



December 5, 2023

Ms. Janice Talley, PP, AICP
Director of Planning and Community Development
Township of Montclair
205 Claremont Avenue
Montclair, New Jersey 07042

Re: Preliminary and Final Major Site Plan –
Stem Center
Montclair Kimberley Academy
6 Lloyd Road
Block 302, Lot 16
Township of Montclair
Our File No. MTES-171

Dear Ms. Talley:

This office has reviewed the following documents submitted in response to our previous report dated September 27, 2023 for the above referenced project:

- Application for Development, received September 14, 2023.
- Engineer's Response Letter prepared by Pennoni Associates, Inc., dated November 17, 2023.
- Engineering Plan set consisting of sixteen (16) sheets entitled, "Stem Center", prepared for Montclair Kimberley Academy, 6 Lloyd Road, Block 302, Lot 16, Township of Montclair, Essex County, New Jersey", prepared by Pennoni Associates, Inc., dated September 5, 2023, **last revised November 17, 2023.**
- Architectural Plan set consisting of seven (7) sheets, dated September 1, 2023, prepared by Voith & Mactavish (VMA) Architects, LLP.
- Plan (1 sheet) entitled, "Site Turning Movement Plan – Bus, Stem Center, 6 Lloyd Road, Montclair, NJ, Montclair Kimberley Academy, 201 Valley Road, Montclair, NJ 07042", prepared by Pennoni Associates, Inc., dated November 17, 2023.

- Plan (1 sheet) entitled, “Site Turning Movement Plan – Fire Truck, Stem Center, 6 Lloyd Road, Montclair, NJ, Montclair Kimberly Academy, 201 Valley Road, Montclair, NJ 07042”, prepared by Pennoni Associates, Inc., dated November 17, 2023.
- Alta Survey, dated May 15, 2023, prepared by Van Note-Harvey Associates, Inc.
- Stormwater Management Report, prepared by Van Note-Harvey Associates, Inc., dated August 31, 2023, **last revised November 17, 2023.**

Based on our review of the above referenced documents, we offer the following:

General

1. The Applicant/Owner in this matter is:

Montclair Kimberley Academy
201 Valley Road
Montclair, New Jersey 07042

The Township shall be notified of any change in the above referenced information.

2. The subject site is a developed lot located on the west side of Lloyd Road, at the intersection with Parkhurst Place. The property is located within the R-O Mountainside Residential Zone district and contains 289,875 square feet and/or 6.66 acres.

The property is also located within the Steep Slope District. The property is primarily rectangular in shape and is significantly encumbered by steep slopes. An existing dwelling is located in the southern portion of the property as accessed by a driveway off of Lloyd Road. The primary development of the site consists of a private school, three (3) access drives off of Lloyd Road and a parking lot.

3. From the drawings provided, the applicant is proposing the following:
 - Removal of existing walkways, walls, stairs, fencing, amphitheater, trees and shrubs within the center “courtyard” area of the existing building.
 - An addition, tiered wall system and walkways within this center “courtyard” area.
 - A new access road/driveway off of Lloyd Road continuing through the outer perimeter of the building and connecting to the existing parking lot and branching off with a second, lower access drive.

- An adjacent walkway along the new access drive and new stair access from the parking lot area.
- Retaining walls along the new access driveway.

Existing Non Conformities /Variances

4. The existing and proposed development contains non conformities and variances. We defer to the planners report of September 26th, 2023. The comprehensive listing shall be incorporated onto the Site Plan Title Sheet.

Soil Movement

5. The proposed development is located within steep slopes. The new access drive primarily is of concern and will require extensive soil movement and erosion control measures. The Applicant shall provide an estimated total quantity of soil excavation and fill with support calculations. All excess excavation would need to be removed from the site. Any import of soil would require certification the soil was obtained from a reputable source and is clean per NJDEP requirements. This will be an extensive soil movement project. The estimated number of truck and the truck routes is recommended to be submitted to the Police Department for acceptance. **In the Pennoni Associates, Inc. response letter of November 17, 2023, they indicate the requested information will be provided. We have not received soil movement calculations to date.**
6. Soil Erosion & Sediment Control plans and details are provided. The plan indicates a limit of disturbance of 1.13 acres. We do not concur. The regrading/proposed contour area for the new road is not included. The disturbance area associated to the road's wall is not practical and will require a larger area of disturbance in construction. The disturbance area quantity will increase. The lot's development will require Hudson, Essex, Passaic (HEPSCD) Soil Conservation District Certification. **The Erosion and Sedimentation Control Plan (Sheet 14) has been revised to show an updated limit of disturbance of 1.44 acres. A portion of the existing dwelling driveway to the south is included in the limit of disturbance as a 12-inch HDPE pipe and storm manhole are proposed within this driveway area. Written acceptance for the proposed improvements to the driveway shall be provided from the affected dwelling owner, if owned by a private owner other than this academy.**
7. Prior to any site development silt fencing and super silt fencing must be properly installed, embedded into the soil 6 inches and maintained throughout construction.

8. During construction, any soil tracked onto Lloyd Road will be required to be immediately removed.

The Applicant is reminded the Township will not tolerate any offsite silt and soil tracking. Any breach of silt controls would result in an immediate Stop Work Order being issued until all soil erosion controls are repaired and replaced.

9. Any roadway, curbing, or storm inlet along the property frontage damaged due to construction activities will be required to be repaired by the applicant to the satisfaction of the Township's Construction and Engineering Departments.
10. The Grading Plan is incomplete. Existing contours shall be labeled through the areas of disturbance. The walls needed for the new road shall be identified. Top and bottom of wall elevations shall be provided at 10-foot intervals for each. The maximum height of each wall shall be provided and location of same shall be identified. **The Grading Plan (Sheet 6) is still incomplete. Top and bottom elevations remain to be provided for the eastern wall along the new driveway and for walls along walkways within the center courtyard area. Also, only top of wall elevations have been provided for the walls in the seating area of the courtyard. The maximum height of walls proposed has also not been identified on the plan.**
11. Stability calculations are required for each and any wall exceeding four (4') feet of height. Additionally post construction certification will be required from a licensed NJ professional engineer for each wall. **In the Pennoni Associates, Inc. response letter of November 17, 2023, they indicate wall calculations will be provided prior to construction.**

Tree Removal/Preservation – Conceptual Design

12. The development will require tree removal.

Existing tree mapping, size and type are provided on the Alta survey however, the limit of disturbance is not superimposed to quantify the tree loss.

Native tree replanting, soil stabilization of steep slopes and landscaping improvements would need to be addressed.

The demolition plan does not address the tree removal associated with the new road and retaining walls.

In the Pennoni Associates, Inc. response letter of November 17, 2023, they indicate tree removal and mitigation calculations/plan will be provided by others. We have not received any tree removal plan or relative calculations to date.

Steep Slopes

13. The Applicant shall address compliance to steep slope Sections 294-5.B, D & H and 294-6.C through J. **In the Pennoni Associates, Inc. response letter of November 17, 2023, they indicate they will comply with all steep slope requirements except for Section 294-5 D for which they have requested a waiver for showing all existing and proposed drainage systems 50 feet beyond the property lines on the plan. We have no objection to this waiver request.**

Stormwater Management

14. This is a major development project, as per NJDEP and Montclair Township Ordinance criteria. The engineer has provided a Stormwater Management Report.

The project's overall stormwater design is under review with our Hydrology Department. Comments will be forwarded under separate cover.

15. The property owner will be responsible for maintenance of the stormwater management facilities. The detention system is recommended to be inspected at least twice annually, as well as, after every rainfall event greater than 2 inches.
16. During development, no runoff from this property shall affect any adjacent property or roadways both during and subsequent to construction. In the event a drainage problem persists, the applicant will be responsible to remedy the matter at his/her own cost.

Architectural Plans

17. The applicant shall summarize the proposed building addition improvement. The size, the layout of each floor, the seating, the amenities, the lighting, the signage, the exterior and interior finishes, etc shall all be presented to the Board.

Site Plans

18. The fully engineered site design will require minimum existing and proposed front setbacks, accurate to the tenth, minimum rear and side yard setbacks to the back of walls, the road, width of road, etc. **The building setbacks have been provided on the Site Plan (Sheet 5). However, the wall and driveway setbacks have not been provided and shall be shown on the plan.**

19. The maximum allowable roof ridge calculation and supporting information from the average of the lowest existing or proposed building perimeter grade at 10 foot intervals will need to be provided to define the building height and confirm compliance. **In the Pennoni Associates, Inc. response letter of November 17, 2023, they indicate building height calculations will be provided by the Architect. We have not received revised architectural plans to date.**
20. All walls within a fully engineered site design, exceeding four (4') feet will require stability calculations and construction details. Post construction certification from a licensed NJ professional engineer will be required for all walls four (4') feet and higher. Wall section submission is requested for this site's development design. **In the Pennoni Associates, Inc. response letter of November 17, 2023, they indicate they will comply with the requirements.**
21. Fall protection for the proposed walls throughout the site would need to be addressed as well as the proposed perimeter walkway. **It is noted on Site Plan (Sheet 5) fencing will be provided for walls greater than 30 inches in height. The Applicant shall indicate the proposed fence type and height on plan. Per Section 347-27.1 E, when a fence is proposed at the top of the retaining wall, the wall height shall be measured to the top of the fence. The proposed maximum wall height including the fence shall be provided.**
22. The fully engineered site plan design would be requested to contain the mapped location for air conditioning units, any generator etc. **In the Pennoni Associates, Inc. response letter of November 17, 2023, they indicate architectural plans will show the location of the proposed mechanical equipment. We have not received revised architectural plans to date.**
23. The proposal for any sump pumps within the final design would need to be addressed. **In the Pennoni Associates, Inc. response letter of November 17, 2023, they indicate sump pumps are not proposed.**
24. All utilities servicing the addition need to be addressed on the fully engineered site plan. Sanitary flow estimates (GPD) gallons per day shall be provided. The applicant shall confirm if a Treatment Works Approval (TWA) from the NJDEP will be required. **In the Pennoni Associates, Inc. response letter of November 17, 2023, they indicate no additional students or staff are proposed therefore, no additional flow is proposed.**
25. The new road and retaining wall impact the driveway of the existing dwelling. The plans shall provide specific width dimension reduction and regrading necessary for same. **In the Pennoni Associates, Inc. response letter of November 17, 2023, they**

indicate details have been added to the plan however, the driveway width dimension reduction and regrading are still not shown on the plan.

26. The Applicant shall support the need and function for the new road/driveway and walkway. This road construction will result in extensive tree loss, steep slope disturbance, major retaining walls, extensive soil movement, etc.
27. The applicant shall provide testimony addressing any ADA accessible routes and conformance with ADA Standards for Accessible Design. Any ADA improvements will require post construction certification. **In the Pennoni Associates, Inc. response letter of November 17, 2023, they indicate the school and architect will address ADA requirements. We have not received revised architectural plans to date.**
28. The plan shall provide the top and bottom elevations of the new full reveal curbing and the depressed curbing. Curbing of the new road is strongly recommended to assist in water runoff control and protection of the steep slopes. Although not labeled/identified, curbing appears proposed. **In the Pennoni Associates, Inc. response letter of November 17, 2023, they indicate curbing is proposed and details are provided on the driveway cross-section detail on Sheet 11. The driveway detail shows the curb closer to the retaining wall will be sloped whereas the curb on the other side of the driveway will be vertical. More runoff will be directed to the driveway due to the sloped curb. The Applicant shall consider installing vertical curbs on both sides of the driveway. Top and bottom curb elevations shall also be provided on plan.**
29. Any roof top HVAC units shall be identified. Air conditioning units shall be confirmed, if proposed on the roof, otherwise mapped on the site plan. **In the Pennoni Associates, Inc. response letter of November 17, 2023, they indicate the architect will provide this information. We have not received revised architectural plans to date.**
30. The Zoning Chart shall be revised to clarify the required parking. The chart indicates 186 spaces. The parking calculations indicate 191 spaces. **In the Pennoni Associates, Inc. response letter of November 17, 2023, they indicate parking calculations have been revised to show 121 required spaces and 179 provided spaces. The Applicant shall address why required visitor parking was removed from the parking calculations.**
31. The Demolitions Plan needs to be updated to include the new road and stair access, from the parking lot area, etc. **In the Pennoni Associates, Inc. response letter of November 17, 2023, they indicate the Demolition Plan (Sheet 4) has been updated however, the plan does not show the new road and stair access from the parking lot area.**

32. The Grading and several additional plans provide for multiple “proposed” items within the plan legend, however none are depicted on the plan. For example, “proposed trees and shrubs” are provided within the plan legend, however none are shown on the respective plan. **In the Pennoni Associates, Inc. response letter of November 17, 2023, they indicate the plans have been updated however, the plans still do not show proposed striping, trees, shrubs, etc.**

Utilities

33. The Utility Plan shall address all existing utilities and all proposed utilities for the addition. **In the Pennoni Associates, Inc. response letter of November 17, 2023, they indicate the utility details have been added. The Applicant shall indicate if any water, electric, gas laterals are proposed for the new building addition.**
34. Post construction and prior to CO issuance, the existing and new sanitary service line shall be videotaped. Any damage and/or obstructions shall be addressed by the applicant. **In the Pennoni Associates, Inc. response letter of November 17, 2023, they indicate the school will address this comment.**
35. Any existing storm sewer onsite infrastructure shall be cleaned and videotaped. Any damages or comprised integrity of the systems inlets and/or piping shall be repaired by the applicant. **In the Pennoni Associates, Inc. response letter of November 17, 2023, they indicate the school will address this comment.**

Parking / Traffic

36. The Applicant shall summarize the required parking increase associated to the addition, the existing parking, it’s location onsite, the proposed parking count and any added parking. **In the Pennoni Associates, Inc. response letter of November 17, 2023, they indicate parking calculations have been updated and no new parking is proposed.**
37. The plans shall identify any and all handicap parking and EV parking. **In the Pennoni Associates, Inc. response letter of November 17, 2023, they indicate Site Plan (Sheet 5) has been updated. The plan shows one (1) ADA and two (2) EV parking spaces. The Applicant shall confirm if the ADA and EV parking requirements are satisfied with the parking provided.**

38. A traffic report shall be provided for this application. **In the Pennoni Associates, Inc. response letter of November 17, 2023, they indicate a waiver is requested for this item as no increase in the number of students or staff is proposed.**
39. Provide an emergency vehicle turning template for a southbound emergency vehicle entering and exiting the new proposed road/drive. **A Site Turning Movement Plan has been provided for a fire truck. The plan shows the fire truck going over the curb in multiple locations. The Applicant shall indicate if the fire truck will be able to safely exit the site using the new driveway.**

Landscape and Lighting

40. The applicant shall summarize the proposed lighting for this application addressing compliance with section 281-8.3 of the Township code.
41. The Isolux lines for the proposed lights shall be provided on plan.
42. A total of seventeen (17) bollard lights are proposed. The Luminaire Schedule on Sheet 8 shall be revised accordingly.
43. Per Section 281-8.3 E(5), the minimum footcandle in areas used by the public shall be 0.5 fc and the maximum footcandle shall be 2 fc. The proposed walking paths have minimum 0.3 fc and maximum 6.8 fc. The Applicant shall comply or request a waiver.
44. The lighting plan shall provide footcandle illumination values at the shared property lines with the residential zones. **The Lighting Plan (Sheet 8) has been revised to provide point by point lighting analysis. The plan indicates no light spillage on adjacent residential zones.**
45. The details for the lighting shall be provided inclusive of the light pole height and any lighting proposed for the new perimeter walkway. **The Lighting Plan (Sheet 8) has been revised to provide lighting details. The proposed pole height of 10 feet complies with maximum permitted pole height of 15 feet per Section 281-8.3 F.**
46. Our office recommends the Township reserves the right to evaluate the lighting up to six (6) months beyond co issuance, for any required adjustments.
47. The Applicant shall quantify all tree removal and provide a fully designed landscape plan. **In the Pennoni Associates, Inc. response letter of November 17, 2023, they indicate a tree removal and mitigation plan will be provided by others. We have not received a tree removal or landscape plan to date.**

Signage

48. The applicant shall summarize and provide on the plans any and all signage modifications proposed. **In the Pennoni Associates, Inc. response letter of November 17, 2023, they indicate the Site Plan (Sheet 5) has been revised to show 'Do Not Enter' signs at the upper parking lot connection to the new driveway.**

Miscellaneous

49. As mandated by the State of New Jersey, an applicant must recycle the following construction materials and demolition debris which may include, but is not limited to, concrete, asphalt, wood, metals, bricks, block masonry, wallboard, dirt, rocks, landscape waste, and other inert waste.

It is the responsibility of the applicant to properly recycle these items. Upon disposal of these items the applicant must obtain a weight tonnage slip that should be forwarded to the Department of Public Works for recycling tonnage credit. Please note this on the Site Plans. **In the Pennoni Associates, Inc. response letter of November 17, 2023, they indicate the school will address this comment.**

50. This application will require inspection of site improvements; curbing, pavement, walls, sidewalk drainage, etc.

Due to the new road proposal, the site is recommended to be inspected to ensure erosion control measures are fully and properly installed prior to any demolition or building permit issuances. **In the Pennoni Associates, Inc. response letter of November 17, 2023, they indicate the school will address this comment.**

51. An As-built Survey will be required prior to CO recommendation to ensure compliance in construction to the Board approved plan. **In the Pennoni Associates, Inc. response letter of November 17, 2023, they indicate the school will address this comment.**

Please address the above and any Board requests. If you should have any questions, please contact me.

Very truly yours,

BOSWELL ENGINEERING



Peter C. Ten Kate, P.E

PTK/jm

cc: Montclair Kimberley Academy
Pennoni Associates, Inc.
Voith & Mactavish (VMA) Architects, LLP
Van Note-Harvey Associates, Inc.

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