

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: February 20, 2022

Re: **Case # 2022-02**
48 Kenwood Avenue [Block 1503, Lot 42]
Verona, New Jersey

Zone: R-50B (Medium/High Density Single Family)

The Plan Review Committee of the Verona Environmental Commission (VEC) reviewed the application for 48 Kenwood Avenue in Verona submitted by Daniel and Dana Zarfino, which we received on February 7, 2022. We understand that the Applicant is seeking to obtain multiple variances for exceeding both the maximum total improved lot coverage as well as the maximum aggregate area covered by accessory structures, among others required variances for sheds. The comments below are provided for the Board's consideration:

- 1) Pictures provided by the Applicant depict large evergreen trees flanking the right side of the property. Drawing 1, "Existing Conditions and Removal Plan", identifies 19 to 20 trees located along the east side of the property, and in front of an existing wall separating the Applicant's property from the property to the east.

Notations on the east side of the property propose "Trees to be Removed" and "Wall to be Replaced". The Applicant has not provided any details as to the removal or replacement of the existing trees on the site. The VEC PRC recommends that the Applicant comply with Verona's Tree Protection, Removal and Replacement Ordinance, which only allows for two trees to be removed in a calendar year, and further recommends that the applicant provide testimony and documentation for the following:

- a. §493-19: Permit required
 - b. §493-22 (4): The number of trees requested to be removed and the reason for removal
 - c. §493-22 (5): A tree removal plan (see details)
 - d. §493-22 (6): A tree replacement plan (see details)
 - e. §493-25 Protection of existing trees
 - f. §493-26 Tree Replacement (see details)
 - g. §493-27 Tree Replacement Fund
- 2) The Applicant is proposing to exceed maximum allowable lot coverage by over 10%, increasing the existing coverage from 34% to 50.6%, a net increase of 16.6%. Due to the proposed addition of over 400 ft² of new impervious surface, and according to Verona's Stormwater Ordinance, §455-17, Minor developments, this property qualifies as a minor development.

- 3) Minor developments are required to employ green infrastructure to mitigate stormwater on site. Should the BOA approve this plan, the VEC PRC recommends that the Applicant provide green infrastructure on their site to mitigate and manage the stormwater with testimony as to which measures will be installed and how they will address runoff.
- 4) The VEC PRC notes that catch basins and a drywell (seepage tank) are proposed in the yard. The PRC notes that on the Seepage Tank Detail, shown on Drawing 1, indicates a roof leader connects to the seepage tank that does not appear on the plan view. Additionally, the detail nor the plans provide information about an overflow line from the seepage tank. Nevertheless, we express concern about how these catch basins and the drywell will be maintained. If either becomes clogged over time, where will their respective overflows be directed? We recommend that the Applicant's engineer be asked to testify to address this potential issue.
- 5) New retaining walls are proposed along both east and west property lines with portions of the walls up to 4.6 feet high. We recommend that the Applicant's engineer be asked to testify to explain how the retaining walls will be built without encroaching on their neighbor's property; this is more relevant along the western property line where the ground elevations to the west are at or above ground elevations on the Applicant's property.
- 6) Excavation slopes for the drywell along the western property line may also encroach on their neighbor's property or negatively impact their neighbor's use of their property along this property line. We recommend that the Applicant's engineer be asked to testify to the safety measures or construction approaches that could possibly be needed for the installation of the drywell and crushed stone backfill.
- 7) 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]

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 plants 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

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 Kryton 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>