Memo

To:	Mrs. Ashley Neale Verona Board of Adjustment (BoA) Administrator
From:	Plan Review Committee of the Verona Environmental Commission
c:	Verona Environmental Commission Chair
Date:	July 30, 2021
Re:	**Case # 2019-14** 21-25 Grove Avenue [Block 1702, Lot 22] Verona, New Jersey
Zone:	C-2 (Professional Office and Business)

The Plan Review Committee of the Verona Environmental Commission (VEC) reviewed the revised documents submitted for 21-25 Grove Avenue in Verona which included revised site plans and revised architectural plans, which we received on July 9, 2021.

We understand that the Applicant is seeking to obtain a large number of variances for a proposed (revised) 3-story residential use building, where such use is not permitted. The proposed building will encroach into the side and rear yard setbacks and construction at site will disturb 100% of the site without complying with Verona's Stormwater Ordinance. Further, the Applicant seeks variance for exceeding building height limits. The comments below are provided for the Board's consideration. Furthermore, we request several new submissions as the PRC finds this application to be incomplete.

1) The VEC PRC opines that the building is oversized for the property and too dense based upon the fact that the Applicant:
    a) Seeks a nonpermitted use for the zone.
    b) Plans to disturb over 100% of the property including Right-of-Way (ROW) disturbances.
    c) Needs to encroach into the rear yard setback by 35 feet.
    d) Needs to encroach into the side yard setbacks by 8.3 ft on one side and 13.3 ft on both.
    e) Needs to exceed building height limits by .5 stories and almost 9.6 feet.
    f) Does not incorporate green infrastructure on the site for stormwater mitigation

2) The entire site and portions of the public ROW are slated for disturbance. Every existing tree onsite is slated for removal. Both Verona's Stormwater Ordinance and buffer ordinance make it clear that existing trees be preserved when possible and disturbance be minimized where possible.

3) The drawings submitted by the Applicant do not properly address "Open Space" as an expressed intent of all residential as well as mixed-use development per the Verona Zoning Ordinance. Usable Open Space has a minimum dimension of 50 feet in length and 50 feet in width as measured at right angles (2,500 ft^2) and may not include required areas between buildings or buffer zones. By comparison, Verona's requirements for

Mixed-Use developments set aside a minimum of 20 percent Open Space and landscaping for the residential occupants.

4) As per the Applicant's Environmental Impact Statement, revised on March 4, 2021, the development may be limited to the existing impervious surface, but that in no way qualifies as a 'minimization of environmental impact'. To realize or fulfill that step, the site's impervious footprint would need to be reduced and the stormwater management would rely upon green infrastructure on the site. Additionally, generating a tax ratable and striping a parking lot does not minimize environmental impacts, as offered by the Applicant.

5) The entire Stormwater Report and the site design itself are not at all compliant with Verona's Stormwater Ordinance. Verona's Stormwater Ordinance is triggered when 0.50 acre or more land area is proposed to be disturbed. This site is 0.72 acre and seeks to disturb 0.75 acre, exceeding the site's actual square footage and disturbing the public ROW.

6) According to Verona's Stormwater Management Ordinance, this proposal qualifies as a major development. It is for this reason that the VEC PRC finds the current stormwater report and site design unsupportive of the requirements set forth in the Township's Ordinance.

7) The VEC PRC recommends that the Applicant submit a Stormwater Management report and re-submit a site plan design that comports with the Ordinance by using and largely relying upon green infrastructure for stormwater management. As currently proposed, there is little, if any, green infrastructure being used on this site for stormwater management. As currently proposed, all stormwater is being piped offsite when the Ordinance requires on-site mitigation.

8) On Sheet C-5 of the Engineer's Site plan submission, a proposed 12-inch HDPE pipe is shown to connect to a catch basin inlet at the northeasterly corner of the property, where an existing 15-inch RCP conveys runoff offsite, through an easement along the rear yards of adjacent neighbors.

   Currently, runoff sheet flows toward this inlet, which is situated in a low spot, within the paved parking area. In the proposed condition, this will change to fully piped runoff to this inlet. We request that the Applicant's Engineer prepare a hydraulic grade line analysis of the 15-inch pipe, to determine if it can handle the additional flow from the development without adversely impacting the pipe by generating surges that could affect downstream neighbors.

9) One portion of the Applicant's Stormwater Report, dated March 3, 2021, cites a 2,500 ft^2 green roof (pg. 4) and another portion of the report cites a 3,000 ft^2 (pg. 5); which is the correct size? Additionally, no planting or planning details are being supplied to assess stormwater mitigation by the proposed green roof (for example, the details should indicate if the green roof is extensive or intensive type. This difference will provide clarity in terms of overall depth of roof system and indicate how much ponding depth will be expected on the system.). The VEC PRC recommends that a detailed engineering report accompany the green roof if it is to be used as a method of stormwater management.

10) The variances being sought include expansion of the building footprint to extend approximately 35 feet into the required 50 feet rear setback. The VEC PRC recommends that the Applicant consider using the mandated setback areas for green infrastructure that support stormwater management at the site. The variance for building coverage, more than doubling the allowance, is also a substantial detriment for stormwater management.

11) The VEC PRC feels that the building's proposed height of 3 stories when 2.5 stories are allowed, as well as the building's extension into the side yard setbacks by 8.3 ft on one side and 13.3 ft (both) will necessarily shade surrounding neighboring properties which could change growing conditions for those sites' trees and flora and effect their drainage conditions. VEC PRC recommends that the Applicant revise the plans to comport with the Zoning Ordinance.

12) Although the Applicant has added the 3 mandatory feet to the 15 ft. proposed, landscaped buffer zone, the onerous scale and height of the proposed building, will inhibit the proper growth of the buffer zone plantings. The VEC PRC continues to recommend increasing the extent of the landscaped buffers at both the eastern and northern sides of the site where it abuts residential zones and uses.

13) Eastern red cedar trees, depicted on Applicant's Dwg. C-9, require full sun. Sixteen (16) of the total seventeen (17) red cedar trees proposed are being planted on the northern side of the property, which will be blocked by a 4-story building. Only one (1) red cedar, at the northwest corner of the site appears to be positioned to receive ample sunlight for survival.

14) Endless summer hydrangea and green velvet boxwoods require sun for the better portion of each day (Four+ hours) but are planted on the Northern and Eastern sides of the property which will be blocked by a four-story building.

15) Twenty (20) American arborvitae are planted on the eastern side of the site. It is not known how these trees will get their required 4-hour minimum of unfiltered sunlight per day if blocked by a 4-story building for most of the day.

16) In addition, please see attached the Low Impact Planning and Construction Checklist. This suggested list was compiled by the VEC based on best available practices.

[STD/JP/AC]
VEC_2021-07-30 Comments 21-25 Grove Avenue docx

Verona Environmental Commission

Low Impact Checklist: Construction

This suggested list has been compiled by the Verona Environmental Commission based on best available practices. This is not a requirement of the uniform construction code. It is intended to be beneficial to all residents considering renovations and new construction. The purposes of this list are to 1) assist those planning construction projects to do so in a manner that causes the least disruption to the environment; 2) establish a healthy setting for those occupying the new or renovated space; and 3) reduce waste and save resources. Implementing environmentally friendly practices can be economical when considered at pre-construction stages and are often beneficial in the long term.

General Construction

- Recycle and/or salvage non-hazardous construction and demolition debris
- Use renewable building material and products
- Incorporate renewable energy (i.e. geothermal, solar)
- Use local products (i.e. local and sustainable woods)
- Use local construction products and companies
- Conserve energy and reduce electricity use as much as possible

Grounds & Landscaping

- Create a sedimentation control plan to prevent sediment from moving off site.
- Use native plantings (Native plans are adapted to thrive in local conditions)
- Use captured rainwater or recycled grey water for irrigation
- Provide bicycle parking to help reduce overcrowded streets and CO2 emissions.

Storm Water Management

- Avoid runoff to other properties by installing an underground cistern or rain garden.

This will keep water on your own property and out of the sewer system.

- Limit impervious surfaces – use an open grid pavement system (at least 50% pervious)
- Promote infiltration that captures and treats storm water runoff from rainfall
- Use a water retention system (i.e. rain barrel) to collect rainwater for non-potable uses

Lighting

- Choose LED lights (the most environmentally efficient option)

- Purchase renewable electricity, either directly from your power supplier, from an independent clean power generator, or through renewable energy certificates.
- Use skylights or solo tubes for natural daytime lighting. Use sensor controls in commercial or industrial settings and solar lighting outdoors.

Foundation & Basement

- Use environmentally friendly foundation sealants (rather than black tar)
- Prevent sump pump water from flowing into the sewer system

Roofing

- Use light color roofing materials to limit heat absorption created by darker roofs
- Use roofing material with a solar reflectance index (SRI) equal to or greater than 78 for low roofs and 29 for steep-sloped roofs
- Install tile or metal roofs
- Consider installing a vegetated roof (green roof) or a blue roof

Heating & Cooling

- Use 2 x 6 studs instead of 2 x 4 to increase amount of insulation
- Install programmable thermostats that adjust temperatures throughout the day
- Use occupant sensing and/or remote-control thermostat technologies
- Install heat pumps to transfer energy heat and cold Use high-efficiency boilers/furnaces
- Use attic fans to regulate heating and cooling

Windows

- Choose ultraviolet window protection to protect against sun damage
- Install triple pane windows or windows with Argon or Krypton gas between panes

Products

- Choose products with low VOCs (VOCs are found in adhesives, interior paints, cabinets, etc.)
- Avoid products that contain hazardous chemicals such as formaldehyde and cyanide
- Choose ENERGY STAR® appliances
- Install dual flush toilets Install low flow shower heads
- Avoid garbage disposals and make provisions for composting

Verona Environmental Commission

Low Impact Checklist: Planning

This suggested list has been compiled by the Verona Environmental Commission based on best available practices. This list is intended to assist individuals involved in planning and building projects in Verona Township towards submitting low impact plans. The goal of a low impact plan is not only to increase cost savings and add value to your project but to make environmentally responsible choices and eliminate project delays in early stages of the planning process.

General Construction & Design

- Provide occupants with connection to outdoor space through increased natural light and views
- Orient buildings facing southwest to maximize potential solar installation
- Use orientation and design to maximize passive solar heat/cooling
- Use proper planning to prevent damage to surrounding properties and public spaces
- Minimize disturbance to soils and vegetation
- Recycle and/or salvage non-hazardous construction and demolition debris
- Use renewable building materials and products
- Use local and sustainable woods
- Incorporate renewable energy and reduce energy use

Grounds & Landscaping

- Create a sedimentation control plan Limit altering steep slope areas
- Encourage landscaping that requires limited moving, trimming, and watering
- Create landscapes that limit the need for lawn chemicals and maintenance
- Position evergreens to the north to shield wind/ Position deciduous trees to the south to cool buildings
- Use native plantings (Native plans are adapted to thrive in local conditions)
- Place parking spaces in shaded areas
- Place bicycle parking racks in secure areas near entrances
- Use paving materials with an SRI value >29. This will reflect, not absorb solar heat.

Storm Water Management

- Limit impervious surfaces – use an open grid pavement system (at least 50% pervious)
- Reduce impervious cover to promote infiltration that captures and treats storm water

- Use a water retention system (i.e. rain barrel) to collect rainwater or recycled gray water for non-potable uses

Foundation & Basement

- Use alternative practices (rather than black tar) for foundation sealants
- Encourage aeration and ventilation
- Draw sunlight into basement areas through access windows

Roofing

- Use light color roofing materials to limit heat absorbed by dark colored roofs
- Use roofing material with a solar reflectance index (SRI) equal to or greater than 78 for low roofs and 29 for steep sloped roofs
- Consider Tile or Metal roofs
- Construct roofs that can support solar installations

Lighting

- Use solar lighting outdoors
- Use skylights or solo tubes for natural daytime lighting
- Use motion sensor lighting where applicable
- Choose energy-efficient light bulbs

Products

- Avoid products that contain hazardous chemicals such as formaldehyde and cyanide
- Use local products (i.e. local and sustainable woods)
- Use local construction equipment and companies when possible

For more information and resources please see:

The Native Plant Society of New Jersey - http:// www.npsnj.org
The Association of New Jersey Environmental Commissions - http://www.anjec.org
US Green Building Council NJ Chapter - http://usgbc.org
New Jersey Green Building Manual - http://greenmanual.rutgers.edu
The New Jersey Department of Transportation Master Plan - http://njbikepedplan.com
Rutgers Center for Green Building - http://greenbuilding.rutgers.edu
The Verona Environmental Commission - http://www.veronaec.org