



**Consulting & Municipal
ENGINEERS**

3141 Bordentown Avenue
Parlin, NJ, 08859
732.727.8000 ☎
www.cmeusa1.com 🌐

MEMO TO: City of Bayonne
Planning Board

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

DATE: March 7, 2025

RE: **John & Maryan, LLC**
Preliminary and Final Major Site Plan
Engineering Report #1
Block 219, Lot 24.01
455-461 Avenue C
Bayonne, New Jersey
Our File: PBYP0219.06/600.01
Application # P-24-036

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

- Preliminary & Final Major Site Plan, as prepared by Optimized Engineering Associates, dated October 1, 2024, with no revisions;
- Architectural Plans, as prepared by GRO Architects PLLC, dated November 1, 2024, with no revisions;
- Report Final Drainage Investigation for Stormwater Control, as prepared by Optimized Engineering Associates, dated October 30, 2024, with no revisions;
- Environmental Impact Statement, as prepared by Dresdner Robin, dated December 11, 2024, with no revisions;
- Topographic Survey, as prepared by Behar Surveying Associates, PC, dated October 16, 2024, with no revisions;
- Application Forms.

The following comments are offered with regard to same:

CONSULTING AND MUNICIPAL ENGINEERS LLC
NJ CERTIFICATE OF AUTHORIZATION NO. 24GA28359000
Barnegat • Berlin • Camden • Howell • Medford • Monmouth Junction • Parlin



Memo to Bayonne Planning Board
Our File: PBYP0219.01
March 7, 2025
Page 2 of 10

A. PROJECT OVERVIEW

The site is located on the southwest corner of the intersection of Avenue C and West 20th Street. The project is located on a single lot totaling approximately 18,994 SF. The site is currently vacant and contains the remnants of a previous building foundation. The applicant is proposing to construct a six-story, 16,819 SF mixed use building consisting of a 1,406 SF retail space and a seventy-one (71) parking space garage on the first floor, and sixty-three (63) residences on the remaining upper floors. The Applicant is also proposing stormwater management, utility, lighting and landscaping improvements.

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 Section 6.1.A of the Redevelopment Plan, the Applicant is required to provide seventy-one (71) vehicle parking spaces. The Applicant is in compliance with this parking requirement.
2. The Applicant should provide testimony regarding the stacked vehicle parking system and EV capabilities.
3. The Applicant should revise the site plans to include A.D.A. parking signage within the parking garage. In addition, the site plans should be revised to provide wheel stops for all ADA parking spaces.
4. In accordance with the State's model Electric Vehicle Ordinance for providing make-ready and/or electric vehicle parking spaces, the Applicant is required to provide 15% of required off street parking spaces as Make Ready spaces; and install EVSE or charging stations for at least 1/3 of the 15%. Within three (3) years from the date of issuance of Certificate of Occupancy (CO), the Applicant shall be required to install an additional 1/3 of the 15%. Within six (6) years from the date of issuance of CO, the Applicant shall be required to install the final 1/3 of the 15%. In addition, 5% of the total EVSE parking spaces shall be accessible for people with disabilities. It should be noted that ADA parking required for UCC cannot be used for EVSE/Make-ready spaces ADA parking. The Applicant is required to provide a total of eleven (11) EVSE/Make-ready parking spaces including one (1) EVSE/Make-ready ADA parking space. It doesn't appear that the application complies with the minimum number of EVSE/Make-ready parking spaces required. The applicant should confirm same.
5. The Applicant should revise the site plans to indicate the proposed locations of the EV Make-Ready charging stations, pavement markings and signage.



Memo to Bayonne Planning Board
Our File: PBYP0219.01
March 7, 2025
Page 3 of 10

6. We defer to the Bayonne Fire Department on the locations of the EVSE Make-Ready parking spaces and any requirement for high intensity sprinkler heads within EVSE Make-Ready parking areas in addition to fire blanket locations.
7. In accordance with Section 6.1.E.4 of the Redevelopment Plan, the interior parking area shall have adequate security provisions. The applicant should provide testimony to the Board regarding same and should indicate whether security cameras will be provided in the parking structure and around the building perimeter.
8. In accordance with Section 6.1.E.5 of the Redevelopment Plan, the interior parking area shall utilize active, not passive, ventilation. The Applicant should discuss how they will comply with this requirement.
9. In accordance with Section 6.9.B of the Redevelopment Plan, no residents in the multifamily development shall be eligible for the City's on-street Residential Permit Parking Program.
10. In accordance with Sections 6.1.B.1 and 6.1.B.2, the Applicant is required to provide thirty-five (35) bicycle parking spaces. The Applicant is proposing a bike storage room for thirty-six (36) bicycles. The Applicant is in compliance with the bicycle parking requirement.
11. The Applicant is proposing a driveway width of approximately twelve (12) feet. The Applicant should increase the width of the driveway and garage entrance to a minimum of sixteen (16) feet.
12. This office recommends a color stamped concrete apron be installed at the site driveway for pedestrian safety.
13. The Applicant should provide clarification on the surface material between the proposed building and rear and side property lines. It is unclear if this area will be impervious.
14. In accordance with Section 6.3.D.3, multi-sensory wayfinding for the vision and hearing impaired should be included in sidewalk design. The Applicant should discuss how they will comply with this requirement.
15. The Applicant should revise the site plans to reconstruct the curb ramps at the southwest corner of Avenue C and W. 20th Street in accordance with ADA requirements.
16. The Applicant should revise the site plans to indicate a two (2) foot wide hot mix asphalt repair strip along all proposed curb within the City's right-of-way.
17. The Applicant should extend the limits of paving and curb and sidewalk replacement to the limit of their property frontage along West 20th Street.



Memo to Bayonne Planning Board
Our File: PBYP0219.01
March 7, 2025
Page 4 of 10

18. The Applicant should extend the limits of paving along W. 20th Street to the edge of Avenue C.
19. The Applicant should revise the site plans to indicate the width and color of the proposed pavement striping.
20. The Applicant should revise the site plans to include a stop bar at the garage exit.
21. The Applicant should revise the striping for the ADA access aisle within the parking garage in compliance with the MUTCD.
22. The Applicant should revise the site plans to include no parking pavement striping along the proposed driveway.
23. The Applicant shall restore pavement striping within the City right-of-way to preconstruction conditions.
24. In accordance with Section 6.3.B.6.a of the Redevelopment Plan, trash cans along Avenue C should be located in between street trees. The Applicant should discuss how they will comply with this requirement.
25. In accordance with Section 6.3.B.6.b, seating is required along Avenue C as part of the streetscape improvements in the Redevelopment Plan. The Applicant should discuss how they will comply with this requirement.
26. The Applicant should provide building sign details conforming to Section 6.7 of the Redevelopment Plan.
27. The applicant should provide testimony regarding trash and recycling facility operations.
28. The Applicant is proposing an approximate three (3) foot building projection into the City right-of-way. In accordance with Section 5.7.F of the Redevelopment Plan, projections into the City right-of-way are subject to approval by the City Council.
29. In accordance with Section 6.9.E.4 of the Redevelopment Plan, all mechanical equipment serving the buildings shall be placed on the roof of the building and shall be screened in a manner consistent with the architecture of the building. The Applicant should discuss how they will comply with this requirement.
30. In accordance with Section 6.9.E.5 of the Redevelopment Plan, all mechanical equipment, generators, HVAC equipment, and similar equipment shall be within the applicable standards as defined by the State of New Jersey for noise generation beyond the property line. The Applicant should discuss how they will meet this requirement.



Memo to Bayonne Planning Board
Our File: PBYP0219.01
March 7, 2025
Page 5 of 10

31. In accordance with Section 6.9.F.1, all buildings shall demonstrate the project would meet the requirements to achieve a LEED Silver rating or greater. The Applicant shall provide testimony on how they will meet this requirement.
32. In accordance with Section 6.9.C of the Redevelopment Plan, the designated Redeveloper for the Redevelopment Area shall be responsible for any and all environmental regulatory compliance in accordance with New Jersey Department of Environmental Protection (NJDEP) requirements for property acquired by the Redeveloper.
33. In accordance with Section 6.9.A of the Redevelopment Plan, the applicant shall provide for the installation of the necessary equipment to accomplish signal preemption for emergency vehicles at a minimum of one (1) signalized intersection abutting the development.
34. In accordance with Section 6.9.G of the Redevelopment Plan the redeveloper shall submit a preliminary construction staging statement as part of its site plan submission to the Planning Board.
35. There appears to be an overhead wire which is in conflict in the northeast corner of the proposed building. This should be addressed.
36. The Applicant appears to join the sanitary sewer and storm sewer laterals behind the curb line prior to connecting to the main along W. 20th Street. The Applicant should revise the site plans to provide separate sanitary sewer and storm sewer connections to the City sewer main.
37. The Applicant should revise the site plans to indicate the sizes and materials of the existing water mains, gas mains and sewer mains.

C. SITE GRADING REVIEW

1. The Applicant should provide a detailed proposed Grading Plan for further review which address the below noted comments.
2. The Applicant shall provide existing and proposed top and bottom of curb elevations along the curb line and where proposed curb meets existing curb.
3. The Applicant shall provide proposed spot elevations along the proposed curb ramps demonstrating ADA compliance. Spot elevations shall be provided at each corner of the curb ramp and landings.
4. The Applicant shall provide existing and proposed spot elevations along the sidewalk within the City's right-of-way and demonstrate A.D.A. compliance along a four (4) foot minimum walking path.



Memo to Bayonne Planning Board
Our File: PBYP0219.01
March 7, 2025
Page 6 of 10

5. The Applicant shall provide existing and proposed spot elevations where the proposed sidewalk meets existing sidewalk.
6. The Applicant should provide the proposed first floor elevation at all entrances including the garage entrance.
7. The Applicant should provide proposed spot elevations within the parking garage and at all building corners.

D. STORMWATER MANAGEMENT

1. The Applicant proposes to construct an underground detention/infiltration system to address stormwater management.
2. The reference project has been reviewed in accordance with the City of Bayonne Zoning Ordinance 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.
4. The architectural plan (PB-105) includes a 4,692 SF green roof. The drainage report must be updated to provide design calculations, and the construction plans must be revised to include construction details for the green roof.
5. Drainage area maps for pre and post-development conditions relevant to the project area must be provided in the report. The drainage areas map must clearly show drainage area boundaries, contours, land use, flow paths, design points and enumerate areas, RCN values, and times of concentration.
6. Some of the drainage calculations in the report use a minimum time of concentration (T_c). According to the NJDEP BMP manual, there is no longer a minimum or default value that may be used for the Time of Concentration (T_c). T_c for pre- and post-construction conditions must be calculated based on guidance provided in NJDEP BMP Manual Chapter 5 (updated April 2021) Section 8. The calculations in the drainage report must be updated using calculated T_c 's.
7. 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.



Memo to Bayonne Planning Board
Our File: PBYP0219.01
March 7, 2025
Page 7 of 10

8. A site-specific profile of the Underground Detention must be provided on the plan and must indicate ground elevations (existing & proposed), pipe inverts, 2,10 & 100-year storm elevations, and seasonal high groundwater elevation.
9. A soil report addressing the construction and function of the detention system with respect to the seasonal high groundwater (SHWT) elevation should be provided; for infiltration basins, a two-foot separation between the SHWT Underground detention system is required. The drainage calculations use a 2-inch / hour infiltration rate. Infiltration testing must be provided to back up the design infiltration rates. All geotechnical investigations must be performed in accordance with Chapter 12 of the BMP manual and provided for the City review.
10. The drainage design proposes infiltration under a high-rise building. Applicant's engineers should assess the impacts of infiltration on building foundations.
11. The 36" pipes being used for underground detention must be installed outside the influence zone of building foundations. Grading and Utility plans must be updated to show foundation footprints, and a site-specific cross-section must be added to the details sheet showing the relationship between building foundation influence zones and storage pipes.
12. All underground detention pipes must have a minimum slope of 0.25% towards the outlet.
13. The Site Utilities and SWM plan should be revised to include the maximum water surface elevation for the underground detention basin's 2-yr, 10-yr, and 100-yr storm events.
14. The location of roof drain connections to the underground detention system should be shown on the construction plans.
15. The basin is designed using Tc and the rational method, which incorrectly underestimates the storage required. The basin design must use a modified rational method to estimate required storage with the procedure as described in Appendix 9 of the Standards for Soil Erosion and Sediment Control in New Jersey.
16. The size and material of the combined sewer pipe in West 20th Street should be added to the plans.
17. Underground detention basin routing should include tailwater from the City sewer in the street. Basin routing should be revised to account for the effect of the backflow preventer on basin outflow by considering a tailwater elevation equal to the crown of the receiving pipe.
18. A legible outlet control structure construction detail must be provided on the plans. The outlet control structure must provide a 2-ft sump in the downstream chamber.



Memo to Bayonne Planning Board
Our File: PBYP0219.01
March 7, 2025
Page 8 of 10

19. Trash rack details should be provided for all outlet devices (orifices, weirs, overflow grates, etc.) shown on the proposed outlet structure. The trash rack should be in accordance with NJAC 7:8-5.7 and 7:8-6.2.
20. The outflow pipe includes a backflow prevention device to prevent backflow from a combined sewer into the underground detention basin. The backflow preventer should be installed upstream of the connection to the City sewer, where it can be accessed for maintenance. Details of the backflow prevention mechanism should be provided in construction plans.
21. The stormwater connection to the existing sewer must be made with a manhole. Blind stormwater connections are not allowed.
22. 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.
23. The green roof must be designed in conformance with the standards provided in NJ BMP manual chapter 9.4. The drainage report must be updated to provide a summary table demonstrating the conformance of the proposed green roof with NJ BMP standards.
24. The drainage layer of green roofs must fully drain within 72 hours. The drainage report should be updated to provide drain time calculations. The drain should also be noted on the green roof construction detail.
25. All runoff from the green roof (up to a 100-year storm) must be safely conveyed to the underground detention basin. Runoff collection and conveyance system for green roof 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.
26. The green roof must be planted with NJ native plant species. A vegetation plan and schedule should be added to the construction plan set.
27. Post-construction drain time testing must be performed on the green roof to ensure that the installed green roof functions as designed. Where as-built testing shows a longer drain time than designed, corrective action must be taken, and the green roof should be retested. A note should be included in the site plan and grading plan stating this requirement.
28. The green roof collection and conveyance system must be designed per Residential Site Improvement Standards NJAC 5:21. Drainage report must be updated to include design calculations for downspouts and conveyance systems.



Memo to Bayonne Planning Board
Our File: PBYP0219.01
March 7, 2025
Page 9 of 10

29. Emergency overflow structures are required that can carry all 100-year runoff from the roof detention 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.
30. Adequate maintenance access to all parts of the green roof is required. A green roof layout plan that shows roof access and maintenance access paths must be provided for review.
31. In accordance with RSIS standards and the City Ordinance, the Applicant must provide a maintenance plan for the stormwater management measures incorporated into the design of the proposed development. A copy of the maintenance plan should be submitted to our office for review.
32. The Applicant should reconstruct the inlet at the northwest corner of Avenue C and W. 20th Street including replacing the curb piece with a NJDEP 'N-Eco' curb piece.

E. LIGHTING AND LANDSCAPING

1. In accordance with Section 6.3.B.5.b of the Redevelopment Plan, trees shall be located within a soil cell that is the same or equivalent to the Silva Cell System. The Applicant should revise the site plans to comply.
2. In accordance with Section 6.3.B.5.b of the Redevelopment Plan, trees along Avenue C should be spaced 35 to 45 feet apart taking into account the location of underground utilities, driveways, on-street parking and loading zones. It appears that the Applicant is proposing trees spaced approximately 30 feet apart.
3. The Applicant is proposing tree pits approximately four feet by six feet (4'x6'). A tree grate detail is provided on Sheet 5 of the site plans for a three foot by three foot (3'x3') tree grate. The Applicant should review and revise accordingly.
4. We recommend that all street trees and on-site deciduous trees be not be less than 3 1/2 inch in caliper at the time of planting, per the ordinance.
5. The Applicant should revise the Luminaire Schedule on sheet two of the site plans to indicate the color and mounting height of the wall mounted LED lights.
6. The Applicant should revise the site plans to provide a point by point lighting analysis within the parking garage and along the building perimeter. Lighting design shall conform with Section 6.4.A. of the Redevelopment Plan.

F. MISCELLANEOUS

1. We defer further review of the water and sanitary sewer systems to the Bayonne Utility Department and Veolia.



**Consulting & Municipal
ENGINEERS**

Memo to Bayonne Planning Board
Our File: PBYP0219.01
March 7, 2025
Page 10 of 10

2. Should the board act favorably for this application, the applicant shall provide this office with the electronic CAD files for this site plan, as part of resolution compliance review.
3. The applicant should provide or revise the following construction details:
 - a. The Concrete Curb and Pavement Details should be revised to indicate 6" thick dense graded aggregate;
 - b. Provide traffic and parking signage details. Signage shall conform to the Manual on Uniform Traffic Control Devices (MUTCD);
 - c. Pavement marking and striping details should be added;
 - d. EV Charging Station detail should be added;
 - e. The tree grate detail should be revised to correspond with the size of the tree pit;
 - f. The standard Surface Restoration and Trench Detail for PVC Pipe detail should be added;
 - g. Bike storage detail should be added;
 - h. A trench drain detail should be added.
4. If the Board acts favorable on this application, the applicant shall post the required performance bonds and engineering and inspection fees.
5. Should the Board act favorably on this application, the Applicant shall be required to submit traffic safety and pedestrian detour plans for review by the City Traffic Safety Unit and this office
6. Other Agency Approvals:
 - Hudson County Planning Board
 - Bayonne Utility Department and Veolia
 - Soil Conservation District
 - Bayonne Fire Department
 - All other agencies having jurisdiction

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

RJR/AG

cc: Land Use Administrator
Board Attorney
Board Planner
City Planner
Zoning Officer
John and Maryan, LLC, Applicant
Michael Miceli, Esq., Applicant's Attorney
Guy Lagomarsino, PE, Applicant's Engineer
Charles Heydt, PP, Applicant's Planner
Richard Garber, AIA, Applicant's Architect