Bright View Engineering
Moving you forward

June 7, 2021

VIA E-MAIL
aneale@veronanj.org

Ashley Neale, Board Secretary
Zoning Board of Adjustment
Verona Town Hall
600 Bloomfield Ave
Verona, NJ 07044
(973) 857-4834

Re: Engineering Site Plan Review
Proposed Multifamily Residential Development
21 – 25 Grove Ave
Block 1702, Lot 22
Verona Township, Essex County, New Jersey
Project No.: 202551 (#2019-14)

Dear Ms. Neale:

Bright View Engineering, LLC (*BVE here-in*) was tasked with performing a review of the provided Site Plan for the proposed housing development at 21-25 Grove Avenue. The subject site is located on Block 1702, Lot 22, along Grove Street, within the Township of Verona, Essex County, New Jersey.

The following materials were examined:

- Preliminary & Final Major Site Plan for 21 & 25 Grove Associates, LLC, prepared by Stonefield Engineering & Design (15 Sheets), dated September 20, 2019 last revised March 4, 2021;
- Average Ground Elevation Exhibit, prepared by Stonefield Engineering & Design (1 Sheet), dated July 30, 2020 last revised March 4, 2021;
- Architectural Plans for 21 – 25 Grove Associates, LLC, prepared by Bilow Garrett Group, Architects and Planners (7 Sheets), dated March 11, 2021;
- Stormwater Management Report, 21 & 25 Grove Avenue, prepared by Stonefield Engineering & Design, dated October 11, 2019 last revised March 4, 2021;
- Sanitary Flow Calculations, prepared by Stonefield Engineering & Design, dated March 4, 2021;

- Traffic & Parking Assessment Letter Report, prepared by Stonefield Engineering & Design, dated October 10, 2019 last revised February 24, 2021;
- Environmental Impact Statement, prepared by Stonefield Engineering & Design, dated October 11, 2019 last revised March 4, 202.

Background Information

The project site is located at 21-25 Grove Ave in Verona Township, Essex County, New Jersey. Per the existing conditions and Township Tax Map, the property in question has approximately 140' of frontage along Grove Ave. In the existing conditions the site is occupied by a clothing store and a nail salon. Access to the property is provided via one (1) site driveway along the north side of the site, which provides access to a paved, asphalt parking lot to the property rear. Additional metered parking is available along Grove Ave.

The Applicant is proposing to demolish the existing structures on the site and construct a four (4) story, thirty-five (35) dwelling unit building. Access to the site is proposed to Grove Ave via one (1) full-movement driveway. The site is located approximately 250' north of Bloomfield Ave (*CR 506*). The adjacent intersection of Bloomfield Ave (*CR 506*) & Grove Ave (*CR 639*) is governed by a traffic signal.

Applicant Information

The Applicant for this project is:

21 & 25 Grove Associates, LLC
258 Moonachie Road, Suite 302
Moonachie, New Jersey 07074

Site Plan

1. Although the site appears to be relatively level, a steep slope analysis needs to be provided to confirm the absence/presence of steep slopes.

2. The proposed limit of disturbance is shown as 0.75 acres. Essentially, the entire site will be disturbed.

3. Two (2) benches are proposed on the site plan. Details or manufacturer of these benches should be provided.

4. A brick paver walkway is being proposed to service the building from the sidewalk along Grove Avenue. Consideration should be given to the use of a pervious paver or other pervious surface.

5. All proposed walls along the perimeter of the property are now shown to be less than four (4) feet in height.

6. The walls along the driveway have varied heights up to 10.10 feet and will need to be submitted to the Building Department for individual review and designed by an engineer licensed in the State of New Jersey.

Stormwater

7. A soil boring should be performed prior to the start of construction including depth to the seasonal high-water table and any bedrock or hydraulically restrictive layers must be provided to the Township Engineers office.

8. The project is classified as a "major development" by the current stormwater regulations of the Township due to the following criteria:
    - Disturbance in excess of 0.50 acres.

9. The project will not result in an increase in stormwater runoff, but not significant quantity reductions are being proposed. Improvements to the quality of runoff and recharge are also not being proposed.

10. The project will result in a decrease in impervious area of 153 square feet.

11. Drainage calculations have been prepared utilizing a time of concentration of 6.0 minutes which is acceptable given the high level of impervious coverage.

12. The proposed development includes a 2,500 square foot green roof. Details of the green roof need to be provided for review.

13. Any overflow from the green roof or connections to the existing system should be shown on the site plans and/or details.

14. All other roof drain and/or leader pipes connecting to the drainage system must be shown on the plans and include a method of overflow and a cleanout.

15. A swale is being proposed along the north side of the property to convey runoff natural to the existing system to the rear. Consideration should be given to utilizing this swale as a bioswale or other BMP as identified by NJDEP.

16. On page 5 of the Stormwater Management Report, the green roof is indicated to be 3,000 square feet. This discrepancy should be clarified.

17. Pipe capacity calculations must be provided for the following:

- Existing discharge pipe at northeast corner of the property. Testimony should also be provided regarding the eventual termination of this system and include any information regarding its size, condition, and historical capacity information.
- Proposed pipe connect between trench drain at the bottom of the driveway ramp to the drainage system.
- Proposed piping drainage pipe along the south and east side of the property.

18. Runoff calculations for the contributory area to the trench drain need to be provided and compared against the inflow capacity of the grate being proposed.

19. The proposed drainage system connects to the existing system at the northeast corner of the property. This line should be cleaned, and camera inspected prior to commencing major site work.

20. A maintenance manual for the stormwater system on site will be required as a condition of approval.

Utilities

21. The proposed sewer flow for the project will be 6,900 gallons per day removing the need for an NJDEP Treatment Works Approval (TWA).

22. A comparison of the existing versus proposed sanitary sewer flows should be provided. The Applicant must also obtain confirmation that the Township treatment plan can accommodate any increase in flow.

23. The Applicant shall provide information on the existing sanitary sewer laterals and approximate location and indicate if these are intended to be re-used. If not, details and notes should be added indicating capping methods and location.

24. A doghouse manhole will be constructed for the connection to the existing sanitary sewer within Grove Avenue.

25. The Applicant shall confirm that the revised layout removes the necessity for any pump stations.

26. Will-serve letters from all applicable utility companies need to be provided.

27. Calculations supporting the water demand for both domestic and fire suppression must be provided for review and approval.

Site Operations & Maintenance

28. Additional testimony should be given regarding the intended snow removal operation on the property, the location of potential snow storage if required, and if the deicing system on the ramp is still being proposed.

29. Testimony should be given regarding the trash recycling collection for the property and confirm the anticipated numbers of days as well as the responsibility of the operation.

Traffic & Circulation

30. The Applicant provides traffic volume data, volume figures, and a capacity analysis. Capacity analysis reports are provided for the intersection created by the Site driveway and for the signalized intersection of Bloomfield Ave & S. Prospect St/ Grove Street.

31. Based upon the provided capacity reports, the Applicant's analysis indicates that the intersection of Bloomfield Ave & S. Prospect St/ Grove Street will maintain levels of service from the No-Build to the Full-Build Conditions for both the AM and PM Peak Hours. While movements at the Site driveway and Grove Street would operate at no worse than a level of service "C".

32. The Engineer has provided a table with proposed trip generation figures for the site. The Engineer utilized land use code 221 "Multifamily Housing (*Mid-Rise*)" and referenced the figures within the 10TH Edition of ITE's Trip Generation Manual. We agree with the Engineer's use of the ITE Trip Generation Manual, 10TH Edition. We find the provided volume figures to be within the expected range generated by this type of land use.

33. The table presenting the trip generation volumes has been reviewed for the permitted uses on site. The trip generation figures presented are in line with the ITE Reference.

34. The trip distribution figures for the projected Existing Conditions at Bloomfield Ave & S. Prospect St/ Grove Street, as well as the Engineer's description of their trip distribution methodology (*beginning on Page 4 of the revised traffic memo*) have been reviewed. The Applicant must provide a figure depicting the selected trip distribution (%) by movement at this intersection.

35. The Engineer utilized historic NJDOT Count Data to project their traffic volumes from 2013 to the 2017 conditions, and then utilized NJDOT Background Growth Rate Tables to project their adjusted volumes out to the 2023 future conditions. This is acceptable.

36. The Engineer references the Residential Site Improvement Standards (*RSIS*) (*N.J.A.C. 5.21*) and the ITE Parking Generation Manual, 5TH Edition for their parking figures. A parking capacity of fifty-nine (59) parking spaces is proposed on site, including three (3) ADA spaces. Based upon the RSIS parking figures, we note that the site would require approximately 78 parking spaces. Based upon the ITE parking figures, we note that the site would require approximately 46 parking spaces. The sample data provided by the Engineer indicates an average peak parking demand of approximately 36 parking spaces. Please provide brief testimony regarding the parking data referenced within the report. We also note that of the 59 proposed spaces, some are tandem. A variance will be required if the board approves this deviation in the Township Code.

37. Testimony should be provided regarding pedestrian access and circulation throughout the site. The Applicant should ensure that pedestrians can safely access and circulate throughout the site. All pedestrian facilities should comply with the latest ADA design guidelines.

38. One (1) access point is proposed for the site. The proposed access point is located along the south side of the site. This access driveway provides for full-movements and is STOP Controlled. Parking is provided on the ground floor of the building. The building provides for a 20' garage opening into the parking area. Two-way circulation is proposed, with 90-degree parking stalls; a 13' one-way drive aisle is proposed on the west side of the parking area. This should be STOP Controlled to reducing movement conflicts. Other drive aisles provide for a minimum 24' of width. Please note that the standard stall dimensions noted within the Township Code are 9'x20'. The use of tandem spaces raises concerns due to movement conflicts and general safety. The Applicant shall provide testimony on the functionality of the tandem spaces.

39. The Site Plan has been revised to show sight lines from the access driveway. A design speed of 30 MPH was utilized. The Applicant shall indicate if a left turning vehicle from the site has 335' of clear sight distance to the north of the driveway. Testimony should be provided to ensure that the unsignalized access points meet AASHTO's *A Policy on Geometric Design of Highways and Streets* Sight Distance Requirements.

40. The Applicant has provided AutoTURN plans that detail the path of a medium-sized passenger car. Follow-up testimony should be provided on the potential for site visits by any other vehicles.

41. The Applicant should demonstrate is a larger, SUV type vehicle can navigate the parking area and if not, what measures will be in place by the development to prohibit the entrance of these.

42. The appropriate design standards and permitting should be met for any roadway construction along Grove Ave, which may include but isn't limited to:
    a. Municipal Code;
    b. County Design Standards;
    c. MUTCD Standards;
    d. American Association of State Highway and Transportation Officials (AASHTO) *A Policy on Geometric Design of Highways and Streets*;
    e. ADA *Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way* (PROWAG); and
    f. *Motor Vehicle and Traffic Laws – Title 39.*

43. The Applicant shall provide testimony on the site's ability to process emergency vehicles and explain how the site will be serviced by ambulance and fire personnel. It is recommended that the Applicant's engineer contact the Town Fire Official and ensure that they account for the largest wheelbase emergency vehicle in use.

44. It is recommended that the Applicant ensures that the appropriate pavement markings and signage, not limited to double yellow lines at intersections, stop bars, stop signs, arrows, only, etc., be utilized throughout the site in order to ensure safe access and site circulation. Please utilize the guidance set forth within the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD). A separate plan sheet which details signage and striping should be provided.

Lighting Comments

45. The provided lighting plan has been reviewed. The Applicant shall adjust the lighting levels for the covered parking area. Typically, based on national design standards, these types of facilities have an average horizontal lighting level of 5.0 fc, a minimum of 1.0 fc, and a Max-Min uniformity level of 10:1.

46. All lighting should be noted as dark sky compliant.

47. The Applicant shall ensure that the provided lighting plan conforms with the standards set forth within the guidance presented within the Township Code. If the Township Code does not provide guidance, please reference a nationally accepted lighting standard, such as IESNA.

Landscape Plan

48. The existing site is predominantly impervious, but the Applicant is proposing the removal of seventeen (17) trees including two (2) significant trees having a diameter greater than 20 inches.

49. The Applicant will be required to plant twenty-four (24) deciduous trees and five (5) coniferous trees. The Zoning Officer shall confirm if a contribution to the Township's Tree Replacement Fund is required.

50. The Applicant will also plant a total of one hundred and eighty-four (184) other plant species are to be planted.

51. It appears that the species of a majority of the shrubs, grasses, and ground covers are not native. It is recommended that the Applicant consider the use of native species.

52. The Applicant is proposing to plant two (2) deciduous trees and thirty-seven (37) coniferous (evergreen) trees.

53. Any/all tree removal and/or replacement shall be subject to review and approval of the Townships Shade Tree Commission.

54. It is recommended that any tree removal be completed outside of typical nesting dates for fauna native to the area.

Additional Permits & Approvals

55. Permit from Hudson-Essex-Passaic Soil Conservation District

56. All other Township related approvals as deemed necessary.

57. Essex County.

Should you have any questions or require additional information please do not hesitate to contact us at (551) 265-0729.

Very truly yours,

Bright View Engineering, LLC
Aaron J. Schrager, PE, PP, CME
Principal

AJS/s
cc:

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