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MEMORANDUM

To: Township of South Orange Village
Planning Board Chairman & Members

From: Eric L. Keller, PE, PP, LEED AP
Planning Board Consulting Engineer

Re: Application No. 268
109 & 115 South Orange Ave
Preliminary & Final Site Plan
Technical Review #1
BCG Project # 080373-SO-018

Date: March 23, 2019

CC: Ojetti Davis, Planning Board Secretary
William Sullivan, Esq., Board Attorney
Philip Abramson, PP, Village Planner
John Wyciskala, Esq., Applicant's Attorney

We have received the following documents for the purposes of conducting an engineering technical review:

1. Preliminary and Final Site Plan set entitled "The Learning Experience, 109 & 115 South Orange Avenue West, Township of South Orange Village, Essex County, NJ, Block 1904, Lots 16 & 17" consisting of twelve (12) sheets prepared by Gerard P. Gesario, P.E., of Jarmel Kizel Architects and Engineers, Inc. dated January 3, 2019 and last revised January 17, 2019;
2. Plan set entitled "The Learning Experience Academy of Early Education, 109 W. South Orange Ave, South Orange, NJ" consisting of two (2) sheets prepared by Matthey B Jarmel, AIA dated January 24, 2019 with no revisions;
3. Plan sheet entitled "Topographic Survey of Property, Lot No. 16 & 17, Block No. 1904, Township of South Orange Village, County of Essex, New Jersey" prepared by David J. Von Steenburg, PLS of Morgan Engineering and Surveying, dated February 5, 2017 and last revised November 21, 2018;
4. Title Insurance Policy issued by Stewart Title Guaranty Company, Dated June 5, 2007;
5. Completeness Report #1 prepared by the Township Planning Consultant, Topology;

6. Township of South Orange Village Planning Board and Zoning Board Application Form;
7. Township Application Checklist;
8. Additional related materials such as site photos and will serves (PSE&G, JMEUC).

The application proposes to remove the vacant Ridge Tire and Auto Center and construct a 16,327 square foot two-story day care center. Off-street parking will be provided under the proposed structure with one twenty-four (24') foot wide driveway accessing South Orange Avenue.

Our technical review comments on the various submitted documents are as follows:

Site Plans

1. The survey provided is called out as a "Topographic Survey". It is assumed that this survey will also be the source of the boundary information. If this assumption is correct, the survey should be updated per statutory requirements and titled accordingly, including metes and bounds of the internal lot lines;
2. The title policy indicates that there is a water main easement and a grant to PSE&G on Parcel 1 (Lot 17). The location of these easements should be identified and any impact on the proposed development plan identified;
3. Further the title policy indicates that there is a deed notice related to Parcel 2 (Lot 16). The terms and conditions of this deed notice and any impact on the proposed development should be addressed. Copies of these various documents are to be submitted to the Planning Board;
4. The Existing Conditions Plan should be updated to show the top of bank of the watercourse to the east and associated riparian boundary. Should the riparian boundary not extend onto the site, the plan should be updated to indicate same;
5. The Demolition Plan should be updated to show where the connecting pipe to the drainage inlet to be removed is located as well as the discharge locations for the roof;
6. The Demolition Plan indicates several areas where existing pavers will be removed. Testimony should be provided with regard to the reuse of the pavers and/or the ability to match the paver color. We note that the pavers may have faded since installation and our office has concerns with regard to matching the color;
7. The proposed realignment of the crosswalk will be subject to approval from Essex County;
8. The Site Layout & Utility Plan proposes to "Face Form" Belgian Block Curbing. The applicant's engineer should clarify how this can be accomplished as the footing for Belgian Block Curb extends beyond the face of the cobbles;
9. The Site Layout and Utility Plan shows the head in parking to the first floor area will have bollards at the head of the stall as well as wheel stops. Testimony should be provided as to why full height curb cannot be installed and the wheel stops and bollards removed;

10. The plans propose to install the handicap parking stall placard on a bollard at the head of the parking stall. The applicant may wish to consider relocating the sign and placing same on the face of the building;
11. The two (2) southerly parking stalls on the east side of the entry drive will conflict with incoming traffic. Additionally, these spaces will have no visibility as there is a building wall on the south side of the stalls which will impact sight distance. Our office recommends at a minimum removing one of the stalls and providing an opening in the wall which will provide additional visibility for traffic entering the site while the parking stall is accessed;
12. The plans propose a dead end parking alignment with an eight (8') foot wide striped area between the building wall and a building column at the end of the striped area. From a circulation standpoint, this is an undesirable condition. Vehicles will have to execute turning movements against a building wall with no buffer;
13. The plans propose four (4) parallel parking stalls on the west side of the entry drive. Parallel stalls are very inefficient for turn over parking and will impact a vehicle's ability to enter the site. Furthermore, for these parking stalls to be accessed, vehicles will need to drive to the end of the dead end row and utilize the striped area noted above. The applicant should consider an alternative to this arrangement;
14. Dimensions should be provided for the parking stall in the northeast corner of the parking lot. Same scales approximately eight (8') feet wide. In addition, this parking stall provides no area to the east to facilitate a k turn when exiting the parking stall;
15. A curb is proposed along the easterly property line which is adjacent to the existing parking area on Lot 15. The grades on the adjacent parking lot should be determined to clearly illustrate grading in this area;
16. Testimony should be provided as to how trash collection will occur. We note that the entry driveway clearance to the parking area under the building is limited to approximately nine (9') per the architectural elevations (which should be dimensioned). Additionally, if a trash collection vehicle is able to access the enclosure under the building, it will need to back out onto South Orange Avenue;
17. Testimony should be provided as to the need to sprinkler the trash enclosure as it is beneath the second floor. The Fire Official should provide commentary with regards to this design;
18. The location of the nearest fire hydrant should be identified and the need for an additional hydrant proximate to this building be discussed. The Fire Official should provide commentary with regards to this issue;
19. Testimony should be provided as to how emergency services will access the site;
20. The proposed landscaping should be further reviewed. The current design selects one type of evergreen tree and two types of shrubs. Additional consideration should be taken to provide a more aesthetic design in lieu of the monoculture element proposed;
21. It is difficult to determine which direction grade is sloping at the rear of the structure. A section should be provided in this area;

22. Inlet #1 should be relocated from the corner of the parking lot as it is not possible to construct a curb inlet in this manner. Further, the current design indicates that this inlet encroaches onto Lot 15. Additional spot grades should be provided;
23. Roof leader discharge locations should be provided;
24. A drainage narrative should be provided. While the site is reducing runoff, it appears that a majority of the site will have the site stormwater directed toward South Orange Avenue where in the existing condition a significant portion of the site may not have flowed in this direction;
25. The Grading and Drainage Plan shows what appears to be curb crossing the sidewalk at the site driveway. Same should be clarified;
26. Testimony should be provided with regard to site lighting and its compliance to the code;
27. The plans should be updated to show where the various pavement treatments such as road and sidewalk pavers are proposed. We note that the road paver should be used in the site driveway;
28. As the project will have a zero front yard and a driveway discharging across a public sidewalk, the applicant should consider additional safety measures at the driveway such as change in pavement material, signage, signals, etc.;

Any revised plans and other documents should be accompanied by a cover letter responding individually to each of the comments presented in this review letter.

The cover letter should also outline those changes to the plans that were required, as well as those not readily apparent.