

**TOWNSHIP
OF
LOWER MERION**
MONTGOMERY COUNTY

TOWNSHIP ENGINEER

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LOWM 256.11

March 25, 2019

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

**Re: 104 Rose Lane Subdivision
Preliminary Plan Review**

Dear Mr. Leswing:

In accordance with your request for the above referenced submission, we have reviewed a set of ten (10) plans dated 01-07-19, latest revision dated 03-12-19, and associated stormwater management calculations dated 01-07-19, prepared by Momenec, Inc. We offer the following comments for your consideration:

A. MAJOR ENGINEERING ISSUES

- ❖ **Stormwater** – The present submission provides a significant improvement to the volume and peak rate of runoff generated by the property as compared to the current condition. We therefore have requested that a condition of approval be made which would require that the reduction in peak rate of runoff and the recharge of volume provided by the current submission be maintained through the permit process for the improvements shown and for any future improvements made to the properties. In addition we have requested that the outflow pipe from the temporary and permanent basins be connected to the Township storm sewer system.
- ❖ **Sanitary Sewers/ Easements** – Since there are walls, other obstructions and underground private utilities located within the sewer easement for the main extension, we recommend that the sewer main be maintained privately by the property owners of the development and not be accepted for dedication by the township. Also, the township Solicitor must approve the necessary easement documents for maintenance of stormwater, access and utilities across/on lot No. 1 for the benefit of lot No. 2.

With the resolution of the above major engineering issues and the remaining comments in this letter incorporated, we recommend that the Preliminary Plan be approved.

B. ORDINANCE REQUIREMENTS

1. 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 the tree protection fence has not been shown at the driplines of all

- trees to remain, the Township Arborist must approve the location of the tree protection fence shown on the plan.
2. 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 impervious surface if the impacted trees are scheduled to remain.
 3. Section 101-6A(6)—Grade changes around the driplines of trees to be retained shall be minimized. Impacted trees shall be clearly identified on the plan. 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.
 4. 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.
 5. Section 101-6B(2)—Since trenches for utilities and storm facilities are proposed within the driplines of trees, all disturbed roots must be cut as cleanly as possible. The trench must be backfilled as quickly as possible, avoiding compaction. Tree limbs must be cut back in proportion to the root area loss. This shall be noted on the plan and made a condition of approval.
 6. Section 121-4A(2), Section 121-15 —All roof drains on lot no 2 shall be shown to be directly connected to the seepage bed where feasible. The location, material, size and slope of all lines must be indicated. The capacity of the design must be documented clearly in the calculations.
 7. Section 121-4A(4)—The responsibility for the continued maintenance and operation of the basins and other stormwater management facilities shall be the obligation of the property owner. This note shall be clearly indicated on the plan and in the maintenance and operation notes/agreements.
 8. Section 121-4A(10)—An easement for stormwater drainage from lot No. 2 onto lot No. 1 shall be required for the basin outflow pipe.
 9. Section 121-4E(1b), Section 121-15 —Discharge from the temporary and permanent stormwater basin shall be connected into the existing storm sewer system in New Gulph Road.
 10. Section 121-4E(2d)—The seepage beds shall be dimensioned to be located ten (10') feet from any basement wall.

11. Section 121-4E(2j)—The size and number of perforations per linear foot of pipe shall be included in the seepage bed detail for the 8" PVC distribution and collection pipes in basin No. 1. Perforations shall not be less than five-sixteenths (5/16") inch in diameter and provide an opening area not less than three and thirty-one hundredth (3.31) square inches per square foot of pipe surface.
12. Section 121-4E(3)—An access and maintenance easement that is of sufficient width to provide access to the stormwater facilities on lot No. 2 shall be provided on lot No. 1. This is required in order to avoid the future disturbance of steep slopes and shade trees located in the right of way of New Gulph Road.
13. Section 121-4F(10)—Structures and/or cleanouts shall be used where abrupt changes are made in storm sewer alignment. The location of the clean outs shall be clearly noted on the plan.
14. 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.
15. Section 121-6C—The limits of disturbance shall be adjusted to include the area for the requested connection to the existing township storm sewer system and for all utility work. The revised amount of square feet of earth disturbance shall be listed.
16. Section 121-6F—Existing topography for a peripheral strip of forty (40') feet shall be provided on the adjacent properties.
17. Section 121-6J—Additional detail is required in the sequence of construction activities. The requested connection of the outflow pipe from the temporary basin shall be added to the sequence.
18. Section 121-15—The runoff crossing to the adjacent properties during the construction phase of the project shall be managed so that the water quality/quantity impact is minimized to the adjacent properties. Diversion berms, stoned construction staging areas, and inlets/piping shall be noted to be provided as required or as directed by the township so as to ensure acceptable conditions during the construction phase.
19. Section 121-15 —A condition of approval shall be established requiring that the amount of stormwater recharge and rate control provided by the current proposed facilities shall not be reduced with the Final Plan, permit applications or future improvements on each lot.
20. Section 121-22—The proposed drop sanitary manhole detail shall be revised to show an external drop design configuration. The invert elevations shall be adjusted as required to provide adequate dimension for the installation.
21. Section 135-17B(1)—The existing sanitary sewers shall be shown to within two hundred (200') feet of the development.
22. Section 135-17B(2)—The cartway width shall be provided on the plan for Rose Lane.

23. Section 135-17B(6)—The error of closure shall be provided for each new lot and shall not be greater than 1:5,000.
24. Section 135-17B(13)—The existing storm sewers, inlets and any other manhole or other structure shall be shown within 200' of the property. The size and material of all storm sewers shall be provided.
25. Section 135-19B(8)—The actual sight distance triangles shall be shown for the common driveway. It shall be demonstrated that the existing drive provides the minimum safe stopping distance required by PaDOT Publication Title 67, Chapter 441. Calculations shall be provided as necessary. It shall be noted what improvements are necessary to be performed to achieve minimum safe stopping distance. The Traffic Safety Unit of the Lower Merion Police Department must approve the final drive condition.
26. Section 135-27L(2)—It is recommended that the common portions of the driveway be constructed to the township standard road thickness.
27. Section 135-32—Concrete road control monuments shall be shown to be installed at the right-of-way at the intersection of each property line and at all changes in direction. Iron pins or other survey monumentation shall be permitted if concrete monuments cannot be installed. Approval from the Township Engineer is required for the substitution.
28. Section 135-40—A Planning Module or Exemption must be approved by the City of Philadelphia and the DEP prior to recording the Final Plan.
29. Section 135-41.2 – The electric service for lot No. 1 shall be shown to be placed underground. Easements across lot No. 2 and the adjoining property shall be shown if/as required.
30. Section 155-32 – The applicant is using a blended approach to the Zoning Allowable determinations for the newly created lots as they span two zoning districts (R1 and R4). The current minimum side yard set-back for the building on lot No. 2 is five (5') feet. They are currently showing only twelve (12') feet for the other side which is not consistent with the required aggregate set-back for either district R1 or R4. Adjustments to the location of the proposed garage appear to be required. The zoning Officer must approve the final set back dimensions provided.
31. Section 155-141.6 – The allocation of the common drive must be clearly listed on the record plans. It is currently not evenly divided among the two properties. A covenant must be recorded which documents the allocation of the drive as it is not evenly distributed between the lots.
32. Section 155-167.7(B)—The allowable number of trees to be removed without compensatory planting shall be corrected on the plans for lot No. 1. Only twenty five (25%) of the trees can be removed without compensatory planting.

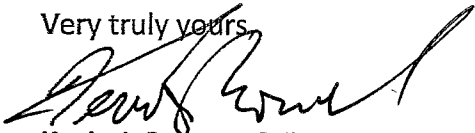
C. ENGINEERING COMMENTS

1. A detail of the landscape/retaining wall shall be provided.
2. A fill material and topsoil stockpile location shall be provided. Notes shall be added regarding stabilization of the stockpiles.
3. A certification by a civil engineer of the condition of the any existing landscape walls to remain shall be provided. Any recommended improvements/repairs shall be made a condition of the permit issue.
4. The Planting Plan must be approved by the Planning Department and the Township Arborist prior to issuance of the permit/recording the Final Plan.
5. All inlets in non-paved areas shall be shown to be graded in a twelve (12") inch sump condition in order to increase the efficiency of runoff collection. Spot elevations shall be added to the plan to clarify grading.
6. A full reveal granite curb detail shall be provided. Curb on the property frontage shall be noted to be repaired/replaced as directed by the Township.
7. The length of driveway opening at the cartway shall be dimensioned on the plan. The existing cobble curb on the driveway edges shall be labeled on the plan.
8. Details for concrete sidewalk shall be provided. Details must conform to township standards. The sidewalk on New Gulph Road shall be noted to be repaired/replaced as directed by the Township.
9. Notes shall be added to the requested full reveal granite curb detail that include the following:
 - Any curb replacement must meet existing curb reveal height.
 - One foot cut back is needed in the street area where any curb is adjusted and/or replaced. All joints must be sealed.
10. A plan view detail of the sanitary sewer manhole shall be shown and shall indicate adequate channel formation.
11. The new/adjusted impervious areas (garage, patio, parking area, drive, etc.) shall be dimensioned on the plan in order to clearly define the limits.
12. An isolation distance of ten (10') feet shall be provided between the sanitary main and the water service. This shall be clearly dimensioned on the plan.
13. The slope of the sanitary main listed on the plan view shall be made consistent with the final profile plan information shown.
14. The 6" TC line location and limits across the drive to lot No. 1 shall be clarified/clearly shown on the plans.

15. The distance between the outflow pipe from basin No. 2 and basin No. 1 shall be dimensioned on the plan and shall not be less than five (5') feet.
16. The stones located in the right of way of Rose Lane shall be removed. An indemnification agreement shall be established for the existing landscape wall along Rose lane as portions are shown to be within the right of way.
17. Calculations for the required minimum lot size based on the amount of property within each zoning district shall be shown on the plan. The Zoning Officer must approve the calculation of the required lot area.
18. Metes and bounds shall be provided for the access and utility easements on lot No. 1 for lot No. 2. The easement language must be approved by the Township Solicitor prior to Recording the Final Plan.
19. Metes and bounds must be provided for the sanitary sewer easement. It is not recommended that the main be accepted for dedication by the Township as private utilities and surface obstructions are located within the easement in close proximity to the main.
20. A copy of the revised plan 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,



Kevin J. Bowers, P.E.

PENNONI ASSOCIATES

Township Engineer

Cc: Robert E. Duncan, Assistant Township Manager
Momenec, Inc.
Joyce Sando, 104 Rose Lane, Haverford, PA 19041