view is that the 12 feet is too little, too late. That 4th house is still substantially in the ravine; too many mature trees on the slope will be lost, leaving too much of the slope disturbed and vulnerable to collapse. We are also opposed to building a sewer connection on the south end of the project as proposed because it will destroy even more trees and disturb more of the slope of the ravine. We do not believe that the applicant has made "adequate provision . . . to ensure that the development will not destroy, damage, detrimentally modify or interfere with the enjoyment and function of any significant natural, scenic or physical feature of the site." Section 11-410(W) of the Zoning Code.

We have several requests and additional points to make:

1. We are asking you, the Planning Commission, to invite Rod Simmons, the City Natural Resource Manager to explain his deep concerns and objections to this proposed development. I understand that staff may prefer that he not testify, but you should want and invite him to do so in order for you to get more complete and balanced view of what is at stake. His presence is also necessary for you to be able to ask questions. If staff orders him not to testify, then you should deny the application, which probably requires that you reconsider the October decision, deny the amendment and refer it all back to staff for further work as more fully set out herein.
2. We are asking you to heed the concerns expressed by Rod Simmons and Tony Fleming. (Attached are their respective reports.) We are not dealing with a flat piece of property with a few trees on it, but a remnant forest with an ancient, deep and steep ravine amidst marine clay in an area of town that has historically had significant problems with development – runoff erosion, collapsing slopes and sinking soil. Putting the 4th house in the ravine with its weight and the destruction of the trees and vegetation that protect the slope, plus destroying a 15

foot swath of trees/vegetation and wetland for a sewer – all of which will put the slopes at serious risk of collapse – is simply not responsible development.

3. The City's Environmental regulations require that "no more land shall be disturbed than is necessary for the proposed use or development" and that "indigenous vegetation shall be preserved to the maximum extent practicable consistent with the use or development." Section 13.109(A) and (B) of the Zoning Code. These rules apply to the entire parcel, not just to the buffer area. These rules, in our opinion, must inform the Director of P&Z when exercising his discretion in setting the blockface for this project. In other words, if he has reasonable choices of the blockface, then the Environment regulations require that he chose a blockface that disturbs the least amount of land, vegetation and special features. In this matter, he could have chosen a 57 foot setback from Seminary as the blockface, but instead chose 104 foot setback. It is our position that the City is required to redo the subdivision based on the 57 foot setback and get all four homes closer to Seminary and out of the ravine. The end result should be to move the 4th house about 40 feet from the proposed location toward Seminary.

4. With regard to the sewer easement, there is a feasible alternative – a lift station that will discharge to the sewer main on Seminary. "Adequate provision shall be made to minimize the impact on existing wetlands." Section 11-410(BB) of the Zoning Code. While it is true that sewer lines are exempt from the buffer area created on the south end of the property, see Section 13-123(A)(2) of the Zoning Code, that does not mean that sewers are required to or should automatically go through a buffer area. That exemption should be used sparingly – when it is absolutely necessary and there are no alternatives. There may be some more expense in connecting to the Seminary sewer main; but, in the context of the total project, those costs can be absorbed in order to protect the trees and slopes.

5. We urge you to reconsider your October decision and refer back to the staff and applicant to start with a 57 foot blockface with lots divided so that the 4th house is not in the ravine and so that the sewer can be directed to Seminary rather than through the buffer area. If the 4th house cannot be moved out of the ravine, then it should be deleted from the development plan.

Respectfully submitted,

Lonnie C. Rich



RICH  
ROSENTHAL  
BRINCEFIELD  
MANITTA  
DZUBIN &  
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Website: [www.rrbmdk.com](http://www.rrbmdk.com)

**DSP – PRELIMINARY SITE PLAN – 3832-3834 SEMINARY ROAD (STUART’S WALK) – RHS review and comments (RPCA, Natural Resources Division, Natural Lands Management Section) – 10 Mar 2017**

I visited this site several times, including during the growing season, beginning in July 2013 while performing vegetation and geologic assessment surveys for the City Flora and Alexandria Geologic Atlas. My review comments of this plan are pursuant to a number of serious concerns with the plan’s failing to take into account adequately or at all a number of significant environmental issues which are outlined in the sections below.

**Negative Impacts of Proposed Plan on Existing Forested Wetlands on Site (Isolated Wetlands-LOC Area including 50’ protective buffer)**

- On Sheet 06, Lot 4 shows 150’ or more x 15’-wide easement of pipe (8” PVC San.) and associated trenching and soil disturbance intruding within the 50’-buffer (LOC) and through the point source of the forested spring and seepage wetlands. This is wholly unacceptable because it is a) an intrusion into a protected area, in this case a forested wetlands (isolated wetlands), and b) such intrusion and disturbance will result in significant damage to the wetlands, including the predictable likelihood of destroying it altogether (see Figs. 1 and 2).

Moreover, the construction of a 15’-wide filled trench as positioned above and around the groundwater infiltration and flow of the spring and seepage fan will in effect result in a “French drain”, which would intercept water flow and carry it along the floor of the trench, away from and bypassing the groundwater source of the wetlands.

- The “D” junction and associated digging of this pipe route are particularly poorly sited because they are situated just above the springhead and if constructed would likely alter or destroy the groundwater flow.
- Does the City typically permit concrete buildings/foundations (Lot 4) that would literally conjoin a protective buffer, let alone a seepage wetlands? This is hard to imagine and would seem to invite an engineering and environmental quandary of worst case scenarios as far as resource protection and sound engineering practices are concerned.
- A more accurate than presented on Sheet 06 delineation of the footprint of the existing forested wetlands is needed, which will show the 50’ buffer likely extending farther northeastward into the structures of Lot 4 than the plan currently depicts. In other words, the footprint of the spring and seepage fan needs to be better delineated, especially given that the developer failed to include this wetland on the original plan submissions, thereby raising considerable doubt as to the quality and accuracy of their site assessments and analyses. The delineation of the wetlands needs to be properly depicted and represented on the plan, and based on ground-truthing delineations drawn to contour lines and not from GIS waypoints (the waypoints I provided in December 2016 are likely many feet off at some points owing to the steep topography of the ravine).



- There are serious concerns for the clear-cutting and removal of existing forest vegetation on the steep ravine slopes and especially Lot 4 above the forested spring and seepage fan. Denuding the slope of canopy trees and other vegetation and digging, filling, and re-contouring the slope will likely excise or redirect the perched aquifer that supplies the groundwater flow, resulting in the loss of the wetlands and rendering the protective buffer meaningless.
- There are numerous concerns for what will comprise the landscaping of the western flank of Lot 4 after the slope is clear-cut and canopy trees are removed, and how plantings, including turf, and their maintenance will affect the protected wetlands. What protection and enforcement will be provided if yard waste and other debris are dumped into the wetlands over the years by owners or their landscapers of a property built too close to a sensitive natural feature? (See Fig. 4) Will plantings of non-native invasive plants be allowed, i.e., English Ivy, *Liriope* spp., etc., and if so, be allowed to spread into the adjacent wetlands?



Fig. 1. The aptly-named “Fern Belt” at the northeastern edge of the former Winkler Botanical Preserve as it appeared in the early 1990s. This pristine wetlands was regionally famous as one of the best remaining examples of the globally rare Fall Line Magnolia Bog community: *Nyssa sylvatica* - *Magnolia virginiana* - (*Pinus rigida*) / *Rhododendron viscosum* - *Toxicodendron vernix* / *Smilax pseudochina* Woodland (USNVC: CEG006219). Photo by R.H. Simmons.





Fig. 2. All that remains of the Magnolia Bog at the edge of the Winkler Botanical Preserve and the footprint of the IDA building at 5110 Mark Center Drive (previous page photo) after the site itself and perched aquifer and seepage flow upslope were destroyed by building construction in 1996. Photo by R.H. Simmons.

### Negative Impacts of Proposed Plan on Existing Forest Communities and Vegetation

- Much of the 3832 and 3834 Seminary Road parcels comprise old, remnant Oak-Heath Forest, an intermittent waterway, and a spring and forested seepage wetland, all of which collectively protect and form the headwaters of Strawberry Run. The vegetation and topography of this ravine forest is virtually identical to ones at Stevenson Park at the western edge of Alexandria.

The vegetation of the ravine is largely old-age Low-Elevation Mixed Oak / Heath Forest: *Quercus alba* - *Quercus (coccinea, velutina, montana)* / *Gaylussacia baccata* Forest (USNVC: C EGL008521), with Chestnut Oak by far the dominant tree.

- Lot 4, Lot 3, and the back half of the “New Public Street”, as proposed, sit directly atop the oldest, most intact, and least disturbed forest on the entire site. Lot 2 and Lot 1 are much more disturbed, with sizeable areas of non-native invasive plants.

The plan does appear to include tree preservation areas above Lot 4 at the far southwestern upper slope of the site, as well as along the north edge of the property and a small grove of old White



Oak trees in front of the existing Carrier-Keating residence at 3834 Seminary Road. These will preserve some small amount of native remnant forest trees on site. Unfortunately, the plans call for clear-cutting *all of the best remaining forest on site*, from the old-age Chestnut Oak canopy to the understory trees and shrubs and herbaceous plants of the forest floor (see Fig. 3).



Fig. 3. Old-age Low-Elevation Mixed Oak / Heath Forest: *Quercus alba* - *Quercus (coccinea, velutina, montana)* / *Gaylussacia baccata* Forest (USNVC: CEG008521) community occupying the north-facing, gravelly slope where Lot 4, Lot 3, and the back half of the “New Public Street” are proposed. Photo by R.H. Simmons.

- All of these trees are *irreplaceable* remnants of the native forest canopy that was once dominant throughout such ravines in the City – and are critical in maintaining native tree canopy density throughout Alexandria. The City recently lost (in 2015-2016 alone) a significant number of old native oaks and other canopy trees and great care needs to be given to the preservation of such remaining trees if we are to maintain the sustainability, health, and beauty of Alexandria’s native tree canopy. Post-construction tree plantings as part-mitigation for the loss of old, remnant native trees and forest are not in any way a commensurate substitute for the loss of a living system and Alexandria’s existing native biodiversity.
- Surveys conducted by Natural Lands Management revealed no Rare, Threatened, or Endangered (R,T,&E) flora on site, except one occurrence of the Alexandria-rare Frosted Hawthorn (*Crataegus pruinosa* var. *pruinosa*) in the footprint of the proposed “New Public Street”.



Nevertheless, this is moot because there is no regulatory protection for vegetation that is *privately owned* in Virginia (and most states in the U.S.), unless it is federally listed or occurs within a wetlands, RPA, or other protective designation.

- While it is in no way a substitute for effective and appropriate preservation of irreplaceable natural resources in situ, in the event construction does proceed it is highly recommended that diggable shrubs and other native plants, including the 2 large Frosted Hawthorn, be rescued and transplanted to the closest appropriate location and site conditions next door at Beth El Hebrew Congregation. Permission of course will have to be granted, but I would be happy to help facilitate this if better solutions for preservation do not arise.



Fig. 4. Recent large-scale dumping of yard debris, including non-native invasive plants, by neighboring residence into the forest at 3834 Seminary Road just above the forested wetlands. Photo by R.H. Simmons.

#### **Negative Impacts of Proposed Plan on the Topography, Soils, and Hydrogeology of the Ravine**

- There are concerns for the quality, accuracy, and thoroughness of the developer's site assessments as to existing topographical considerations (slope stability and preservation); placement of soil boring tests; detection of wetlands on site; and the general lack of understanding and appreciation of the entire site as an intermittent stream and headwaters ravine.

It does not appear that much preliminary site evaluation work and analysis was done, or done to a high quality or standard. For example, Natural Lands Management and professional geologist Tony Fleming readily noted the presence of the spring and forested wetlands at the site on first visit to the site in 2013, but this was absent from the developer's preliminary site plan proposal in the fall of 2016 and was only integrated into the revised proposal in early 2017.

- Some links in the *Geologic Atlas of the City of Alexandria, Virginia and Vicinity* of major relevance to accurately discerning the geohydrologic conditions of the site are Plates 4, 5, 6, and 7. The *Geologic Atlas of the City of Alexandria, Virginia and Vicinity* is an exceptional resource offered to all by RPCA on the Alexandria Geology webpage at [www.alexandriava.gov/89974](http://www.alexandriava.gov/89974).

In particular, **Plate 6. Map of the Piezometric Surface of the Cameron Valley Sand Member (lower aquifer) of the Potomac Formation and Other Aspects of Urban Hydrogeology** shows the locations of springs and isolated wetlands in the City. **Plate 7. Slope Stability Map** presents the areas in the City with slope stability issues arising from the presence of "marine clay" (Arell clay), which outcrops near the base of the ravine.

Also, in **Plate 4. Geologic Map of the Potomac Formation** and the **Expanded Explanation of Plate 4**, see the description, classification, and discussion of Arell clay, which is the most massive unit of so-called "marine clay" (misnomer; not marine in origin) in the City, which beautifully holds up the Seminary heights and terrace. (Its weakness though is fracturing/trenching it and digging into it extensively; which thereby exposes sections of it to likely slope failure.)

- It is hard to tell how thoroughly performed and appropriately sited the soil boring tests were and where on site they were conducted. It does not appear that soil borings were taken on the northwest slope of the ravine. Several borings are visible on the gravelly southeast slope bordering Beth El Hebrew Congregation. An accurate assessment and depiction of underlying soil types of all sections of the ravine proposed for development are essential for any plans to follow.

Of course, great care must be afforded to ensure that no boring equipment or disturbance encroaches into the protected spring and wetlands near the southwest end of the property (LOC).

- There are great concerns for the proposed filling in of sections of the ravine. This must be regarded by all planners and engineers as the most drastic, lowest quality practice of all, and one that would render a site thoroughly degraded. For example, this very scenario was recently approved by the City and constructed at 2208 Russell Road, in which a mostly perennial, natural-channel, spring-fed stream at the foot of a steep ravine was completely filled in over a galvanized pipe for a significant section of its length (see Figs. 5, 6, and 7). It's hard to imagine how this grading permit was ever approved and granted in this day and age in Alexandria.





Fig. 5. Large-scale filling in of the mostly perennial, natural-channel, spring-fed stream at 2208 Russell Road. Pictured here is the outflow of the galvanized pipe that spans the filled segment – a considerable stretch of the ravine. Photo by R.H. Simmons.



Fig. 6. Middle section of filled in stream channel at 2208 Russell Road showing damaged trees and buried toe and lower slope of old-age forested ravine. Photo by R.H. Simmons.





Fig. 7. Upstream intake of spring-fed, mostly perennial stream into galvanized pipe underlying an area at 2208 Russell Road where the stream was filled in with massive amounts of soil. Photo by R.H. Simmons.

- Despite the presence of an artificial stormwater infrastructure that follows the entire length of the ravine within the property boundary (21" reinforced concrete pipe with a number of open-drain catch basins), the entire ravine – its topography, geohydrology, and forested vegetation - functions as a natural channel intermittent stream and is the ultimate headwaters of Strawberry Run. Denuding the ravine of vegetation, especially forest canopy, and filling in sections of it and adding impervious surface (roofs, driveways, "New Public Street", etc.) where none currently exists will have major negative consequences, both on site and for the properties downslope, including waterways. No amount of mitigation can be hoped to offset these effects, particularly because many of the consequences of poorly siting construction in inappropriate sites like ravines will not be immediately evident and will take years to develop.

Prepared by:

Rod Simmons  
 Natural Resource Manager / Plant Ecologist  
 Natural Resources Division  
 Department of Recreation, Parks & Cultural Activities  
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 Alexandria, VA 22314  
[Rod.Simmons@alexandriava.gov](mailto:Rod.Simmons@alexandriava.gov)

Karig Estates Development on Geologically Unstable Hillside Puts Residents at Unacceptable Risk  
November 5, 2017

I strongly urge the city to reconsider its pending approval of the development project known as “Karig Estates” at 3832-3834 Seminary Road, which lies in a high landslide risk area. The current proposal to grade, fill, and squeeze four large homes into one of the last remaining natural ravines on the largest and most unstable escarpment in the city will disrupt a major hydrologic artery on a steep marine clay slope, directly above an established neighborhood that is already experiencing stormwater and slope stability issues. This is playing with fire: disturbances of the soil and natural hydrology at the crowns of marine clay slopes are a well known trigger for landslides and other ground failures that can damage or destroy buildings, property, and infrastructure, something I have personally observed in the city. Some background is in order.

From 2006 to 2008, and again from 2014 to 2016, I conducted research on the geology, hydrology, and geologic hazards in the City of Alexandria. This included compiling hundreds of geotechnical reports in the City’s archive which detail subsurface conditions in nearly every neighborhood. I also walked literally every street, alley, park, and the yards of willing landowners, observing the geologic materials and processes that have acted over millennia to produce the modern landscape. The results were ultimately incorporated into the various maps, documents, and databases that comprise the online Geologic Atlas of Alexandria ([www.alexandriava.gov/89974](http://www.alexandriava.gov/89974)). I hope you have availed yourself of this unique resource, which among other things is intended to help planners, builders, engineers, and policy makers identify and address the geologic conditions and hazards in the City.

Among the places I visited during my research are the property known as Karig Estates and many neighboring properties. All of these places are situated on the Hospital Escarpment, a massive, oversteepened bluff as much as 200 feet high underlain by thick “marine clay” and dotted with abundant evidence of both prehistorical and modern landslides and debris flows. You can see some of this evidence yourselves, simply by driving up almost any city street that traverses the escarpment and observing the commonly rippled pavement and areas of sharply leaning trees, all of which signify an unstable hillside actively moving downhill.

The mechanics of slope failures in this terrain are well documented and will not be repeated here. A summary can be found in the delineation of landslide hazard areas on Plate 7 of the Geological Atlas and in several references therein. Suffice to say that many case studies in northern Virginia, some published by the US Geological Survey and others observed by me during my walkabouts in the city, show: 1) a strong spatial correlation between landslides and developments sited on or too close to the edges of inherently unstable marine clay slopes; and 2) landslides are commonly triggered by disruption of the natural hydrology at the tops of slopes, which changes the water pressure in the marine clay and overlying materials. This process is often amplified by hurricanes and other low-frequency but high impact precipitation events that occur with some regularity in the region.

There are many examples of this in Alexandria, where excavations, grading, and placement of structures and artificial fill at the tops of escarpments at various times during the last several decades have resulted in the failure of the slopes below. In one instance about a quarter mile from the Karig Estates site, a prominent landslide resulted from the emplacement of artificial fill along the side of a ravine similar to the one on the Karig site; the landslide persisted for the better part of a decade before it was finally remediated at considerable cost, but not before traveling hundreds of feet downslope and severely damaging more than an acre of forest and sending many tons of sediment downstream. It was fortunate no residences or other structures were situated below. The geotechnical report available in the city archive tells the tale.

Such isolation from neighboring structures is not the case with the Karig Estates property, which is perched on the crown of a steep slope that descends to the homes along Colonel Ellis Drive, a neighborhood that already experiences problems with both unstable backyard slopes and wetness during large storms. Moreover, the development of this site as currently contemplated cannot help but severely disrupt shallow groundwater flow and an ecologically important spring, because it involves grading and emplacing a significant mass of fill within a prominent ravine, which represents a major hydrologic artery directly above the steepest section of the slope. Coupled with the conversion of some 2 to 3 acres of mature forest (which has stabilized this part of the slope for centuries) into impervious and less pervious surfaces, the development is expected to dramatically transform the hydrology of both the site and the adjacent slope below, greatly heightening the risk of destabilizing the slope and putting the subjacent landowners and their properties in jeopardy from both debris flows and damaging amounts of stormwater runoff.

I reviewed the site plan and its accompanying geotechnical report and found them woefully deficient in addressing these issues. The authors seem blissfully unaware of the geologic setting and history of landslides in the geologic terrain in which the site resides. In fact, neither the site plan nor comments provided by city staff acknowledge the potential for off-site impacts; instead, they treat this steeply-sloping site as if it exists in a geological vacuum. I assure you, it does not: geological processes do not respect property boundaries, most especially when they involve landslides and stormwater runoff moving down steep slopes. A few small infiltration basins situated in or just above nearly impermeable clay are not going to hold back the runoff from a major storm – much less that from a hurricane. It is not a question of if these kinds of storms will occur, the only question is, when? Once that question is answered, then the questions become, what happens if the slope fails? and who is responsible - the developer, the city, or the neighbors who will bear the brunt of the resulting debris flows and stormwater runoff? This question is especially concerning to adjacent landowners in light of the fact that landslides may not initiate until years or decades after the causative disturbance.



Given the well documented hazards associated with building on the Hospital Escarpment, policymakers would be well advised to consider these questions now and not after the fact, when remediating the consequences will be significantly more costly and disruptive.

This leads to a last point: it behooves the City to take a proactive approach in how it deals with the closely intertwined questions of geologically problematic terrain and open space preservation, rather than the reactive approach so apparent in the current debacle regarding the Karig Estates site, which serves no one well and works at cross purposes to the City's stated development, environmental, and quality of life goals (e.g., open space, expanded protection for ravines, Eco City, 40% tree canopy, etc.)

A first step towards bringing all of these competing goals into alignment is to steer high impact development away from geologically fragile places like the Hospital Escarpment, which, not coincidentally, contains some of the most extensive remnant tree canopy and open space in the city. As someone who has served as both staff and consultant to plan commissions, I observe that creating win-win solutions by averting problems before they occur is what planning and zoning are supposed to be all about. I welcome your questions.

Yours truly,

Tony Fleming, Licensed Professional Geologist

Author, Geologic Atlas of the City of Alexandria

260-693-3257 loneswantony@cs.com

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**From:** Nate Macek <natemacek@hotmail.com>  
**Sent:** Tuesday, November 07, 2017 3:01 PM  
**To:** Kristen Walentisch  
**Subject:** FW: Rod Simmons

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Received by Planning Commission.

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**From:** Lonnie Rich [mailto:lrich@rrbmdk.com]  
**Sent:** Monday, November 06, 2017 10:23 AM  
**To:** dwbapc@gmail.com; Koenig Stephen <swkoenig72@gmail.com>; mindyllyle@comcast.net; mmcmahonpc@gmail.com; natemacek@hotmail.com; mariawasowski@comcast.net  
**Cc:** Mary Lyman <mlyman@gnarusllc.com>  
**Subject:** RE: Rod Simmons

One more point: Mary was informed that Parks and Rec (the Department in which Rod Simmons is working) had nothing to do with this development project. That is not exactly accurate since Rod provided numerous comments to P&Z, which were discounted or ignored.

It only seems reasonable for you to get a balance of views before making a decision or reconsidering the decision already made.

Lonnie



Lonnie C. Rich  
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Website: [www.rrbmdk.com](http://www.rrbmdk.com)

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**From:** Lonnie Rich  
**Sent:** Monday, November 06, 2017 10:03 AM  
**To:** 'dwbapc@gmail.com' <[dwbapc@gmail.com](mailto:dwbapc@gmail.com)>; 'Koenig Stephen' <[swkoenig72@gmail.com](mailto:swkoenig72@gmail.com)>; 'mindyllyle@comcast.net' <[mindyllyle@comcast.net](mailto:mindyllyle@comcast.net)>; 'mmcmahonpc@gmail.com' <[mmcmahonpc@gmail.com](mailto:mmcmahonpc@gmail.com)>; 'natemacek@hotmail.com'

<[natemacek@hotmail.com](mailto:natemacek@hotmail.com)>; 'mariawasowski@comcast.net' <[mariawasowski@comcast.net](mailto:mariawasowski@comcast.net)>

Cc: 'Mary Lyman' <[mlyman@gnarusllc.com](mailto:mlyman@gnarusllc.com)>

Subject: FW: Rod Simmons

Planning Commission members,

About a week ago, I asked Mary Lyman to request that Rod Simmons, the city naturalist, present at the public hearing on Karig Estates, #8 on Thursday's docket. He has serious concerns about development in or near the ravine. She did ask and higher ups have not only resisted but may have directed Rod that he cannot speak at the hearing.

I wanted you to have my arguments in favor of the Planning Commission being able to ask for whatever staff members you want to hear from in making your decision. See the email trail below.

Lonnie



Lonnie C. Rich  
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Website: [www.rrbmdk.com](http://www.rrbmdk.com)

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**From:** Lonnie Rich

**Sent:** Friday, November 03, 2017 5:02 PM

**To:** Mary Lyman <[mslyman@verizon.net](mailto:mslyman@verizon.net)>

**Cc:** Allison Silberberg <[allison.silberberg@alexandriava.gov](mailto:allison.silberberg@alexandriava.gov)>; Justin Wilson <[justin@justin.net](mailto:justin@justin.net)>; Tim Lovain <[timlovain@gmail.com](mailto:timlovain@gmail.com)>; Paul Smedberg <[Paul.Smedberg@alexandriava.gov](mailto:Paul.Smedberg@alexandriava.gov)>; Del Pepper <[delpepper@aol.com](mailto:delpepper@aol.com)>; [willie.bailey@alexandriava.gov](mailto:willie.bailey@alexandriava.gov); [john.taylor.chapman@alexandriava.gov](mailto:john.taylor.chapman@alexandriava.gov)

**Subject:** Re: Rod Simmons

Mary,

I understand that you don't have subpoena power. But you are in effect the boss and can request/demand that a particular staff person appear to testify. If staff refuses, then you can deny the application. I don't think staff is going to not produce him. Of course, if what he is saying is inconsistent with staff's position, you would surely want and expect staff to respond. And I am sure the person they send will be capable of doing that.

In a sense it doesn't matter in what capacity he testifies. We all know that his testimony will not entirely reflect the staff's current position. In effect, it will be a minority's view for whatever it is worth — much like a

minority opinion from a state supreme court to the US Supreme Court. Or much like some Presidents will have several generals with different views meet to help thrash out a position.

I know that staff has worked many hours doing their best to give you their best recommendation. I don't blame them for wanting to advance their recommendation. But surely staff does not get to control the flow of information to the decision maker, especially if you (Planning Commission) see a need for additional info. In the end, that has to be your decision. And it will be a better decision if, in a hard case, like this one, you have broader, more balanced information.

Finally, as I explained to someone, this matter involves a conflict between engineers, who think anything can be built anywhere, and environmentalist (naturalists) who take a longer, broader view of the consequences of what is or can be done. I believe that Rod Simmons views will shed some light — and you will still have a decision to make.

Lonnie



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On Nov 3, 2017, at 4:26 PM, Mary Lyman <[mslyman@verizon.net](mailto:mslyman@verizon.net)> wrote:

I don't have subpoena power, Lonnie. I can make the request again but I can't compel the City to produce him. He is of course free to come and speak on his own behalf if he chooses to, but I can't force the City to authorize his appearance in his official capacity.

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**From:** Lonnie Rich [<mailto:lcrich@rrbmdk.com>]  
**Sent:** Friday, November 3, 2017 3:59 PM  
**To:** Mary Lyman <[mslyman@verizon.net](mailto:mslyman@verizon.net)>  
**Cc:** Allison Silberberg <[allison.silberberg@alexandriava.gov](mailto:allison.silberberg@alexandriava.gov)>; Justin Wilson <[justin@justin.net](mailto:justin@justin.net)>; Tim Lovain <[timlovain@gmail.com](mailto:timlovain@gmail.com)>; Paul Smedberg <[Paul.Smedberg@alexandriava.gov](mailto:Paul.Smedberg@alexandriava.gov)>; Del Pepper <[delpepper@aol.com](mailto:delpepper@aol.com)>; [willie.bailey@alexandriava.gov](mailto:willie.bailey@alexandriava.gov); [john.taylor.chapman@alexandriava.gov](mailto:john.taylor.chapman@alexandriava.gov)  
**Subject:** Re: Rod Simmons

Mary

I agree that city departments can designate whom they would like to testify. I disagree that you or the Planning Commission or City Council are powerless to call anyone that you see fit to assist you in making decisions.

All of the staff work for the City and either Council or Planning Commission within its delegated authority from Council can ask for any person you want. In my opinion, because of your duty to make public decisions, it is more important than ever that you be able to get the information you think necessary. Departments can play hide the info from me, but not from you.

You ought to have Rod Simmons there so he can explain his concerns and so he can answer questions that you may have. Yes, I can send his opinion — if staff will permit that? — but I can't answer questions that may legitimately follow.

If you (or the Commission) decide not to invite Rod to testify, that will be your decision, not because staff or the city attorney has directed you otherwise. They are not decision makers. You are. They are advisors.

Respectfully,

Lonnie

<image001.jpg>

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Website: [www.rrbmdk.com](http://www.rrbmdk.com)

On Nov 3, 2017, at 3:24 PM, Mary Lyman <[mslyman@verizon.net](mailto:mslyman@verizon.net)> wrote:

Hi Lonnie—

I haven't forgotten you, was waiting to hear back from City staff on exactly how this stands.

The Recreation, Parks and Cultural Activities Department is aware of the request and I understand will have someone at the hearing to answer questions. There will be someone there solely at my request, because that department has had no involvement in the Karig Estates matter. The issues in question are the jurisdiction of T&ES. However, I have been advised by the City Attorney's office that it is up to each department to choose who will represent them at public hearings and that I have no power to direct that choice. It is a City personnel matter that is outside my wheelhouse and that I don't feel it is appropriate for me to try to interfere with.

I completely agree that all viewpoints should be heard, and I think the best way to go about it is to for you state Mr. Simmons' views in your own testimony, and I will ask the City representatives to respond. And of course, you are always free to apprise the Commissioners of those views verbally or in writing before the hearing. But having Mr.

Simmons speak at the hearing in his capacity as a City employee is unfortunately not something I can accomplish for you.

I look forward to seeing you next week.

Mary

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**From:** Lonnie Rich [<mailto:lrnich@rrbmdk.com>]  
**Sent:** Friday, November 3, 2017 10:52 AM  
**To:** Mary Lyman <[mslyman@verizon.net](mailto:mslyman@verizon.net)>  
**Cc:** Allison Silberberg <[allison.silberberg@alexandriava.gov](mailto:allison.silberberg@alexandriava.gov)>; Justin Wilson <[justin@justin.net](mailto:justin@justin.net)>; Tim Lovain <[timlovain@gmail.com](mailto:timlovain@gmail.com)>; Paul Smedberg <[Paul.Smedberg@alexandriava.gov](mailto:Paul.Smedberg@alexandriava.gov)>; Del Pepper <[delpepper@aol.com](mailto:delpepper@aol.com)>; [willie.bailey@alexandriava.gov](mailto:willie.bailey@alexandriava.gov); [john.taylor.chapman@alexandriava.gov](mailto:john.taylor.chapman@alexandriava.gov)  
**Subject:** Rod Simmons

Since I haven't heard from you, I thought I would inquire if you were going to request that Rod speak at the public hearing. His testimony would add to and balance what is in the staff report. It ought to be of high interest to the Planning Commission as decision makers.

If staff should try to discourage or preclude his testimony, the optics would not be good for our "green, eco-city."

Lonnie

<image001.jpg>

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**From:** Karl Moritz  
**Sent:** Wednesday, November 08, 2017 9:54 AM  
**To:** Kristen Walentisch  
**Cc:** Maya Contreras; Nathan Randall; Robert Kerns  
**Subject:** FW: Support for Karig Estate development as approved

Ms. Michaelis asked that her email be shared with the Planning Commission.  
Thanks!

**Karl W. Moritz**  
Planning Director | City of Alexandria  
Room 2100 | 301 King Street | Alexandria, VA 22314  
Desk: 703-746-3804 | Cell: 571-329-3052

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**From:** [christinemichaelis@comcast.net](mailto:christinemichaelis@comcast.net) [<mailto:christinemichaelis@comcast.net>]  
**Sent:** Wednesday, November 08, 2017 6:27 AM  
**To:** Karl Moritz <[Karl.Moritz@alexandriava.gov](mailto:Karl.Moritz@alexandriava.gov)>  
**Subject:** Support for Karig Estate development as approved

Dear Karl,

How do I indicate my support as originally approved to the Planning and Zoning commission?

I support the Karig Estate development as approved by Planning and Zoning. The plans approved by Planning and Zoning were the result of extensive work, revision, outreach and compromise over many months. The approved plans support individual property owner rights while also maintaining extensive tree canopy.

I live at 3976 Seminary Road. I do not support a cluster of homes near Seminary Road (or sewer access from Seminary) as it will adversely affect our view, devalue the development, and unfairly affect homes situated on the north end of the development. Moreover, clustering homes near Seminary would be extremely detrimental to 3908 Seminary, my neighbor who would then look at two homes, and cause yet another delay in this project.

Delay is the goal of certain neighbors in the hope that the developer will give up. Then their plan is to somehow force the owners to sell the property at a steep discount (or not at all, they don't care that the owners only asset is this property). They also hope, next, to further pressure the City to purchase the property as a park. However, there are neighbors who strongly oppose a park on this property.

I have kept silent to date because there has been extensive pressure on those who support redevelopment to nothing. I am not able to keep silent anymore. Please support the Karig Estate development as already approved by Planning and Zoning. Thank you.

Christine Michaelis

**From:** Nathan Randall  
**Sent:** Tuesday, November 07, 2017 6:03 PM  
**To:** Kristen Walentisch  
**Cc:** Robert Kerns  
**Subject:** FW: Karig Development Seminary Road

**From:** Kevin Durkin [<mailto:durkinkj@gmail.com>]  
**Sent:** Tuesday, November 07, 2017 8:43 AM  
**To:** Allison Silberberg; Justin Wilson; Karl Moritz; Nathan Randall; Maya Contreras; Mike  
**Subject:** Karig Development Seminary Road

Madam Mayor, Councilman Wilson, Mr. Moritz and Mr. Ibrahim,

Moving the houses forward destroys the trees that are in the front of the property which gives the property a unique feel with the mature trees acting as a buffer to the very busy Seminary Road. That there are mature trees in the front of the lot as well gets lost in the discussion about tree clearing line at the rear of the property..

The builder, the planning staff and planning commission have done a great job trying to take all views and opinions into consideration. I look forward to the planning commission meeting on Thursday night to share my views on why the houses should not be moved forward in an open meeting that all in the city can attend.

As I said to the Mayor two Saturdays ago at her Mayor on your block meeting, a settlement is just that a settlement....not all parties get what they want but a compromise is reached. Mr. Ibrahim and the staff have done a great job in achieving just that... a settlement.

Thank you for seeing that the compromise that has been put forward achieves the best possible outcome for all.

Kevin Durkin  
3908 Seminary Road



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**From:** Nathan Randall  
**Sent:** Wednesday, November 08, 2017 12:54 PM  
**To:** Kristen Walentisch  
**Subject:** FW: "Reality Check" (As posted to City Officials and Staff)  
**Attachments:** Open LTR Tony Fleming.pdf; Rod Simmons (From FOIA).pdf

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**From:** Karl Moritz  
**Sent:** Wednesday, November 08, 2017 9:43 AM  
**To:** Maya Contreras; Nathan Randall; Robert Kerns; Jesse Maines  
**Cc:** Yon Lambert  
**Subject:** FW: "Reality Check" (As posted to City Officials and Staff)

FYI. Includes Rod's comments.

**Karl W. Moritz**  
Planning Director | City of Alexandria  
Room 2100 | 301 King Street | Alexandria, VA 22314  
Desk: 703-746-3804 | Cell: 571-329-3052

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**From:** Loren Needles [<mailto:loren@lorenneedles.com>]  
**Sent:** Wednesday, November 08, 2017 1:05 AM  
**To:** Karl Moritz <[Karl.Moritz@alexandriava.gov](mailto:Karl.Moritz@alexandriava.gov)>; Beckhorns (Kirk & Christina) [Kdbec@aol.com](mailto:Kdbec@aol.com) <[Kdbec@aol.com](mailto:Kdbec@aol.com)>; Lisa Ring <[lisaaring@aol.com](mailto:lisaaring@aol.com)>; [Nrjennings@comcast.net](mailto:Nrjennings@comcast.net); Richard Hayes <[usna62@verizon.net](mailto:usna62@verizon.net)>; Alexa Glock <[alexacordelia@gmail.com](mailto:alexacordelia@gmail.com)> <[alexacordelia@gmail.com](mailto:alexacordelia@gmail.com)>; Andrew Macdonald <[ahmacdonald@mac.com](mailto:ahmacdonald@mac.com)>; Ann and Steve Reed <[AReed@AnneReedConsulting.com](mailto:AReed@AnneReedConsulting.com)>; ann ellis <[annellis51@gmail.com](mailto:annellis51@gmail.com)>; Bertha Braddock <[Berthabraddock.bb@gmail.com](mailto:Berthabraddock.bb@gmail.com)>; Betsy Lohmann <[Betsy4005@comcast.net](mailto:Betsy4005@comcast.net)>; Bill Dickinson , William Dickinson <[bill.c.dickinson@gmail.com](mailto:bill.c.dickinson@gmail.com)>; Bill Stiers <[billstiers@earthlink.net](mailto:billstiers@earthlink.net)>; bonnie petry <[bonnie.petry@outlook.com](mailto:bonnie.petry@outlook.com)>; Brenda Wilson <[BrendaWilson09@gmail.com](mailto:BrendaWilson09@gmail.com)>; Brendan Otoole <[jbrendanotoole@gmail.com](mailto:jbrendanotoole@gmail.com)>; Bruce Mccarthy <[Mccarthy3912@aol.com](mailto:Mccarthy3912@aol.com)>; Cappie Stiers <[mcstiers@aol.com](mailto:mcstiers@aol.com)>; Carter Flemming <[Carterflemming@gmail.com](mailto:Carterflemming@gmail.com)>; Charles Evans <[charlese33@gmail.com](mailto:charlese33@gmail.com)>; Chris Connell <[cvconnell@gmail.com](mailto:cvconnell@gmail.com)>; Christina Lytle <[tinalytle@aol.com](mailto:tinalytle@aol.com)>; Christine Michaelis <[christinemichaelis@comcast.net](mailto:christinemichaelis@comcast.net)>; Cill Dara <[cilldara3030@gmail.com](mailto:cilldara3030@gmail.com)>; Cyn <[cynthiaevans52@gmail.com](mailto:cynthiaevans52@gmail.com)>; Dave Cavanaugh <[dacava1@yahoo.com](mailto:dacava1@yahoo.com)>; Dave Levy <[bentbiking@yahoo.com](mailto:bentbiking@yahoo.com)>; David Speck <[dgspeck@gmail.com](mailto:dgspeck@gmail.com)>; debora h aspagnol <[deborahaspagnoli@gmail.com](mailto:deborahaspagnoli@gmail.com)>; doctor Stoll <[krkstoll@yahoo.com](mailto:krkstoll@yahoo.com)>; Eduardo Han <[eduhan@yahoo.com](mailto:eduhan@yahoo.com)>; Eileen Wallace <[egwallace@verizon.net](mailto:egwallace@verizon.net)>; Elizabeth Wright <[wright22304@gmail.com](mailto:wright22304@gmail.com)>; Goree, Paul F - WASHINGTON DC <[paul\\_goreeiii@ml.com](mailto:paul_goreeiii@ml.com)>; Denis Otoole <[irishoat@aol.com](mailto:irishoat@aol.com)>; Janice Lachance <[Janice@JaniceLachance.com](mailto:Janice@JaniceLachance.com)>; [Jeremy.Flachs@Flachslaw.com](mailto:Jeremy.Flachs@Flachslaw.com); [jlepanto@bostonpacific.com](mailto:jlepanto@bostonpacific.com); Joan Otoole <[joandotoole@gmail.com](mailto:joandotoole@gmail.com)>; John and Nancy Scruggs <[nancywscruggs@gmail.com](mailto:nancywscruggs@gmail.com)>; John Scruggs <[Jscruggs3929@gmail.com](mailto:Jscruggs3929@gmail.com)>; pat tokarz <[jptokarz@comcast.net](mailto:jptokarz@comcast.net)>; kirk.beckhorn <[kirk.beckhorn@squirepb.com](mailto:kirk.beckhorn@squirepb.com)>; Leslie Pierre <[lesliepierre@aol.com](mailto:lesliepierre@aol.com)>; Lonnie Rich <[lcrich@rrbmdk.com](mailto:lcrich@rrbmdk.com)>; Loren R R. Needles <[Loren@lorenneedles.com](mailto:Loren@lorenneedles.com)>; Lynette Goree <[lgoree6@gmail.com](mailto:lgoree6@gmail.com)>; Marianne and Buck Coates <[m-b-coates@comcast.net](mailto:m-b-coates@comcast.net)>; Nancy Connell <[neconnell@gmail.com](mailto:neconnell@gmail.com)>; Nina Schwartz <[artstop@impulsegraphics.com](mailto:artstop@impulsegraphics.com)>; Patty collette <[Pattycollette@me.com](mailto:Pattycollette@me.com)>; Rebecca Hierholzer at Newport villiage. <[Magicbeca@aol.com](mailto:Magicbeca@aol.com)>; Robert McLaughlin <[robertmclaughlin2011@gmail.com](mailto:robertmclaughlin2011@gmail.com)>; Shirley Downs <[shirleydowns@verizon.net](mailto:shirleydowns@verizon.net)>; Steve Reed <[sreed@steptoe.com](mailto:sreed@steptoe.com)>;

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**Subject:** "Reality Check" (As posted to City Officials and Staff)

Hello All

Here is the message I posted to the Mayor, Council, Planning Commission and P&Z staff.

All--Thank you for your continuing interest and support . Please join me and your other neighbors at the the Planning Commission at City Hall, Second Floor, 7:00 PM. We are #8 on the Docket so it will be at least an hour past 7:00 before we are up. I suggest you stop nearby for dinner and then mosey over to the meeting. Alternately, watch for my eMail alerts on meeting progress. Hope to see you there. The Commission likes to see citizen participation. It helps them choose what is important.  
Best Regards, Loren

To City Officials and Staff:

I appreciate all the effort to find a Win-Win solution to the idea of building in the ravine 3832 and 3834 Seminary Road . My property (1115 St Stephens Road) is contiguous with the property so I am deeply concerned.

I have studied all the opinions and suggestions of city staff, commissioners, experts, neighbors and activists as well as the site plans.

I have concluded that most site design alternatives amount to putting lipstick on the pig. It is obvious P&Z has not given sufficient consideration to the scientific circumstances found in the Ravine or to the legal issues.

Neither P&Z nor the Planning Commission has addressed the published professional opinions of Geologist Anthony Fleming or Naturalist Rod Simmons. The important professional opinions of both gentlemen are attached.

I commissioned the first and second Fleming works because I believed we needed to include real science along with the routine default regulations for decision-making guidance. It is helpful Tony volunteered further comment most recently.

I filled a FOIA to better understand the inputs to the city's internal decision-making processes. That surfaced the opinions of City Naturalist Rod Simmons who addressed multiple science-based concerns about the effect of building in the ravine.

I called for more attention to science in the decision-making process because it is so easy to cite so-called applicable regulations without further thought. There is much to complain about such an approach. Here, let's just agree that regulations are written to apply to all circumstances as if all circumstances are the same. In fact, some situations like building in a geologically difficult natural ravine is so far from average that we need to seek out a better understanding of the appropriateness of the regulation in this circumstance of its use.

Professional opinions of Fleming and Simmons are now in full public view. Both are officially connected to the city in some significant way. I believe that requires the city to demonstrate it has objectively and publicly considered both gentleman's professional opinions in choosing the WIN-WIN option.

The "by-right" legal issue is a pivotal concern. It is essentially the common-law principle that a private owner has the right to develop his/her land if it does not harm his neighbors. There are several ways to think about what the city should do.

- 1) Roll over and approve the site plan once the developer promises to follow all city requirements. That avoids a law suit.

2) Require the developer to adjust the site plan in some small or medium way(s). Requiring costly site plan adjustments in a large way may risk a by-right law suit which the city prefers to avoid.

3) Permanently reject the building plan likely inviting a law suit although there is influential thinking that no judge would ever rule against a city for ensuring quality control for its land and taxpayers. Particularly if there is an acceptable alternative for the landowner. (See #4)

4) Think outside the box.

- Consider the fact is that Birdie Carrier has publicly stated she is very tired of all the delays and is willing to sell to anyone that will pay \$3 Million for her 3 acres of woodland.
- And consider the fact that Birdie's sales contract with the developer is contingent on final city site approval. Heirs report they can walk away anytime.
- And consider the fact that a buyer can come along before resolution of all appeals.
  - I believe there are wealthy buyers interested in building a large luxury home on 3 wooded acres, 15 minutes from ground zero of world power (Whitehouse, Capitol hill, K-Street, etc.) and tax benefited by a conservation trust can be found.
  - Alternatively, I believe one or several conservation trusts can engineer the purchase.
  - I also believe that Birdie has been persuaded (even intimidated?) by those who want to destroy the ravine to profitably build on the land that the present plan is better for her. How could that be? She just wants her money and sooner rather than later. Who could blame her for that?

Birdie and her sisters and the grandchildren may well prefer to not destroy their childhood playground. Simple solution: Birdie needs to replace her pro bono lawyer with a different lawyer that does not have a dog in the fight. We all know the relative value of free advice she is now depending on.

Sincerely yours,  
Loren Needles  
Co-Chair, Coalition for Responsible Stewardship  
1115 St Stephens Rd  
703-836-5800

From Tony Fleming

## An Open Letter to Members of the Alexandria Plan Commission and City Planning & Zoning Staff

From 2006 to 2008, and again from 2014 to 2016, I carried out detailed research on the geology, hydrology, and geologic hazards in the City of Alexandria, which ultimately was incorporated into the various maps, documents, and databases that comprise the online Geologic Atlas of the City of Alexandria ([www.alexandriava.gov/89974](http://www.alexandriava.gov/89974)). The atlas incorporates a large amount of historical geological, hydrological, and engineering information collected over more than a century by various geologists, many of them experts of their times who worked for the U.S. Geological Survey, along with hundreds of geotechnical engineering reports in the City's archive which detail subsurface conditions in nearly every neighborhood. I also walked literally every street, alley, park, and the yards of willing landowners, observing the geologic materials and processes that have acted over millennia to produce the modern landscape. I hope you have availed yourself of this unique resource, which among other things is intended to help planners, engineers, and policy makers identify and address the geologic conditions and hazards that present themselves in various places around the City.

One of the places I visited during this process is the property known as Karig Estates, and the larger Strawberry Run watershed it is part of, including several homes along Colonel Ellis Drive directly below the Karig Estates site. The physiographic region of the City in which all these properties are situated is called the Hospital Escarpment, a massive, oversteepened bluff as much as 200 feet high underlain by "marine clay" and dotted with abundant evidence of both prehistorical and modern landslides and debris flows. You can see some of this evidence yourselves, simply by driving up any of the city streets that traverse the escarpment and observing the commonly rippled pavement and areas of sharply leaning trees, all of which signify an unstable hillside actively moving downhill.

The mechanics of slope failures in this terrain are well understood. In fact, the renown engineering geologist Stephen Obermeier of the USGS published an entire book on the subject, focusing on adjacent parts of Fairfax County having identical geology to the Hospital Escarpment, and including several case studies of landslides observed over decadal time scales. This escarpment has very likely evolved into its present shape by large-scale mass wasting triggered by the highly expandable and strongly fractured nature of the underlying clay, which causes strong shrink-swell of the soil profile during seasonal wetting and drying cycles and – of particular concern –

during major precipitation events, such as the periodic hurricanes and torrential thunderstorms that visit the region. It is during these low-frequency, high-impact precipitation events that the largest and most severe slope failures tend to initiate.

One of the most important observations made by both Obermeier and myself is the strong correlation between slope failures and disruption of the natural groundwater hydrology at the crowns of slopes. There are many examples of this in Alexandria, where excavations, grading, and placement of structures and artificial fill at the tops of escarpments have resulted in the failure of the slopes below. A prominent landslide at St. Stephens School, for example, resulted from the emplacement of artificial fill over the wall of a deep ravine; the landslide persisted for more than a decade before it was finally remediated at considerable cost, but not before traveling hundreds of feet downslope and toppling more than an acre of high quality forest. It was fortunate no residences or other structures were situated below.

That is not the case with the Karig Estates property, which is perched on the crown of a steep slope that descends to the homes along Colonel Ellis Drive, a neighborhood that already experiences problems with unstable backyard slopes and wetness during large storms. Moreover, the development of this site as currently contemplated will severely disrupt shallow groundwater flow and an ecologically important spring by regrading and emplacing a significant mass of fill in the thalweg of a prominent ravine, which represents a major hydrologic artery directly above the steepest part of the slope – in other words, the filling and regrading of the site, coupled with the conversion of some 2 to 3 acres of mature forest into impervious and less pervious surfaces will dramatically transform the hydrology of both the site and the adjacent slope below, greatly heightening the risk of destabilizing the slope and putting the subjacent landowners and their properties in jeopardy from both debris flows and damaging amounts of stormwater runoff.

I reviewed the site plan and found it woefully deficient in addressing these issues. In fact, it does not acknowledge the potential for off-site impacts at all and treats this steeply-sloping site as if it exists in a geological vacuum. I assure you, it does not: geological processes, including landslides and stormwater runoff, do not respect property boundaries, most especially when they are moving down steep slopes. A few small retention basins situated just above nearly impermeable clay are not going to hold back the runoff from a major storm – much less that from a hurricane. It is not a question of *if* these kinds of storms will occur, the only question is, *when?* Once that question is answered, then the questions become, *what happens if the slope fails?* and *who is responsible (especially if the failure occurs years or decades after the development is built, a common situation) - the developer, the city, or the*

*neighbors who will bear the brunt of the resulting debris flows and stormwater runoff?*

Given the well documented hazards associated with building on the Hospital Escarpment, policymakers would be well advised to consider these questions now and not after the fact, when remediating the consequences will be significantly more costly.

This leads to my final point: I strongly urge the City to take a proactive approach in how it deals with the closely intertwined questions of geologically problematic terrain and open space preservation, rather than the reactive approach so apparent in the current debacle regarding the Karig Estates site, which serves no one well. From my perspective, the present process appears dysfunctional: the lack of a strategic vision based on science and resource inventories results in a haphazard process that works at cross purposes to the City's stated goals as they pertain to both development and natural resource protection. For example, the City simply cannot achieve its stated goal of 40% tree canopy by permitting the destruction of the best and largest tracts of mature tree canopy in its jurisdiction.

The Karig site is hardly unique. In fact, it is emblematic of most of the landscape of the Hospital Escarpment, not only in its readily recognizable geological hazards, but also in the fact that some of the best remaining mature tree canopy in the City occurs on the escarpment between Pegram Street and College Park, where it collectively forms a nearly continuous corridor of high-quality forest. Using planning and zoning tools to restrict high-impact development on this geologically fragile landscape, while also establishing mechanisms to acquire open space at a fair price from property owners (or the development rights via conservation easements) is highly compliant with the Eco-City standards to which the City aims to adhere. To the best of my knowledge, no such mechanism is currently in place, which leads to the currently fragmented landscape and development process.

On the other side of the ledger, the geological terrain in many other parts of the City does not possess the kinds of potentially high-impact geologic hazards found on the escarpment, and contains large areas that are perfectly suitable for development that do not host large tracts of high quality tree canopy. In short, I urge you to take full advantage of the resources at your disposal, including the geologic atlas, to establish a forward-looking approach that brings the goals of preserving tree canopy and steering development away from geologically unsuitable terrain into alignment. As someone who has served on Planning Commissions, creating win-win solutions by

solving problems before they occur is what planning and zoning are supposed to be all about.

Yours truly,

Tony Fleming, Licensed Professional Geologist  
Author, Geologic Atlas of the City of Alexandria



**DSP – PRELIMINARY SITE PLAN – 3832-3834 SEMINARY ROAD (STUART’S WALK) – RHS review and comments (RPCA, Natural Resources Division, Natural Lands Management Section) – 10 Mar 2017**

I visited this site several times, including during the growing season, beginning in July 2013 while performing vegetation and geologic assessment surveys for the City Flora and Alexandria Geologic Atlas. My review comments of this plan are pursuant to a number of serious concerns with the plan’s failing to take into account adequately or at all a number of significant environmental issues which are outlined in the sections below.

**Negative Impacts of Proposed Plan on Existing Forested Wetlands on Site (Isolated Wetlands-LOC Area including 50’ protective buffer)**

- On Sheet 06, Lot 4 shows 150’ or more x 15’-wide easement of pipe (8” PVC San.) and associated trenching and soil disturbance intruding within the 50’-buffer (LOC) and through the point source of the forested spring and seepage wetlands. This is wholly unacceptable because it is a) an intrusion into a protected area, in this case a forested wetlands (isolated wetlands), and b) such intrusion and disturbance will result in significant damage to the wetlands, including the predictable likelihood of destroying it altogether (see Figs. 1 and 2).

Moreover, the construction of a 15’-wide filled trench as positioned above and around the groundwater infiltration and flow of the spring and seepage fan will in effect result in a “French drain”, which would intercept water flow and carry it along the floor of the trench, away from and bypassing the groundwater source of the wetlands.

- The “D” junction and associated digging of this pipe route are particularly poorly sited because they are situated just above the springhead and if constructed would likely alter or destroy the groundwater flow.
- Does the City typically permit concrete buildings/foundations (Lot 4) that would literally conjoin a protective buffer, let alone a seepage wetlands? This is hard to imagine and would seem to invite an engineering and environmental quandary of worst case scenarios as far as resource protection and sound engineering practices are concerned.
- A more accurate than presented on Sheet 06 delineation of the footprint of the existing forested wetlands is needed, which will show the 50’ buffer likely extending farther northeastward into the structures of Lot 4 than the plan currently depicts. In other words, the footprint of the spring and seepage fan needs to be better delineated, especially given that the developer failed to include this wetland on the original plan submissions, thereby raising considerable doubt as to the quality and accuracy of their site assessments and analyses. The delineation of the wetlands needs to be properly depicted and represented on the plan, and based on ground-truthing delineations drawn to contour lines and not from GIS waypoints (the waypoints I provided in December 2016 are likely many feet off at some points owing to the steep topography of the ravine).



- There are serious concerns for the clear-cutting and removal of existing forest vegetation on the steep ravine slopes and especially Lot 4 above the forested spring and seepage fan. Denuding the slope of canopy trees and other vegetation and digging, filling, and re-contouring the slope will likely excise or redirect the perched aquifer that supplies the groundwater flow, resulting in the loss of the wetlands and rendering the protective buffer meaningless.
- There are numerous concerns for what will comprise the landscaping of the western flank of Lot 4 after the slope is clear-cut and canopy trees are removed, and how plantings, including turf, and their maintenance will affect the protected wetlands. What protection and enforcement will be provided if yard waste and other debris are dumped into the wetlands over the years by owners or their landscapers of a property built too close to a sensitive natural feature? (See Fig. 4) Will plantings of non-native invasive plants be allowed, i.e., English Ivy, *Liriope* spp., etc., and if so, be allowed to spread into the adjacent wetlands?



Fig. 1. The aptly-named “Fern Belt” at the northeastern edge of the former Winkler Botanical Preserve as it appeared in the early 1990s. This pristine wetlands was regionally famous as one of the best remaining examples of the globally rare Fall Line Magnolia Bog community: *Nyssa sylvatica* - *Magnolia virginiana* - (*Pinus rigida*) / *Rhododendron viscosum* - *Toxicodendron vernix* / *Smilax pseudochina* Woodland (USNVC: CEG006219). Photo by R.H. Simmons.





Fig. 2. All that remains of the Magnolia Bog at the edge of the Winkler Botanical Preserve and the footprint of the IDA building at 5110 Mark Center Drive (previous page photo) after the site itself and perched aquifer and seepage flow upslope were destroyed by building construction in 1996. Photo by R.H. Simmons.

### Negative Impacts of Proposed Plan on Existing Forest Communities and Vegetation

- Much of the 3832 and 3834 Seminary Road parcels comprise old, remnant Oak-Heath Forest, an intermittent waterway, and a spring and forested seepage wetland, all of which collectively protect and form the headwaters of Strawberry Run. The vegetation and topography of this ravine forest is virtually identical to ones at Stevenson Park at the western edge of Alexandria.

The vegetation of the ravine is largely old-age Low-Elevation Mixed Oak / Heath Forest: *Quercus alba* - *Quercus (coccinea, velutina, montana)* / *Gaylussacia baccata* Forest (USNVC: CEG008521), with Chestnut Oak by far the dominant tree.

- Lot 4, Lot 3, and the back half of the “New Public Street”, as proposed, sit directly atop the oldest, most intact, and least disturbed forest on the entire site. Lot 2 and Lot 1 are much more disturbed, with sizeable areas of non-native invasive plants.

The plan does appear to include tree preservation areas above Lot 4 at the far southwestern upper slope of the site, as well as along the north edge of the property and a small grove of old White



Oak trees in front of the existing Carrier-Keating residence at 3834 Seminary Road. These will preserve some small amount of native remnant forest trees on site. Unfortunately, the plans call for clear-cutting *all of the best remaining forest on site*, from the old-age Chestnut Oak canopy to the understory trees and shrubs and herbaceous plants of the forest floor (see Fig. 3).



Fig. 3. Old-age Low-Elevation Mixed Oak / Heath Forest: *Quercus alba* - *Quercus (coccinea, velutina, montana)* / *Gaylussacia baccata* Forest (USNVC: CEG008521) community occupying the north-facing, gravelly slope where Lot 4, Lot 3, and the back half of the “New Public Street” are proposed. Photo by R.H. Simmons.

- All of these trees are *irreplaceable* remnants of the native forest canopy that was once dominant throughout such ravines in the City – and are critical in maintaining native tree canopy density throughout Alexandria. The City recently lost (in 2015-2016 alone) a significant number of old native oaks and other canopy trees and great care needs to be given to the preservation of such remaining trees if we are to maintain the sustainability, health, and beauty of Alexandria’s native tree canopy. Post-construction tree plantings as part-mitigation for the loss of old, remnant native trees and forest are not in any way a commensurate substitute for the loss of a living system and Alexandria’s existing native biodiversity.
- Surveys conducted by Natural Lands Management revealed no Rare, Threatened, or Endangered (R,T,&E) flora on site, except one occurrence of the Alexandria-rare Frosted Hawthorn (*Crataegus pruinosa* var. *pruinosa*) in the footprint of the proposed “New Public Street”.



Nevertheless, this is moot because there is no regulatory protection for vegetation that is *privately owned* in Virginia (and most states in the U.S.), unless it is federally listed or occurs within a wetlands, RPA, or other protective designation.

- While it is in no way a substitute for effective and appropriate preservation of irreplaceable natural resources in situ, in the event construction does proceed it is highly recommended that diggable shrubs and other native plants, including the 2 large Frosted Hawthorn, be rescued and transplanted to the closest appropriate location and site conditions next door at Beth El Hebrew Congregation. Permission of course will have to be granted, but I would be happy to help facilitate this if better solutions for preservation do not arise.



Fig. 4. Recent large-scale dumping of yard debris, including non-native invasive plants, by neighboring residence into the forest at 3834 Seminary Road just above the forested wetlands. Photo by R.H. Simmons.

#### **Negative Impacts of Proposed Plan on the Topography, Soils, and Hydrogeology of the Ravine**

- There are concerns for the quality, accuracy, and thoroughness of the developer's site assessments as to existing topographical considerations (slope stability and preservation); placement of soil boring tests; detection of wetlands on site; and the general lack of understanding and appreciation of the entire site as an intermittent stream and headwaters ravine.

It does not appear that much preliminary site evaluation work and analysis was done, or done to a high quality or standard. For example, Natural Lands Management and professional geologist Tony Fleming readily noted the presence of the spring and forested wetlands at the site on first visit to the site in 2013, but this was absent from the developer's preliminary site plan proposal in the fall of 2016 and was only integrated into the revised proposal in early 2017.

- Some links in the *Geologic Atlas of the City of Alexandria, Virginia and Vicinity* of major relevance to accurately discerning the geohydrologic conditions of the site are Plates 4, 5, 6, and 7. The *Geologic Atlas of the City of Alexandria, Virginia and Vicinity* is an exceptional resource offered to all by RPCA on the Alexandria Geology webpage at [www.alexandriava.gov/89974](http://www.alexandriava.gov/89974).

In particular, **Plate 6. Map of the Piezometric Surface of the Cameron Valley Sand Member (lower aquifer) of the Potomac Formation and Other Aspects of Urban Hydrogeology** shows the locations of springs and isolated wetlands in the City. **Plate 7. Slope Stability Map** presents the areas in the City with slope stability issues arising from the presence of "marine clay" (Arel clay), which outcrops near the base of the ravine.

Also, in **Plate 4. Geologic Map of the Potomac Formation** and the **Expanded Explanation of Plate 4**, see the description, classification, and discussion of Arel clay, which is the most massive unit of so-called "marine clay" (misnomer; not marine in origin) in the City, which beautifully holds up the Seminary heights and terrace. (Its weakness though is fracturing/trenching it and digging into it extensively; which thereby exposes sections of it to likely slope failure.)

- It is hard to tell how thoroughly performed and appropriately sited the soil boring tests were and where on site they were conducted. It does not appear that soil borings were taken on the northwest slope of the ravine. Several borings are visible on the gravelly southeast slope bordering Beth El Hebrew Congregation. An accurate assessment and depiction of underlying soil types of all sections of the ravine proposed for development are essential for any plans to follow.

Of course, great care must be afforded to ensure that no boring equipment or disturbance encroaches into the protected spring and wetlands near the southwest end of the property (LOC).

- There are great concerns for the proposed filling in of sections of the ravine. This must be regarded by all planners and engineers as the most drastic, lowest quality practice of all, and one that would render a site thoroughly degraded. For example, this very scenario was recently approved by the City and constructed at 2208 Russell Road, in which a mostly perennial, natural-channel, spring-fed stream at the foot of a steep ravine was completely filled in over a galvanized pipe for a significant section of its length (see Figs. 5, 6, and 7). It's hard to imagine how this grading permit was ever approved and granted in this day and age in Alexandria.





Fig. 5. Large-scale filling in of the mostly perennial, natural-channel, spring-fed stream at 2208 Russell Road. Pictured here is the outflow of the galvanized pipe that spans the filled segment – a considerable stretch of the ravine. Photo by R.H. Simmons.



Fig. 6. Middle section of filled in stream channel at 2208 Russell Road showing damaged trees and buried toe and lower slope of old-age forested ravine. Photo by R.H. Simmons.





Fig. 7. Upstream intake of spring-fed, mostly perennial stream into galvanized pipe underlying an area at 2208 Russell Road where the stream was filed in with massive amounts of soil. Photo by R.H. Simmons.

- Despite the presence of an artificial stormwater infrastructure that follows the entire length of the ravine within the property boundary (21” reinforced concrete pipe with a number of open-drain catch basins), the entire ravine – its topography, geohydrology, and forested vegetation - functions as a natural channel intermittent stream and is the ultimate headwaters of Strawberry Run. Denuding the ravine of vegetation, especially forest canopy, and filling in sections of it and adding impervious surface (roofs, driveways, “New Public Street”, etc.) where none currently exists will have major negative consequences, both on site and for the properties downslope, including waterways. No amount of mitigation can be hoped to offset these effects, particularly because many of the consequences of poorly siting construction in inappropriate sites like ravines will not be immediately evident and will take years to develop.

Prepared by:

Rod Simmons  
 Natural Resource Manager / Plant Ecologist  
 Natural Resources Division  
 Department of Recreation, Parks & Cultural Activities  
 2900-A Business Center Drive  
 Alexandria, VA 22314  
[Rod.Simmons@alexandriava.gov](mailto:Rod.Simmons@alexandriava.gov)

---

**To:** Karl Moritz  
**Subject:** RE: URGENT "Reality Check" (As posted to City Officials and Staff)

---

**From:** Karl Moritz  
**Sent:** Wednesday, November 08, 2017 2:21 PM  
**To:** Mark Jinks  
**Cc:** JoAnn Maldonado; Kendra Jacobs; Kristen Walentisch  
**Subject:** Re: URGENT "Reality Check" (As posted to City Officials and Staff)

Certainly.

FYI - while individual Planning Commissioner email addresses are not listed on the website, there is a link to "send a message to the Planning Commission" prominently on the main PC information page.

<https://www.alexandriava.gov/planning/info/default.aspx?id=6698>

Clicking on that link creates an email prepopulated with the email address.

Sent from my iPhone

On Nov 8, 2017, at 1:40 PM, Mark Jinks <[Mark.Jinks@alexandriava.gov](mailto:Mark.Jinks@alexandriava.gov)> wrote:

Can you make sure that you all send this material to Planning asap if not done already so they can send to the PC? Thanks

**From:** Allison Silberberg  
**Sent:** Wednesday, November 08, 2017 1:36 PM  
**To:** Loren Needles <[loren@lorenneedles.com](mailto:loren@lorenneedles.com)>  
**Cc:** Lonnie Rich <[lrch@rrbmdk.com](mailto:lrch@rrbmdk.com)>; pat tokarz <[jptokarz@comcast.net](mailto:jptokarz@comcast.net)>; Mark Jinks <[Mark.Jinks@alexandriava.gov](mailto:Mark.Jinks@alexandriava.gov)>; JoAnn Maldonado <[JoAnn.Maldonado@alexandriava.gov](mailto:JoAnn.Maldonado@alexandriava.gov)>; Call Click Connect <[CallClickConnect@alexandriava.gov](mailto:CallClickConnect@alexandriava.gov)>; Karl Moritz <[Karl.Moritz@alexandriava.gov](mailto:Karl.Moritz@alexandriava.gov)>; Mary Lyman <[mslyman@verizon.net](mailto:mslyman@verizon.net)>; Kyle Herman <[Kyle.Herman@alexandriava.gov](mailto:Kyle.Herman@alexandriava.gov)>  
**Subject:** Re: URGENT "Reality Check" (As posted to City Officials and Staff)

Dear Loren,

Thank you very much for your note and for sharing your concerns about the city's process and the CCC system. This does sound frustrating. When residents like yourself take the time to send an email and attachments, the Commissioners need to have the reading material in order to ensure that all sides are heard and considered.

Please know that I am sharing your note with our City Manager, Mark Jinks. By sheer coincidence, we are currently looking closely at the CCC system right now. So your input is certainly helpful. As you may know, I am fully committed to civic engagement, very accessible government, and far more transparency. If there is a way to improve our system, we need to consider such a suggestion.



I am surprised to hear that the Planning Commissioners' contact info is not listed on our site. That can be fixed if the contact info is not listed or if it is difficult to find.

In the meantime, please send me the note and any attachments that should go to the Planning Commission, and I will forward it to Mary Lyman right away in order to get it to all the members of the Commission.

Thank you again for taking the time to share your thoughts and concerns. As always, I welcome and encourage your input as well as the input of our residents across the city. I believe that engagement of our residents is crucial to our city's well-being and democracy.

All my best,

Allison

---

Mayor Allison Silberberg  
Alexandria, Virginia  
[allison.silberberg@alexandriava.gov](mailto:allison.silberberg@alexandriava.gov)  
o: 703-746-4500  
c: 571-319-9948

Cc: Kyle Herman, Executive Assistant

On Nov 8, 2017, at 12:51 PM, Loren Needles <[loren@lorenneedles.com](mailto:loren@lorenneedles.com)> wrote:

Thanks Lonnie.

I just learned CCC cannot confirm my "Reality Check" e-mail with vital attachments has arrived at the Commission and has been distributed to the Commissioners. I can only confirm CCC has received my stuff and it takes an unknown amount of time to pass it on. I am so frustrated with this process I'm about to walk away. It is just not worth it. I have already suffered impossible and cavalier delays during the last hearing. Where is the democracy resident citizen George Washington was fighting for?

Oh yeah, CCC is the way to go? MAYBE FOR CITY INSIDERS BUT CERTAINLY NOT FOR US OUTSIDE THE HALLS OF GOVERNMENT. Unusable, no step by step use instructions, no way to confirm the untended happened.

Alexandria needs to understand the concept of usability testing AND MEANINGFUL CITIZEN communication.

Frankly Lonnie, after all the work, I think my best option is just to walk away from this mess and try to sell the house before it losses it's woodland value. What the hell, its only money.

PS: I can't even find commissioner email addresses that I might use to pass along my thinking. Just another example of hiding from citizens because it is inconvenient to actual talk to them outside of already dysfunctional hearing sessions.

Sadly, Loren

On Nov 8, 2017, at 11:59 AM, Lonnie Rich <[lcrich@rrbmdk.com](mailto:lcrich@rrbmdk.com)> wrote:

Try this unsigned word doc. May not be the final version, but it is close.

<image001.jpg>

Lonnie C. Rich  
Rich Rosenthal Brincefield Manitta Dzubin & Kroeger, LLP  
201 N. Union Street, Suite 230  
Alexandria, VA 22314  
Phone: (703) 299-3440  
Fax: (703) 299-3441  
Email: [LCRich@RRBMDK.com](mailto:LCRich@RRBMDK.com)  
Website: [www.rrbmdk.com](http://www.rrbmdk.com)

**From:** Loren Needles [<mailto:loren@lorenneedles.com>]  
**Sent:** Wednesday, November 08, 2017 11:55 AM  
**To:** Lonnie Rich <[lcrich@rrbmdk.com](mailto:lcrich@rrbmdk.com)>  
**Subject:** Re: "Reality Check" (As posted to City Officials and Staff)

Hi Lonnie  
Thanks but not attached, sorry  
Shows up on my Mac as a question mark in a box  
L

On Nov 8, 2017, at 11:22 AM, Lonnie Rich <[lcrich@rrbmdk.com](mailto:lcrich@rrbmdk.com)> wrote:

Attached is the appeal.

<image001.jpg>

Lonnie C. Rich  
Rich Rosenthal Brincefield Manitta Dzubin & Kroeger, LLP  
201 N. Union Street, Suite 230  
Alexandria, VA 22314  
Phone: (703) 299-3440  
Fax: (703) 299-3441  
Email: [LCRich@RRBMDK.com](mailto:LCRich@RRBMDK.com)  
Website: [www.rrbmdk.com](http://www.rrbmdk.com)

**From:** Loren Needles [<mailto:loren@lorenneedles.com>]  
**Sent:** Wednesday, November 08, 2017 7:55 AM  
**To:** Lonnie Rich <[lcrich@rrbmdk.com](mailto:lcrich@rrbmdk.com)>; Jeremy Flachs <[jeremy.flachs@flachslaw.com](mailto:jeremy.flachs@flachslaw.com)>  
**Cc:** pat tokarz <[jptokarz@comcast.net](mailto:jptokarz@comcast.net)>  
**Subject:** Re: "Reality Check" (As posted to City Officials and Staff)

Thanks Lonnie. That means a lot!

PS: Somehow I'm missing my copy of your appeal.  
Appreciate having a fresh copy for my archive.  
Thanks  
Loren

On Nov 8, 2017, at 7:14 AM, Lonnie Rich <[lrich@rrbmdk.com](mailto:lrich@rrbmdk.com)> wrote:

Good job!

Lonnie



Lonnie C. Rich  
Rich Rosenthal Brincefield Manitta Dzubin & Kroeger, LLP  
201 N. Union Street, Suite 230  
Alexandria, VA 22314  
Phone: (703) 299-3440  
Fax: (703) 299-3441  
Email: [LCRich@RRBMDK.com](mailto:LCRich@RRBMDK.com)  
Website: [www.rrbmdk.com](http://www.rrbmdk.com)

On Nov 8, 2017, at 1:06 AM, Loren Needles <[loren@lorenneedles.com](mailto:loren@lorenneedles.com)> wrote:

Hello All

Here is the message I posted to the Mayor, Council, Planning Commission and P&Z staff.

All--Thank you for your continuing interest and support . Please join me and your other neighbors at the the Planning Commission at City Hall, Second Floor, 7:00 PM. We are #8 on the Docket so it will be at least an hour past 7:00 before we are up. I suggest you stop nearby for dinner and then mosey over to the meeting. Alternately, watch for my eMail alerts on meeting progress. Hope to see you there. The Commission likes to see citizen participation. It helps them choose what is important.  
Best Regards, Loren

To City Officials and Staff:

I appreciate all the effort to find a Win-Win solution to the idea of building in the ravine 3832 and 3834 Seminary Road . My property (1115 St Stephens Road) is contiguous with the property so I am deeply concerned.

I have studied all the opinions and suggestions of city staff, commissioners, experts, neighbors and activists as well as the site plans.

I have concluded that most site design alternatives amount to putting lipstick on the pig. It is obvious P&Z has not given sufficient consideration to the scientific circumstances found in the Ravine or to the legal issues.

Neither P&Z nor the Planning Commission has addressed the published professional opinions of Geologist Anthony Fleming or Naturalist Rod Simmons. The important professional opinions of both gentlemen are attached.

I commissioned the first and second Fleming works because I believed we needed to include real science along with the routine default regulations for decision-making guidance. It is helpful Tony volunteered further comment most recently.

I filled a FOIA to better understand the inputs to the city's internal decision-making processes. That surfaced the opinions of City Naturalist Rod Simmons who addressed multiple science-based concerns about the effect of building in the ravine.

I called for more attention to science in the decision-making process because it is so easy to cite so-called applicable regulations without further thought. There is much to complain about such an approach. Here, let's just agree that regulations are written to apply to all circumstances as if all circumstances are the same. In fact, some situations like building in a geologically difficult natural ravine is so far from average that we need to seek out a better understanding of the appropriateness of the regulation in this circumstance of its use.

Professional opinions of Fleming and Simmons are now in full public view. Both are officially connected to the city in some significant way. I believe that requires the city to demonstrate it has objectively and publicly considered both gentleman's professional opinions in choosing the WIN-WIN option.

The "by-right" legal issue is a pivotal concern. It is essentially the common-law principle that a private owner has the right to develop his/her land if it does not harm his neighbors. There are several ways to think about what the city should do.

- 1) Roll over and approve the site plan once the developer promises to follow all city requirements. That avoids a law suit.
- 2) Require the developer to adjust the site plan in some small or medium way(s). Requiring costly site plan adjustments in a large way may risk a by-right law suit which the city prefers to avoid.
- 3) Permanently reject the building plan likely inviting a law suit although there is influential thinking that no judge would ever rule against a city for ensuring quality control for its land and taxpayers. Particularly if there is an acceptable alternative for the landowner. (See #4)
- 4) Think outside the box.

- Consider the fact is that Birdie Carrier has publicly stated she is very tired of all the delays and is willing to sell to anyone that will pay \$3 Million for her 3 acres of woodland.
- And consider the fact that Birdie's sales contract with the developer is contingent on final city site approval. Heirs report they can walk away anytime.
- And consider the fact that a buyer can come along before resolution of all appeals.
- I believe there are wealthy buyers interested in building a large luxury home on 3 wooded acres, 15 minutes from ground zero of world power (Whitehouse, Capitol hill, K-Street, etc.) and tax benefited by a conservation trust can be found.
- Alternatively, I believe one or several conservation trusts can engineer the purchase.
- I also believe that Birdie has been persuaded (even intimidated?) by those who want to destroy the ravine to profitably build on the land that the present plan is better for her. How could that be? She just wants her money and sooner rather than later. Who could blame her for that?

Birdie and her sisters and the grandchildren may well prefer to not destroy their childhood playground. Simple solution: Birdie needs to replace her pro bono lawyer with a different lawyer that does not have a dog in the fight. We all know the relative value of free advice she is now depending on.

Sincerely yours,  
Loren Needles  
Co-Chair, Coalition for Responsible Stewardship  
1115 St Stephens Rd  
703-836-5800

<Open LTR Tony Fleming.pdf>  
<Rod Simmons (From FOIA).pdf>

<171018 Appeal to Council - filed.pdf>

<Appeal to Council.docx>

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**To:** Karl Moritz  
**Subject:** RE: Reality Check: Karig Estates--3832 and 3834 Seminary Road

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**From:** Allison Silberberg  
**Sent:** Wednesday, November 08, 2017 3:08 PM  
**To:** Justin Wilson <[justin.wilson@alexandriava.gov](mailto:justin.wilson@alexandriava.gov)>; Del Pepper <[Del.Pepper@alexandriava.gov](mailto:Del.Pepper@alexandriava.gov)>; Paul Smedberg <[Paul.Smedberg@alexandriava.gov](mailto:Paul.Smedberg@alexandriava.gov)>; John Chapman <[john.taylor.chapman@alexandriava.gov](mailto:john.taylor.chapman@alexandriava.gov)>; Willie Bailey <[willie.bailey@alexandriava.gov](mailto:willie.bailey@alexandriava.gov)>; Timothy Lovain <[timothy.lovain@alexandriava.gov](mailto:timothy.lovain@alexandriava.gov)>; Mary Lyman <[mslyman@verizon.net](mailto:mslyman@verizon.net)>; Nathan Macek <[natemacek@hotmail.com](mailto:natemacek@hotmail.com)>; Stephen Koenig <[swkoenig@icloud.com](mailto:swkoenig@icloud.com)>; [mindyllyle@comcast.net](mailto:mindyllyle@comcast.net); Maria Wasowski <[mariawasowski@comcast.net](mailto:mariawasowski@comcast.net)>; [dwbapc@gmail.com](mailto:dwbapc@gmail.com); Melissa McMahon <[m.e.b.mcmahon@gmail.com](mailto:m.e.b.mcmahon@gmail.com)>  
**Cc:** Call Click Connect <[CallClickConnect@alexandriava.gov](mailto:CallClickConnect@alexandriava.gov)>; Mark Jinks <[Mark.Jinks@alexandriava.gov](mailto:Mark.Jinks@alexandriava.gov)>; Karl Moritz <[Karl.Moritz@alexandriava.gov](mailto:Karl.Moritz@alexandriava.gov)>; Kyle Herman <[Kyle.Herman@alexandriava.gov](mailto:Kyle.Herman@alexandriava.gov)>; Loren Needles <[loren@lorenneedles.com](mailto:loren@lorenneedles.com)>; Lonnie Rich <[lcrich@rrbmdk.com](mailto:lcrich@rrbmdk.com)>; JoAnn Maldonado <[JoAnn.Maldonado@alexandriava.gov](mailto:JoAnn.Maldonado@alexandriava.gov)>  
**Subject:** Fwd: Reality Check: Karig Estates--3832 and 3834 Seminary Road

Dear Colleagues and the Planning Commission,

Please see the attached email from Mr. Loren Needles with regard to the Karig Estate matter, per Mr. Needles' request. There are also attachments here.

Thank you.

All my best,

Allison

---

Mayor Allison Silberberg  
Alexandria, Virginia  
[allison.silberberg@alexandriava.gov](mailto:allison.silberberg@alexandriava.gov)  
o: 703-746-4500  
c: 571-319-9948

Cc: Kyle Herman, Executive Assistant

Begin forwarded message:

**From:** "Loren Needles" <[loren@lorenneedles.com](mailto:loren@lorenneedles.com)>  
**To:** "Call Click Connect" <[CallClickConnect@alexandriava.gov](mailto:CallClickConnect@alexandriava.gov)>  
**Cc:** "Allison Silberberg" <[allison.silberberg@alexandriava.gov](mailto:allison.silberberg@alexandriava.gov)>  
**Subject:** Reality Check: Karig Estates--3832 and 3834 Seminary Road

**Attention CCC:**

**1) Please forward this message to Mayor, all the Council Members, the Chair and members of the Planning Commission, and Planning Commission staff.**

**2) Please send me the ticket number.**

**Thanks**

**Dear Staff, Council and Planning Committee**

I appreciate all the effort to find a Win-Win solution to the idea of building in the ravine 3832 and 3834 Seminary Road . My property (1115 St Stephens Road) is contiguous with the property so I am deeply concerned.

I have studied all the opinions and suggestions of city staff, commissioners, experts, neighbors and activists as well as the site plans.

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The "by-right" legal issue is a pivotal concern. It is essentially the common-law principle that a private owner has the right to develop his/her land if it does not harm his neighbors. There are several ways to think about what the city should do.

1) Roll over and approve the site plan once the developer promises to follow all city requirements. That avoids a law suit.

2) Require the developer to adjust the site plan in some small or medium way(s). Requiring costly site plan adjustments in a large way may risk a by-right law suit which the city prefers to avoid.

3) Permanently reject the building plan likely inviting a law suit although there is influential thinking that no judge would ever rule against a city for ensuring quality control for its land and taxpayers. Particularly if there is an acceptable alternative for the landowner. (See #4)

4) Think outside the box.

- Consider the fact is that Birdie Carrier has publicly stated she is very tired of all the delays and is willing to sell to anyone that will pay \$3 Million for her 3 acres of woodland.
- And consider the fact that Birdie's sales contract with the developer is contingent on final city site approval. Heirs report they can walk away anytime.
- And consider the fact that a buyer can come along before resolution of all appeals.
  - I believe there are wealthy buyers interested in building a large luxury home on 3 wooded acres, 15 minutes from ground zero of world power (Whitehouse, Capitol hill, K-Street, etc.) and tax benefited by a conservation trust can be found.
  - Alternatively, I believe one or several conservation trusts can engineer the purchase.
  - I also believe that Birdie has been persuaded (even intimidated?) by those who want to destroy the ravine to profitably build on the land that the present plan is better for her. How could that be? She just wants her money and sooner rather than later. Who could blame her for that?

Birdie and her sisters and the grandchildren may well prefer to not destroy their childhood playground. Simple solution: Birdie needs to replace her pro bono lawyer with a different lawyer that does not have a dog in the fight. We all know the relative value of free advice she is now depending on.

Sincerely yours,  
Loren Needles  
1115 St Stephens Rd  
703-836-5800



---

**From:** Maya Contreras  
**Sent:** Tuesday, November 07, 2017 11:10 AM  
**To:** Karl Moritz; Robert Kerns; Nathan Randall  
**Cc:** Kristen Walentisch  
**Subject:** Fw: Input to the Chair and Members of the Planning Commission (with routing to the Mayor and Council)  
**Attachments:** Stuarts Walk Karig Estates Report by Professional Geologist Tony Fleming.pdf

FYI

---

**From:** Bonnie Petry <[bonnie.petry@outlook.com](mailto:bonnie.petry@outlook.com)>  
**Sent:** Tuesday, November 7, 2017 11:02 AM  
**To:** Call Click Connect  
**Cc:** Maya Contreras; Allison Silberberg  
**Subject:** Input to the Chair and Members of the Planning Commission (with routing to the Mayor and Council)

Dear Sir or Madam,

Please forward the attached report directly to:

- The Chair and Members of the Planning Commission
- The Mayor
- Members of City Council
- The Director of Planning and Zoning

This report pertains to the current development project under review for 3832 and 3834 Seminary Road (also known as "Karig Estates."

The attached, detailed report by a licensed professional geologist was prepared at the request of concerned citizens and submitted to Planning and Zoning **last spring** for consideration in the planning process for the 3832/3834 Seminary Road parcels.

***Regrettably, it appears that Planning and Zoning staff has not provided a copy of this to the Planning Commission Members so they can thoroughly carry out their responsibilities in evaluating this project.***

**As such, I am submitting this report directly through CallClickConnect so that it is routed for the Planning Commission's direct consideration.**

This report was prepared by Licensed Professional Geologist Tony Fleming, the same geologist who was contracted to prepare the City of Alexandria's own Geologic Atlas. I am including a link to the city's Geologic Atlas below as this is an important resource that Planning Commission Members should be aware of: (<https://www.alexandriava.gov/recreation/info/default.aspx?id=89974>)

***-- I look forward to both (a) receiving a CallClickConnect ticket tracking number and (b) confirmation of receipt by the Planning Commission itself.***

I have included two interested parties on the copy line to ensure this is provided to the planning commission.

Have a great day,

Bonnie Petry  
Resident of the City of Alexandria

## Summary: Stuart's Walk Geologic Issues

### Stuart's Walk Action Team (SWAT)

The stormwater runoff management measures in the developer's site plan are woefully inadequate to address the greatly increased runoff that will be caused by converting a sloping, mature forest to impervious surfaces. It will exacerbate the already problematic "downstream" conditions for residents on Colonel Ellis Drive.

The ravine's steep slopes are underlain by Arell ("marine") clay. Changes to the hydrology at the tops of clay slopes are a well-known risk factor for landslides. Another well-documented trigger for slope failure is the emplacement of artificial fill at the crown of a slope.

The very high shrink-swell potential of the Arell clay typically poses problematic building foundation conditions.

Similar sites that were approved for development in the past by the City experienced foreseeable landslides, foundation failures and water runoff problems with serious financial consequences for the homeowners. Examples include Chelsea Court, Arell Court, and The Point at Landmark

Similar sites that were not developed have been converted into parks and nature preserves. Examples include Monticello Park, Fort Williams Park, the ravines to the northwest and below St. Stephen's and St. Agnes Upper School Campus, Winkler Botanical Preserve, Dora Kelley Nature Park, Rynex Natural Area, and Goat Hill Park.

Please see following *"Review of Geologic Conditions at the Stuart's Walk Site."*

## **A Review of Geologic Conditions at the "Stuart's Walk" Site (3832-3834 Seminary Road)**

*Anthony H. Fleming, LPG*

The following sections provide an overview of geologic conditions on and around the parcel identified as 3832-3834 Seminary Road, where a development called Stuart's Walk (the "site" or "parcel") is proposed. Most of the information contained herein is summarized from the Geologic Atlas of Alexandria (Fleming, 2016) and several references therein. It is also based on direct field observations made by the author at the site and its surroundings in the course of fieldwork for the preparation of the atlas.

### **General Setting**

The parcel occupies portions of an upland ravine in the headwaters of Strawberry Run (historical name), a large, deeply entrenched tributary of Cameron Run whose main stem parallels Fort Williams Drive. The ravine and the south facing hillside it is trenched into are part of the Hospital Escarpment, an oversteepened bluff that separates the highest elevations in the City at the Episcopal Seminary from the lowest along Cameron Run. The site has approximately 33 feet of topographic relief according to the topographic map provided in the site plan, and lies at the top of a longer slope that descends towards Colonel Ellis Drive and Fort Williams Drive.

Most of the site is covered by mature forest and exhibits little evidence of prior soil disturbance. The development plan proposes to establish a public street down the east side of the site and to place four large residences closer to the thalweg of the ravine. The site plan also contemplates major clearing and regrading of the parcel, notably in the mid and upper parts of the ravine, which are intended to be filled to several feet above natural grade. A 15 foot wide sewer easement currently follows the ravine, with a subsurface drain of unknown, but apparently small size having been installed in the past.

### **Geology**

The site straddles the southern edge of the Seminary terrace, one of several upland terraces in the City deposited by the ancestral Potomac River (fig. 1). The terrace consists predominantly of weathered sand and coarse, cobbly gravel, and is about 25 feet thick at the highest point of the site adjacent to Seminary Road. The terrace gravel thins to a feather edge in the lower part of the site.

The terrace gravel overlies the Arell clay member of the Potomac Formation. The Arell clay consists of massive, lacustrine clay that is commonly fractured and jointed, especially on and near steep hillsides. Texturally, the Arell clay consists of about 90-95% clay and fine silt; in unweathered samples, nearly all of the clay minerals consist of highly expandable montmorillonitic clays. The Arell clay is 125-150 feet thick in this part of the Hospital escarpment; it extends from the base of the Seminary terrace to Duke Street in the vicinity of Fort Williams Drive and Quaker Lane, and is responsible for the rugged relief of the escarpment, which is vividly demonstrated by the sharp grade of Ft. Williams Drive.

The Arell clay is the primary landslide maker in the City and is what is historically (but incorrectly) referred to as "marine clay" by geotechnical engineers and city planning staff. The very high shrink-swell potential of the clay typically poses problematic foundation conditions and creates unstable slope conditions.

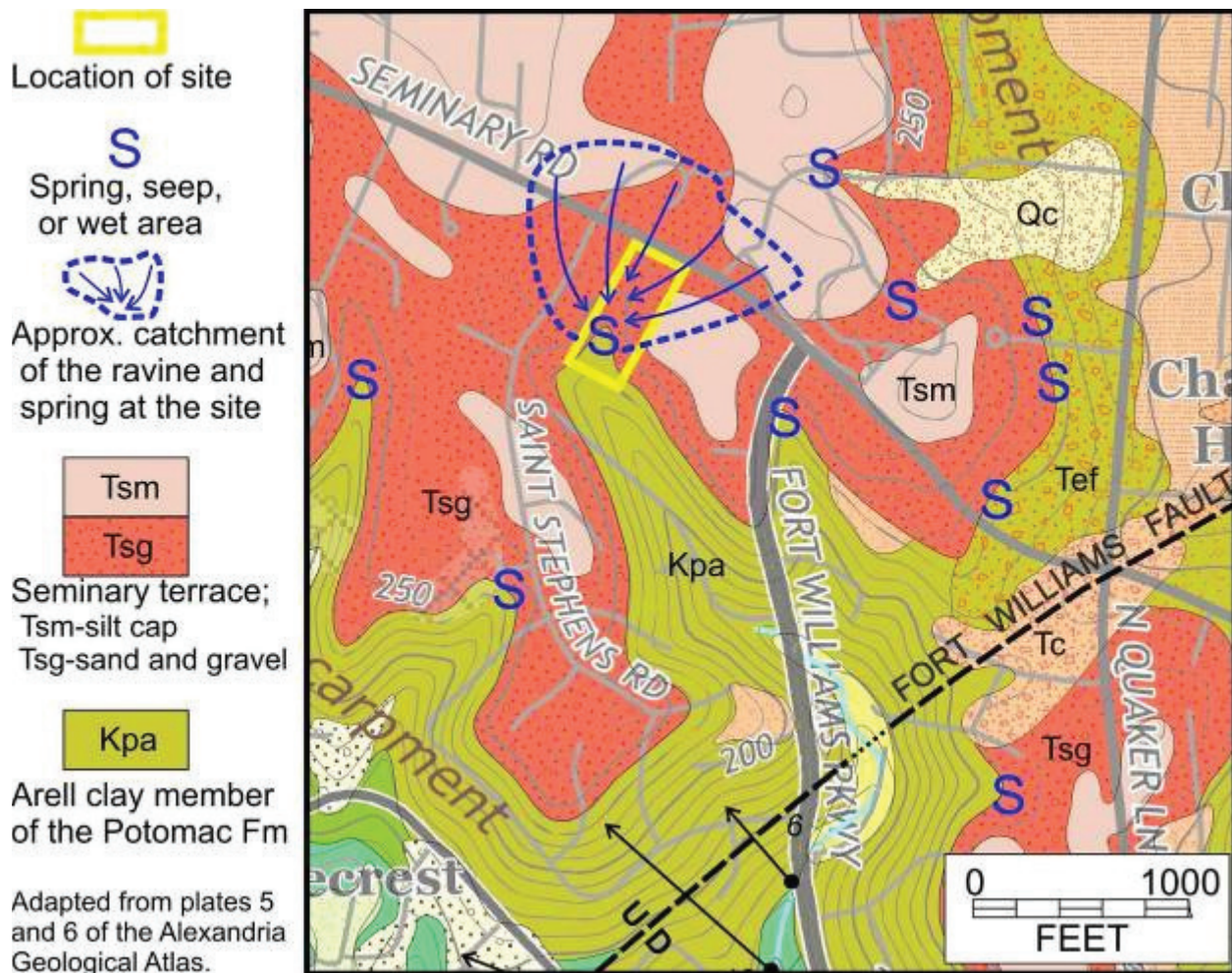


Figure 1. Geologic map of 3832-3834 Seminary Road and vicinity, identifying the major geologic units present at the site and the locations of nearby springs associated with the edge of the Seminary terrace gravel.

The contact between the Arell clay and the overlying terrace gravel undulates locally in response to gravel-filled swales and channels that were cut into the top of the clay as the river deposited the overlying terrace gravel (fig. 2). The contact appears to lie at an elevation of 235 - 245 feet in the area of figure 1. A spring in the lower part of the ravine at the site very likely marks this contact at an elevation of about 240 feet (see **Hydrology**, below). In any case, the majority of the site (above ~240 feet elevation) is underlain by gravel, while the portions below that are underlain by Arell clay at shallow depth.

## Hydrology

**Surface Water:** By the time it enters Fort Williams Park, Strawberry Run is a medium-sized perennial stream with a respectable base flow. Base flow is the portion of stream flow supported by ground water discharge and which occurs consistently, irrespective of the presence or lack of recent precipitation and overland runoff. The base flow of Strawberry Run is derived in part from several headwaters springs along the edge of the Seminary terrace high in the watershed (see **Ground Water**, below), including the spring at the site.



**The ravine at 3832-3834 Seminary Road is the last headwaters ravine of Strawberry Run that remains in an even semi-natural condition: the rest have been filled and altered to various extents by urbanization.**

Stream flow in Strawberry Run is dramatically larger following periods of prolonged rainfall or major storms, a characteristic that has contributed to considerable stream erosion further downstream along with damage to property and infrastructure. In response, the city has expended considerable resources to restore sections of the stream within Fort Williams Park to a more natural, less gullied channel profile. High peak flows are partly a function of the steep terrain and clayey, low-permeability soils of the watershed, and partly due to runoff from the sizable urbanized areas (streets, driveways, roofs, lawns) present within the watershed.

The gravelly soil and natural vegetation at the site allow it to absorb and hold a considerable amount of the precipitation that falls on it, before the soil becomes saturated and runoff begins occurring. However, even a natural landscape can absorb only so much water, as the presence of the ravine on this site attests to. While the streambed may be considered “intermittent”, there is no question that the ravine itself was (and continues to be) cut by running water. This downcutting action occurs during major hydrological events, such as hurricanes, torrential thunderstorms, and other major precipitation events falling on already saturated ground. **There is little question that flows capable eroding cobble-size particles occur periodically in the ravine on the site; otherwise the ravine would not exist.**

While relatively uncommon, the frequency of these major hydrological events and their impact on the landscape have undoubtedly been increased by urban runoff that drains into the ravine; they will be increased even further by the replacement of the sponge-like forest cover and native soil at the site by impervious and less pervious surfaces. **According to the site plan, more than 50% of the site will experience soil disturbance and even more will have its forest cover replaced by far less permeable kinds of land cover.**

The development plan contemplates taking the surface runoff generated from the majority of the site and attempting to infiltrate it via several small retention basins that amount to much less than 1% of the total site area. This is rather unlikely to be successful during major precipitation events, and **can be expected to lead to noticeably greater stormwater flows leaving this strongly sloping site.** The site plan does not address this issue realistically.

Ground Water: The upland gravel deposits, including the Seminary terrace, are relatively permeable and capable of transmitting sufficient ground water to support shallow, small-capacity residential wells and numerous springs. Many dug and bored wells that served as the primary domestic water supplies for residences prior to the advent of a city water system still exist on the upland terraces today, and **it would not be surprising if such a well was present here, given the age of the home on site**, which precedes the public water supply by several decades.

The permeability of the underlying Arell clay is several orders of magnitude less, however, consequently, the clay acts as a confining unit, or aquitard. This arrangement – permeable gravel over much less permeable clay – is responsible for the perched water table in the terrace gravel (fig. 2). The flat landscape of the terrace minimizes surface runoff and promotes ground-water recharge. This is one reason ravines and other surface drainages are poorly developed in the interior of the Seminary terrace.

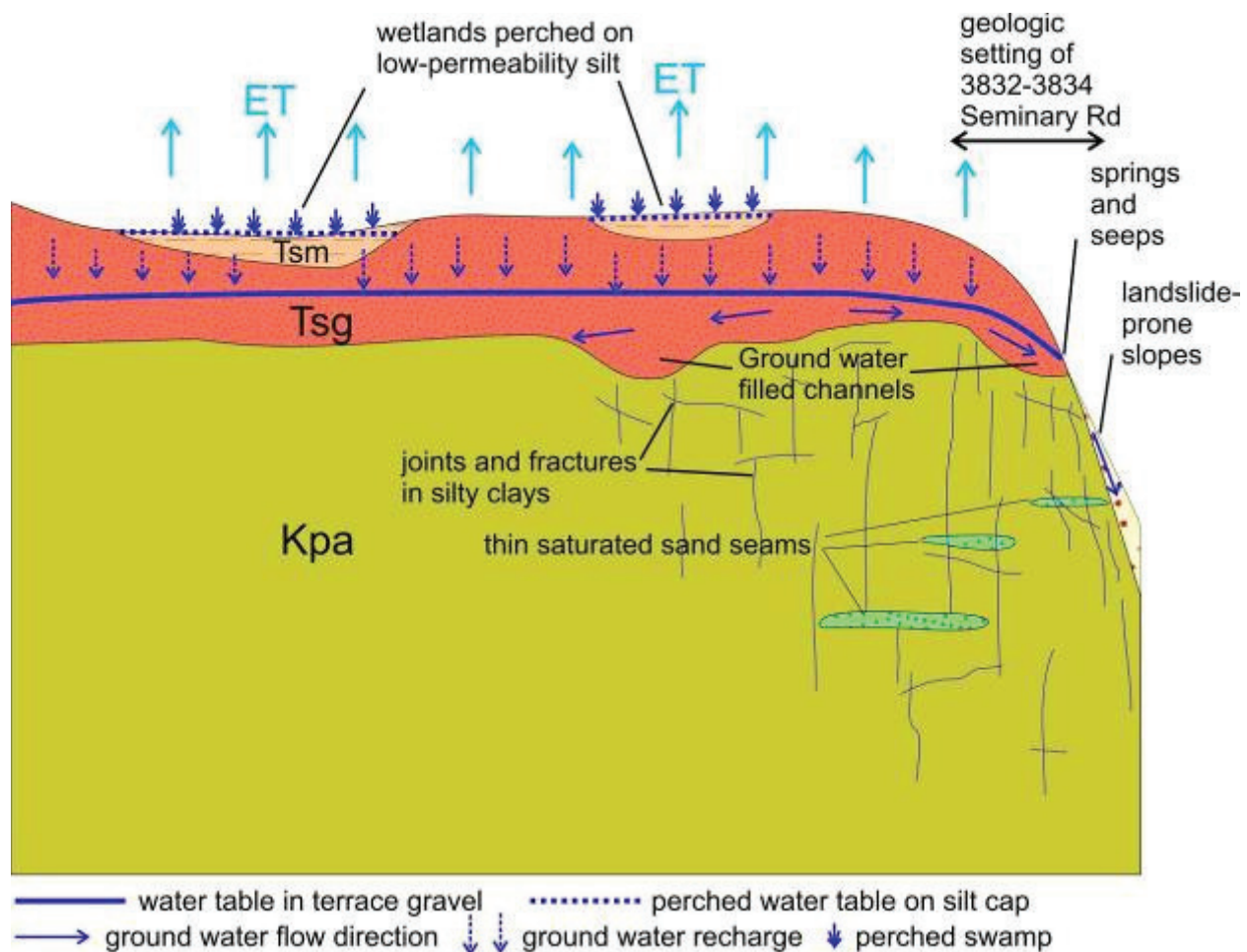


Figure 2. Geologic cross section adapted from figure 6-11 of the *Geologic Atlas of Alexandria*. The diagram illustrates the main geologic, hydrologic, and geotechnical elements of the Seminary terrace. The site spans the feather edge of the terrace, where the water table in the terrace gravel (Tsg) discharges to the surface and immediately above the oversteepened portion of the Hospital escarpment, where fractured, expandable clay (Kpa) produces unstable, landslide-prone slopes.

During periods of excess precipitation (beyond what is removed through evapotranspiration during the growing season), a water table mound typically develops in the gravel and the water table rises. Ground water flows outward towards the edges of the terrace, where it discharges in springs and seepage faces at the heads of ravines and elsewhere. Over the summer and fall, the water table mound dissipates and the water table falls in response to less precipitation and recharge, higher temperatures, more evapotranspiration, and the ongoing discharge of ground water along the edges of the terrace.

Most of the springs that emanate from the Seminary terrace (fig. 1) are concentrated along the contact with the underlying Arell clay: the low permeability clay forces the ground water to flow laterally until it is intercepted by the hillsides bounding the terrace. The spring present in the bottom of the ravine at the site is of this type. Discharge from the spring follows the seasonal hydrology described above, being greatest from late winter through spring, and gradually diminishing through the summer and fall. Nevertheless, the spring was quite damp during a visit in November, 2014, indicating that ground water was only



inches beneath the surface. **During one of our site visits, a long-time resident (Birdie Carrier) noted of the spring and ravine “I played in it when I was child – it was a wet ditch”.** The presence and location of the spring signify that the poorly permeable Arell clay is present just below and is forcing ground water to the surface at this location.

**The spring represents an important water source for wildlife and songbirds, as well as a key site for amphibians and other ground-water dependent organisms,** whose breeding habitats are already naturally restricted on the generally dry, south-facing hillsides of the Hospital escarpment and even further diminished by the loss of many other such springs and seeps to urbanization.

**As currently proposed, the structures, impervious surfaces, and landscape disturbances associated with the development project are likely to significantly diminish ground water recharge and disrupt the downslope flow of ground water towards the spring;** these changes have the potential to cause the spring to largely become dry year round. The inward flow of ground water toward the ravine and its seasonal proximity to the surface may also prove problematic for foundations and basements in the lower portions of the site.

### **Slope Stability**

The site is perched on the edge of the Hospital escarpment, which produces the longest, steepest slopes and the greatest topographic relief in the city (more than 200 feet of elevation change in less than a half mile in some places). This massive, oversteepened escarpment is largely held up by the stout but landslide-prone Arell clay. Several large landslide scars and at least two active landslides were observed on the escarpment during the fieldwork for the Geologic Atlas of Alexandria, and it is virtually certain that the escarpment itself has evolved into its present form and position over thousands of years primarily by the action of landslides.

While landslides are naturally occurring in this geologic setting, both their overall frequency and their specific locations are greatly affected by human alterations to the landscape, particularly those that change the near-surface hydrology. It was noted earlier that the Arell clay is poorly permeable to ground water. Much of what little ground water circulates through the clay does so in fractures and joints – planar partings that commonly open in response to erosional unloading, and thus tend to parallel nearby hillsides (figs. 2 and 3). As is well documented by several case studies in northern Virginia and elsewhere in the greater Washington area (Obermeier, 1984), the fractures commonly act as failure surfaces for landslides. A common trigger involves changes in hydrostatic (ground water) pressure in the fractures, which reduce frictional forces between the blocks on opposite sides, leading to the inception of a landslide.

Another well documented trigger for slope failure is the emplacement of artificial fill at the crown of a slope, such as the filling of the ravine contemplated by the development plan at the site. Not only does this practice place additional stress on the underlying clay, which must support the added mass of the fill material without any concomitant increase in bearing strength, but the fill material can also act like a confining unit over the fractured clay, increasing the hydrostatic pressure in the shallow ground water system. The placement of fill at the crowns of slopes preceded several slope failures observed in the city, including a large landslide below nearby St. Stephens School, which continued for more than a decade until remedial measures finally stabilized the slope.



*Figure 3. Left: Heavily fractured Arell clay exposed on a hillside in the Hospital escarpment. Photo by Rod Simmons. Right: Ground water discharging from a fracture (to the left of lens cap) in otherwise nearly impervious clay. When the hydrostatic pressure inside the fracture increases, such as during heavy rains or through human alteration of near-surface hydrology, the fracture dilates. When this process occurs on hillsides, it may lead to a loss of frictional strength sufficient to cause the slope to fail along the fracture. Photo by Tony Fleming.*

A particularly problematic aspect of landslides in the kind of geologic terrain found in the city is that they often don't start, or at least become noticeable, until long after the disturbance that triggered them occurred. Obermeier (1984) notes several instances where landslides began years, or even decades, following the emplacement of fill or other disturbances at the crowns of slopes. The landslide at St. Stephens School appears to have had a similar history, lagging behind the causative disturbance (emplacement of fill over the side of a ravine) by a decade or more. This lag time leads to a false sense of security in that everything may appear to be stable for a number of years following a development or other alteration at the crown of a steep slope. By the time the slope failure occurs, however, it is often too late to mitigate the worst of the damage, much less perform a reliable post-mortem evaluation.

The development plan for the site contemplates extensive regrading as well as various structures and activities that are likely to significantly alter near-surface hydrology, both at the site itself and in the underlying clay that holds up the slopes below the site. These are precisely the sorts of activities that are well known to trigger slope failures. Considering that the site is situated at the crown of a major escarpment known to be landslide prone, policy makers would be well advised to think long and hard about the long-term impact of the proposed development on slope stability, particularly in light of the fact that the cost of any



subsequent slope failures will be borne not by the developer or occupants of Stuarts Walk, but by existing residences located below the site on Colonel Ellis Drive who are impacted by it.

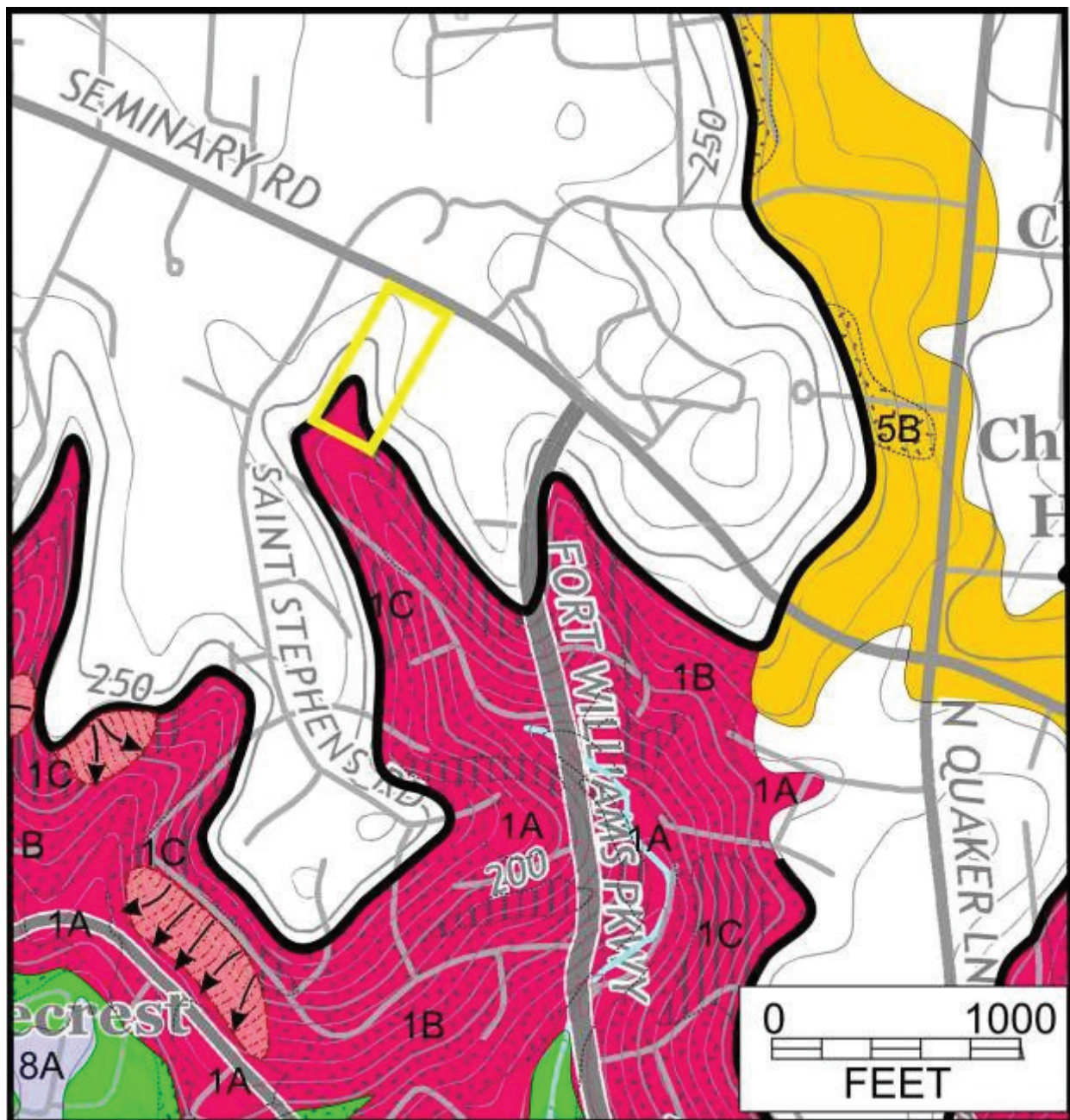


Figure 4. Part of the Slope Stability Map (Plate 7) of the Alexandria Geologic Atlas. The site is identified by the yellow rectangle. The area shown in red is rated as being one of the most susceptible landscapes in the City to landslides, with 1A, 1B, and 1C being differentiated by increasing slope pitch. This assessment is based on the combination of favorable geologic conditions, generally steep slope pitch, and apparent abundance of historical and pre-historical landslides. The arrows in the southwest part of the map area correspond to active landslides or recent landslide scars. The heavy black line represents the feather edge of the terrace gravel at the crown of the slope, a favored setting for the inception of landslides following disturbance (Obermeier, 1984)

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<http://pubs.usgs.gov/mf/1072/plate-1.pdf>

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**From:** Nathan Randall  
**Sent:** Thursday, November 09, 2017 2:13 PM  
**To:** Kristen Walentisch  
**Subject:** FW: Rational Stewartship and Karig Estates

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**From:** Karl Moritz  
**Sent:** Tuesday, November 07, 2017 10:44 AM  
**To:** Mark Jinks; Emily Baker; Yon Lambert; Gregg Fields  
**Cc:** Robert Kerns; Maya Contreras; Nathan Randall  
**Subject:** FW: Rational Stewartship and Karig Estates

Making sure you are in the loop. Note Mayor and Vice Mayor are copied.

**Karl W. Moritz**  
Planning Director | City of Alexandria  
Room 2100 | 301 King Street | Alexandria, VA 22314  
Desk: 703-746-3804 | Cell: 571-329-3052

**From:** Deborah Spagnoli [<mailto:deborahspagnoli@gmail.com>]  
**Sent:** Tuesday, November 07, 2017 10:30 AM  
**To:** Loren Needles <[haystacked@icloud.com](mailto:haystacked@icloud.com)>  
**Cc:** Karl Moritz <[Karl.Moritz@alexandriava.gov](mailto:Karl.Moritz@alexandriava.gov)>; Beckhorns (Kirk & Christina) <[Kdbec@aol.com](mailto:Kdbec@aol.com)> <[Kdbec@aol.com](mailto:Kdbec@aol.com)>; Lisa Ring <[lisaaring@aol.com](mailto:lisaaring@aol.com)>; <[Nrjennings@comcast.net](mailto:Nrjennings@comcast.net)>; Richard Hayes <[usna62@verizon.net](mailto:usna62@verizon.net)>; Alexa Glock <[alexacordelia@gmail.com](mailto:alexacordelia@gmail.com)> <[alexacordelia@gmail.com](mailto:alexacordelia@gmail.com)>; Andrew Macdonald <[ahmacdonald@mac.com](mailto:ahmacdonald@mac.com)>; Ann and Steve Reed <[AREed@annereedconsulting.com](mailto:AREed@annereedconsulting.com)>; ann ellis <[annellis51@gmail.com](mailto:annellis51@gmail.com)>; Bertha Braddock <[Berthabraddock.bb@gmail.com](mailto:Berthabraddock.bb@gmail.com)>; Betsy Lohmann <[Betsy4005@comcast.net](mailto:Betsy4005@comcast.net)>; Bill Dickinson , William Dickinson <[bill.c.dickinson@gmail.com](mailto:bill.c.dickinson@gmail.com)>; Bill Stiers <[billstiers@earthlink.net](mailto:billstiers@earthlink.net)>; bonnie petry <[bonnie.petry@outlook.com](mailto:bonnie.petry@outlook.com)>; Brenda Wilson <[BrendaWilson09@gmail.com](mailto:BrendaWilson09@gmail.com)>; Brendan Otoole <[jbrendanotoole@gmail.com](mailto:jbrendanotoole@gmail.com)>; Bruce Mccarthy <[Mccarthy3912@aol.com](mailto:Mccarthy3912@aol.com)>; Cappie Stiers <[mcstiers@aol.com](mailto:mcstiers@aol.com)>; Carter Flemming <[Carterflemming@gmail.com](mailto:Carterflemming@gmail.com)>; Charles Evans <[charlese33@gmail.com](mailto:charlese33@gmail.com)>; Chris Connell <[cvconnell@gmail.com](mailto:cvconnell@gmail.com)>; Christina Lytle <[tinalytle@aol.com](mailto:tinalytle@aol.com)>; Christine Michaelis <[christinemichaelis@comcast.net](mailto:christinemichaelis@comcast.net)>; Cill Dara <[cilldara3030@gmail.com](mailto:cilldara3030@gmail.com)>; Cyn <[cynthiaevans52@gmail.com](mailto:cynthiaevans52@gmail.com)>; Dave Cavanaugh <[dacava1@yahoo.com](mailto:dacava1@yahoo.com)>; Dave Levy <[bentbiking@yahoo.com](mailto:bentbiking@yahoo.com)>; David Speck <[dgspeck@gmail.com](mailto:dgspeck@gmail.com)>; doctor Stoll <[krkstoll@yahoo.com](mailto:krkstoll@yahoo.com)>; Eduardo Han <[eduhan@yahoo.com](mailto:eduhan@yahoo.com)>; Eileen Wallace <[egwallace@verizon.net](mailto:egwallace@verizon.net)>; Elizabeth Wright <[wright22304@gmail.com](mailto:wright22304@gmail.com)>; Goree, Paul F - WASHINGTON DC <[paul\\_goreeiii@ml.com](mailto:paul_goreeiii@ml.com)>; Denis Otoole <[irishoat@aol.com](mailto:irishoat@aol.com)>; Janice Lachance <[Janice@janicelachance.com](mailto:Janice@janicelachance.com)>; <[Jeremy.Flachs@flachslaw.com](mailto:Jeremy.Flachs@flachslaw.com)>; <[jlepanto@bostonpacific.com](mailto:jlepanto@bostonpacific.com)>; Joan Otoole <[joandotoole@gmail.com](mailto:joandotoole@gmail.com)>; John and Nancy Scruggs <[nancywscruggs@gmail.com](mailto:nancywscruggs@gmail.com)>; John Scruggs <[Jscruggs3929@gmail.com](mailto:Jscruggs3929@gmail.com)>; pat tokarz <[jptokarz@comcast.net](mailto:jptokarz@comcast.net)>; kirk.beckhorn <[kirk.beckhorn@squirepb.com](mailto:kirk.beckhorn@squirepb.com)>; Leslie Pierre <[lesliepierre@aol.com](mailto:lesliepierre@aol.com)>; Lonnie Rich <[lcrich@rrbmdk.com](mailto:lcrich@rrbmdk.com)>; Loren R R. Needles <[Loren@lorenneedles.com](mailto:Loren@lorenneedles.com)>; Lynette Goree <[lgoree6@gmail.com](mailto:lgoree6@gmail.com)>; Marianne and Buck Coates <[m-b-coates@comcast.net](mailto:m-b-coates@comcast.net)>; Nancy Connell <[neconnell@gmail.com](mailto:neconnell@gmail.com)>; Nina Schwartz <[artstop@impulsegraphics.com](mailto:artstop@impulsegraphics.com)>; Patty collette <[Pattycollette@me.com](mailto:Pattycollette@me.com)>; Rebecca Hierholzer at Newport village. <[Magicbeca@aol.com](mailto:Magicbeca@aol.com)>; Robert McLaughlin <[robertmclaughlin2011@gmail.com](mailto:robertmclaughlin2011@gmail.com)>; Shirley Downs <[shirleydowns@verizon.net](mailto:shirleydowns@verizon.net)>; Steve Reed <[sreed@steptoe.com](mailto:sreed@steptoe.com)>; Steven <[stevenakey@hotmail.com](mailto:stevenakey@hotmail.com)>; Suzanne McLaughlin <[smclaughlin8@gmail.com](mailto:smclaughlin8@gmail.com)>; Tokarz Lynn <[lhtokarz@gmail.com](mailto:lhtokarz@gmail.com)>; WALTER LOHMAN <[wlohmann@kirkland.com](mailto:wlohmann@kirkland.com)>; Allison Silberberg <[allison.silberberg@alexandriava.gov](mailto:allison.silberberg@alexandriava.gov)>; juston.wilson@alexandriava.gov; Tony Fleming <[loneswantony@cs.com](mailto:loneswantony@cs.com)>  
**Subject:** Re: Rational Stewartship and Karig Estates

History is repeating itself. Our current expert will testify and the city will ignore the testimony -- and the homeowners on Colonel Ellis and beyond will have lots of problems and issues as a result. Which is what happened in the 70's -- the city heard from a similar expert with the US Soil Conservation Service and engineers in its own department opposed the development (see article below) but ignored that evidence and allowed the building anyway.

The issue is politics. And money. I know this group has asked for other residents who have had problems with their homes as a result of the soil and water to come forward with their stories. How many do you have? Those homeowners (including myself) should join together to tell their stories to the city (and add up the related costs associated with the problems) (and go against Pulte too). Public PR nuisances - generating strategically messaged negative press will get a response.

## Alexandria Heads Knew of Unstable Clay in Hilly Area

By Thomas Grubisich May 26, 1978

Alexandria city officials agreed nine years ago to allow homes to be built on a hilly 88-acre tract that is now subject to severe earth slides despite warnings that the land there was likely to slide.

Both City Planning Commission and City Council members overruled the objections of city engineers and planners and agreed to allow rezoning of the site in the Seminary Ridge subdivision.

The action allowed a developer to begin building single-family homes on the land, where recent land slides have threatened a \$165,000 home and where other homes have lost large sections of their yards to slippage.

### Must Reads

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City officials have disclaimed any responsibility for the slides and have said that the problem is an issue between the homeowners and the builder.

Yet on July 29, 1969, city records show that Glenn B. Anderson, a district conservationist with the Northern Virginia office of the U.S. Soil Conservation Service gave city officials notice of potential trouble with the soils. In his letter, Anderson noted that the tract contained soils that "caused serious slippage problems in nearby areas" and cautioned that the site was "highly susceptible to slips and slides.

His warning was echoed by a city planning report that cautioned that the yards in the proposed development "will require constant maintenance to keep them from sliding."

But these warnings were unanimously rejected by the planning commission and the council, which approved the rezoning.

The developer, Pulte Home Corp., had originally considered building town houses on the land, with an old Civil War fortification there being preserved. When neighboring citizen associations voiced strong opposition to the

town houses, Plute went before the city with a new proposal calling for single-family houses - a plan that would destroy the old Fort Worth as well as permit construction on steep slopes that had been called "highly unstable."

The neighbors who had been angry over the town house plan backed off their opposition and the council approved the single-family housing plan. "I guess the citizens' associations had more clout than we did," said Dayton L. Cook, who was then the city's engineer and one of the opponents of the single-family home development plan.

Alexandria City Manager Douglas Harman, who had earlier disclaimed city responsibility for the troubles with the lands said yesterday he was "not in a position to comment" on the 1969 city reports. "I was not here" at that time, he said. "What the staff had to say is a matter of record."

Residents of the Seminary Ridge development whose homes have been threatened by the slides have been furious at the city for allowing the homes to be built on soils containing highly unstable marine clay, which runs through the tract.

Officials of Pulte Home, located in suburban Maryland, could not be reached for comment yesterday.

Marine clay "is a plastic clay with a high liquid limit causing it to be very unstable," Anderson, the conservationist told the city in his 1969 letter. "When saturated, such soils are highly susceptible to slips and slides," he said.

Cook, now city director of transportation and environmental services, said he opposed the rezoning - which permitted 234 houses throughout the tract - and favored instead town houses clustered on a relatively flat area, with the steep sections and the old Civil War fortification preserved.

At the 1969 hearings the question of whether the old fort would be preserved was as much an issue as the soils. M. W. Belcher Jr., a member of the Seminary Hills Citizens Association and opponent of the preliminary plan calling for town houses, said yesterday: "It would have been out of keeping with the area. This is a single-family-home community . . . I feel no regret that the fort was bulldozed. I don't think it would have been practical to preserve it."

However, the staff report that went to the Planning Commission in 1969 said: "It should be noted that this fort is better preserved than was Fort Ward prior to its restoration."

On Tue, Nov 7, 2017 at 1:17 AM, Loren Needles <[haystacked@icloud.com](mailto:haystacked@icloud.com)> wrote:

All:

I'm most pleased to see Tony Fleming has weighed in. He is the expert among us that can best address the problem. He is nationally recognized by his professional peers. The US Geological Survey agency has placed his Geological Atlas of Alexandria on its Web Site as a best practice example for municipalities. See one atlas plate at [www.alexandriava.gov/8997](http://www.alexandriava.gov/8997).

There is no evidence that Fleming's reports on marine clay, slope stability and hydrology have been considered by the city in the Karig Estates matter although it is duty-bound to do so . After all, the city commissioned and paid for the Atlas and placed it on its own web site. Why now ignore the facts it illustrates?

Loren

On Nov 6, 2017, at 2:52 PM, Tony Fleming <[loneswantony@cs.com](mailto:loneswantony@cs.com)> wrote:



Gentlemen:

Moving the 4th house a few tens of feet is basically just rearranging the deck chairs on the Titanic. It doesn't fundamentally reverse the hydrologic disruptions that risk destabilizing the slope at the base of the site. It doesn't substantively reduce the volume of stormwater runoff that the site will generate during major storms. And it doesn't avert the placement of sanitary and storm sewers through the wetland/spring (or its buffer) and down the fragile marine clay slope into Pat's backyard.

Assuming all else fails, I would push very hard for the replacement of the proposed sewer line with a lift station that directs the subdivision's sewage to the sewer main along Seminary Road.

I regret not being able to attend the meeting, but my doctor cautioned against flying or otherwise taking very long trips for now due to a blood clot I experienced a few months ago. I'm fine now and suspect it was a pure fluke from being forced to sit for 15 hours, but better not to take chances.

Below is the commentary I submitted to the mayor, council, and plan commission via [callclickconnect@alexandriava.gov](mailto:callclickconnect@alexandriava.gov). It's a slightly more succinct version of the one I distributed to our group previously. I also submitted a much shorter version as a LTE to both local papers.

Tony Fleming

"Civilization exists by geological consent, subject to change without notice" - Will Durant

Karig Estates Development on Geologically Unstable Hillside Puts Residents at Unacceptable Risk

November 5, 2017

I strongly urge the city to reconsider its pending approval of the development project known as "Karig Estates" at [3832-3834 Seminary Road](#), which lies in a high landslide risk area. The current proposal to grade, fill, and squeeze four large homes into one of the last remaining natural ravines on the largest and most unstable escarpment in the city will disrupt a major hydrologic artery on a steep marine clay slope, directly above an established neighborhood that is already experiencing stormwater and slope stability issues. This is playing with fire: disturbances of the soil and natural hydrology at the crowns of marine clay slopes are a well known trigger for landslides and other ground failures that can damage or destroy buildings, property, and infrastructure, something I have personally observed in the city. Some background is in order.

From 2006 to 2008, and again from 2014 to 2016, I conducted research on the geology, hydrology, and geologic hazards in the City of Alexandria. This included compiling hundreds of geotechnical reports in the City's archive which detail subsurface conditions in nearly every neighborhood. I also walked literally every street, alley, park, and the yards of willing landowners, observing the geologic materials and processes that have acted over millennia to produce the modern landscape. The results were ultimately incorporated into the various maps, documents, and databases that comprise the online Geologic Atlas of Alexandria ([www.alexandriava.gov/89974](http://www.alexandriava.gov/89974)). I hope you have availed yourself of this unique resource, which among other things is intended to help planners, builders, engineers, and policy makers identify and address the geologic conditions and hazards in the City.

Among the places I visited during my research are the property known as Karig Estates and many neighboring properties. All of these places are situated on the Hospital Escarpment, a massive, oversteepened bluff as much as 200 feet high underlain by thick

“marine clay” and dotted with abundant evidence of both prehistorical and modern landslides and debris flows. You can see some of this evidence yourselves, simply by driving up almost any city street that traverses the escarpment and observing the commonly rippled pavement and areas of sharply leaning trees, all of which signify an unstable hillside actively moving downhill.

The mechanics of slope failures in this terrain are well documented and will not be repeated here. A summary can be found in the delineation of landslide hazard areas on Plate 7 of the Geological Atlas and in several references therein. Suffice to say that many case studies in northern Virginia, some published by the US Geological Survey and others observed by me during my walkabouts in the city, show: 1) a strong spatial correlation between landslides and developments sited on or too close to the edges of inherently unstable marine clay slopes; and 2) landslides are commonly triggered by disruption of the natural hydrology at the tops of slopes, which changes the water pressure in the marine clay and overlying materials. This process is often amplified by hurricanes and other low-frequency but high impact precipitation events that occur with some regularity in the region.

There are many examples of this in Alexandria, where excavations, grading, and placement of structures and artificial fill at the tops of escarpments at various times during the last several decades have resulted in the failure of the slopes below. In one instance about a quarter mile from the Karig Estates site, a prominent landslide resulted from the emplacement of artificial fill along the side of a ravine similar to the one on the Karig site; the landslide persisted for the better part of a decade before it was finally remediated at considerable cost, but not before traveling hundreds of feet downslope and severely damaging more than an acre of forest and sending many tons of sediment downstream. It was fortunate no residences or other structures were situated below. The geotechnical report available in the city archive tells the tale.

Such isolation from neighboring structures is not the case with the Karig Estates property, which is perched on the crown of a steep slope that descends to the homes along Colonel Ellis Drive, a neighborhood that already experiences problems with both unstable backyard slopes and wetness during large storms. Moreover, the development of this site as currently contemplated cannot help but severely disrupt shallow groundwater flow and an ecologically important spring, because it involves grading and emplacing a significant mass of fill within a prominent ravine, which represents a major hydrologic artery directly above the steepest section of the slope. Coupled with the conversion of some 2 to 3 acres of mature forest (which has stabilized this part of the slope for centuries) into impervious and less pervious surfaces, the development is expected to dramatically transform the hydrology of both the site and the adjacent slope below, greatly heightening the risk of destabilizing the slope and putting the subjacent landowners and their properties in jeopardy from both debris flows and damaging amounts of stormwater runoff.

I reviewed the site plan and its accompanying geotechnical report and found them woefully deficient in addressing these issues. The authors seem blissfully unaware of the geologic setting and history of landslides in the geologic terrain in which the site resides. In fact, neither the site plan nor comments provided by city staff acknowledge the potential for off-site impacts; instead, they treat this steeply-sloping site as if it exists in a geological vacuum. I assure you, it does not: geological processes do not respect property boundaries, most especially when they involve landslides and stormwater runoff moving down steep slopes. A few small infiltration basins situated in or just above nearly impermeable clay are not going to hold back the runoff from a major storm – much less that from a hurricane. It is not a question of *if* these kinds of storms will occur, the only question is, *when?* Once that question is answered, then the questions become, *what happens if the slope fails?* and *who is responsible - the developer, the city, or the neighbors who will bear the brunt of the resulting debris flows and stormwater runoff?* This question is especially concerning to adjacent landowners in light of the fact that landslides may not initiate until years or decades after the causative disturbance.

Given the well documented hazards associated with building on the Hospital Escarpment, policymakers would be well advised to consider these questions now and not after the fact, when remediating the consequences will be significantly more costly and disruptive.

This leads to a last point: it behooves the City to take a proactive approach in how it deals with the closely intertwined questions of geologically problematic terrain and open space preservation, rather than the reactive approach so apparent in the current debacle regarding the Karig Estates site, which serves no one well and works at cross purposes to the City's stated development, environmental, and quality of life goals (e.g., open space, expanded protection for ravines, Eco City, 40% tree canopy, etc.)

A first step towards bringing all of these competing goals into alignment is to steer high impact development away from geologically fragile places like the Hospital Escarpment, which, not coincidentally, contains some of the most extensive remnant tree canopy and open space in the city. As someone who has served as both staff and consultant to plan commissions, I observe that creating win-win solutions by averting problems before they occur is what planning and zoning are supposed to be all about. I welcome your questions. Yours truly,

Tony Fleming, Licensed Professional Geologist  
Author, Geologic Atlas of the City of Alexandria  
[260-693-3257](tel:260-693-3257)   [loneswantony@cs.com](mailto:loneswantony@cs.com)

-----Original Message-----

From: pat tokarz <[iptokarz@comcast.net](mailto:iptokarz@comcast.net)>  
To: Jeremy.Flachs <[Jeremy.Flachs@Flachslaw.com](mailto:Jeremy.Flachs@Flachslaw.com)>; Lonnie Rich <[lrich@rrbmdk.com](mailto:lrich@rrbmdk.com)>  
Cc: Loren Needles <[Loren@lorenneedles.com](mailto:Loren@lorenneedles.com)>; Tony Fleming <[loneswantony@cs.com](mailto:loneswantony@cs.com)>  
Sent: Mon, Nov 6, 2017 11:29 am  
Subject: FW: Karig Estates

As Predicted. One neighbor's testimony vs. all the science.

Pat

---

**From:** Karl Moritz [<mailto:Karl.Moritz@alexandriava.gov>]  
**Sent:** Monday, November 06, 2017 9:38 AM  
**To:** pat tokarz  
**Cc:** Mike Ibrahim; Allison Silberberg  
**Subject:** RE: Karig Estates

Hello,

Thank you for your thoughtful note; it is much appreciated. The applicant has submitted an amendment to the approved site plan which moves the fourth home closer to Seminary Road. The Planning Commission will be considering this proposed amendment at its November 9 hearing. The staff report on this proposed amendment, which recommends approval, is located [here](#).

You may recall testimony at the hearing from the adjacent neighbor to the west, who opposed moving the first house closer to Seminary. The applicant's proposal achieves both the objective of moving the fourth house closer and leaving the first house where it is in the approved plan.

Thanks again,

Karl

**Karl W. Moritz**

Planning Director | City of Alexandria

[Room 2100 | 301 King Street | Alexandria, VA 22314](#)

Desk: [703-746-3804](#) | Cell: [571-329-3052](#)

---

**From:** pat tokarz [<mailto:jptokarz@comcast.net>]

**Sent:** Saturday, November 04, 2017 3:30 PM

**To:** Karl Moritz <[Karl.Moritz@alexandriava.gov](mailto:Karl.Moritz@alexandriava.gov)>

**Cc:** Mike Ibrahim <[mibrahim@alliancerealestatedevelopment.com](mailto:mibrahim@alliancerealestatedevelopment.com)>; Allison Silberberg  
<[allison.silberberg@alexandriava.gov](mailto:allison.silberberg@alexandriava.gov)>

**Subject:** Karig Estates

Dear Mr. Moritz

Thank you for your service to the city.

I have asked the Mayor to ask the Pand Z Commission to re-consider their decision late at night on Oct. 3/4<sup>th</sup> that the movement of the four houses closer to Seminary road could not be considered as an amendment to the site plan as passed, as were the missing subdivision plan, the forgotten motion to name a street and the plan to move and re-configure the fourth house.

If she were successful and Mike Ibrahim could quickly submit an amendment showing the planned movement and plans to connect the sanitary sewer to the Seminary road sewer ( thus protecting more trees and the wetlands ), how quickly could your staff render a decision ?

The benefits to the environment and the improvements in slope stability and decreased water runoff warrant all of us to do the best we can to improve this development as much as possible. If you and Mike could work together in a reasonable time frame, the citizens of Alexandria would greatly benefit. Thank you for your help in this matter.

Pat Tokarz,  
3937 Col. Ellis Ave.  
Alexandria.

---

**From:** Nathan Randall  
**Sent:** Thursday, November 09, 2017 2:13 PM  
**To:** Kristen Walentisch  
**Subject:** FW: Rational Stewartship and Karig Estates

---

**From:** Karl Moritz  
**Sent:** Tuesday, November 07, 2017 9:14 AM  
**To:** Maya Contreras; Nathan Randall  
**Cc:** Robert Kerns  
**Subject:** FW: Rational Stewartship and Karig Estates

Making sure you have this.

**Karl W. Moritz**  
Planning Director | City of Alexandria  
Room 2100 | 301 King Street | Alexandria, VA 22314  
Desk: 703-746-3804 | Cell: 571-329-3052

---

**From:** Loren Needles [<mailto:haystacked@icloud.com>]  
**Sent:** Tuesday, November 07, 2017 1:17 AM  
**To:** Karl Moritz <[Karl.Moritz@alexandriava.gov](mailto:Karl.Moritz@alexandriava.gov)>; Beckhorns (Kirk & Christina) [Kdbec@aol.com](mailto:Kdbec@aol.com) <[Kdbec@aol.com](mailto:Kdbec@aol.com)>; Lisa Ring <[lisaaring@aol.com](mailto:lisaaring@aol.com)>; [Nrjennings@comcast.net](mailto:Nrjennings@comcast.net); [usna62@verizon.net](mailto:usna62@verizon.net); Alexa Glock <[alexacordelia@gmail.com](mailto:alexacordelia@gmail.com)> <[alexacordelia@gmail.com](mailto:alexacordelia@gmail.com)>; Andrew Macdonald <[ahmacdonald@mac.com](mailto:ahmacdonald@mac.com)>; Ann and Steve Reed <[AREed@AnneReedConsulting.com](mailto:AREed@AnneReedConsulting.com)>; ann ellis <[annellis51@gmail.com](mailto:annellis51@gmail.com)>; Bertha Braddock <[Berthabraddock.bb@gmail.com](mailto:Berthabraddock.bb@gmail.com)>; Betsy Lohmann <[Betsy4005@comcast.net](mailto:Betsy4005@comcast.net)>; Bill Dickinson , William Dickinson <[bill.c.dickinson@gmail.com](mailto:bill.c.dickinson@gmail.com)>; Bill Stiers <[billstiers@earthlink.net](mailto:billstiers@earthlink.net)>; bonnie petry <[bonnie.petry@outlook.com](mailto:bonnie.petry@outlook.com)>; Brenda Wilson <[BrendaWilson09@gmail.com](mailto:BrendaWilson09@gmail.com)>; Brendan Otoole <[jbrendanotoole@gmail.com](mailto:jbrendanotoole@gmail.com)>; Bruce Mccarthy <[Mccarthy3912@aol.com](mailto:Mccarthy3912@aol.com)>; Cappie Stiers <[mcstiers@aol.com](mailto:mcstiers@aol.com)>; Carter Flemming <[Carterflemming@gmail.com](mailto:Carterflemming@gmail.com)>; Charles Evans <[charlese33@gmail.com](mailto:charlese33@gmail.com)>; Chris Connell <[cvconnell@gmail.com](mailto:cvconnell@gmail.com)>; Christina Lytle <[tinalytle@aol.com](mailto:tinalytle@aol.com)>; Christine Michaelis <[christinemichaelis@comcast.net](mailto:christinemichaelis@comcast.net)>; Cill Dara <[cilldara3030@gmail.com](mailto:cilldara3030@gmail.com)>; Cyn <[cynthiaevans52@gmail.com](mailto:cynthiaevans52@gmail.com)>; Dave Cavanaugh <[dacava1@yahoo.com](mailto:dacava1@yahoo.com)>; Dave Levy <[bentbiking@yahoo.com](mailto:bentbiking@yahoo.com)>; David Speck <[dgspeck@gmail.com](mailto:dgspeck@gmail.com)>; debora h aspagnol <[deborahaspagnoli@gmail.com](mailto:deborahaspagnoli@gmail.com)>; doctor Stoll <[krkstoll@yahoo.com](mailto:krkstoll@yahoo.com)>; Eduardo Han <[eduhan@yahoo.com](mailto:eduhan@yahoo.com)>; Eileen Wallace <[egwallace@verizon.net](mailto:egwallace@verizon.net)>; Elizabeth Wright <[wright22304@gmail.com](mailto:wright22304@gmail.com)>; Goree, Paul F - WASHINGTON DC <[paul\\_goreeiii@ml.com](mailto:paul_goreeiii@ml.com)>; Denis Otoole <[irishoat@aol.com](mailto:irishoat@aol.com)>; Janice Lachance <[Janice@JaniceLachance.com](mailto:Janice@JaniceLachance.com)>; [Jeremy.Flachs@Flachslaw.com](mailto:Jeremy.Flachs@Flachslaw.com); [jlepanto@bostonpacific.com](mailto:jlepanto@bostonpacific.com); Joan Otoole <[joandotoole@gmail.com](mailto:joandotoole@gmail.com)>; John and Nancy Scruggs <[nancywscruggs@gmail.com](mailto:nancywscruggs@gmail.com)>; John Scruggs <[Jscruggs3929@gmail.com](mailto:Jscruggs3929@gmail.com)>; pat tokarz <[jptokarz@comcast.net](mailto:jptokarz@comcast.net)>; kirk.beckhorn <[kirk.beckhorn@squirepb.com](mailto:kirk.beckhorn@squirepb.com)>; Leslie Pierre <[lesliepierre@aol.com](mailto:lesliepierre@aol.com)>; Lonnie Rich <[lcrich@rrbmdk.com](mailto:lcrich@rrbmdk.com)>; Loren R R. Needles <[Loren@lorenneedles.com](mailto:Loren@lorenneedles.com)>; Lynette Goree <[lgoree6@gmail.com](mailto:lgoree6@gmail.com)>; Marianne and Buck Coates <[m-b-coates@comcast.net](mailto:m-b-coates@comcast.net)>; Nancy Connell <[neconnell@gmail.com](mailto:neconnell@gmail.com)>; Nina Schwartz <[artstop@impulsegraphics.com](mailto:artstop@impulsegraphics.com)>; Patty collette <[Pattycollette@me.com](mailto:Pattycollette@me.com)>; Rebecca Hierholzer at Newport villiage. <[Magicbeca@aol.com](mailto:Magicbeca@aol.com)>; Robert McLaughlin <[robertmclaughlin2011@gmail.com](mailto:robertmclaughlin2011@gmail.com)>; Shirley Downs <[shirleydowns@verizon.net](mailto:shirleydowns@verizon.net)>; Steve Reed <[sreed@steptoe.com](mailto:sreed@steptoe.com)>; Steven <[stevenakey@hotmail.com](mailto:stevenakey@hotmail.com)>; Suzanne McLaughlin <[smclaughlin8@gmail.com](mailto:smclaughlin8@gmail.com)>; Tokarz Lynn <[lhtokarz@gmail.com](mailto:lhtokarz@gmail.com)>; WALTER LOHMAN <[wlohmann@kirkland.com](mailto:wlohmann@kirkland.com)>; Allison Silberberg <[allison.silberberg@alexandriava.gov](mailto:allison.silberberg@alexandriava.gov)>; [juston.wilson@alexandriava.gov](mailto:juston.wilson@alexandriava.gov); Tony Fleming <[loneswantony@cs.com](mailto:loneswantony@cs.com)>  
**Subject:** Rational Stewartship and Karig Estates

All:

I'm most pleased to see Tony Fleming has weighed in. He is the expert among us that can best address the problem. He is nationally recognized by his professional peers. The US Geological Survey agency has placed his Geological Atlas of Alexandria on its Web Site as a best practice example for municipalities. See one atlas plate at [www.alexandriava.gov/8997](http://www.alexandriava.gov/8997).

There is no evidence that Fleming's reports on marine clay, slope stability and hydrology have been considered by the city in the Karig Estates matter although it is duty-bound to do so. After all, the city commissioned and paid for the Atlas and placed it on its own web site. Why now ignore the facts it illustrates?

Loren

On Nov 6, 2017, at 2:52 PM, Tony Fleming <[loneswantony@cs.com](mailto:loneswantony@cs.com)> wrote:

Gentlemen:

Moving the 4th house a few tens of feet is basically just rearranging the deck chairs on the Titanic. It doesn't fundamentally reverse the hydrologic disruptions that risk destabilizing the slope at the base of the site. It doesn't substantively reduce the volume of stormwater runoff that the site will generate during major storms. And it doesn't avert the placement of sanitary and storm sewers through the wetland/spring (or its buffer) and down the fragile marine clay slope into Pat's backyard.

Assuming all else fails, I would push very hard for the replacement of the proposed sewer line with a lift station that directs the subdivision's sewage to the sewer main along Seminary Road.

I regret not being able to attend the meeting, but my doctor cautioned against flying or otherwise taking very long trips for now due to a blood clot I experienced a few months ago. I'm fine now and suspect it was a pure fluke from being forced to sit for 15 hours, but better not to take chances.

Below is the commentary I submitted to the mayor, council, and plan commission via [callclickconnect@alexandriava.gov](mailto:callclickconnect@alexandriava.gov). It's a slightly more succinct version of the one I distributed to our group previously. I also submitted a much shorter version as a LTE to both local papers.

Tony Fleming

"Civilization exists by geological consent, subject to change without notice" - Will Durant

Karig Estates Development on Geologically Unstable Hillside Puts Residents at Unacceptable Risk  
November 5, 2017

I strongly urge the city to reconsider its pending approval of the development project known as "Karig Estates" at 3832-3834 Seminary Road, which lies in a high landslide risk area. The current proposal to grade, fill, and squeeze four large homes into one of the last remaining natural ravines on the largest and most unstable escarpment in the city will disrupt a major hydrologic artery on a steep marine clay slope, directly above an established neighborhood that is already experiencing stormwater and slope stability issues. This is playing with fire: disturbances of the soil and natural hydrology at the crowns of marine clay slopes are a well known trigger for landslides and other ground failures that can damage or destroy buildings,



property, and infrastructure, something I have personally observed in the city. Some background is in order.

From 2006 to 2008, and again from 2014 to 2016, I conducted research on the geology, hydrology, and geologic hazards in the City of Alexandria. This included compiling hundreds of geotechnical reports in the City's archive which detail subsurface conditions in nearly every neighborhood. I also walked literally every street, alley, park, and the yards of willing landowners, observing the geologic materials and processes that have acted over millennia to produce the modern landscape. The results were ultimately incorporated into the various maps, documents, and databases that comprise the online Geologic Atlas of Alexandria ([www.alexandriava.gov/89974](http://www.alexandriava.gov/89974)). I hope you have availed yourself of this unique resource, which among other things is intended to help planners, builders, engineers, and policy makers identify and address the geologic conditions and hazards in the City.

Among the places I visited during my research are the property known as Karig Estates and many neighboring properties. All of these places are situated on the Hospital Escarpment, a massive, oversteepened bluff as much as 200 feet high underlain by thick "marine clay" and dotted with abundant evidence of both prehistorical and modern landslides and debris flows. You can see some of this evidence yourselves, simply by driving up almost any city street that traverses the escarpment and observing the commonly rippled pavement and areas of sharply leaning trees, all of which signify an unstable hillside actively moving downhill.

The mechanics of slope failures in this terrain are well documented and will not be repeated here. A summary can be found in the delineation of landslide hazard areas on Plate 7 of the Geological Atlas and in several references therein. Suffice to say that many case studies in northern Virginia, some published by the US Geological Survey and others observed by me during my walkabouts in the city, show: 1) a strong spatial correlation between landslides and developments sited on or too close to the edges of inherently unstable marine clay slopes; and 2) landslides are commonly triggered by disruption of the natural hydrology at the tops of slopes, which changes the water pressure in the marine clay and overlying materials. This process is often amplified by hurricanes and other low-frequency but high impact precipitation events that occur with some regularity in the region.

There are many examples of this in Alexandria, where excavations, grading, and placement of structures and artificial fill at the tops of escarpments at various times during the last several decades have resulted in the failure of the slopes below. In one instance about a quarter mile from the Karig Estates site, a prominent landslide resulted from the emplacement of artificial fill along the side of a ravine similar to the one on the Karig site; the landslide persisted for the better part of a decade before it was finally remediated at considerable cost, but not before traveling hundreds of feet downslope and severely damaging more than an acre of forest and sending many tons of sediment downstream. It was fortunate no residences or other structures were situated below. The geotechnical report available in the city archive tells the tale.

Such isolation from neighboring structures is not the case with the Karig Estates property, which is perched on the crown of a steep slope that descends to the homes along Colonel Ellis Drive, a neighborhood that already experiences problems with both unstable backyard slopes and wetness during large storms. Moreover, the development of this site as currently contemplated cannot help but severely disrupt shallow groundwater flow and an ecologically important spring, because it involves grading and emplacing a significant mass of fill within a prominent ravine, which represents a major hydrologic artery directly above the steepest section of the slope. Coupled with the conversion of some 2 to 3 acres of mature forest (which has stabilized this part of the slope for centuries) into impervious and less pervious surfaces, the development is expected to dramatically transform the hydrology of both the site and the adjacent slope below, greatly heightening the risk of destabilizing the slope and putting the subjacent landowners and their properties in jeopardy from both debris flows and damaging amounts of stormwater runoff.

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This leads to a last point: it behooves the City to take a proactive approach in how it deals with the closely intertwined questions of geologically problematic terrain and open space preservation, rather than the reactive approach so apparent in the current debacle regarding the Karig Estates site, which serves no one well and works at cross purposes to the City's stated development, environmental, and quality of life goals (e.g., open space, expanded protection for ravines, Eco City, 40% tree canopy, etc.)

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Tony Fleming, Licensed Professional Geologist  
Author, Geologic Atlas of the City of Alexandria  
260-693-3257 [loneswantony@cs.com](mailto:loneswantony@cs.com)

-----Original Message-----

From: pat tokarz <[jptokarz@comcast.net](mailto:jptokarz@comcast.net)>  
To: Jeremy.Flachs <[Jeremy.Flachs@Flachslaw.com](mailto:Jeremy.Flachs@Flachslaw.com)>; Lonnie Rich <[lrich@rrbmdk.com](mailto:lrich@rrbmdk.com)>  
Cc: Loren Needles <[Loren@lorenneedles.com](mailto:Loren@lorenneedles.com)>; Tony Fleming <[loneswantony@cs.com](mailto:loneswantony@cs.com)>  
Sent: Mon, Nov 6, 2017 11:29 am  
Subject: FW: Karig Estates

As Predicted. One neighbor's testimony vs. all the science.

Pat

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**From:** Karl Moritz [<mailto:Karl.Moritz@alexandriava.gov>]  
**Sent:** Monday, November 06, 2017 9:38 AM  
**To:** pat tokarz  
**Cc:** Mike Ibrahim; Allison Silberberg  
**Subject:** RE: Karig Estates

Hello,

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Thanks again,

Karl

**Karl W. Moritz**

Planning Director | City of Alexandria  
Room 2100 | 301 King Street | Alexandria, VA 22314  
Desk: 703-746-3804 | Cell: 571-329-3052

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**From:** pat tokarz [<mailto:jptokarz@comcast.net>]

**Sent:** Saturday, November 04, 2017 3:30 PM

**To:** Karl Moritz <[Karl.Moritz@alexandriava.gov](mailto:Karl.Moritz@alexandriava.gov)>

**Cc:** Mike Ibrahim <[mibrahim@alliancerealestatedevelopment.com](mailto:mibrahim@alliancerealestatedevelopment.com)>; Allison Silberberg  
<[allison.silberberg@alexandriava.gov](mailto:allison.silberberg@alexandriava.gov)>

**Subject:** Karig Estates

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Pat Tokarz,  
3937 Col. Ellis Ave.  
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**From:** Nathan Randall  
**Sent:** Thursday, November 09, 2017 2:14 PM  
**To:** Kristen Walentisch  
**Subject:** FW: Rational Stewartship and Karig Estates  
**Attachments:** Full Disclosure Requirements for Real Estate Brokers and Agents LegalMatch Law Library.pdf

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**From:** Karl Moritz  
**Sent:** Tuesday, November 07, 2017 12:13 PM  
**To:** Maya Contreras; Nathan Randall  
**Cc:** Robert Kerns  
**Subject:** FW: Rational Stewartship and Karig Estates

**Karl W. Moritz**  
Planning Director | City of Alexandria  
Room 2100 | 301 King Street | Alexandria, VA 22314  
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**From:** Loren Needles [<mailto:loren@lorenneedles.com>]  
**Sent:** Tuesday, November 07, 2017 11:19 AM  
**To:** Deborah Spagnoli <[deborahspagnoli@gmail.com](mailto:deborahspagnoli@gmail.com)>  
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**Subject:** Re: Rational Stewardship and Karig Estates

Well said Debbie.

Unfortunately, marine clay is Alexandria's dirty little secret. Home sellers and realtors are required by law to fully disclose all information concerning foundation problems. For realtors, the requirement is limited to known facts and their sellers are not about to report anything that might reduce the home price even though they are legally required to do so. Hence, Alexandria's has a dirty little secret.

That legal requirement has not been enforced because buyers have not complained that they were not informed. Actually buyers can sue both seller and realtor in the absence of disclosure. Realtors should be made to fear non-disclosure.

Good luck.

Loren

PS: See attached

Live links at [Full Disclosure Requirements for Real Estate Brokers and Agents | LegalMatch Law Library](#)

PPS: It seems to me that the Karig Estates developer will have to disclose the presence of marine clay, slope collapse and storm water hazards even though he believes he has mitigated the risks because there are professional opinions out there that report mitigation is inadequate. In the end the developer will have to report the risks or take on the new risk of a contingency law suite brought by one or more of his buyers.

Sadly, that does not help with your problem but may add some muscle to your cause.

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On Nov 7, 2017, at 10:29 AM, Deborah Spagnoli <[deborahaspagnoli@gmail.com](mailto:deborahaspagnoli@gmail.com)> wrote:

History is repeating itself. Our current expert will testify and the city will ignore the testimony - and the homeowners on Colonel Ellis and beyond will have lots of problems and issues as a result. Which is what happened in the 70's -- the city heard from a similar expert with the US Soil Conservation Service and engineers in its own department opposed the development (see article below) but ignored that evidence and allowed the building anyway.

The issue is politics. And money. I know this group has asked for other residents who have had problems with their homes as a result of the soil and water to come forward with their stories. How many do you have? Those homeowners (including myself) should join together to tell their stories to the city (and add up the related costs associated with the problems) (and go against Pulte too). Public PR nuisances - generating strategically messaged negative press will get a response.

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# Full Disclosure Requirements for Real Estate Brokers and Agents



Authored by [Leigh Ebrom](#), LegalMatch Legal Writer



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## Why Is "Full Disclosure" Important?

Under state and federal laws, realtors and real estate brokers must disclose certain information to buyers and sellers. Full disclosure provides parties with the information needed to properly negotiate price and assess the property's suitability for their needs. Your agent should disclose all identified hazards on a property—as well as other factors that may impact the property's price.

## What Kinds of Information Must a Real Estate Agent or Broker Disclose?

In real estate transactions, full disclosure typically means that the seller must disclose any property defects and any other important information that could have an effect on a party's decision to enter into the deal.

## Disclosing Known Hazards and Defects

Under federal law, you must disclose the presence of lead-based paint if your house was built before 1978. Additional state disclosure laws vary dramatically. Depending on where you live, you may have to disclose [material defects](#) involving:

- Termite, pest, and mold issues,
- **Structural defects (such as roof and foundation issues),**
- Sewer and plumbing issues,
- Natural hazard risks (such as being located within a flood or seismic zone),
- The presence of convicted sex offenders in the neighborhood (under Megan's Law), and
- Any other relevant issues.



Sellers and real estate agents must disclose known defects and hazards. (You do not have to search for unknown defects.) However, it is always in your best interest to disclose all known and suspected hazards. Failure to disclose can result in a failed sales transaction and litigation.

Typically, disclosures must be in writing. Most states have a standard form that you must complete and provide to any prospective buyers. Your real estate broker should provide you with a [property disclosure form](#) and may assist in its completion.

### Disclosing Other Factors

In addition to disclosing known and suspected hazards, a real estate broker has a [fiduciary duty](#) to disclose other information that would impact the value of a sale. This includes:

- All offers that are made on a piece of property,
- The buyer's willingness to increase an offer,
- The seller's willingness to accept a lower price,
- Whether the seller has an urgent need to sell the property,
- Whether the broker has any conflicts of interest,
- How long the property has been on the market,
- Estimates of the property's value, and
- Updates on offers and counteroffers that are made.

### What If My Real Estate Broker or Agent Has Failed to Fully Disclose?

Both the seller and the real estate brokers have duties to disclose. If information is withheld, the buyer or seller may be entitled to damages. In a lawsuit, you may recover:

- [Economic damages](#): compensation for lost profits, repairs, and other out-of-pocket expenses,
- [Non-economic damages](#): compensation for your pain and suffering, and
- [Punitive damages](#): compensation that punishes the agent for intentional and very serious non-disclosures.

If you believe that you suffered losses due to a real estate agent's actions, keep all records and documents relating to your dealings with the agent. Be sure to gather important data such as any prices that were presented to you, dates of offers, acceptances of offers, written reports that have suspicious or questionable figures, disclosure statements, and home inspections.

### Do I Need a Lawyer?

When working with a real estate broker or agent, you should double-check the information that they provide to you. You may wish to hire a property appraiser for a second opinion, or speak with a real estate lawyer regarding your rights as a buyer or as a seller. A [real estate lawyer](#) can help protect your interests by confirming that all information has been properly