

April 13, 2017

Erica Batdorf, Township Manager
West Vincent Township
729 Saint Matthews Road
Chester Springs, PA 19425

RE: Ewing Tract – Sunderland Avenue Extension
Subdivision and Land Development Application
West Vincent Township
File No. WVT-16-016

Dear Ms. Batdorf:

On behalf of West Vincent Township, we have completed a review of the Ewing Tract - Sunderland Avenue Extension Land Development Application. Ewing Group, LLC (Toll Brothers) proposes to construct the Sunderland Avenue East Extension between Rainer Road and Eagle Farms Road. The extension was previously approved by West Vincent Township and subsequently removed on the amended plans for Phase 2 of the Development. The extension of Sunderland Avenue was a condition of approval for the portion of the Ewing Tract in Upper Uwchlan Township.

The following information was submitted by Riley Riper Hollin & Colagreco, and was received by our office on March 15, 2017:

- A. One (1) copy of the cover letter from Riley Riper Hollin & Colagreco regarding the Sunderland Avenue East Extension Subdivision and Land Development Application dated March 13, 2017. (RRHC Letter)
- B. One (1) copy of Subdivision and/or Land Development Application dated March 13, 2017.
- C. One (1) full size set of plans consisting of 24 sheets titled "Ewing Tract Final Land Development Plan R3-Residential District - Tier IV Option", sheets 1-5, 12, 15, 22, 25, 32, 35-37, 43, 46, 48-49, 59, 68-70, and 72-74, prepared by Taylor Wiseman & Taylor, dated February 14, 2003, last revised January 13, 2017. (Plans)
- D. One (1) 11x17 size set of plans consisting of 24 sheets titled "Ewing Tract Final Land Development Plan R3-Residential District - Tier IV Option", sheets 1-5, 12, 15, 22, 25, 32, 35-37, 43, 46, 48-49, 59, 68-70, and 72-74, prepared by Taylor Wiseman & Taylor, dated February 14, 2003, last revised January 13, 2017.
- E. One (1) full size set of plans consisting of 4 sheets titled "Phases II & IIA Overall Subdivision Plan for Ewing Tract", sheets 2, 3, 6, and 7, prepared by Taylor Wiseman & Taylor, dated January 28, 2008, last revised January 13, 2017. (Subdivision Plans)
- F. One (1) 11x17 size set of plans consisting of 4 sheets titled "Phases II & IIA Overall Subdivision Plan for Ewing Tract", sheets 2, 3, 6, and 7, prepared by Taylor Wiseman & Taylor, dated January 28, 2008, last revised January 13, 2017.

- G. One (1) 11x17 size plan consisting of 1 sheet titled "Turning Exhibit Fire Truck", prepared by Taylor Wiseman & Taylor, dated March 8, 2017.
- H. One (1) copy of Resource Assessment Report for Sunderland Avenue East Extension Ewing Tract dated March 8, 2017.
- I. One (1) copy of property Deeds.
- J. One (1) copy of "Greenway Maintenance Standards Ewing Tract" dated June 30, 2003 and last revised January 20, 2017.
- K. One (1) copy of "Engineer's Report Hydraulic and Hydrologic Analysis Sunderland Avenue East Culvert" dated March 7, 2017.

We have reviewed the information for compliance with the West Vincent Township Subdivision and Land Development Ordinance (SALDO) (Ord. No. 170-2016) and the West Vincent Township Stormwater Management Ordinance (Ord. No. 160-2014) and offer the following comments for your consideration:

Subdivision and Land Development Ordinance Comments:

1. *Section 403.B.2 - A preliminary plan shall consist of and be prepared in accordance with the following minimum standards: Dimensions shall be set in feet, bearings in degrees, minutes, and seconds (errors of closure not to exceed one part per 10,000).*

The legal description for the proposed right-of-way for East Sunderland Avenue along with the Closure Report shall be provided to the Township for review.

2. *Section 403.B.2 - A preliminary plan shall consist of and be prepared in accordance with the following: A note placed on the plan indicating where noncompliance occurs relative to zoning, subdivision, building, sanitation, and other applicable Township ordinances, and a citation of the date and content of any decision concerning a Special Exception, Variance, or Conditional Use and any request for a waiver.*

The requested waivers shall be listed on the Title Plan.

3. *Section 403.0 - Ordinance Relief Report. The applicant shall provide a report which identifies any conditional uses, special exceptions, and/or variances necessary or granted, along with the applicable decisions of the Zoning Hearing Board and/or Board of Supervisors. The report shall also identify all subdivision waivers requested along with reasons why the waivers are needed in accordance with Section 1203 of this Ordinance.*

A report containing the reasoning or justification for requested waivers must be provided for consideration by the Board of Supervisors.

4. *Section 404.D.5. - Permanent concrete control and reference monuments, as required by Section 603 of this Ordinance.*

Monuments at all angle points and beginning and ending of curves defining the right-of-way for East Sunderland Avenue shall be added to the plans.

The monuments along the right-of-way must be referenced in the legal descriptions for all parcels for clarity and completeness.

5. *Section 404.E.3.a - The following data for the cartway edges (curb lines) and right-of-way lines of all recorded (except those which are to be vacated) and/or proposed streets and sidewalks within or abutting the property. The length (in feet and hundredths of a foot) of all straight lines and of the radius and the arc (or chord) of all curved lines (including curved lot lines).*

The horizontal alignment for the roadway centerline and the right-of-way lines for East Sunderland Avenue shall be added to the plans.

6. *Section 404.E.6 - Design of any stormwater management facilities that may be required. The designs shall conform to all applicable state and Township requirements.*

The water quality, runoff and storage volume calculations must be submitted for review to address consequences of the additional impervious area added to the project.

7. *Section 404.K.3. All offers of dedication of realty or structures and all declarations, easements and covenants governing the reservation and maintenance of undedicated open space, for the Final Plan shall be in such form as shall be satisfactory to the Board of Supervisors.*

The format for the offer of dedication for the Sunderland Avenue East right-of-way to West Vincent Township must be acceptable to the Township Solicitor.

8. *Section 510 – Improvements Agreement.*

An Improvements Agreement must be executed for this Application.

9. *Section 511 – Performance Guarantees (Escrow Agreements).*

Financial security sufficient to cover the cost of all proposed improvements for East Sunderland Avenue in accordance with this section shall be provided in a form acceptable to the Township Solicitor prior to the release and recording of the final plan.

10. *Section 610.A – Erosion, Sediment Control and Stormwater Management. No grading, excavating, removal, or other movement of the topsoil and no removal or destruction of trees or other vegetative cover of the land shall be commenced until such time that a plan for minimizing erosion and sedimentation has been reviewed by the Township Engineer and approved by the County Conservation District and the Board of Supervisors, or there has been a determination by the Planning Commission and the Board of Supervisors that such plans are not necessary. Appropriate earthmoving and NPDES permits from the Township and the Department of Environmental Protection shall be required.*

The Applicant must provide a copy of all correspondence with the CCCD and PADEP regarding the required erosion and sedimentation control facilities and NPDES stormwater discharge permits. Copies of permits and approvals by these agencies shall be provided prior to Final Plan approval.

11. *Section 610.B – Erosion, Sediment Control and Stormwater Management. No subdivision or land development plan shall be approved unless there has been a plan approved by the Board of Supervisors that provides for minimizing erosion and sedimentation and for stormwater management consistent with this Section, and an improvement bond, cash, or other acceptable securities are deposited with the Township in the form of an escrow guarantee which will ensure installation and completion of the required improvements;*

or there has been a determination by the Board of Supervisors that a plan for minimizing erosion and sedimentation and/or stormwater management is unnecessary.

Erosion and Sediment Control Narrative and Calculations must be submitted for review and approval.

12. Section 610.I.2 - During grading and excavation operations, necessary measures for dust control will be exercised.

A note shall be added to the plan or construction sequence addressing measures proposed to control dust in accordance with the requirements of this Ordinance.

13. Section 611.2.a - Widths for Rights-of-Way and Cartway. Minimum street widths for proposed streets and extension or continuations as follows:

<u>Classification</u>	<u>Cartway Width (in feet)</u>	<u>Right-of-way Width (in feet)</u>
Minor Collector	20	60

Minor Collector Street is designed to collect traffic from residential areas and feed to the arterial system with mostly locally-oriented traffic. East Sunderland Avenue Extension will be used as a through road and provide direct access to adjacent residential townhomes and single family homes. The minimum right-of-way required is sixty (60') feet. East Sunderland Avenue Extension will be classified as Minor Collector Street. The plans show the proposed right-of-way as forty (40') feet. The applicant is requesting a waiver from this requirement. CEDARVILLE will provide our recommendation for the waiver after evaluating the justification for the requested waiver provided by the Applicant.

14. Section 611.2.c - Widths for Rights-of-Way and Cartway. If parking is to be permitted or required along a major collector, minor collector, or local access road, an additional eight (8) feet of cartway width shall be required for parking along one (1) side of the street; an additional sixteen (16) feet of cartway width shall be required if parking is to be permitted or required along both sides of the street.

The applicant shall clarify if parking will be permitted on East Sunderland Avenue. If the parking is permitted, the cartway width shall be revised to above mentioned specifics. If the parking is not permitted, the Construction Improvements Plan shall be submitted with "No Parking Fire Lane" (R8-31) sign, "Tow Away Zone" (R7-201) sign and "No Standing Any Time" (R7-4) sign along both sides of the East Sunderland Avenue to ensure there is an unobstructed pathway for the Fire Truck in case of emergencies.

15. Section 611.D.5 - Street Alignment. Minimum curve radius shall not be permitted on maximum grade.

The applicant is requesting a waiver to permit the minimum allowable center line radius of 150 feet while utilizing the maximum allowable grade of 10%. CEDARVILLE will provide our recommendation for the waiver after evaluating the justification for the requested waiver provided by the Applicant.

16. Section 611.E.3 - Street Intersections. Clear sight triangles shall be provided at all street intersections. Within such triangles, no object which obscures vision above a height of thirty (30) inches and below a height of ten (10) feet shall be permitted. Heights shall be measured from the centerline grade of the street intersection. Such triangles shall be established by a distance from the curb line or edge of pavement of the intersected street according to the following street function:

- a. Distances for collector and arterial roads shall be in conformance with PennDOT standards, but shall in no case be less than four hundred (400) feet in each direction along the collector or arterial road.
- d. Where an intersection is controlled by a stop sign or traffic signal, the sight triangle shall be measured from a point in the center of the controlled or lesser street twenty-five (25) feet back from the curb line or edge of pavement of the uncontrolled or through street.
- e. The sight triangle shall be measured from a point in the center of the street seventy-five (75) feet back from the curb line, or edge of pavement if there is no curb, for all other intersections not equipped with a stop sign or traffic signal.

The required sight distance and clear sight triangle must be provided and indicated on the Plans for the intersection of Sunderland Avenue East and Eagle Farms Road.

17. Section 611.A – Paving.

The construction detail of the typical roadway cross-section on Sheet 68 of 86 shall be revised to comply with the West Vincent Township paving specifications shown in Appendix C (attached to this letter).

18. Section 613 – Bridges and Culverts. Bridges and culverts shall be designed to meet the requirements and approval of the Township Engineer with regard to design, adequacy, and location. In all cases a culvert or bridge shall extend for the full width of the right-of-way. All culverts and bridges not under Department of Environmental Protection control shall be designed for a fifty (50) year storm. Culverts shall be of reinforced concrete or ABS plastic (smooth lined). Corrugated metal pipe shall be prohibited.

Wherever the drainage area of the watercourse involved consists of more than one hundred (100) acres, a permit shall be obtained from the Dams and Waterway Management section of the Department of Environmental Protection, Commonwealth of Pennsylvania, in conformance with Chapter 105 of the rules and regulations of the Department of Environmental Protection. Such permit shall be submitted to the Board of Supervisors who shall make appropriate notation of receipt of same upon, and prior to approval of, the Preliminary Plan and upon the Township copy of such plan.

The applicant has proposed to install a 40-foot long, 32'-2"X 10' 8", BridgeCore multi-plate open bottom arch culvert manufactured by Contech to cross the wetlands and Tributary to Pickering Creek. The applicant is requesting a waiver to permit a metal culvert to be utilized rather than a reinforced concrete or ABS plastic culvert. CEDARVILLE will provide our recommendation for the waiver after evaluating the justification for the requested waiver provided by the Applicant.

The Applicant must obtain a General Permit (GP) 11 – Maintenance Testing, Repair, Rehabilitation or Replacement of Water Obstruction and Encroachment Permit from the Pennsylvania Department of Environmental Protection (PADEP) prior to the commencement of the work. The Township shall be copied on all permit applications and correspondence with PA DEP during the permitting process for this project.

Stormwater Management Comments (Ordinance 160 of 2014):

19. Section 301.A. - The stormwater management and runoff control criteria and standards in this Ordinance shall apply to the total proposed Regulated Activity, even if it is to take place in stages. The measurement of Impervious Surfaces shall include all of the Impervious Surfaces in the total proposed Regulated Activity even if the development is to take place in stages.

The total disturbed and impervious area of the regulated activity for the construction of the proposed East Sunderland Avenue Extension must be noted on the plan. There is a significant amount of uncontrolled storm runoff from East Sunderland Avenue and the Extension portion without any detention. The flow is captured by the inlets and directly discharged into the Tributary to Pickering Creek. The applicant shall submit all necessary calculations and reports on how the additional runoff is mitigated on the site using the Site Design process of Section 304.

20. *Section 305 – To control Post-construction stormwater impacts from Regulated Activities and meet State water quality requirements, BMPs shall be provided in the Site design that replicate Predevelopment stormwater infiltration and runoff conditions, such that Post-construction stormwater discharges do not degrade the physical, chemical, or biological characteristics of the receiving waters. The Applicant shall comply with the following water quality and runoff volume requirements for all Regulated Activities, including all New Development and Redevelopment activities.*

Documentation demonstrating compliance with this section of the Ordinance must be submitted for review.

21. *Section 307 - For Regulated Activities involving New Development with one (1) or more acres of Earth Disturbance, the Applicant shall comply with the following stream channel protection requirements to minimize stream channel erosion and associated water quality impacts to the receiving waters.*

Calculations for channel protection for the existing stream shall be submitted for review.

22. *Section 308 – The Applicant shall comply with the following peak flow rate control requirements for all Regulated Activities including those that involve New Development and Redevelopment.*

The applicant shall submit peak flow calculations for review and approval.

23. *Section 402.A.3 - A statement, signed by the Applicant, acknowledging that any revision to the approved SWM Site Plan shall be submitted to and approved by the Municipality, and that a revised Erosion and Sediment Control Plan shall be submitted to, and approved by, the Conservation District or Municipality (as applicable) for a determination of adequacy prior to construction of the revised features.*

Section 402.A.4 - The following signature block signed and sealed by the qualified Licensed Professional responsible for the preparation of the SWM Site Plan: "I (name), on this date (date of signature), hereby certify to the best of my knowledge that the SWM Site Plan meets all design standards and criteria of the West Vincent Township Ordinance No., [followed by title of Ordinance]."

The above referenced statement must be added to the Plans.

24. *Section 402.B.11 - Existing and proposed structures including roads, paved areas, buildings, and other Impervious and Pervious Surfaces on the project property (or an appropriate portion of the property as determined in consultation with the Municipal Engineer) and within the proposed Disturbed Area, and including the type and total area of the following.*

- a. *Existing impervious surfaces*
- b. *Existing impervious surfaces proposed to be replaced*
- c. *Existing impervious surfaces to be permanently removed and replaced with pervious ground cover*
- d. *New or additional impervious surfaces*
- e. *Percent of the site covered by impervious surfaces for both the existing and proposed post-construction conditions*

The above referenced information must be added to the Plans.

25. *Section 402.B.14 - Complete delineation of the flow paths used for calculating the time of concentration for the Predevelopment and Post-construction conditions shall be included.*

Time of concentration flow paths and calculations must be submitted for review.

26. *Section 402.B.16 - A grading plan, including all areas of proposed Earth Disturbance and the proposed Regulated Activity and delineating the boundary or limits of Earth Disturbance of the Site. The total Disturbed Area of the Site shall be noted in square feet and acres.*

The total disturbed area of the site must be noted in square feet and acres on the plan.

27. *Section 402.C - A written description of the following information shall be included in the SWM Site Plan: 1-8.*

A written description providing the required information shall be submitted for review.

28. *Section 402.E - Stormwater runoff design computations and documentation, such as hydrologic, hydraulic, and structural computations, assumptions, BMP loading ratios, etc., consistent with the guidelines and criteria presented in the PA BMP Manual (as amended) or other guidance acceptable to the Municipal Engineer, and used in the design of the BMPs, Conveyances and other features proposed to be utilized for stormwater management, or as otherwise necessary to demonstrate that the requirements of this Ordinance have been met, specifically including the requirements in Sections 301 and 304 through 309.*

Stormwater design computations must be submitted for review.

Additional Comments:

29. The applicant will be required to submit fully engineered construction plans, prior to Final Plan approval. At minimum, those plan shall include:

- A profile of proposed culvert extended 25-feet past the end of the construction/limits of disturbance for the culvert installation
- Headwall/Endwall design and construction details
- Road backfill and paving details
- Grading
- Details and location for guiderails and/or fencing
- Erosion and Sediment Control plan and details
- Riprap Apron and Geotextile information and details
- Construction Sequence
- Details of type of material surrounding the culvert along with soil compaction information

30. The HEC-RAS calculations for the Station 683.922 immediately downstream of the culvert location of the H&H Report shows an average velocity of approximately 12.22 feet per second for a 100-year flood event. The high surge in velocity causes shear stress on the bed at the downstream end resulting in an increase of erosive forces with the removal of material from the bed and from the banks across most of the channel width. This increase in transport of bed material from the waterway lowers the natural bed elevation. Countermeasures to resist erosion and prevent scour must be provided to minimize damage to the natural waterway. The applicant has proposed to address this with R-8 size Riprap. We request the Applicant explore more alternatives that will provide a more naturalized appearance.

31. The fill cover over the culvert is approximately 10 feet. The applicant shall submit documentation confirming the load bearing capacity of the structure.

Please note, revised submissions may generate further review comments. Once we receive the revised information addressing the comments identified in this letter, CEDARVILLE will confirm that the application is compliant with the West Vincent Township Ordinances.

Please do not hesitate to call with any questions.

Best Regards,
CEDARVILLE Engineering Group, LLC



Bryan D. Kulakowsky, P.E.
Township Engineer

cc: Tammy Swavely – West Vincent Township Secretary
West Vincent Township Board of Supervisors (Township to distribute)
West Vincent Township Planning Commission (Township to distribute)
Joseph J. McGrory, Jr., West Vincent Township Solicitor
Tom Wargo – West Vincent Township Code Official
Hamburg, Rubin, Mullin, Maxwell & Lupin, P.C. – John Walko (jwalko@hrmml.com)
Toll Bros (Applicant) – Mike Downs (mdowns@tollbrothersinc.com)
Riley Riper Hollin & Colagreco (Attorney) – Alyson Zarro (Alyson@rrhc.com)