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Memorandum

To: Ojetti Davis, Planning Board Secretary

CC: William Sullivan, Esq., Board Attorney

Greer Patras, PP, AICP, MCRP, Board Planner

From: Eric L. Keller, P.E., P.P., LEED AP

Planning Board Consulting Engineer

Date: January 30, 2021

RE: Seton Hall University Boland Hall Entrance Lobby Addition

PB Application No. 278

Block 901, Lot 3

Preliminary and Final Site Plan

Technical Review #1

BCG Project # 080373-SO-030

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

- Plan set entitled "Seton Hall University-Boland Hall Entrance Lobby Addition, Preliminary and Final Site Plan Application, 400 South Orange Avenue, Block No. 901, Lot No. 3, Township of South Orange Village, Essex County, New Jersey" prepared by Steven Napolitano, P.E. of SNS Architects and Engineers, PC, consisting of nine (9) sheets dated October 12, 2020 and last revised December 8, 2020 (Sheet Y-3 is revised January 13, 2021);
- 2. Plan set entitled "Seton Hall University-Boland Hall Entrance Lobby Addition, Preliminary and Final Site Plan Application, 400 South Orange Avenue, Block No. 901, Lot No. 3, Township of South Orange Village, Essex County, New Jersey" prepared by Lorin J. Sonenshine, AIA of SNS Architects and Engineers, PC, consisting of four (4) sheets dated November 2, 2020 and last revised December 8, 2020
- Report entitled "Proposed Lobby Addition, Boland Hall Seton Hall University, 400 South Orange Avenue, South Orange, New Jersey – Stormwater Management Report" prepared by Steven Napolitano, P.E. of SNS Architects and Engineers, PC, dated December 2020;
- 4. South Orange Planning Board Application

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The application proposes to construct a new lobby entrance on the northern side of Boland Hall. The project also proposes to replace existing sidewalk, remove mature trees, relocate existing lighting and construct stormwater management improvements. The application has previously been deemed complete.

Below are technical comments for the application materials submitted to the Board:

- The proposed improvements are located within a central portion of the campus.
 Testimony should be provided with regard to construction access and staging, as well as protection to pedestrians;
- Sheet Y-2 should be updated to indicate tree removal required for the project. It appears that several improvements, including but not limited to the location of the temporary topsoil stockpile will require tree removal;
- 3. Sheet Y-2 should be updated to clearly show all improvements to remain and be protected during construction;
- 4. All sheets should be updated to show existing trees to remain;
- 5. The area to the east of the proposed addition will be regraded. This area should be further reviewed as it appears there may be a low point created as a result of same. The grade along the addition will be lower than the grades heading north (away from the building);
- 6. Additional topographic information should be provided over the proposed 12" overflow pipe to verify cover;
- 7. The location of the proposed trench drain is not ideal as it extends across the sidewalk at one of the main building access points. If there are no other options to grade this area to either side of the sidewalk, the trench drain is to be provided with an appropriate grate for handicapped accessible and to minimize impacts to pedestrians;
- 8. Invert elevations for all proposed piping (storm and sanitary) should be provided on Sheet Y-4;
- 9. The proposed sanitary cleanout on Sheet Y-4 should indicate the rim elevation;
- 10. The slope of the proposed trench drain on Sheet Y-4 should be provided;
- 11. The proposed 12" PVC pipe shows a slope of 0.01. The plans should be revised to indicate if this is a percentage or slope in ft/ft;
- 12. Slopes for all proposed pipes should be shown on the plans
- 13. The applicant should consider increasing the pipe size connected to the trench drain. A 4" pipe is susceptible to clogging and would require increased maintenance;



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- 14. The Concrete Sidewalk Detail on Sheet Y-5 should be revised to propose Class B concrete;
- 15. The Pipe Bedding Detail on Sheet Y-5 should be updated to provide 6" of clean stone below the pipe;
- 16. The following comments are based upon our review of the stormwater management report:
 - a. The drainage report assumes soils information for the site and provides no information with regard to seasonal high groundwater. Testimony should be provided to verify if a geotechnical investigation has been performed. If none has and the Board approves this project, our office recommends the resolution of approval include a geotechnical investigation as a condition of approval;
 - b. The report should include a plan showing contributory areas to the proposed drywell. There is no way to confirm land cover;
 - c. A runoff coefficient of 0.95 is used in the calculations. The report should be expanded to verify how same is calculated;
 - d. The flow and storage calculations should be expanded to show the actual calculations. There is no demonstration on how the volumes and runoff rates are calculated:
 - e. Seepage pit calculations showing how the volumes are calculated should be provided;
 - f. Time to drain calculations in accordance with Chapter 9.5 of the NJDEP BMP Manual should be provided for the seepage pit;
 - g. The report should include pipe conveyance calculations for the seepage pit overflow pipe;
 - h. Additional information with regard to inlet the seepage pit is proposed to be connected should be provided. Verification that stormwater from this area is contributory to this system should be provided;
- 17. We defer landscaping and lighting comments to the Board Planner

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.



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