

LOWM 254.18

April 27, 2018

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

**Re: St. Matthias—Goddard School
128 Bryn Mawr Avenue
Waiver of Land Development**

Dear Mr. Leswing:

In accordance with your request for the above referenced submission, we have reviewed a set of nine (9) plans dated 02-05-18, latest revision dated 04-20-18, prepared by Momenee, Inc. We have also reviewed a traffic study dated 04-20-18, prepared by F. Tavani and Associates. Inc. We offer the following comments for your consideration:

A. MAJOR ENGINEERING ISSUES

- ❖ **Stormwater**—The location of the ultimate outflow from the proposed water quality system/existing trench drains is unclear. The invert elevations provided appear to suggest that the connection shown to sewers in Bryn Mawr Avenue is incorrect. The location size and outflow point of the sewer line from existing Inlet No. 3 at the low corner of the parking areas shall be provided on the plans and the pipe verified to be operational.
- ❖ **Traffic**—Maneuverability diagrams shall be submitted which demonstrate adequate vehicle and fire truck access. Parking restriction signage near the driveway access locations shall be added if/as required. Additional pavement marking and traffic control signage is required in order to better define internal site circulation and improve efficient movement of traffic. Parking stall location/orientation has been requested to be adjusted in order to improve one-way traffic movement and recirculation of vehicles back through the parking lot. A post development study has been requested to be performed. Adjustments to signage and pick-up/drop-off operation will be required to be made if adverse queue or other related issues are observed.

With the above major engineering issues and other comments in this letter addressed, we recommend that the Waiver of Land Development 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. Accurate location of the driplines must be shown on the plan. The detail shall be revised on the plans to comply with township standards. 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(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.
3. 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.
4. 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. This shall be a condition of any permit issuance.
5. Section 135-17B(1)—All existing utility service locations shall be shown from the structures to the mains. The gas service and electric service to the school buildings are not clearly shown on the plan.
6. Section 135-17B(13)—The existing storm sewers, inlets and any other manhole or other structure shall be shown within 200' of the property. Invert, rim, and grate elevations shall be indicated. The size and material of all storm sewers shall be provided. Specific attention is required for the lines conveying runoff from the trench drains and for existing Inlet No. 3 through to the storm sewer in Birch Avenue. The location of the discharge of the trench drains currently provided is unclear. The inverts shown do not appear to be compatible

with the pipe outflow location indicated. This must be verified/corrected on the plans prior to issuance of any permit.

7. Section 135-18(B2)—The existing lot lines to be revised shall be shown as dotted.
8. Section 135-19B(8)—Additional pavement marking and signage shall be provided to clarify the “One-Way” circulation through the site. The locations of the “Do-Not-Enter” signs are unclear on the Pavement Marking and Signage Plan. The labels shall be clearly shown for all “Stop” signs and “Do-Not-Enter” signs.
9. Section 135-19B(8)—Double yellow centerline pavement marking shall be added at the stop bar for the two-way access to the small parking area adjacent to the play area.
10. Section 135-19B(8)—The right-angle spaces adjacent to the play area are recommended to be revised to slightly angled spaces in order to better define the one-way circulation and improve efficiency/maneuverability for the spaces.
11. Section 135-19B(8)—The one-way aisle at the end of the center parking module shall be reduced in width and a return aisle shall be provided near the one-way exit/access drives in order to improve recirculation through the site. This shall be performed provided that the maneuverability diagrams, once submitted, do not indicate any conflicts and the number of parking spaces is not reduced.
12. Section 135-19B(8)—Maneuverability diagrams shall be provided for the parking/drive layout shown. Adequate driveway return radii shall be demonstrated for passenger vehicles and for fire truck access if/as required by the Fire Marshal. Adjustment to the parking space location, aisle width and driveway apron radii shall be made if/as required.
13. Section 135-19B(8)—The three (3) existing crosswalks at the intersection of North Highland Avenue and Bryn Mawr Avenue shall be refurbished. Handicap ramps shall be installed where needed at the locations of the crosswalks.
14. Section 135-19B(8)—There is an existing sign in front of the school on Bryn Mawr Avenue that indicates a “Loading and Unloading” location. Retention of this sign shall be clarified as the traffic study indicates no queuing is anticipated.
15. Section 135-19B(8)—A post development study of the pick-up/drop-off operation shall be conducted. If a queuing condition is observed that is determined to be unacceptable to the township, mitigation measures must be implemented as necessary to create an acceptable operation. This shall include items such as staggering schedules of drop-off/pick-ups, additional staff actively directing vehicle parking operation, improved directional signage, and parent education/instruction of the required operation.

16. Section 135-19B(8)—Additional “No Parking” signage and adjustments of stop bar locations shall be made if/as directed by the township in the vicinity of the site driveways and the adjacent intersection in order to ensure adequate maneuverability. This shall be determined following submission of the maneuverability diagrams and evaluated/adjusted as required as part of the post-development traffic evaluation.
17. Section 135-19B(8)—Signage shall be added to the access of the drive from North Highland Avenue and to the southern one-way drive indicating that it is not intended for school use.
18. Section 135-19B(8)—The AM and PM Peak Build Condition SYNCHRO analysis for Bryn Mawr Avenue at Union Avenue shows the same volumes as for the No-Build Condition. It appears that the development additional trips were not added to the analysis at this intersection. The data shall be reviewed and adjusted as required.
19. Section 135-19B(8)—The northbound volumes in the AM and PM Peak Build SYNCHRO analysis for the driveways analyzed do not match the outbound traffic from Union Avenue nor the inbound traffic at Highland Avenue. This discrepancy shall be reviewed and the analysis adjusted accordingly.
20. Section 135-19B(8)—The revised traffic report shall remove all references to The Bala House Montessori on the text and figures. The version 10 of SYNCHRO is recommended to be used rather than SYNCHRO 8 as is presently submitted.

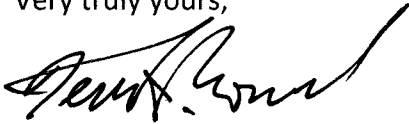
C. ENGINEERING COMMENTS

1. A Lighting Plan must be submitted and approved by the Director of Building and Planning prior to recording the Final Plan.
2. The Planting Plan must be approved by the Planning Department and the Township Arborist prior to issuance of the permit/recording the Final Plan.
3. The existing township inlet near the access to the southernmost one-way entrance drive appears to have been damaged by vehicles entering the drive. The inlet shall be inspected and repaired/reinforced if/as directed by the township.
4. Clarification of the detail for the trench drain that will be used if it is determined that the existing drains cannot be repaired and must be replaced shall be provided. The plans shall note that replacement shall be made as approved/directed by the township.
5. The location of any trash enclosures shall be clarified. Adequate screening shall be provided.

6. A detail of the porous play surfaces shall be provided on the plan.
7. 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
Momenee, Inc.
F. Tavani and Associates, Inc.
St. Matthias Parish, 128 Bryn Mawr Avenue, Bala Cynwyd, PA 19004
The Goddard School, 1702 Beechview Ct, Belair, MD 21015