



**TOWNSHIP  
OF  
LOWER MERION**  
MONTGOMERY COUNTY

TOWNSHIP ENGINEER

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LOWM 221.78

September 3, 2019

Christopher Leswing, Director of Building and Planning  
Township of Lower Merion  
75 East Lancaster Avenue  
Ardmore, PA 19003

**Re: 1400 Mill Creek Development  
Conditional Use - Plan Review**

Dear Mr. Leswing:

In accordance with your request for the above referenced submission, we have reviewed a set of thirty-two (32) plans dated 02-18-05, latest revision dated 08-23-19, and associated stormwater management calculations dated 02-18-05, latest revision dated 08-23-19, prepared by Momenee, Inc. We have also reviewed a traffic impact study dated 03-29-05, latest revision dated 07-18-19, prepared by F. Tavani and Associates, Inc. We offer the following comments for your consideration:

**A. MAJOR ENGINEERING ISSUES**

- ❖ **Traffic**—The traffic study that was submitted with this conditional use plan did not clearly show a projection of traffic at Conshohocken State Road and Mill Creek Road for the Future 2029 Build or No-build scenarios. We recommend that an updated study be submitted with these projections in order to document anticipated future traffic impact of the project.
- ❖ **Stormwater**— Code required peak rate of runoff for the During Construction condition has not been properly documented for all required design storms. All required storms must be clearly analyzed in the report. It must be documented that the worst ground cover condition has been considered in the analysis. The construction sequence must provide sufficient detail and be consistent with the conditions analyzed in the report.

With the resolution of the above major issues and the other comments listed in this letter adequately addressed, we recommend approval of the Conditional Use Plan.

**A. ORDINANCE REQUIREMENTS**

1. Section 101-5D—The wetland delineation in the vicinity of the proposed earthmoving must be confirmed by the township prior to issuance of any permits. Adjustments to the proposed design shall be made as required to minimize impacts to any wetlands.
2. Section 101-6A(1)—All woody vegetation to be retained within twenty-five (25') feet of a building site or disturbed area shall be protected from equipment damage by fencing placed at the driplines. Since some areas of tree protection fence have not been shown at the driplines of trees to remain, the Township Arborist must approve the location of the tree protection fence.
3. Section 101-6A(5)—No impervious cover shall be permitted within the driplines of trees to remain without approval from the Township Arborist. The Township Arborist must approve the location and extent of the paving if the trees are scheduled to remain.
4. Section 101-6A(6)—Grade changes around the driplines of trees to be retained shall be minimized. Treatment of the impacted trees prior to construction to protect the root system shall be performed if/as directed by the Township Arborist. The Township Arborist must also approve the procedure.
5. Section 101-6A(8)—Should any trees not scheduled or permitted to be removed be irreparably damaged during construction and die within eighteen (18) months of the conclusion of construction activities, those trees will be required to be replaced in accordance with the provision of Section 101-9A(2). Escrow shall be posted to guarantee the survival of the impacted trees until the allotted time has expired.
6. Section 121-4A(1)- During construction stormwater management controls shall be properly addressed in the calculations. It must be clearly documented that the worst cover condition has been analyzed in the calculations for the temporary conditions during the construction process. All code required design storms must be documented to be properly controlled. Additional phasing of the construction may be required depending upon the evaluation. The final phasing must be clearly stated in the construction sequence.
7. Section 121-4A(1b)1, Section 155-141.2C(2a)—During construction peak rate of runoff controls have not been properly documented to meet all code requirements. As the property is located within the Lower Merion Act 167 Drainage Area Release Rate District 3-34, for the ten (10) and twenty-five (25) year storm, the post-development peak runoff rate shall be controlled to sixty (60%) percent of the respective pre-development rate. The fifty (50) and one hundred (100) year storms shall be controlled to the peak discharges which occurred prior to development in the respective storm frequencies. These design storms have not been properly evaluated in the analysis. This must be documented in the stormwater management report. Waivers to township codes may be required.

8. Section 121-4A(1b)1, Section 155-141.2C(2a)—It is currently unclear which hydrographs are being combined in calculating the total post-development runoff. The logic for the hydrograph combination shall be clearly presented. The areas used in the analysis must be consistent with the drainage area maps provided in the final stormwater management report. Specifically the drainage area maps for each basin and the uncontrolled portion of the site shall be provided. Off-site drainage area shall be properly included if/as applicable.
9. Section 121-4A(23)—Since a perennial or intermittent stream passes through the site, a stream buffer must be maintained to a minimum of ten (10') feet to either side of the top-of-bank of the channel. The buffer area shall provide appropriate native vegetation. Appendix H of the Pennsylvania Handbook of Best Management Practices for Developing Areas shall be used for the plant list. A Planting Plan must be submitted and must be approved by the Planning Department and the Township Arborist. A partial waiver to this code section may be required.
10. Section 121-6D—All required Predevelopment drainage area maps shall be provided. The values used in all hydrograph generation shall be supported by and be consistent with the drainage area maps in the final stormwater report.
11. Section 121-4B(2a)1—At a minimum, the increased volume of stormwater generated by the proposed development for the twenty five (25) year storm shall be recharged. Calculations documenting this have not been included in the report. Pre-development conditions in agreement with township code must be used for the determination. The values used must be consistent with the drainage maps provided.
12. Section 121-4E(2c)—Seepage beds shall be designed to empty the total required design storm volume in twenty-four (24) hours or less. Calculations verifying this have not been clearly included in the stormwater analysis.
13. Section 121-4E(2d)—The distance between each basin and the nearby structure(s) shall be dimensioned on the plan. Basins must be located ten (10') feet from any basement wall.
14. Section 121-4E(2L)—Seepage beds shall not receive runoff until the entire contributory area to the BMP has been stabilized unless approved by the Township Engineer. This note shall be clearly indicated on the plan and in the construction sequence.
15. Section 121-5A(6)—Newly graded slopes of over twenty-five (25%) percent must be stabilized with sod or jute netting and seed. This has been noted on the Grading Plan and those areas meeting this criterion have been delineated with shading on the plan, however, the shading used must be identified clearly in the legends on the plans.
16. Section 121-6B—Certification attesting to the completeness of the design and compliance with Chapter 121 of the Lower Merion Code shall be included and signed on the plans.
17. Section 121-15—The runoff crossing to the adjacent properties during the construction phase of the project shall be managed so that impacts to water quality/quantity are

minimized. Construction phasing, ground cover stabilization, and installation of additional silt fence shall be noted to be provided as needed/directed by the township to ensure acceptable conditions during the construction phase.

18. Section 155-167.7(B)—The wooded lot calculations shown must be verified by the Township Arborist.
19. Section 121-12—An NPDES Permit must be obtained from the Montgomery County Soil Conservation District prior to issuance of any earth disturbance permit. The township must be copied on any correspondence.
20. Section 135-19B(8)—A few parking spaces shown in the proposed building are blocked by tandem spaces and cannot count toward the required number of spaces. A partial waiver of this code section has been obtained for up to four (4) spaces within the historic mill building but not the proposed building. The Zoning Officer must determine if the parking provided meets the minimum required by zoning.
21. Section 135-19B(8)—Delivery trucks must cross into opposing lanes for access/egress from the site. Deliveries are recommended to be scheduled during off-peak site/street traffic times.
22. Section 135-40—The Planning Module or Exemption must be approved by the City of Philadelphia and the DEP prior to recording the Final Plan.

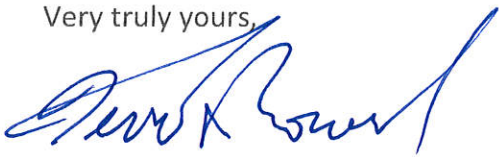
#### **B. ENGINEERING COMMENTS**

1. Calculations must be provided for all retaining wall heights exceeding four (4') feet.
2. The recommended improvements/repairs to the existing retaining walls to remain made by the civil engineer shall be made a condition of any permit issuance.
3. The Planting Plan must be approved by the Planning Department and the Township Arborist prior to issuance of any permit.
4. The mean grade calculations for all buildings shall be provided and the elevations clearly listed on the Improvement Construction Plan. The architectural plans must be coordinated with and must comply with the grading proposed with this application.
5. The Township Solicitor must approve the agreements for all easements for stormwater, access, Bridlewild trails, temporary construction, and maintenance.
6. The final easement location shall be approved by Director of Parks and Recreation. The Bridlewild Trails Association must be consulted regarding the location of the easement. Any adjustments required in the easement shall be reflected on the Final Plans.

7. Permits for the pump station and force main must be obtained from the Public Works Department. A separate technical review is required to be performed for the pump station and force main. Confirmation that comments B10 through B16 listed in or review letter dated 07-20-18 have been adequately addressed must be performed. Additional details of station components must be submitted as required. The components/design must be demonstrated to be consistent with township standards.
8. The force main shall be dedicated to the township upon request of the Public Works Department. It shall be maintained by the Homeowners Association until accepted by the township.
9. A copy of the revised plans shall be submitted with any changes highlighted. A letter shall also be provided with the revised plan indicating how each requested revision has been addressed in the re-submission.

Please advise if we may be of further assistance in this matter.

Very truly yours,

A handwritten signature in blue ink, appearing to read "Kevin J. Bowers", is written over the typed name.

Kevin J. Bowers, P.E.

**PENNONI ASSOCIATES**

Township Engineer

Cc: Robert E. Duncan, Assistant Township Manager  
Momenee, Inc.  
F. Tavani and Associates, Inc.