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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. 272
301 Academy Street
Preliminary & Final Site Plan
Technical Review #1
BCG Project # 080373-SO-024

Date: January 25, 2020

CC: Ojetti Davis, Planning Board Secretary
William Sullivan, Esq., Board Attorney
Philip Abramson, PP, Village Planner
Elaine Berkenwald, Esq

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

1. Plan sheet entitled "Jespy House, Inc., 301 Academy Street, Block 2201, Lot 8, Township of South Orange Village, Essex County, NJ" Michael J. Roth, P.E. of Roth Engineering. dated January 14, 2020 with no revisions;
2. Plan set entitled "Jespy House, 301 Academy Street, South Orange, NJ" consisting of eight (8) sheets prepared by Mancy Dougherty, AIA of Studio 1200 LLC., dated January 17, 2020 with no revisions.
3. Township of South Orange Village Planning Board and Zoning Board Application Form.
4. Township Application Checklist.

The application proposes to remove an existing stair and walk on the eastern side of the structure (Fifth Street frontage) and construct an elevator to facilitate disabled persons' access to each floor of the structure. Also included will be the extension of the existing porch approximately 3.5 feet to the north so same abuts the proposed elevator addition. There are no changes in the number of bedrooms, six (6) exist and six (6) are proposed, though their configurations are being modified.

We find that there is generally sufficient information for a thorough engineering review to be performed. 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 entitled accordingly. If this document is not a boundary survey, a separate boundary survey is to be provided, signed and sealed by a licensed land surveyor. Regardless, a signed and sealed copy of the Topographic Survey shall be provided to the Board Secretary;
2. The site plan should clearly indicate the proposed extension of the covered porch;
3. The plan proposes to install a trench drain within the existing driveway on Fifth Street. While the detail shows a six (6") inch diameter pipe proposed to convey water out of the trench drain, there are no details with regard to the pipe material or slope. We note that based upon the elevations provided, there will be limited cover. Additionally, the proposed pipe may conflict with the curb edging the driveway. We also suggest since the adjacent home's stairs and sidewalk are proximate to the lot line that this drain be directed toward the street or through the curb line to minimize off-site impacts. Additional details are required to affirm the viability of this design;
4. We recommend an enlargement of this proposed ramp and driveway be prepared that illustrates the slope of the ramp and the accessibility into the basement level. It appears that this is to be the accessible route into the structure and it is unclear whether the two existing doorways at this level currently have a step from the porch into the basement. The basement level is indicated to be at 95.2 but the spot grades at this porch show 95.1 and 94.9. There should also be confirmation that the existing storage room is at the same elevation as the balance of the basement as they are not internally interconnected;
5. Testimony should be provided with regard to the need to remove existing vegetation along the fence to facilitate the installation of the proposed pipe discharging from the trench drain;
6. The discharge invert of the proposed pipe connecting to the trench drain should be further reviewed. We note that existing grade in this area is above the invert and will require minor grading. Furthermore, testimony should be provided as to if any outlet protection will be provided in this area. Historically discharge locations such as this typically become buried over time;
7. The plans should depict how large of an opening is proposed in the existing curb. Testimony should also be provided with regard to any impact the existing vegetation along the fence will have on the drainage pattern. We note that grade will need to be lowered several inches in this area;
8. While the project is not required to obtain certification from the Hudson-Essex-Passaic Soil Conservation District, testimony should be provided with regard to how the site will comply with applicable soil erosion standards;
9. Details for pipe bedding, outlet protection (if required), curbing (if required), pavement restoration, and landscaping (if required) should be provided on the plan;
10. Testimony should be provided with regard to existing stormwater runoff paths and any changes in the proposed condition. This includes the location of existing and proposed roof leader drains;

Architectural Plans

1. Sheet V-3 of the plan set shows two sets of lights on the North Elevation. Based upon the photos provided, it appears that the lights between the first and second floors do not exist. Testimony should be provided if these lights will be proposed and their type and style;

2. No south elevation is provided for this structure. It is recognized that nothing appears to be changing, and if so a waiver should be requested from the checklist;
3. Sheet V-5 should depict the portion of the existing porch to be extended to the elevator addition;
4. Sheets V-7 and V-8, do not appear to show the expansion of the second floor where modified Bedroom #1 and its closet extends over the existing kitchen area;
5. Sheets V-6 and V-8 also illustrate a modification to the floor plan of the third level in converting an existing closet area into Modified Bedroom #5, which also includes a new dormer at the third floor level.

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.