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MEMO TO: Borough of Sayreville Planning Board

FROM: Jay B. Cornell, P.E., Borough Engineer's Office 

DATE: October 16, 2024

**SUBJECT: Masjid Sadar – Community Center / House of Worship Site Plan
Block 444.04, Lot 23, 24, 25 and 28
Our File No. PSAP0444.04**

In accordance with your authorization, our office has reviewed the additional documents recently submitted for the above referenced project. These documents consist of the following:

- Revised Architectural Plans prepared by J Javier Architect, LLC dated July 3, 2024.
- Revised Traffic Impact Analysis prepared by Stimmel Engineering and dated October 2, 2024.

Our office would defer to the Board Traffic Consultant, Bright View Engineering, for a detailed review of the revised Traffic Impact Analysis submitted for the project.

Our office has prepared the attached updated "Technical Engineering Review" based on the revised documents submitted. The comments contained in this review should be addressed in further detail by the Applicant's Engineer.

At this time, it would be the recommendation of our office that any action taken by the Board on the subject application be contingent upon the resolution of the aforementioned items.

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

JBC/blr

cc: All Board Members
Lawrence Sachs, Esq.
AWZ Engineering Inc.



**BOROUGH OF SAYREVILLE
MASJID SADAR – COMMUNITY CENTER/HOUSE OF WORSHIP
SITE PLAN**

- UPDATED TECHNICAL ENGINEERING REVIEW -

Our File No.: PSAP0444.04/600.01

A. SITE GRADING & GENERAL COMMENTS

1. The size of the proposed building has been reduced from 44,391 sf to 42,687 sf. Based on the revised architectural plans provided the proposed 42,687 sf building is to contain a number of uses as noted below:

- a. First Floor (23,082 sf)*
 - i. Gents Prayer Hall #1 (5,057 sf)
 - ii. Multi-Purpose Hall (3,332 sf)
 - iii. Basketball Court (7,703 sf)
 - iv. Men's Exercise Area (1,109 sf)
 - v. Locker Rooms (213 sf)
 - vi. Media Room (130 sf)
 - vii. Check In Area (111 sf)
 - viii. Lobby (1,635 sf)
 - ix. Shoe Rack Rooms (210 sf)
 - x. Male Ablution Room (220 sf)
 - xi. Kitchen (682 sf)
 - xii. Various Bathrooms and Storage Areas

- b. Second Floor (13,366 sf)*
 - i. Ladies Prayer Hall (1,778 sf)
 - ii. Meeting / Media Room (700 sf)
 - iii. Youth Activity (Girls) Hall #2 (1,109 sf)
 - iv. Ladies Exercise Hall (1,340 sf)
 - v. Locker Room (200 sf)
 - vi. Ladies Ablution Room (158 sf)
 - vii. Seven (7) Classrooms (1,902 sf)
 - viii. Dry Kitchen (138 sf)
 - ix. Various Bathrooms and Storage Areas

- c. Third Floor (6,239 sf)*
 - i. Boys Youth Activity Hall (1,808 sf)
 - ii. Two (2) Offices (540 sf)
 - iii. Cafeteria (688 sf)
 - iv. Dry Kitchen (194 sf)
 - v. Storage Rooms (661 sf)
 - vi. Various Bathrooms and Storage Areas



- d. Basement (24,426 sf)*
 - i. Sixty-Four (64) surface parking spaces
 - ii. Fifty-Seven (57) parking spaces via lift system
 - iii. Kitchen (286 sf)
 - iv. Funeral Body Preparation Room (236 sf)
 - v. Various Utility and Storage Rooms

- e. Minaret (100 sf)*

* The Applicant's Architect should further review the floor level square footage figures noted on the plans since the individual square footage figures noted above do not equate with those totals.

The Applicant should provide specific information relative to the proposed building uses noted above such as hours of operation, classroom use, office use, gymnasium use, multi-purpose hall use, number of employees, etc.

- 2. The Applicant will be required to obtain the following governmental approvals necessary to implement this project:
 - a. Middlesex County Planning Board,
 - b. NJDEP Treatment Works Approval,
 - c. NJDEP Bureau of Safe Drinking Water,
 - d. NJDEP – Wetlands Letter of Interpretation,
 - e. NJPDES – Construction Activity Stormwater Discharge Authorization,
 - f. Borough of Sayreville – Soil Erosion and Sediment Control Plan Certification,
 - g. Borough of Sayreville – Soil Removal or Fill Placement Permit,
 - h. Borough of Sayreville – Tree Removal Permit.

- 3. Our office would defer to the report of the Board Planner for his review of the Zoning Ordinance requirements for this project.

- 4. The Applicant should arrange with all applicable utility companies for the installation of their underground supply lines and service connections. A written instrument from each serving utility company should be provided to our office.

- 5. Our office has previously raised questions relative to any types of outdoor activities / events that would be taking place at the site and the potential noise impacts from these activities/events of the adjacent residential properties. The Applicant has revised the Environmental Impact Study to indicate there will not be any outdoor activities/events taking place on the property outside of the building. However, with the recent proposal to include a valet parking system, this would no longer be the case. This matter should be further discussed with the Board.



6. In accordance with the Borough Ordinance, all lawn and landscaped areas shall be graded to provide a minimum slope of two (2%) percent. A number of lawn and/or landscaped areas throughout the site do not satisfy this requirement and should be revised.
7. A deed of lot consolidation should be filed for the project. The new block and lot number should be obtained from the Borough Tax Assessor.
8. A soils report which demonstrates the ability of the site soils to support the proposed structure should be provided. The manner in which potential groundwater issues will be addressed as well as the need for special foundation support measures should also be further reviewed. As was discussed with the Board this report should also address the potential impacts of vibrations during construction on the adjacent properties.
9. Since there will be excess soil material on the site from the excavation of the proposed basement area, the possible use of this material to create landscaped berms in the buffer areas should be further reviewed.
10. The aesthetics of the proposed building to be constructed should be reviewed by the Board.

B. SANITARY SEWER SYSTEM

1. The Sanitary Sewer Analysis Report should be revised to include calculations that demonstrate the adequacy of the existing sanitary sewer downstream of the proposed site improvements to accept the increased sewage flows. The calculations should include wastewater flow quantities from all existing development that is tributary to the downstream system.
2. The sanitary sewer flow calculations provided in the report and on plan sheet C-07 should be revised to include separate sewer demand from all the additional individual uses indicated on the architectural plans and in the parking analysis table (gymnasium, exercise rooms, kitchen, cafeteria, and youth activity rooms).

C. WATER DISTRIBUTION SYSTEM

1. A Water Demand Analysis Report should be revised to include needed fire flow (NFF) calculations for the proposed building. The needed fire flow calculations shall conform to the Insurance Services Office (ISO) standard, Fire Suppression Rating Schedule, or per AWWA M31, "Manual of Water Supply Practices-Distribution System Requirements for Fire Protection", ISO method on pages 3-9. Accordingly, a hydrant flow test shall be required in order to verify that the simultaneous NFF and



maximum domestic flows are available from the Borough water distribution system at a minimum 20 psig residual pressure.

2. The water demand calculations provided in the report should be revised to include separate water demand from all the additional individual uses indicated on the architectural plans and in the parking analysis table (gymnasium, exercise rooms, kitchen, cafeteria, and youth activity rooms).

D. STORM SEWER SYSTEM

1. The proposed development will disturb approximately 2.49 acres of land and, in accordance with the Borough Stormwater Control Ordinance, any development that disturbs one (1) or more acres of land is classified as a major development. Major developments should meet the erosion control, green infrastructure, groundwater recharge, stormwater quantity and stormwater quality standards contained in the Ordinance.
2. The proposed Kraken Filter by Contech, LLC. has not been certified by the NJDEP as a green infrastructure MTD and cannot be used to meet water quality treatment for the project. The stormwater management design should be revised accordingly.
3. A subsurface soils investigation report should be submitted for the project.
4. The Stormwater Report should be revised to include a capacity analysis for the existing storm sewer pipe in Ernston Road for at least two pipe reaches downstream from the connection point to verify adequate capacity.
5. In accordance with BMP Manual guidelines, the drain time of detention basins should be computed. The basins should be fully empty within 72 hours. The soil investigations must be performed to determine the permeability and seasonal high-water table (SHWT) at the location of the infiltration basin. The drain time calculations of the infiltration basin must be shown in a hydrograph.
6. The proposed aboveground detention basin is not listed as a green infrastructure BMP for water quantity, water quality, or groundwater recharge. The stormwater management design should be revised accordingly.
7. The manner in which stormwater runoff from the basement parking area will be addressed should be further reviewed. Some additional trench drains may be needed to handle this flow.



E. LANDSCAPING AND LIGHTING

1. In accordance with the Borough Ordinance, where a non-residential use abuts any residential use or residentially zone lot, a fifty (50') foot wide landscaped buffer should be provided. Although the required 50' buffer area has been provided, the need for additional plantings should be further reviewed.
2. The visibility of the proposed building from the adjacent residential properties should be further reviewed. Cross section views from the residential properties to the proposed building should be provided. Additional measures to screen the building should be further reviewed.

F. PARKING LOT IMPROVEMENTS AND MISCELLANEOUS

1. In accordance with the Borough Ordinance, no onsite parking spaces shall be located in a front yard setback area. A number of proposed onsite parking spaces are located within the front yard setback area. The Applicant is requesting a waiver for this item.
2. In accordance with the Borough Ordinance, sidewalks should be provided between all parking areas and buildings, along access driveways and aisles, and wherever pedestrian traffic will occur. The proposed site plan does not satisfy this requirement. The Applicant is requesting a waiver for this item.
3. The need for a sidewalk connection between Ernston Road and the proposed building should be further reviewed. Our office would recommend this connection in order to help minimize pedestrian traffic in the parking lot.
4. In accordance with the Borough Ordinance, all parking areas shall be provided with durable curbing and planted islands. The proposed head to head parking spaces do not meet this requirement. The Applicant is requesting a waiver for this item.
5. In accordance with Borough Ordinance requirements for non-residential buildings, one (1) off-street loading space shall be provided for the 1st 25,000 sf of building area and one (1) additional loading space shall be provided for each additional 15,000 sf of building area. Each loading space should be 12 ft. wide by 50 ft. long. The Applicant is requesting a waiver for this item.



6. In accordance with the Borough Ordinance, where a driveway serves as an entrance to a land development providing one hundred (100) or more parking spaces, a two hundred (200') foot long deceleration lane shall be provided for traffic turning right into the driveway from the road. It should be noted that this requirement was discussed with Middlesex County and they have indicated that they do not want this deceleration lane to be constructed. The Applicant is requesting a waiver for this item.
7. Our office will defer to the Borough Fire official for the review and approval of the fire truck design vehicle and the circulation turning paths for same, as indicated on the Traffic Circulation Plan.
8. The required driveway sight triangles should be provided on the Landscape Plan. It appears that a significant number of trees and shrubs are proposed to be located within the required sight triangles, which should be further reviewed and revised as required.

G. TRAFFIC

1. Ernston Road is a roadway governed by Middlesex County so the County would have jurisdiction for any roadway widening and traffic related improvements along the frontage of the property and the adjacent Bordentown Avenue/Ernston Road intersection. The Applicant's Engineer should further review the status of previous meetings with Middlesex County concerning off-site traffic related improvements that will be required in conjunction with this application.
2. The total amount of building floor area, as indicated in the parking analysis table (approximately 26,000 sq.ft.), is inconsistent with the revised total building floor area indicated on the architectural plans building data table (42,687 sq. ft.). Accordingly, the parking analysis table should be revised to include the additional occupiable floor areas/uses and the required number of parking spaces associated with these uses. This information is required in order to develop an accurate parking space requirement for the project.
3. The parking analysis provided on the submitted site plan indicates that a total of 377 parking spaces are required for the proposed site. As noted in the previous comment, these figures need to be verified. The submitted plan only proposes a total of 166 parking spaces which is a deficiency of 211 spaces. A variance will be required for this deficiency.



4. The October 2, 2024 Traffic Impact Analysis refers to a review of the site plan prepared by AWZ Engineering and last revised July 11, 2024. The report indicates that those plans indicate a parking requirement of 196 spaces. Those plans have not been submitted to the Board. The latest AWZ Engineering plans submitted to the Board are last revised on October 25, 2023 and indicate the need to provide 377 parking spaces. The Traffic Report should be revised to address the 211 space parking deficiency based upon the documents submitted to the Board.
5. The Applicant's Engineer should provide the Board with information to justify the proposed parking deficiency. Traffic patterns and impacts on the surrounding residential streets should be further reviewed. The use of off-duty police officers, shuttle vans and off-site parking areas should also be reviewed.
6. The Applicant has previously provided the below information concerning the various types of religious events that will be taking place at the site. This information has been updated based upon information contained in the revised Traffic Report as noted below:
 - a. Janaza – prayer for the deceased
 - 60 to 100 attendees (Revised 100 to 150 people)
 - 15 minutes after 1:20 pm prayer service
 - b. Family Nights
 - 90 to 100 attendees (Revised 100 to 130 attendees)
 - Once per month – Fridays 7:00 pm to 8:00 pm
 - c. Nikah – Religious Wedding
 - 20 to 30 attendees (Revised 45 to 50 people)
 - Saturday 4:00 pm
 - d. Jumah – Friday Prayer
 - 120-180 attendees (Revised 180 to 200 persons per prayer)
 - Friday – 12:15 pm to 12:45 pm
 - Friday - 1:20 pm to 1:45 pm
 - e. Regular Prayer
 - 30 to 60 attendees (Revised 30 to 45 persons)
 - Daily – 6:00 am, 1:20 pm, 4:30 pm, 7:00 pm, 8:30 pm
 - f. Sunday School
 - 32 attendees (Revised 45 to 50 students)
 - Sunday 10:00 am to 1:00 pm
 - g. Ladies / Sitters Classes (Not previously proposed)
 - 45 persons
 - Saturday 10:00 am to 1:00 pm
 - h. Ramadaan (Previously proposed off-site)
 - 300 to 500 persons
 - Night prayer 8:00 am – to 10:30 pm
 - Off-site parking at Samsel School



The Applicant should further discuss with the Board the reason that these figures have significantly increased since the original submittal. In addition the use of the site for Ramadaan services which were previously to be held off-site should be further discussed.

7. The Applicant should confirm that wedding receptions will not take place in the proposed building now that a previous prayer hall has been converted to a multi-purpose hall.
8. As requested by our office the Traffic Report has been amended to reflect traffic data from existing Mosque's located in East Brunswick and Somerset. Average vehicle occupancies of 1.82 to 1.88 persons/vehicles were reported. The Traffic Engineer should provide the Board with more specific information on the square footage of the Mosque's that were studied as well as the available parking areas. The manner in which the above noted figures were calculated should also be further reviewed.
9. As a result of a discussion at the May 8, 2024 meeting relative to projects recently approved by the Borough, our office provided the Traffic Reports for the Arsenal Trade Center, Camelot at Main Street, and Camelot at Ernston Road projects to the Applicant's Attorney. The Traffic Report should be revised to address the impact the traffic generated by these developments will have on this project.
10. At the September 18, 2024 meeting a presentation was made relative to the proposed use of a lift system and valet service for the proposed basement parking area. Various concerns were raised relative to how this proposal would impact on-site circulation of the parking lot. The Traffic Report should be revised to address the operation of the lift/valet system.
11. The Applicant has submitted additional information on Masjid Sadar & Community Events that includes the following additional special and large events:
 - a. Eid Prayers and Carnival – Held twice per year at either Kennedy Park or the High School.
 - b. Ramadaan (Holy Month) – Held once per year, night prayers between 8:00 pm & 10:30 pm, with an average of 300-350 persons attending (families arriving in mini vans with 4-5 people per van).

Additional information should be provided to the Board concerning the aforementioned special events, including the following:

- a. Current demographic information for the projected attendees for each event,
- b. Provisions for traffic control at each event,
- c. Specific on-site and off-site parking demand for each event,



- d. Potential use of shuttle buses between off-site parking and the subject site during each event,
 - e. Impact on major intersections near the subject site and off-site locations during each event.
12. In 2018 the Borough Zoning Board granted approval to Shri Bhaktinidhi Inc. for the construction of a new House of Worship on Washington Road. Various conditions related to traffic control during large events as noted below were made Conditions of Approval by the Board:
- a. Coordinate traffic control issues with the Police Department in advance of events.
 - b. Employ off-duty Police Officers for events as determined by the Police Department.
 - c. Distribute flyers and email blasts to the congregation advising of additional off-site parking locations and to obey traffic officers and parking regulations.
 - d. Install signage for events at least one (1) week in advance at locations determined by the Police Department.
 - e. Use off-site parking and busing to and from off-site locations in coordination with the Police Department.

The Board should consider imposing similar conditions for this application.

13. Since the Traffic Report indicates that published traffic standards do not provide trip generation information for the proposed use, the Board must rely on information provided by the Applicant. This is a similar situation to the Shri Bhaktinidhi Inc. application noted above.

In order to address this issue the Zoning Board required traffic studies to be performed after the completion of construction. The Board may want to consider imposing similar conditions for this application.