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MEMO TO: City of Bayonne
Planning Board

FROM: Robert J. Russo, P.E., P.P., C.M.E. *RJR*
City Engineer's Office

DATE: August 9, 2024

RE: **111 Avenue F Partners Urban Renewal, LLC
Preliminary and Final Major Site Plan
Report #1
Block 456, Lots 7, 8.01, 8.02, 9 and 10
86-92 East 22nd Street
Bayonne, New Jersey
Our File: PBYP0456.04/600.01
Application # P-24-021**

As per your request, this office has reviewed the following documents relative to the above referenced preliminary and final site plan application:

- Preliminary and Final Major Site Plan as prepared by DAL Design Group, date of April 30, 2024, with no revisions;
- Stormwater Management Report, as prepared by DAL Design Group, dated April 30, 2024;
- Environmental Impact Statement, as prepared by DAL Design Group, dated April 30, 2024;
- Boundary & Topographic Map, as prepared by Nor'East Land Surveying, LLC, dated March 15, 2024, with a latest revision date of April 15, 2024;
- Application Forms.

The following comments are offered with regard to same:

A. PROJECT OVERVIEW

The site is located at the southwest corner of Avenue F and E. 22nd Street. The site has been demolished of all building and site improvements since October 2023. The applicant is before the Board to request a proposed six-story residential building containing 65 units, a 73-space automated parking garage and approximately 10,460 square feet of building amenity and recreational space, including a roof terrace and green/garden roof with an area of 2,345 square feet.

We defer the review of the zoning related issues to the Board Planning Consultant except where they may pertain to engineering issues.

B. GENERAL SITE IMPROVEMENT REVIEW

1. In accordance with the Redevelopment Plan, at the redeveloper's expense, the applicant shall provide for the installation of the necessary equipment to accomplish signal preemption for

CONSULTING AND MUNICIPAL ENGINEERS

NJ CERTIFICATE OF AUTHORIZATION NO. 24GA28359000

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- emergency vehicles at a minimum of one (1) signalized intersection abutting the development. Same should be indicated on the site plan.
2. In accordance with the Redevelopment Plan, the designated redeveloper of the redevelopment area shall be responsible for any and all environmental regulatory compliance in accordance with the NJDEP requirements upon property acquired by the redeveloper.
 3. In accordance with the Redevelopment Plan a maximum building coverage of 90% is permitted with a potential offset building coverage ratio of 2:1 of green roof to building coverage. The Green Roof area is noted as 2,345 sf on drawing no. A1.6. The Proposed Lot Coverage Table on drawing no. C1.1 lists the Green Roof area as 3,026 sf. The Zoning Comparison Chart on the title sheet notes a building coverage of 94.0% is proposed; however, the table notes the project complies. Any Green Roof area less than 2,909.2 sf will require a variance. Clarification is required.
 4. In accordance with the Redevelopment Plan, no residents in the multifamily development shall be eligible for the City's on-street Residential Parking Program. Testimony shall be provided demonstrating compliance with same. In addition, should the Board act favorably on this application, a condition of the resolution of approval should note same.
 5. The applicant's professional should provide testimony on how the Tilepark System will operate. Testimony should be provided on the average wait time for car retrieval, safety measures that are in place while retrieving cars, safety measure to ensure drivers are not able to enter the lift system, whether an emergency button/phone system is in the transfer cabin and whether oversized SUV's and pickup trucks be able to be stored. EV charging is noted in the pallet port, clarify how many of the pallets include EV charging capability. Testimony should also be provided on emergency measures taken to ensure operation of the parking system will be provided during a power outage and confirmation that the proposed emergency generator system design will be able to support the Tilepark system.
 6. The Boundary & Topographic Survey should be signed and sealed by licensed Professional Land Surveyor in the State of New Jersey. In addition, the Boundary & Topographic Survey should be revised to note Lot 8.01 (and not Lot 8.1) is included in the project.
 7. The applicant should consolidate the existing lots. The proposed lot number should be approved by the City Tax Assessor.
 8. The applicant should complete the proposed grading design on Detail B – ADA Ramp and Crosswalk on drawing no. C1.2. This will be reviewed further upon completion of the design.
 9. A minimum slope along the existing gutter shall be 0.50%. Various locations along Avenue 'F' do not meet this requirement and should be revised accordingly. This will be reviewed further upon receipt of the grading redesign.
 10. This office recommends that the applicant mill and overlay through the intersection of Avenue F and W. 22nd Street.



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11. The applicant should provide testimony demonstrating compliance of ADA standards required by the Uniformed Construction Code with the proposed mechanical parking system.
12. In accordance with the Redevelopment Plan, all bicycle racks/stands in the right-of-way will require approval from the Municipal Council.
13. A minimum of 0.5 bicycle parking spaces are required per unit, resulting in 33 bicycle parking spaces being required. The architectural plan notes that 40 spaces are provided. The Typical Bike Rack detail on drawing no. C2.2 should be revised to note how many bicycles the rack can store and how many racks are proposed.
14. Proposed Parking Level P1 on sheet no. C1.6 delineates two parallel parking spaces along Avenue F at the parking garage entrance. Please clarify the design intent. In addition, this plan sheet notes that a fire hydrant relocation is required. If the relocation is proposed same should be delineated on the Utility Plan.
15. The neighboring lot numbers should be shown on all applicable plan sheets.

C. STORMWATER MANAGEMENT REVIEW

General

1. The Applicant proposes constructing an above-ground detention chamber and a green roof to address stormwater management.
2. The reference project has been reviewed in accordance with the City of Bayonne Zoning Ordinance, the Avenue F Redevelopment Plan and New Jersey Residential Site Improvement Standards, NJAC 5:21.
3. The Applicant proposes more than 5,000 SF disturbance and, in accordance with NJ PL Chapter 251, must obtain a Soil Erosion and Sediment Control Certification from the Hudson Essex Passaic Soil Conservation District. A copy of the plan certification must be provided to this office.

Stormwater

4. Site elevations range from 6.5 ft to 8.5 ft. This area is outside the effective FEMA FIRM Map dated 8/16/2006. However, the area is inside the updated Preliminary FEMA FIRM Map, which has a 100-year elevation of 11 ft (FEMA Map #34017C0111E). In accordance with New Jersey Flood Hazard Area Regulations NJAC 7:13-1.2 (Definition of "FEMA 100-year flood elevation"), the higher of the two elevations is considered the 100-year flood elevation for regulatory purposes. We would require the Applicant to get either a letter of no interest or a Flood Hazard Area permit from NJDEP and provide a copy of the same to this office.
5. Please provide a legible copy of drainage area maps in the report.
6. The drainage report should be revised to include design calculations for the conveyance system. The conveyance system must be designed in accordance with RSIS standards, NJAC 5:21-7.3.



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7. In accordance with RSIS standards, NJAC 5:21-7.3.(f), no pipe size in the storm drainage system shall be less than 15 inches. The pipe sizes should be revised to meet this requirement. The detention system outflow pipe does not meet this requirement.
8. The drainage calculations used a CN of 86 for the green roof. Please include the green roof CN calculation in the drainage report.
9. The volume of the detention chamber in stormwater routing is incorrect. The volume outlet control structure volume should not be part of the routing volumes.
10. The detention chamber is almost 2-story high. The walls of the detention chamber must be waterproofed. Waterproofing details must be shown on construction plans.
11. A manhole must be used to connect the stormwater connection to the existing sewer. Blind stormwater connections are not allowed.
12. The detention system shows an emergency evacuation pump. The construction details must include make, model, discharge pipe size & routing, and operation levels.
13. A site-specific cross-section detail of the green roof must be provided on the plans. Each layer in the cross-section must be clearly labeled and reference manufacturer/design specifications.
14. Green roof stormwater calculations must use the same stormwater parameters as used in the rest of the drainage report. For instance, precipitation values are incorrect, and New Jersey no longer uses NRCS rainfall distributions.
15. The collection and conveyance system must be designed per Residential Site Improvement Standards NJAC 5:21. The Drainage report must be updated to include design calculations for downspouts and conveyance systems.
16. All runoff from the green roof (up to a 100-year storm) must be safely conveyed to the downstream drainage systems. Runoff collection and conveyance systems for green roofs must be shown on construction plans. The location and sizes of underdrains in the gravel ballast should be designated, and their connection to roof downspouts or other means of conveyance away from the green roof system should be clearly indicated.
17. Emergency overflow structures are required that can carry all 100-year runoff from the green roof system safely down to the ground in case any discharge points malfunction or clog. Plans and drainage reports must be updated to include these details and calculations.
18. The roof must have positive drainage and must fully drain within 72 hours. The drainage report should be updated to provide drain time calculations. The drain time should also be noted on the roof system detail.
19. Post-construction testing must be performed on the as-built green roof to ensure that the installed green roof functions as designed. Where as-built testing shows a longer drain time than designed,



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corrective action must be taken, and the green roof should be retested. A note should be included in the green roof system detail stating this requirement.

20. Maintenance access is required to all discharge points. Construction plans must be updated to show maintenance access.
21. The green roof must be planted with New Jersey native plant species. A vegetation plan and schedule must be added to the construction plan set.
22. A letter of certification from a New Jersey Licensed Professional Engineer will be required that they have assessed additional loads from ponding water in combination with other dead/ live or seismic loads as required by applicable building codes and these additional loads will not affect the structural integrity of the building and building roof system.

O&M Manual

23. The O&MM Manual should be revised to include a placeholder on the cover page for Deed Book#, Page#, and the date the deed was filed with the County Clerk.
24. In accordance with NJAC 7:8-5.8(d), the maintenance of stormwater management facilities and any future revisions to it shall be recorded upon the deed of record for the property. O&MM should be updated to include this requirement.
25. In accordance with NJAC 7:8-5.8(g), O&MM shall be evaluated by the person responsible for maintenance for updates and effectiveness at least once per year. The O&M manual shall be updated and recorded in the deed as needed at that time. O&MM should be updated to include this requirement.
26. In accordance with NJAC 7:8-5.8(h), The person responsible for maintenance shall retain and make available, upon request by any public entity with administrative, health, environmental, or safety authority over the site, this maintenance plan. O&MM should be updated to include this requirement.
27. As per NJDEP BMP Manual Ch. 8, maintenance plans should include procedures and equipment required to protect the safety of inspection and maintenance personnel. This information should be added to the O&MM plan.
28. In accordance with NJAC 7:8-5.8(b), the maintenance plan must contain cost estimates for specific maintenance tasks, including the cost of sediment, debris, or trash removal. O&MM should be updated to include this requirement.
29. The O&MM should be revised to include a Location Map showing the location of all BMPs. Please refer to the link below for an NJDEP template:

https://www.nj.gov/dep/stormwater/maintenance_guidance.htm



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30. The O&MM should be revised to include a summary of design parameters for the detention chamber. The information should include design detention time and drain time. In addition, provide the type, size, and invert elevation for each outflow device in the outlet structure. Please refer to the link below for the NJDEP template:

https://www.nj.gov/dep/stormwater/maintenance_guidance.htm

31. Regular maintenance is required for the green roof system. An operation and maintenance manual for the proposed green roof system must be provided.
32. The O&MM should include contact information for outside contractors performing maintenance on the Green Roof.
33. The O&MM should be revised to include a Map showing access points and the green roof layout.
34. Backflow prevention devices and emergency evacuation pumps should be added to the list of structures that require inspection and maintenance.

D. MISCELLANEOUS

1. The Applicant should submit an Engineer's Report for the water and sewerage system, setting forth the basis of design in accordance with the City's Rules and Regulations. If the Board acts favorable on this application, we recommend that this be made a condition of approval.
2. If the Board acts favorable on this application, the applicant shall post the required performance bonds and engineering and inspection fees.
3. Other Agency Approvals:
 - Hudson County Planning Board
 - Bayonne Utility Department and Veolia
 - New Jersey Department of Environmental Protection
 - Soil Conservation District
 - All other agencies having jurisdiction

Should you have any questions regarding this matter, please do not hesitate to contact this office.

RJR/DM

cc: Director, Planning and Zoning
Land Use Administrator
Board Attorney
Board Planner
City Planner
Zoning Officer
111 Avenue F Partners Urban Renewal, LLC, Applicant
Michael Miceli, Applicant's Attorney
DAL Design Group, Applicant's Engineer/Architect