



TRI-STATE ENGINEERS AND LAND SURVEYORS, INC.

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January 31, 2019

Project No.: 15-06002 (MT-1303)

Mr. Patrick Duffy, P.E.
Director of Planning and Zoning
Middletown Township
3 Municipal Way
Langhorne, PA 19047-3424

RE: **Stone Farm (By-Right Plan)**
Preliminary Major Subdivision/Land Development Plan – 7th Review
Langhorne-Newtown Road & Tollgate Road
T.M.P. 22-005-007
Middletown Township, Bucks County PA
S/LD #15-08

Dear Mr. Duffy:

Tri-State Engineers and Land Surveyors, Inc. (TSE) has completed the 7th Review of a Preliminary Major Subdivision and Land Development Plans for the above referenced project. The submitted information included the following:

- Preliminary Land Development Plan for Stone Farm By-Right Plan (Metropolitan Development Group), prepared by Gilmore & Associates, Inc., dated September 12, 2016, last revised January 3, 2019, containing 102 sheets;
- Post-Construction Stormwater Management (PCSWM) Report for Stone Farm (T.M.P. 22-005-007), prepared by Gilmore & Associates, Inc., dated September 12, 2016, last revised January 3, 2019;
- Stone Farm Traffic Signal Report for Newtown-Langhorne Road (S.R. 0413) and Farm Drive/Road 'A', prepared by Bogia Engineering, Inc., dated January 2019;
- Stone Farm Tollgate and Fulling Mill Road Improvement Plan set, prepared by Bogia Engineering, Inc., dated May 10, 2018, last revised January 3, 2019, containing 39 sheets;
- Highway Occupancy Permit Plans for Low and Medium Volume Driveways, SR 0413, SR 2033, EPS Application Number 98451, prepared by Bogia Engineering, Inc., dated November 15, 2017, last revised January 3, 2019, containing 69 sheets;
- Stone Farm Traffic Impact Assessment, prepared by Bogia Engineering, Inc., dated December 2015, last revised January 2019;
- PennDOT Stormwater Management Report with Township Road Supplement for Stone Farm Tract, prepared by Bogia Engineering, Inc., dated December 2017, last revised January 2019.

GENERAL INFORMATION:



The Applicant/Equitable Owner for this project is Metropolitan Development Group (c/o Michael Tulio – 1030 Reed Avenue, Suite 100, Wyomissing, PA 19610). The Owner of Record of Land is Estate of Ezra C. Stone, Estate of Josef S. Stone and Francine Lida Stone. The site address is 1707 Langhorne-Newtown Road.

The Applicant is proposing to subdivide the 168.028-acre subject property into a 123-lot single-family residential development. The lots range in size from 24,000 square feet to 30,000 square feet or more. The existing residence and farm buildings will be retained on a 9.452-acre 'excluded parcel.' Approximately 42.17± acres of Other Open Space is proposed (divided among eight separate areas, Areas A through H) and four additional areas are designated as Open Space/Recreation Space that total 5.48 acres (where 4.24 acres is required). A 10' wide walking trail, buffer yards, protected resources, and eight (8) stormwater management basins are located within the 'Other' Open Space lots. This project is intended to be served by public sewer (Bucks County Water & Sewer Authority) and public water (Newtown Artesian).

The property currently contains various farmhouses, structures and stone driveways. The remaining majority of the property includes active farm fields, a riverine area that contains a tributary to Lake Luxembourg and several smaller channels. A large area of the project site will be conserved near Lake Luxembourg as required by an existing conservation easement. The site also contains wetlands that were delineated by Nova Consultants Inc. This property is located within Flood Zone 'A' per FEMA Map entitled 'FIRM – Flood Insurance Rate Map, Bucks County, PA (All Jurisdictions), Panel 434 of 532, Map Number 42017C0443J, effective March 16, 2015.

The site has frontage on Langhorne-Newtown Road (S.R. 0413), Tollgate Road and Fulling Mill Road. The Applicant is proposing four (4) new access points onto adjoining roads (two (2) off Langhorne-Newtown Road (S.R. 0413) and two (2) off Fulling Mill Road). In addition, the Applicant is proposing an access road to the Summit Trace Subdivision.

The parcel is split-zoned with 131.267 acres within the RA-2– Residence Agricultural District and 30.513 acres located within the RA-3 Residence Agricultural District. The RA-3 District is the western portion of the site located adjacent Langhorne-Newtown Road. The balance of site is located in the RA-2 district. ZO §500-502.A and ZO §500-602.A allow for single-family detached dwellings as a permitted use in the respective zoning districts. The RA-2 District allows a single-family detached dwelling on a minimum lot size of 30,000 square feet with a maximum density of 1.2 du/ac. The RA-3 District allows a single-family detached dwelling on a minimum lot size of 22,500 square feet with a maximum density of 1.4 du/ac. Both zoning districts require a minimum front yard of 50 feet, minimum lot width of 125 feet, and a maximum impervious surface ratio of 30 percent.

Stormwater management facilities (including seven (7) infiltration basins, one (1) detention basin, swales, inlets and storm pipe) are also proposed. The Applicant has indicated that the basins will be privately owned and maintained by the Homeowners Association (HOA). The proposed internal road right-of-way will be offered for dedication to the Township as well as the areas between the existing right-of-way and ultimate right-of-way on Tollgate and Fulling Mill Roads.

The plans have been reviewed for compliance with the Township of Middletown Zoning Ordinance No. 91-16, the Township of Middletown Subdivision and Land Development Ordinance No. 85-23, and the Neshaminy Creek Watershed Stormwater Management Ordinance No. 2011-03.

ZONING ORDINANCE (ZO) REVIEW:

The majority of the site is located in the Residence Agricultural Zoning District RA-2, which has frontage on Tollgate and Fulling Mill Roads, with the remainder of the site being located in the Residence Agricultural Zoning District RA-3 having access to Langhorne-Newtown Road (S.R. 0413).

Both of the Residence Agricultural Zoning Districts, RA-2 & RA-3 allow for single-family dwellings as a principal use and both districts have virtually identical dimensional requirements, the difference being that the RA-2 district has a larger lot area requirement, which provides for a somewhat decreased density.

The area and dimensional requirements for the two (2) existing zoning districts are as follows:

Requirement	RA-2 (Sect. 503)	RA-3 (Sect. 603)
Minimum lot area	30,000 sf	22,500 sf
Minimum lot width	125 ft	125 ft
Maximum density	1.2 DU/acre	1.4 DU/acre
Maximum building coverage	15%	15%
Maximum building height	35 ft	35 ft
Minimum front yard	50 ft	50 ft
Minimum side yard	15 ft; 40 ft agg.	15 ft; 40 ft agg.
Minimum rear yard	50 ft	50 ft
Minimum impervious surface ratio	30 %	30%
Minimum building envelope	6,000 sf	5,000 sf
Open Space	Not Required by Z.O.	Not Required by Z.O.

1. **ZO §500-2601.A** requires areas identified as within the floodplain of the one-hundred-year recurrence interval flood shall not be altered, regraded, filled or built upon except in conformance with §500-2603, Floodplain regulations, of this chapter. The proposed limit of disturbance for the Tollgate Road improvements, sidewalks and the installation of endwall ES-7 is partially located within the floodplain. In addition, the Natural Resource Protection charts on sheets 12-14 indicate that no disturbance of the floodplain is proposed. A **variance** will be required.
2. **ZO §500-2604.E** states that each developer shall provide a plan or other material as required to establish the method by which open space shall be perpetuated, maintained and administered, in accordance with the requirements of SALDO §440-423. The plan and other materials shall be construed as a contract between the landowner(s) and the municipality and shall be noted on all deeds. ***Applicant has indicated that HOA documents will be prepared prior to plan recordation to comply the requirements of §500-2604.E***

FLOODPLAIN MANAGEMENT (Chapter 254):

3. The FIRM map shows that a portion of the site is within Zone A, which is defined in Section 402.C as an area which no base flood elevations have been provided. For these areas, elevation and floodway information from other federal, state or other acceptable sources shall be used when available. The Applicant's Engineer has provided a Hydrology & Hydraulic Engineering Report for the floodplain. Due to time constraints, the Hydrology & Hydraulic Engineering Report provided for the floodplain has not been reviewed at this time.

4. **§254-503.A.1** states within any Identified Floodplain Area the use of fill shall be prohibited. If a variance is obtained it must be per the Engineer’s approval and is in accordance with the criteria in Article VIII, then the provisions listed in this section shall apply. The Applicant is proposing perimeter road improvements and the installation of endwall ES-7 within the delineated floodplain on Tollgate Road, therefore, a variance will be required for disturbance within the floodplain.

SUBDIVISION AND LAND DEVELOPMENT ORDINANCE (SALDO):

5. **SALDO §440-301.I** requires all subdivisions and land developments be required to submit and receive approval for Act 537 Sewage Facility Planning from PADEP. This project is located in the Bucks County Water & Sewer Authority (BCWSA) service area. Plans shall be submitted to BCWSA for review and approval. The Approval of the appropriate sewage-facility-permitting agency (PADEP) must be received by the Township prior to preliminary approval. ***The Applicant has indicated that they are in the process of obtaining planning module approval.***
6. **SALDO §440-303.C.(7).c** should waivers from the Subdivision and Land Development Ordinance be requested by the Applicant, the requests shall be submitted, in writing, to the Planning Commission for review and comment. The Applicant shall also indicate the reason or purpose for the request.
7. **SALDO §440-303.D.3.j** requires plans and profiles of all proposed stormwater management facilities. We have the following comments:

Miscellaneous G&A Land Development Plan set storm sewer comments:

- a. There are many instances where inlet labels are missing from the grading plans (sheets 25-33 of 102). The plans shall be revised to show all inlet labels.

The following storm sewer pipe runs have discrepancies between the storm sewer report and the storm sewer profiles/plan in the Bogia Engineering Highway Occupancy Permit plan set and Tollgate and Fulling Mill Road Improvement plan set:

- | | |
|--|---|
| a. MH4-ST5: Invert elevation | e. I714-EW713: Rim elevation doesn’t match G&A |
| b. YD1-ST5B: Pipe size, length and slope doesn’t match G&A | f. HW716-I715: Pipe slope and invert/rim elevations doesn’t match G&A |
| c. DHMH-OS: No profile has been provided | g. I719-I715: Rim elevation doesn’t match G&A |
| d. Corner-ES: Rim elevation | |

As invert elevations and pipe lengths are modified, pipe slopes shall be confirmed and revised as needed.

Miscellaneous Bogia Engineering Inc. plan sets storm sewer comments:

- a. Top of Grate elevation for ST-1 EX MH on ‘ST-4 EX. INLET TO ST-1 EX. MH’ profile does not correspond to the information provided on ‘ST-3B TO EX. INLET’ profile for the same structure.

- b. There are several pipe profiles that do not reflect the pipe size.
 - c. There is a pipe run provided in the storm sewer tabulation for EX8a. No profile has been provided for pipe run and it is unclear where this connection is located. Clarification is required.
8. **SALDO §440-407.A.(1)** requires that no subdivision or land development plan be approved unless there has been a plan approved by the Bucks County Conservation District for Erosion and Sedimentation control. ***Applicant has indicated that they will comply with this requirement.***
 9. **SALDO §440-409.J** requires a PennDOT Highway Occupancy Permit (HOP) any time the Applicant encroaches into the legal right-of-way. The Applicant will be required to obtain Highway Occupancy Permits for the proposed connection of Roads 'A', 'I', 'G', and 'H', utility connections and all frontage improvements along Langhorne-Newtown Road (S.R. 0413) and a portion of Fulling Mill Road (SR 2033). ***The Applicant indicates that HOP applications have been made to PennDOT for new road connections to PennDOT right-of-way and utility providers will handle the utility permits at the time of connection.***
 10. **SALDO §440-411.I.2.a** refers to a residential collector Street system whenever a development exceeds 150 dwelling units or when it carries external through traffic in addition to traffic generated by the development. The Applicant has proposed Road 'A' to connect to Summit Trace Road in the adjacent subdivision, as well as S.R. 0413. This connection will add the number of dwellings units that will be serviced by the proposed roadway and will create through traffic from the Summit Trace development and the shopping center off Summit Trace Road; therefore, Road A is classified as a Residential Collector road. Residential collector roads shall meet the criteria under this ordinance section as far as limiting frontage along collector roads (**SALDO §440-411.I.2.c**), no parking along roadway (**SALDO §440-411.I.7**), and a 60-foot right-of-way width (**SALDO §440-411.I.4**).

The Applicant has provided a 60-foot right-of-way for Road A from the intersection of S.R. 0413 and Road A to the intersection with Road C. TPD shall determine if the remainder of Road 'A' from the intersection of Road 'C' to the intersection with Summit Trace Road would require a 60-foot right-of-way. If it is determined that all of Road A is a residential collector road, the plans shall be revised to comply with this section of the Ordinance, or a waiver would be required from the sections listed above. TPD shall verify traffic counts on Road 'A' to determine if the required right-of-way has been satisfied.

11. **SALDO §440-415.A.(3)** requires driveways to be designed and constructed as to provide reasonable site distance at intersections with a stopping not to exceed a 4% grade, 20 feet behind the right-of-way line.

The spot elevations for the driveway of Lot #121 are shown as '???' and shall be revised to correct this discrepancy and verify the slope at this location.

12. **SALDO §440-416.D** states intersecting streets shall intersect at a 90° angle for a minimum of 50 feet beyond the intersection of the right-of-way lines. The intersection of Roads 'A' and 'C' and the intersection of Roads 'I' and 'C' do not meet this requirement. ***The intersection of Roads 'A' and 'C' has been revised to provide 50' from the intersection of centerlines, not 50' from the intersections of right-of-way lines as required. The plans shall be revised to comply with this section of the Ordinance, or a waiver will be required.***

13. **SALDO §440-418** –The location of such street and traffic control signage is shown on the plans. Signage shall be shown where the internal roads intersect the perimeter roads. ***The proposed signs along the perimeter roads have been provided on the G&A plan set; however, there are several locations where the signs do not correspond to the locations on the BEI road improvement plans. The plans shall be revised to correct these discrepancies.***
14. **SALDO §440-419.F, G, & H** requires handicap ramps at corners and crossing points where pedestrian traffic is anticipated. Accessible routes and handicap ramps shall be designed to meet current ADA standards. ***The Applicant has provided handicap ramps; however, the grading design of the ramps have not been provided. The Applicant has indicated that ADA ramp grading at intersections will be provided at final plan submission.***
15. **SALDO §440-423.C.(4)** states that stormwater detention or retention basins shall not be included in areas designated for open space. The Applicant has revised the plans to provide ‘Other Open Space Areas,’ which are Open Space area above the Recreational Area/Open Space requirement. All basins are located within Other Open Space Areas and will be owned and maintained by the HOA. ***The Applicant has indicated that HOA documents shall be prepared prior to plan recordation covering the above requirements.***
16. **SALDO §440-428** requires that a traffic impact fee for all new developments/subdivisions within each of the transportation service areas. The Township’s Traffic Engineer will determine the service area in which this project is located in and the amount of the traffic impact fee.
17. **SALDO §440-506** requires that street signs, bearing the names of the intersecting streets, shall be erected at every street intersection. The Applicant shall provide a list of street names to the Township during final plan approval. ***The Applicant has indicated that they will comply with this requirement prior to Final Plan approval.***
18. **SALDO §440-507** requires the developer to install streetlights and the underground conduit that is acceptable to the Township. The Applicant has proposed Street lighting within the internal streets. The proposed fixture has a LED bulb, fixture mounted on a 12’ high fiberglass pole. The Applicant shall discuss the possibility of tying the proposed lighting fixtures into the Townships network. The lighting plan shall be reviewed by the Township’s Streetlight Engineer.
19. **SALDO §440-512** requires the developer to construct water mains and water services to each lot within a subdivision or land development. ***The Township Fire Marshal shall review the plans to determine the appropriate firefighting pressure and flows exists as well as maneuverability of the emergency equipment and vehicles. Plans shall be submitted to Newtown Artesian for review and approval. Approval by the NAWC shall be forwarded to the Township when received.***
20. **SALDO §440-514** requires the developer to construct sanitary sewers and make adequate sanitary sewer service available to each lot within the subdivision and land development. ***The Applicant is in the process of obtaining planning module approval. In addition, plans shall be submitted to the BCWSA for review and approval. Approval by the BCWSA shall be forwarded to the Township when received.***

STORMWATER MANAGEMENT ORDINANCE COMMENTS:

The Applicant is proposing a net increase of 35.58± ac. of impervious surface area and 128.50 acres of earth disturbance. The site is located within the Neshaminy Creek Watershed – Stormwater Management Districts 'A' and 'B'.

Note: This project assumes the Maximum Allowable Impervious surface area for all lots (30% of the Lot Area).

21. **SWMO §431-303.B(3)(b)** requires the applicant to calculate the volume controls provided through nonstructural BMPs. A review of the worksheets for volume credits taken by the applicant have the following comments:

- a. The applicant seeks credit for Protected Existing Trees. To receive this credit the applicant must:
 - i. Protect the trees by having the limits of disturbance clearly shown on all construction drawings and delineated in the field.
 - ii. Protection during construction shall entail minimizing disruption of the root system.
 - iii. Trees credited for stormwater management shall be clearly labeled on the construction plans and recorded on the Record Plan of the project
 - iv. Trees shall be maintained and protected for the life of the project (50 years) or until redevelopment occurs.
 - v. No more than 25% of runoff volume can be mitigated through the use of trees.
 - vi. Escrow shall be provided for the replacement of any protected trees used for stormwater credit that die within five years of construction. Dead trees shall be replaced within six (6) months.
 - vii. Existing tree canopy must be within 100" of impervious surfaces to gain credit.
 - viii. Only applies to trees outside the Sensitive/Special Value Areas.
 - ix. Applies to existing trees 4" caliper or larger. Non-native species are not applicable.

NPDES Worksheet 3 shows the protected existing tree area as being 41,048 sq. ft. The area hatched on the PCSM plan, sheet 34 of 102, shows an area approximately 14,000 sq. ft. as 'Area of Protected Trees'. This discrepancy shall be corrected.

- b. The applicant seeks credit for disconnect roof leaders to vegetated areas. To receive this credit the applicant must:
 - i. Direct roof leaders to a pervious area where runoff can either infiltrate into the soil or filter over it.
 - ii. Shall be noted on the stormwater management plan as part of the stormwater management system and included in any municipal easement requirements for stormwater systems.
 - iii. The entire vegetated "disconnected" area shall have a maximum slope of 5%.
 - iv. The disconnection must drain continuously through a vegetated swale or filter strip to the property line or BMP.
 - v. Roof downspouts shall be at least 10' away from the nearest impervious surface to discourage re-connections.

NPDES Worksheet 3 shows the disconnected roof leader to vegetated areas as being 79,200 sq. ft. The area hatched on the PCSM plan, sheet 34 of 102, shows an area approximately 33,000 sq. ft. as ‘Disconnected Roof area’. This discrepancy shall be corrected.

22. **SWMO §431-403.A** requires proof of application or documentation of all applicable permit(s) or approvals be part of the plan. The following permits shall be obtained:
- a. NPDES permit for stormwater discharges from construction activities;
 - b. Bucks County Conservation District Erosion & Sedimentation Control Plan;
 - c. PA DEP General Permit #4 for all applicable stormwater outfalls

The Applicant’s Engineer has indicated that the above referenced items will be obtained and forwarded to the Township upon receipt.

23. **SWMO §431-704.A** states that the owner shall sign an Operation and Maintenance (O&M) Agreement with municipality covering all stormwater facilities and BMP’s that are to be privately owned. This agreement must be executed by the owner and the Township and recorded at the Bucks County Courthouse. The O&M agreement must be in a form acceptable to the Township Solicitor (refer to Appendix A of the SWMO for a sample O&M Agreement). Also, SWMO §431-702.A requires both the O&M agreement and the plan to be recorded at the office of the Recorder of Deeds for Bucks County.

The Applicant’s Engineer has indicated that an O&M Agreement will be executed by the Owner and Township at the appropriate time.

GENERAL STORMWATER MANAGEMENT COMMENTS:

24. The note that outlet pipe from Stormwater Basin 7 is proposed to connect to an existing inlet located within the PennDOT right-of-way near the intersection of Langhorne-Newtown Road (S.R. 0413) and Summit Trace Drive. Calculations shall be provided to certify that this inlet and downstream piping system (through the George School campus) has the capacity to accommodate the proposed flow. In addition, a PennDOT HOP (utility) would be required for this connection.

The Applicant’s Engineer has provided calculations, which show a reduction in flow and volume to the existing inlet and downstream piping in the post-developed condition. As part of the PennDOT Permit review, PennDOT will ensure that additional stormwater runoff does not enter the PennDOT right-of-way. Further, the Applicant’s Engineer has acknowledged that a PennDOT utility HOP will be secured for the connection to this existing inlet.

25. Existing and proposed contours shall be shown on the drainage area maps that were included in the January 2019 Stormwater Report Prepared by BEI. **The Applicant shall provide the contours throughout the provided drainage areas.**

26. Soil infiltration testing will be required once the infiltration basins are excavated to the design depth. Soils in the areas where infiltration is proposed shall not be compacted. If the infiltration testing results (during construction) fall below the infiltration rate used for design, the design

engineer will need to amend the soils to assure the infiltration returns as designed or modify the design with the approval from the Township Engineer.

WATER SYSTEM REVIEW COMMENTS:

27. All materials and means of construction (including pipe pressure class, valve manufacturer and type, etc.) must be reviewed and approved by the water supplier, Newtown Artesian Water Company (NAWC). **The Applicant has stated that Approval from Newtown Artesian Water Company will be provided upon receipt.**
28. The type (manufacturer, model number, nozzles sizes and threads), number and locations of fire hydrants must be reviewed and approved by the Middletown Township Fire Marshall.
29. A pressure test must be conducted and hydraulic calculations performed to determine if there is sufficient water pressure to serve the development with the proposed water system design. **The Applicant has indicated that a pressure test will be performed prior to final plan approval.**
30. Dead-end watermains shall be avoided. Applicant shall discuss this issue with the water authority. **The Applicant has stated that Approval from Newtown Artesian Water Company will be provided upon receipt.**

SEWER SYSTEM REVIEW COMMENTS:

31. The sewer provider, Bucks County Water & Sewer Authority (BCWSA), shall review and approve the sewer system design.
32. A Sewage Facilities Planning Module Mailer shall be sent to the Pennsylvania Department of Environmental Protection (PADEP) and a Sewage Facilities Planning Module, if required by PADEP, shall be obtained. The Applicant is in the process of obtaining planning module approval.
33. Connections to the sewer system cannot be made until capacities and connections have been allocated by the proper authorities (PADEP, BCWSA and Philadelphia Water Department).

MISCELLANEOUS COMMENTS:

34. Road 'H' intersects Fulling Mill Road in front of an existing house. The Applicant shall clarify how headlights will be controlled or stopped from shining into the house. The Project Engineers response is that the Developer proposes to provide a vegetative buffer along the right-of-way line to buffer the headlights from shining into the referenced property. The Landscape plan does not show any vegetative buffers in the area.

The Applicant has stated that evergreen trees are being proposed within the township right-of-way across from Road 'H' to block headlights from exiting vehicles. The Applicant shall obtain written permission from the homeowner of this property for the proposed trees in front of the property. Also, the Applicant's design engineer shall confirm that the clear sight distances for this property will not be blocked by the proposed trees.

The Applicant's design engineer has stated in their response letter dated January 11, 2019 that the applicant has attempted on multiple occasions to obtain the written permission from the property owners and additional attempts will be made.

35. Road names shall be assigned to the proposed internal roads prior to recording.
36. A detailed review of the lot grading was not performed at this time.
37. There are two locations of the proposed walking path where the grades are steep. The Project engineer shall verify that this meets ADA requirements and that no flat landing is required to break up the slopes. **The Applicant has stated that ADA design will be provided prior to final plan approval.**
38. The Applicant shall indicate if this development will be serviced by natural gas. **The Applicant's design engineer has stated that this shall be determined prior to final plan approval.**
39. Intersection grading details shall be provided for all intersections. These details shall indicate areas of gutter flow, top and bottom of curb elevations, and HC ramp spot elevations. **The Applicant has indicated these details shall be provided prior to final plan approval.**
40. The Applicant, Metropolitan Development Group, plans on constructing 123 homes in four phases. The Construction sequence provided on sheet 41 shall include/address the phasing of the development.

Will the roads and utilities that are shown in Phase IV be constructed in Phase III? Also, the proposed watermain is connecting to the existing main at Ellis Road which would mean the proposed watermain would need to be installed in Road H (portion is shown in phase IV) to get to the Lot which will be built in Phase III. A discussion shall take place regarding the details of phasing with regard to roads and utilities. Also, the proposed improvements **The Applicant has indicated that prior to final plan approval, the phasing will be coordinated between the applicant and township engineer.**

41. Please note that, due to the volume of comments generated by this Preliminary Plan review, additional comments may be forthcoming when the additional information is provided.
42. The following record plan discrepancies shall be revised on the record plan:
 - a. On Sheets 2 and 3 of 102, the new extension of Summit Trace Road from Road "A" at the common outbound line to the tie-in of Summit Trace Road is not shown completely, and also without the geometry. There also does not show or address the acquisition of land to extend Road "A" to the Summit Trace road tie-in, and whether a new lot or boundary line would be created to address that situation, as the road would go through a portion of Open Space Area "B" in Summit Trace, as well as possibly altering the property lines for privately owned lots by approved subdivision Plan Book 366, Page 87 on the Northerly side of Summit Trace Road.
 - b. On Sheet 10 of 102, the new road alignment for Road "G" between lots 119 and 118, does not match the subdivision on the approved, but not recorded, "Minor

Subdivision Plan (Overall) Stone Farm By-Right Plan”, by Gilmore and Associates, Inc., dated March 5, 2018, last revised April 25, 2018. A portion of the Right of Way for Road “G” exists in Lot 1 of the minor subdivision and the other portion of the Right of Way for Road “G” exists in Lot 2 of the minor subdivision. We realize that the road is meant to align with Ellis Road across the street from Road “G”, so then the minor subdivision should be amended to match what is being shown on these plans.

- c. On Sheets 24 and 25 of 102, the grading and drainage extends offsite into property not currently owned or acquired by easements by the developer as addressed in comment “42a”.
 - d. On Sheets 41 and 42 of 102, the limit of disturbance, grading and drainage extends offsite into property not currently owned or acquired by easements by the developer as addressed in comment “42a”.
 - e. On Sheets 64 and 65 of 102, the waterline extends offsite into property not currently owned or acquired by easements by the developer as addressed in comment “42a”.
43. The BEI Highway Occupancy Permit Plans and Tollgate and Fulling Mill Road Improvement Plans shall be revised to include the following information:
- a. Contour labels shall be provided for all proposed contours.
 - b. The ultimate right-of-way for Newtown-Langhorne Road (S.R. 0413) shall be shown on the BEI Highway Occupancy plan set.
 - c. The BEI Tollgate and Fulling Mill Road improvement plans shall be revised to show the roadway cross section where the existing stormwater pipe crosses Tollgate Road, approximately station 11+30.
 - d. The “Typical proposed cross-section detail” provided for Tollgate Road and Fulling Mill Road on sheet 37 of 39 shall be revised to label the proposed sidewalks.
44. The applicant will be required to obtain general permits for the additional stormwater discharge points on Tollgate Road. **The Applicant has indicated that general permits for stormwater discharge will be obtained as necessary and forwarded to the Township upon receipt.**
45. The construction sequence on sheet 41 was updated to include the construction of the improvements on the perimeter roads after the construction of the dwellings. We would suggest starting the perimeter road improvements at the same time the dwellings are constructed.
46. The proposed crosswalk on Tollgate Road at the park entrance drive, shown on sheet 7 of 102, ends prematurely and terminates in the center of the decal lane/shoulder. The plan shall be revised to extend the crosswalk to the edge of Road.

47. We are told that the Applicant purchased open space (Open Space B) from the original developer of the Summit Trace development. The roads within the Summit Trace Development are owned by Middletown Township. On sheet 3 Of 102, the Summit Trace Road right-of-way metes and bounds shall be shown from S.R. 413 to the intersection of Oak Ridge Drive. In addition, the metes and bounds for what is known as Open Space B in the Summit Trace development shall also be provided.
48. The extension of proposed Road “A” into the Summit Trace development shall contain the appropriate with right-of-way based on the classification of road. TPD shall review the number of trips generated on proposed Road “A” to determine the proper road classification and associated right-of-way and cartway width. The Applicant is proposing a 32-foot wide cartway and a 50-foot wide right-of-way for this section of roadway. We note that providing the 32-foot wide right-of-way causes the location of the sidewalk to be outside of the right-of-way. The proposed sidewalks are located outside the right way for the entire length of proposed Road “A”.
49. The portion of the proposed right-of-way for Road “A”, from the common property line between the Stone Farm development and the Summit Trace development to where Road “A” intersects Summit Trace Drive, shall be shown on the plans and labeled with metes and bounds. The record plan, grading plan, and plan and profile shall show the right-of-way. If grading is to occur outside the right-of-way, temporary construction easements will be required.
50. The Summit Trace development was approved and recorded on December 8, 1977. The multi-residential development was approved with an open space requirement of 35%. Since the Applicant is extending proposed Road “A” into the area known as Open Space B, the open space for the Summit Trace Development will be reduced. The Applicant shall provide evidence that the Summit Trace development has a minimum 35% open space after the area of the proposed Road ‘A” right-of-way is subtracted. The Development has ten (10) open space areas (namely open space “a” thru open space “j”).
51. We are told that the Applicant has obtained the right to connect to Summit Trace Drive from the original developer of the Summit Trace Development. Apparently, the open space parcels were not conveyed to a homeowners association and the original developer still owns the open space parcels. We have questions regarding this “obtained the rights to connect” agreement. Were there any conditions attached to this agreement? If Middletown Township is to own this road will the Applicant convey this land to the Township? It sounds like “obtaining the right to connect” indicates that an easement will be granted to the Applicant. The Township shall determine if an easement is sufficient or if a right-of-way that will be conveyed to the Township is preferred. The Applicant has indicated in their response letter that this will be discussed at a Township meeting.
52. As stated in a prior comment, Middletown Township owns the main roads within the Summit Trace Development. It is also the intention of the Applicant to offer the proposed roads within the Stone Farm development for dedication to Middletown Township. We would assume that the Road “A” extension would also be offered for dedication to Middletown Township. Roadway Ownership shall also be discussed at a Township meeting.
53. A note (note 39) has been added to the record plan, on sheet 3 of 102, that states “the trail located along the northern edge of tollgate Road right-of-way will not be required should the county path along the southern edge of tollgate Road right-of-way be installed by year 2020”. The Township’s Planning Commission and Board of Supervisors shall discuss this issue in further

detail. We were told by Gilmore and Associates, Inc. that Bucks County has a project that will install a trail on the south side of Tollgate Road. To date, we do not know the location of the proposed trail on Tollgate Road or the starting point and ending point. The Township's Planning Commission the Board of Supervisors shall determine if it is desired to construct the 6-foot wide sidewalk on the north side of Tollgate Road (as shown on the plans) or wait for the County Trail to be constructed on the south side. It is our recommendation that the Township obtain more specifics regarding the trail and find out when this trail will be built by the County and the exact location of the trail. If it is decided not to have the Applicant construct the 6' wide sidewalk on the North side of Tollgate Road, then additional crosswalks may be required at the corner of Mill Road and Tollgate Road to connect the Stone Farm development sidewalks to the County Trail. Please keep in mind that whether the trail/sidewalk is on the north side (by Applicant) or south side (by County) of Tollgate Road, variances for floodplain disturbance will be required to cross the stream/tributary and possibly PADEP general permits.

PERMITS & APPROVALS:

54. Copies of all Approval/Permits from agencies having jurisdiction on any aspect of the project must be submitted to the Township including, but not limited to, the following:
- a. Pennsylvania Department of Transportation (PennDOT) – Highway Occupancy Permit (HOP) for the proposed street entrance, utility connections and all frontage improvements;
 - b. Bucks County Conservation District – Erosion & Sedimentation (E&S) Control Plan Approval;
 - c. Pennsylvania Department of Environmental Protection – Nonpoint Discharge Elimination System (NPDES) Permit;
 - d. Pennsylvania Department of Environmental Protection – Act 537 Sanitary Sewer Planning Modules;
 - e. Pennsylvania Department of Environmental Protection – General Permits for Utility Stream Crossing and Stormwater Outfalls;
 - f. Army Corp. of Engineers Jurisdictional Determination Letter dated March 27, 2018

The Applicant has indicated that the Township will be provided copies of all outside agency permits and approvals upon receipt.

RECOMMENDATION:

Tri-State Engineers recommends that the Applicant address the above listed comments to the satisfaction of the Township.

In order to facilitate an efficient review of the revised plan submission, the Design Engineer should provide a letter, addressing item by item, their action in response to each of our comments.

If you have any questions or require additional information, please do not hesitate to contact me at 215-357-5950.

Sincerely,

Mr. Patrick Duffy, P.E.
Stone Farm – Preliminary Plan – 7th Review
Langhorne-Newtown Road & Tollgate Road
MT-1303; S/LD #15-08

January 31, 2019
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cc: Middletown Township Planning Commission
Middletown Township Board of Supervisors
James J. Esposito, Esq. – Township Solicitor
Stephanie Teoli-Kuhls – Township Manager
Isaac Kessler, P.E. – Township Engineer
Michael Tulio, Applicant – Metropolitan Development Group
Robert Gundlach Jr., Esq. – Applicant’s Attorney – Fox Rothchild, LLP
Eric Clase, P.E., Applicant’s Engineer – Gilmore & Associates, Inc.
Gregg A. Bogia, Applicant’s Traffic Engineer – Bogia Engineering, Inc.