



MEMO TO: Township of Franklin
Planning Board

FROM: Robert J. Russo, PE, PP, CME
Township Engineer

DATE: August 23, 2021

RE: **SAFStor Real Estate Co, LLC
Preliminary & Final Major Site Plan
Report #1
Engineering
Block 507.14, Lot 65.01
471 Elizabeth Avenue
Franklin, New Jersey
Our File: PFRP0507.11/600.01
Application # PLN-21-00010**

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 Bohler Engineering NJ, LLC, dated May 19, 2021, with no revisions;
- Architectural Plans, as prepared by David Boyce, Architect, dated May 11, 2021, with no revisions;
- Environmental Assessment, as prepared by Bohler Engineering NJ, LLC, dated May 2021, with no revisions;
- ALTA/NSPS Land Title Survey, as prepared by Control Point Associates, Inc., dated January 12, 2021, with a latest revision date of March 24, 2021;
- SWM Area Evaluation & On-Site Wastewater Management Evaluation Services, as prepared by Whitestone Associates, Inc., dated March 4, 2021, with no revisions;
- Stormwater Management Report, as prepared by Bohler Engineering NJ, LLC, dated May 2021, with no revisions;
- Traffic Statement, as prepared by Atlantic Traffic & Design Engineering, LLC, dated March 26, 2021, with no revisions;
- Application Forms.

The following comments are offered with regard to same:

A. PROJECT OVERVIEW

The site is located along Elizabeth Avenue (C.R. 621), approximately 800 ft south of its intersection with Schoolhouse Road and New Brunswick Road. The property is approximately 4.816 acres and is located in the B-I (Business and Industry) zone, a new zoning district within the Township. The site currently contains a 1-story 2,666 sf warehouse, a dwelling and a garage. The applicant is proposing to demolish the existing warehouse, dwelling and garage and construct a 104,700 sf self-storage facility, parking area for twenty-one (21) parking spaces, and two (2) loading spaces. The applicant is proposing the following site improvements including but not limited to three (3) bioretention basins to address NJDEP stormwater



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management rules, two (2) hot mix asphalt parking areas, concrete curb, belgian block curb, sidewalk, guiderail, post and rail fence, utilities, grading, lighting and landscaping.

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

B. GENERAL SITE IMPROVEMENTS

1. Official street address shall be obtained from the Franklin Township 911 Coordinator.
2. An Engineering Cost Estimate will be required once final plans are signed-off on by the Board. Upon approval, applicant shall provide appropriate bonds and Engineering inspection fees and attend a pre-construction meeting, prior to any site work.
3. All fees shall be paid by the applicant at the time of adoption of a resolution of site plan approval for the cost of making upgrades and modifications to the geographic information system (GIS) (§112-329).
4. At the time the final plans are submitted for signature of the municipal officials, the applicant shall submit CAD-generated data files, prepared by a New Jersey licensed land surveyor, directly translatable into an identical image of the plan per the requirements of Ordinance §112-329.
5. Note: An As-Built Plan prepared by a licensed Land Surveyor is to be submitted to the Township prior to any Certificate of Occupancy inspection or the release of performance bonds. Same should be noted on the site plan.
6. Note: No soil can be imported to or removed from the site until a Soil Importation or Exportation Permit has been obtained from the Township as required by the Ordinance. Soil removal shall be in accordance with §206 of the Ordinance. Same should be noted on the site plan.
7. The applicant provided parking calculations on sheet no. C-301 in accordance with Ordinance §112 – Schedule 4; 21 parking spaces are required for this proposed use. The applicant is proposing 21 parking spaces; therefore, the parking demand has been met.
8. Based on the 21 total parking spaces, one (1) barrier free van accessible parking stall is required. The applicant is proposing one (1) van accessible space; therefore, the ADA parking demand is met.
9. This office defers to the Fire Prevention Officer as to the appropriate number of Fire Hydrants, Fire Department Connections, and their location. We defer to the Fire Prevention Officer regarding the need of 'No Parking' fire lane signage and striping. Please note, all proposed fire hydrants should be installed a maximum of 2' from the face of curb to the center of the hydrant, as shown on the Township typical detail. The hydrant layout should be revised to comply with same.
10. We defer to the Fire Prevention Director; however, the township typically does not permit grass pavers along the secondary emergency access driveway. The applicant should install either hot mix asphalt or porous pavement in lieu of the grass pavers.
11. In accordance with Ordinance §112-33.6.F, the applicant should provide safe interconnection of sidewalks between parking areas and building entrances within the site and extending to the street. Sidewalk should be provided along the site frontage and incorporate bicycle parking as well as electric vehicle charging stations. The applicant should either revise the site plan or request a design waiver for same. Please note, the Board has required other applications near this project limits to contribute to the Township sidewalk fund in lieu of providing sidewalk along the Elizabeth Avenue frontage.



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12. The Applicant's Engineer should provide a site circulation plan showing the travel paths of the design vehicle to verify that the on-site circulation is adequate for service vehicles and the required emergency vehicle access (i.e. garbage trucks, delivery trucks, fire trucks, and rescue squad vehicles). The circulation plan should delineate all turning movements at the driveway for ingress/egress movements.
13. The site plan should be revised to delineate the distance along the southwest property line.
14. The site plan should note the vertical datum.
15. The design and placement of all traffic signs and striping shall follow the requirements specified in the latest "Manual on Uniform Traffic Control Devices for Streets and Highways," (MUTCD) published by the U.S. Department of Transportation and adopted by the N.J. Department of Transportation. Same should be noted on the site plan.

C. GRADING AND UTILITY COMMENTS

1. There are existing water service lines to the property which shall either be reused or removed.
2. A meter pit is required. Add a meter pit detail to the plan.
3. All ductile iron water main pipes shall be cement lined. Same should be noted on the utility plan.
4. Applicant should note the size and material of water main pipes on the utility plan.
5. The Applicant's Engineer should design the proposed curb ramps, sidewalks, and crosswalks, to meet the latest ADA requirements. The Applicant's Engineer should provide turning spaces before and after proposed ramps as necessary at the required slopes and the locations of proposed detectable warning surfaces should be clearly indicated. This ADA compliance issue should be reviewed relative to all curb ramps, sidewalks, and crosswalks currently proposed under this project.
6. A stormwater cleanout should be added between prop. c/o #270 and storm manhole #260, and prop. c/o #510 and storm manhole #220, respectively.
7. Add a label for proposed storm manhole #210 for profile 'storm run 200 profiles (B-B).
8. The applicant should add the following notes to the plans:
 - All construction shall comply with the current rules and regulations/ or ordinances of Franklin Township, NJDEP, AWWA and all applicable regulatory agencies having jurisdiction.
 - The minimum clearances between water mains and sanitary sewers shall be in accordance with the State standards, i.e. Minimum horizontal clearance between water main and sanitary sewer in parallel shall be ten ft. (10'), Minimum vertical clearance between pipe crossing shall be eighteen inches (18") with the sanitary sewer below the water line. If such minimum vertical clearance cannot be provided, the sanitary sewer shall be encased in concrete ten ft. (10') from each side of the crossing or a total of twenty ft. (20').
 - Water mains crossing storm sewers or drains where the clearance between the pipes is less than eighteen (18") inches, pier supports for the storm line shall be provided in order to prevent the load transfer to the affected utility.
 - Sanitary sewer laterals crossing storm sewers or drains where the clearance between the pipes is less than eighteen (18") inches, pier supports for the storm line shall be provided in order to prevent the load transfer to the affected utility.



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9. The applicant should address the following general grading comments:
 - The sidewalk elevation 83.19 near the southwest corner of the building is higher than the finished floor and is directing runoff in the direction of the building, same should be revised to direct runoff away from the building;
 - The proposed 83' contour along the northern building line is missing;
 - Provide spot elevations within the concrete curb walkways and curb ramps to delineate the proposed ramps slope and ADA compliant landings (maximum cross and running slopes of 2%, respectively).
 - The top of structure elevation 77.00 for outlet structure #120 on storm run 100 profiles (A-A) does not match the elevation shown on the drainage and utility plan;
 - The top of structure elevation 80.41 for outlet structure #410 on storm run 400 profiles (E-E) does not match the elevation shown on the drainage and utility plan;
 - A maximum and minimum cross slope of 2% and 0.5%, respectively, is required for all sidewalks, the following areas should be reviewed by the design engineer:
 - Sidewalk elevation 82.67, located at the rear of the southwest corner of the building;
 - Sidewalk elevation 82.53, located at the corner of the sidewalk near the northwest entrance of the building;
 - Sidewalk elevation 82.64, located near the northeast corner of the building
 - Top of curb elevation 83.50 and back of sidewalk spot elevation 83.00 results in a cross slope exceeding 10%. Same should be addressed by the applicant's engineer;
10. The clearance for Proposed Crossing No. 1 does not appear correct. The design engineer should review and revise if necessary.

D. LANDSCAPING AND LIGHTING COMMENTS

1. Applicant provided a tree conservation and replacement plan to satisfy the requirements of Ordinance §222- Trees. This office defers to the Township Planner as to the adequacy of the tree replacement plan and all required buffering.
2. The applicant shall revise the Landscaping Plan to include the following note: "All plant relocations/substitutions shall be submitted to the Township for review and approval prior to installation".
3. A minimum of six (6) inches of topsoil shall be installed in all disturbed and planting areas, same should be noted on the plans.
4. A concrete light pole foundation shall be utilized for all light poles, direct bury is not permitted, design engineer should revise lighting plan and details.
5. Provide a detail showing 36" of clearance between the face of the light pole foundation and full height (6") curb face. In the event this offset cannot be achieved, the light pole foundation base shall be at minimum 30" in height.

E. ENVIRONMENTAL IMPACT COMMENTS

1. The Applicant should review township ordinance requirements for the environmental impact assessment Ordinance Section 112-199.F. The Environmental Impact Assessment should address all items F(1) thru F(9) in the Township Ordinance.
2. ALTA Survey map included with EIS should show the location of onsite wetlands.



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3. A Letter of Interpretation for the freshwater wetlands should be obtained from NJDEP to verify the limits of wetlands and the transition areas. The Applicant's engineer should provide the letter of interpretation, including the NJDEP stamped approved wetlands map, to verify the wetlands and buffers.
4. A Conservation/Preservation Area shall be created in accordance with Ordinance §112-147 of the Franklin Township Land Development Regulations. The Township preservation area boundary line shall be established using the most restrictive of the Flood Hazard Area, Stream Preservation Corridor and Wetlands Buffer (post transition area reduction and compensation) lines. A map shall be supplied delineating the limits of the Conservation/Preservation Area with bearings and distances and proposed Preservation Area Marker locations.
5. Preservation Area Markers shall either be set or bonded for prior to application sign-off.

F. STORM WATER MANAGEMENT

1. The property in question, Block 507.14, Lot 65.01, consists of approximately 4.816 acres and is currently developed with a one-story building, dwelling and garage. The majority of the runoff from the site drains to the south of the property. A small portion of the runoff from the site drains to the northeast corner of the property.
2. Development of the proposed storage facility will disturb approximately 3.73 acres of land and will create 1.10± acres of additional impervious surface. The project exceeds the threshold of 1 acre of disturbance and increases the impervious surface by more than ¼ acre; therefore, it is classified as a major development for stormwater management purposes. In accordance with Township Ordinance and Stormwater Management Rules N.J.A.C. 7:8 as amended March 2, 2020, major projects must comply with water quantity control, water quality and groundwater recharge standards. The Applicant proposes to construct three (3) Bioretention structures to address stormwater management and water quality.
3. The property in question is located within the Delaware and Raritan Canal Commission Review zone and is subject to DRCC regulations. A copy of the DRCC approval, or letter of no interest, must be provided to this office.
4. The development proposes more than 1 acre of land disturbance and must obtain a General Permit for Construction Activities from the NJDEP. A copy of the permit must be provided to this office.
5. The Applicant must obtain a Soil Erosion and Sediment Control Certification from the Somerset-Union Soil Conservation District. A copy of the plan certification must be provided to this office.
6. Wetlands are shown on the south and east side of the property. L.O.I. information for wetlands should be added to plans. A copy of the L.O.I. must be provided to this office.
7. The Applicant proposes disturbance of freshwater wetlands transition area; therefore, an NJDEP Freshwater Wetlands permit must be obtained for the proposed disturbance. A copy of the permit must be provided to this office.
8. An un-delineated stream that drains more than 50 acres runs approximately 200 ft East of the Property boundary. The flood hazard area could impact this property. The Applicant should obtain a Flood Hazard Area determination from NJDEP. A copy of the NJDEP determination should be provided to this office.
9. Stormwater calculations should be updated to use NOAA rainfall depths for design storms that correctly reflect the project location.



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10. Stormwater management report should be updated to provide computation for times of concentration for each drainage subarea.
11. Appendix A of the stormwater management report only provides a summary of draining area calculations. The stormwater management report should be updated to include detailed calculations for all existing and proposed drainage subareas.
12. Table 3.2.1 in the stormwater report should be updated to include design parameters for each bioretention basin such as inflow area, water quality volume, basin area, filtration rate of soil media, the flow capacity of underdrain system, separation from seasonal high groundwater table, and drain time and demonstrate compliance with BMP standards.
13. Bioretention basin detail should be updated to include a filter fabric on the bottom and sides of the bioretention basin as indicated in BMP manual.
14. Plans should be updated to include inspection ports at the upstream and downstream end of the Bioretention Basin underdrain system as indicated in BMP Manual.
15. 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 N.J.A.C. 7:8-5.7 and 7:8-6.2.
16. In accordance with BMP Manual requirements, the maximum depth of runoff in a flat-bottom bioretention basin is 12 inches. Both the proposed bioretention basins 1 & 2 are not in compliance and should be revised accordingly.
17. In accordance with B.M.P Manual requirements, no standing water may remain at the surface of a bio-retention basin 72 hours after a rain event. The drainage report should include calculations for bio-retention basins 1, 2, and 3, demonstrating compliance with this requirement.
18. The drainage report should be revised to include capacity calculations of the underdrain pipes.
19. An access road 18-ft wide at a maximum slope of 1:4 should be provided for the bioretention basins for maintenance purposes. Construction detail of the access road should be provided.
20. Outlet control structure information in the stormwater calculations and plan sheets do not match. This stormwater report and plans must be revised to remove this discrepancy.
21. The Grading and Utility Plan should be revised to note the maximum water elevation for the water quality, 2-yr, 10-yr, 100-yr, and emergency spillway storm events for proposed Bioretention Basins 1, 2, and 3.
22. The minimum width of the top of the berm in a Bioretention Basin shall be 6 feet. Proposed bio-retention basins 1, 2, and 3 are not in accordance and should be revised.
23. In accordance with BMP Manual requirements, post-construction testing must be performed on the as-built Bioretention basins to ensure that the installed BMP functions as designed. Where as-built testing shows a longer drain time than designed, corrective action must be taken, and the basin should be retested. Post-construction testing must include a determination of the permeability rates of the soil bed and the hydraulic capacity of the underdrain system. A note should be included in the site plan stating this requirement.
24. A minimum of two (2) soil profile pits should be excavated for each area of a proposed Bioretention basin to determine soils suitability and establish seasonal high water in the area of the proposed basin. The Applicant should perform the required testing in accordance with Chapter 12 of the BMP Manual.



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25. Seasonal high water in test pit logs SPP-1A, SPP-2A, SPP-4, SPP-4a, SPP-5, & SPP-5a ranges from 72 ft to 73 ft. All bioretention details show a seasonal high water elevation of 72 ft. All these test pits are in close proximity, and the highest seasonal high elevation (i.e., 73 ft) should be used for the design of bioretention basins 1 and 2. A seasonal high-water table for the Bioretention basin was not established in the geotechnical report. One-foot separation is required between the bottom of the bioretention basin and the seasonal high-water table per BMP Manual. Bioretention system design and details should be revised to demonstrate compliance.
26. The stormwater management report should be updated to include an annual ground recharge analysis.
27. Section 4.3 of the stormwater report states that the site cannot provide the required recharge because of poor permeability rates and karst topography. The Applicant has provided geotechnical investigations only in the eastern portion of the site. The Applicant should also explore other areas of the property for suitable recharge areas. We could not find evidence of karst topography in either the stormwater report or geotechnical reports. The stormwater management report should be updated to include evidence of karst topography.
28. A low-impact development checklist should be completed for this project.
29. A Non-Structural Strategies Points System (N.S.P.S.) spreadsheet is provided in the Stormwater Management Report. Wetlands and Undisturbed Stream Buffers areas are the same in both pre and post-developed conditions. The plans show encroachment into the wetlands buffer areas. The spreadsheet should be revised to use the correct areas.
30. An Operations and Maintenance Plan should be prepared for the proposed measures. The Plan should be prepared in accordance with N.J.A.C. 7:8-5.8 and a copy of the plan should be provided to this office for review.
31. The Applicant's engineer should verify the need for foundation cutoff walls of relatively impervious material under the berm of the bioretention basins. If an impervious core is needed, a cross section of the proposed berms should be provided showing the installation of the cutoff wall and the grading plan should be revised to show the extend of the clay core material. The impervious core shall conform to the Township Standard Embankment Detention Basin Clay Core detail. Revise plans accordingly.
32. The septic disposal field is less than twenty feet (20') from Bioretention basin no. 1. Our office has concern over the close proximity to the basin. Approval of this location from the County Health Department should be provided.
33. An executed Major Development Stormwater Summary (Attachment D of the Tier A MS4 NJPDES Permit) shall be submitted to this office for review and approval.
34. Provide a Stormwater Maintenance Agreement for the stormwater system to insure future maintenance. A sample agreement is available from the Engineering Department.

G. MISCELLANEOUS

1. Revise/Add the following details based on Franklin Township standard details:
 - a. Add the following note on all of the detail sheets, "In case of discrepancy, Township Standard Details shall hold";
 - b. Water meter pit;
 - c. Revise the Pavement Repair Detail to increase the top course of hot mix asphalt to 2" thick and the base course to 4" thick;



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- d. Remove the "No Parking Fire Zone" lettering in the Fire Zone Striping Detail located on sheet C-904;
- e. Provide 5' Wide Gravel Strip detail;
- f. Where the concrete walk abuts the curb and/or building, expansion joints should be added along the sidewalk edge, "Concrete Sidewalk Detail" should be revised to reflect same;
- g. Revise the Concrete Sidewalk Detail to note that a maximum 2% cross slope is permitted;
- h. Provide Freestanding Sign detail;
- i. All site concrete shall be 4,500 psi;
- j. The pipe label for the Headwall #100 detail conflicts with the plan label, same should be reviewed and revised;
- k. The pipe label for the Headwall #200 detail conflicts with the plan label, same should be reviewed and revised;
- l. Sign posts including breakaway post for all signage details;
- m. Provide detail for Riprap #100;
- n. Provide detail for Riprap #400;
- o. The outlet control structure detail OCS #410 conflicts with the plan; same should be reviewed and revised;
- p. Provide Flared End Section detail;
- q. Remove the Fire Hydrant detail on sheet no. C-908.

The Applicant is required to obtain either approvals or letter of no interest from the following agencies:

Outside Agencies:

- Delaware Raritan Canal Commission
- Somerset County Planning Board
- Somerset-Union Soil Conservation District
- New Jersey Department of Environmental Protection

Township Departments:

- Franklin Township Fire Department
- Franklin Township Police Department
- Franklin Township Sewerage Authority
- Somerset County Health Department

The Engineering Department reserves the right to make additional comments based upon the submission of revised plans or testimony presented to the Board.

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

RJR/DM

cc: Planning Board Secretary