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MEMO TO: Township of Franklin
Planning Board

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

DATE: September 25, 2020

RE: ***Pillar of Fire International
Preliminary & Final Use Variance &
Parking Expansion Site Plan
Report #1
Engineering
Block 516.01, Lot 1.01
2 Ministry Center Drive
Franklin, New Jersey
Our File: PFRZ0516.01/600.01
Application # ZBA-19-00045***

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

- Preliminary & Final Use Variance & Parking Expansions Site Plan, as prepared by Van Cleef Engineering Associates, LLC, dated September 23, 2019, with latest revision of July 30, 2020;
- Boundary Survey and Topographic Mapping Prepared for Block 516, Lots 1, 2 and 3, as prepared by Van Cleef Engineering Associates, LLC, dated January 20, 2006, with no revisions;
- Storm Drainage Report, as prepared by Van Cleef Engineering Associates, LLC, dated October 16, 2019, with no revisions;
- Stormwater Best Management Practices (BMP) Operation and Maintenance Manual, as prepared by Van Cleef Engineering Associates, LLC, dated October 16, 2019, with no revisions;
- Environmental Condition Reports, as prepared by Van Cleef Engineering Associates, LLC, dated October 16, 2019, with no revisions;
- Traffic Impact Study, as prepared by McDonough & Rea Associates, Inc., dated December 18, 2019, with no revisions;
- Application Forms.

The following comments are offered with regard to same:

A. PROJECT OVERVIEW

The site is located with frontage on the southeast side of Weston Canal Road (C.R. 623), between Randolph Road and Schoolhouse Road. The site will be accessed from Weston Canal Road (C.R. 623). The property is approximately 144.8045 acres and is located in the A zone. The site currently contains several existing buildings, including a Church, a school, an office building, and a service area, asphalt parking lots, six (6) athletic fields, and a cemetery. The applicant is proposing to expand the existing parking lot servicing the Church to increase the parking from 251 parking spaces to 475 parking spaces, for a net increase of 224 parking spaces. The site improvements include but are not limited to porous pavement parking lot to address NJDEP stormwater management regulations, block curb, grading, landscaping and lighting.



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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. 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.
2. 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).
3. 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.
4. 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.
5. 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.
6. In accordance with Ordinance §112-192.A.3, the site plan shall be no greater than 24 inches by 36 inches in size. The applicant should request a waiver from the checklist requirement. This office finds this request acceptable.
7. In accordance with Ordinance §112 Attachment 5 – Schedule 5, the maximum sign area permitted for churches, schools, public buildings and grounds is 25 sf. The applicant is proposing a 36 sf sign. The applicant is requesting a variance for same.
8. 1,356 Parking spaces are required per the Ordinance §112 – Schedule 4. There are currently 251 parking spaces provided for the Church and the applicant is proposing to install an additional 224 parking spaces for a total of 475 parking spaces. The applicant is requesting a variance for same.
9. Based on the 475 total parking spaces, nine (9) barrier free parking stalls are required, two (2) of which is required to be van accessible. The applicant is proposing nine (9) accessible spaces, two (2) are proposed to be van accessible; therefore, the ADA parking demand is met.
10. The applicant should delineate the existing traffic arrows servicing the Church parking lot. It appears the existing traffic flow is for one-way traffic. It is unclear if the applicant is proposing two-way traffic. Clarification is required.
11. The applicant is proposing handicap parking spaces along the southern and western building lines. The applicant's engineer should provide removal and replacement limits of concrete curb and sidewalk. In addition, spot elevations should be provided delineating ADA compliance including but not limited to ramp slope and ADA compliant landings.



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12. The applicant is proposing to construct the parking lot in three (3) phases. A construction-phasing plan should be provided, for further review. The applicant should also provide testimony regarding proposed phasing.

C. TRAFFIC IMPACT STUDY COMMENTS

1. The traffic impact statement concludes that, 'This plan is proposed in order to accommodate existing parking activity and no additional traffic impact is expected to be generated by this application.' The applicant should provide testimony for same.
2. 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.

D. GRADING AND UTILITY COMMENTS

1. The applicant should address the following general grading comments:
 - It appears the applicant is installing depressed curbing for the islands. We recommend full faced curb be installed;
 - Provide spot elevations for all proposed curb islands;
 - Provide spot elevations within the parking lot and concrete walkways to demonstrate ADA compliance. Spot elevations should delineate the proposed ramp slope and ADA compliant landings (maximum cross and running slopes of 2%, respectively);
 - The existing/proposed 53-foot contour is missing near Inlet #1;
 - Provide existing pavement spot elevations at the northern asphalt tie-in;
 - It appears a valley gutter is proposed at the northern limit of the porous pavement area. Additional proposed spot elevations should be provided for review;
 - It appears spot elevation 53.63 along the western driveway aisle is a low point;
 - The grading will be reviewed further when the above has been addressed.

E. LANDSCAPING AND LIGHTING COMMENTS

1. This office defers the review of the landscaping to the Township Planner; however we have the following recommendations:
 - Provide landscaping within the proposed curb islands;
 - Delineate the proposed grading contours on the landscaping plan to ensure the proposed landscaping will not impede the proposed swale.
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. 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.
4. Sheet no. 3 notes, 'Existing light pole to be relocated (typ.) (see lighting plan – sheet 5). It is unclear which poles are to be relocated or are new. For example, there are four (4) existing light poles in the southernmost portion of the existing parking lot and it appears four (4) new light poles are shown on the plan. The site plan should clearly note which light poles are to be removed or relocated. In addition, the



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applicant's engineer should review the feasibility of relocating the proposed lighting within the proposed curbed islands to the maximum extent possible.

F. ENVIRONMENTAL IMPACT COMMENTS

1. A Letter of Interpretation for the freshwater wetlands should be obtained from NJDEP to verify the limits of wetlands and the transition areas. Sheet no. 2 of the site plan notes, '(a) new application for LOI has been filed, new LOI has not yet been issued. Wetlands buffers shown hereon are subject to change once LOI has been issued.' The Applicant's engineer should provide the letter of interpretation upon receipt, including the NJDEP stamped approved wetlands map, to verify the wetlands and buffers.
2. The Environmental Assessment should be revised to provide a complete list of permit and other approvals required such Somerset County approval, NJDEP general permit for construction activity, NJDEP Freshwater Wetlands permit, etc.

G. STORM WATER MANAGEMENT:

1. The property in question, Block 516.01 Lots 1-3, consists of approximately 144.80 acres. Proposed expansion of the parking lot will disturb approximately 3.05 acres of land and will create 1.58 acres of new impervious surface. The project exceeds the threshold of 1 acre of disturbance and ¼ acre of new impervious surface; therefore, it is classified as a major development for stormwater management purposes. In accordance with the Township Ordinance, major projects must comply with water quantity control, water quality and groundwater recharge standards.
2. The project site is located within the review zone of the Delaware and Raritan Canal Commission and the Applicant should obtain approval from the Commission. A copy of the permit should be provided to this office.
3. The Applicant proposes disturbance of wetlands and wetlands transition area; therefore, a NJDEP Freshwater Wetlands permit must be obtained for the proposed disturbance. A copy of the permit must be provided to this office.
4. The Applicant must obtain a Soil Erosion and Sediment Control Plan Certification from the Somerset-Union Soil Conservation District. A copy of the certification must be provided to this office.
5. The proposed 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.
6. The applicant should mark all areas of porous pavement with signage restricting traffic to only passenger vehicles in accordance with Ordinance §330-20.C.
7. The drainage report should be revised to include runoff calculations for the water quality storm event in the areas draining to Porous Pavement Area I and II.
8. The storage volume calculations for the two areas of porous pavement included in Appendix D of the drainage report should be revised to only account for the usable volume below the overflow device (inlet grate). For Area II, the depth between the bottom of the storage bed (elevation 52.18) and the grate of Inlet #1 (elevation 52.85) is 0.67 ft. The proposed surface course (5") and choker course (1") reduces the depth to only 0.17 feet for an approximate storage volume of 2,710 cubic feet. According to the drainage report, the storage volume for area II is 47,227 cu. ft. Applicant's engineer should review usable storage volumes further.



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9. The drainage report should be revised to include runoff calculations for the water quality design storm. It appears that the storage volume provided by the proposed porous pavement is less than the runoff volume produced by the water quality storm. Revise the design of the proposed porous pavement accordingly.
10. Construction details for Porous Pavement Detail (Area I) and (Area II) provided on sheet 8 should be revised to specify the minimum tested infiltration rate of the surface course in accordance with BMP Manual requirements. In addition, additional requirements for porosity, minimum air temperature for paving, temperature of the material, etc. must be noted.
11. In accordance with BMP Manual requirements, an outlet at the elevation of the water quality design storm is required to prevent the infiltration of larger storm events. Additional storage above this elevation may be included to address water quality control requirements. The proposed porous pavement is not in accordance with BMP requirements and should be revised accordingly.
12. In accordance with BMP manual, to receive credit for a TSS removal rate of 80%, pervious systems must be designed to treat the water quality design storm and in accordance with all the BMP design criteria for porous pavement. The proposed porous pavement does not have adequate volume to treat the water quality storm and should be revised accordingly.
13. The Grading, Drainage and Utility Plan and the Porous Pavement Detail should be revised to include the maximum water surface elevation for the water quality, 2-yr 10-yr and 100-yr storm event.
14. In accordance with BMP Manual requirements, no standing water may remain in the storage bed 72 hours after a rain event. The drainage report should be revised to document compliance with this requirement.
15. The proposed porous pavement does not provide water quantity reductions required to address water quantity control standards and should be revised accordingly.
16. The drainage report should be revised to include pipe sizing calculations for the existing conveyance system to document adequate capacity of the system to handle proposed peak flows from existing facilities and the parking lot expansion.
17. A construction detail of the outlet structure to control outflow from the proposed porous pavement must be provided.
18. Construction details for Porous Pavement Detail (Area I) and (Area II) provided on sheet 8 should be revised to note the permeability rate of the subsoil used in the design of the porous pavement.
19. In accordance with BMP Manual requirements, at least one inspection port with removable cap should be provided for Area I and II. The inspection port must extend 4 to 6 inches into the subsoil and the depth of runoff for the water quality must be marked in each structure. A construction detail of the inspection port should be provided.
20. In accordance with BMP Manual requirements, testing must be performed on the subsoil below the storage bed after excavation but prior to placement of the stone in accordance with the Construction and Post-construction Oversight and Soil Permeability Testing in Appendix E of the BMP Manual. A note specifying this requirement should be include on the plans.
21. Groundwater recharge worksheet calculations provided in Appendix E of the drainage report should be revised to provide a separate analysis for area I and II. The appropriate BMP area, effective depth, and tributary impervious surface for each area should be noted. Revise calculations accordingly.



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22. The Operation and Maintenance Manual (OMM) should be revised as follows:
 - a. The OMM should be revised to include a brief overview of each proposed BMP identifying the purpose of the BMP (to address water quality, quantity, etc.).
 - b. The OMM should be revised to include basic design information for the porous pavement such type of system, design soil permeability rate, design drain time, elevation of the seasonal high water table, TSS removal rate achieved, design peak flow and volume of the system, invert elevation of the overflow outlet, depth of the storage bed. In addition, provide a summary of the rainfall depth, runoff volume, peak outflow rate, and water surface elevation for each storm event (water quality, 2-yr, 10-yr, and 100-yr). The SMM should also include the size, type (orifice, weir, spillway, etc.) and invert elevation for each outlet provided.
 - c. The OMM should show the location of the inspection ports provided.
23. 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.
24. Provide a Stormwater Maintenance Agreement for the stormwater system to insure future maintenance. A sample agreement is available from the Engineering Department.

I. 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. Provide a construction detail for the proposed 4" Inspection Port for the Porous Pavement area.

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 Water Department
- Somerset County Health Department
- Franklin Township Sewerage Authority

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: Zoning Board Secretary