

Memo

To: Board of Adjustment Chairperson McGinley and Secretary Miesch

Verona Board of Adjustment (BoA)

From: Plan Review Committee of the Verona Environmental Commission

C: Verona Environmental Commission Chair

Date: December 28, 2023

Re: Case # 2023-17

87-89 Fairview Avenue [Block 1502, Lot 50]

Verona, New Jersey

Zone: R-60 (Medium-Density Single-Family)

The Plan Review Committee of the Verona Environmental Commission (VEC) reviewed the application for 87-89 Fairview Avenue in Verona submitted by Nicholas Timpanaro that we received on December 6, 2023. We understand that the Applicant is seeking to obtain a number of variances for the proposed construction of two (2) single-car detached garages. We further understand that even though the Applicant proposes to construct the garages on pre-existing impervious surface, the Applicant's current total improved lot coverage, 46.6% exceeds the maximum allowable 40%. The comments below are provided for the Board's consideration:

- 1) The VEC understands that the applicant proposes no new impervious surface, but as noted, the existing site improvements exceeds allowable coverage by approximately 6.6%. The plans provided illustrate an existing trench drain at the east end of the existing north driveway and the zoning official's letter mentioned that the Applicant stated a connection of this trench drain to an underground stormwater storage tank. However, the location, condition, capacity and, therefore, the utility of this storage tank remains unknown. We recommend that the Applicant provide testimony concerning these questions to allow the Board to evaluate whether the purported existing storage tank can effectively capture and store runoff from the impervious surface before affecting downhill neighboring properties to the east.
- 2) We recommend that downspout pipes on the home and garage be disconnected from storm drains and redirected to flow away from the home, over the property's permeable areas, gardens, and lawns. There are a number of large trees that can help greatly with natural infiltration.
- 3) 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.

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VEC_2023-12-28 Comments 87-89 Fairview Ave..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

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
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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