



August 1, 2023

Ms. Mila Carter
Director of Planning and Zoning, Asst. Township Manager
Westtown Township
1039 Wilmington Pike
West Chester, PA 19382

RE: Westtown School – Oak Lane Project
Preliminary/Final Land Development Application
Waiver/Modification Requests

Dear Ms. Carter:

As part of the Land Development Application for the above referenced project, we are requesting waivers/modifications of several provisions of Westtown Township's *Subdivision of Land* (Chapter 149) and *Stormwater Management* (Chapter 144) Ordinances. The specific ordinance sections for which relief is being requested, as well as the accompanying justification, follows:

Chapter 144 – Stormwater Management

§144-301.T

Ordinance Requirement: "Disturbance of existing ground cover during construction of the proposed regulated activity is prohibited within 75 feet of top-of-bank of all perennial and intermittent waterways, water bodies (lakes, ponds, etc.) and wetlands, except for activities otherwise approved by state or local agencies (e.g., stream restoration projects, road crossings, subsurface utility projects, etc.). At the Municipal Engineer's discretion, and with conservation district and PADEP approval where necessary, the nondisturbance buffer may be reduced because of setback or other site constraints, but never be less than 10 feet."

Proposed Modification: Allow disturbance within 75 feet of top-of-bank of a perennial waterway in a very limited/defined area.

Justification: The only proposed disturbance within 75 of the perennial waterway is a limited portion of the proposed infiltration basin BMP 4, which is needed to meet runoff rate, volume, and water quality requirements. Existing vegetation between the proposed infiltration basin and the perennial waterway will be left undisturbed and the basin will provide native vegetation and groundwater recharge that will likely feed the adjacent headwaters of the perennial stream. Additionally, the existing use of the disturbed area in question is tilled agricultural land and thus providing permanent vegetative stabilization will improve the conditions.

§144-301.U(1)

Ordinance Requirement: *“Where a development site is traversed by perennial or intermittent watercourses, riparian buffers shall be provided conforming to the line of such watercourses. The riparian buffer shall be created to extend a minimum of 75 feet to either side of the top of the bank of the channel, unless a wider riparian buffer is required by the provisions of Pennsylvania Code Chapter 102, as amended, in which case the greater of the two shall apply.”*

Proposed Modification: Reduce the minimum riparian buffer distance to 60 feet in a very limited/defined area.

Justification: The majority of the proposed riparian buffer area exceeds the required 75 feet, however a small portion is encroached upon by the proposed berm of Infiltration Basin (BMP 4). The intent of the ordinance will still be met as the contributing area in the location of the encroachment consists only of the basin berm and thus the potential for pollutant overloading or accelerated erosion does not exist. The proposed basin is necessary in order to meet runoff rate, volume, and water quality requirements and cannot be re-configured due to site constraints, such as existing/proposed grades and the presence of groundwater. Additionally, the existing use of the disturbed area in question is tilled agricultural land and thus providing permanent vegetative stabilization will improve the conditions.

§144-311.B(3)

Ordinance Requirement: *“All inlets shall be precast concrete, PennDOT type and shall have bicycle-safe-type grate.”*

Proposed Modification: Allow HDPE Drain Basins in lieu of concrete inlets in select locations.

Justification: The plan proposes several HDPE Nyloplast Drain Basins around the synthetic turf multipurpose fields to prevent runoff from flowing onto the field, which presents maintenance issues. The proposed drainage areas are minimal, and the inlets will not be subject to vehicular loading and thus concrete inlets are not necessary. The proposed inlets will provide adequate drainage capacity while being aesthetically favorable.

§144-311.B(4)

Ordinance Requirement: *“Inlets shall have a minimum two-inch drop from all inlet pipe invert elevations to most shallow outlet pipe invert elevation”*

Proposed Modification: To reduce the requirement of a two-inch drop from all inlet pipe invert elevations to most shallow outlet pipe invert elevation to a 1.2” drop in most cases and to zero inches of drop in the nine (9) structures along one pipe run where cover over the pipe is an issue (this pipe run is more fully described below).

Justification: The proposed pipe networks generally provide a minimum 1.2” drop across the inlet structures where the design allows. The pipe run from Inlet I-B14 to EW-2 is a relatively long run with limited drop, relative to the length of the run, and does not allow for a drop across the inlets.

§144-311.B(8)

Ordinance Requirement: “*Storm sewers shall have a minimum inside diameter of 15 inches.*”

Proposed Modification: Reduce the minimum storm sewer size to eight inches.

Justification: The proposed 8” pipes are to be connected to small, 12” diameter area drains that will receive limited runoff. Pipe capacity calculations are provided which show that the proposed pipe sizes are adequate for all storm events. Further, inlets I-B14 and I-B13 and the associated pipes provide minimal cover in order to drain to the necessary outlet location. Given the lack of available cover, providing larger pipes would not be feasible.

§144-311.B(9)

Ordinance Requirement: “*Storm sewers shall have a minimum cover of 24 inches, unless compliance with PennDOT and manufacturers' specifications can be demonstrated to the satisfaction of the Township Engineer.*”

Proposed Modification: Reduce the required cover for storm sewers in lawn areas from 24” to 12”.

Justification: Based on the length of the proposed storm sewer runs it is not practical to provide 24” of cover at the most upstream inlets and in the case of inlets I-B14 and I-B12 it is not possible to provide more than 12” of cover while maintaining a minimum 0.5% pipe slope. A minimum 12” of cover in non-vehicular traffic areas is a relatively common engineering standard and is adequate to prevent crushing under normal circumstances.

§144-311.B(11)

Ordinance Requirement: “*Velocity within the storm sewer system shall be no less than three feet per second and no greater than 11 feet per second for the design storm peak flow.*”

Proposed Modification: Allow velocities within storm sewers to be less than three feet per second.

Justification: Due to minimal drainage areas for drain basins surrounding the synthetic turf fields and minimal outflows from the subsurface infiltration beds combined with minimal pipe slopes of approximately 0.5% a velocity of 3 feet per second cannot be achieved.

§144-311.C(2)

Ordinance Requirement: “The top of the berm shall be a minimum of 10 feet. The sides shall have a maximum slope of three horizontal to one vertical.”

Proposed Modification: To allow detention/retention basin top of berm dimensions in accordance with the recommendations in the PADEP E&S Control Manual for Sediment Traps/Basin (i.e., 8’ berm width for basins with >5 acres and 5’ berm width for basin with <5-acre drainage area.

Justification: The proposed PCSM BMP basin berms are to be constructed with clay cores/key trenches and are generally designed for moderately shallow ponding depths. The proposed berm widths ranging from 5 feet for BMP 1 to 8 feet for BMP 4 are consistent with generally

accepted engineering practices and the PADEP E&S Control Manual. Constructing wider berms would result in greater disturbed area, further encroachment upon riparian areas, and reduced stormwater detention/retention volume.

§144-311.C(3)

Ordinance Requirement: *“The bottom of the basin shall have a minimum slope of 2% and any channel shall have a minimum slope of 0.5%.”*

Proposed Modification: Allow 0% slope for infiltration/water quality basin bottoms.

Justification: In order to maximize the filtration/infiltration area and avoid a low spot near the outlet structure, flat basin bottoms are being proposed for Infiltration Basins (BMP’s 1 & 4), which is consistent with generally accepted engineering principles for BMP’s intended to infiltration.

§144-311.C(5)

Ordinance Requirement: *“The barrel shall be concrete pipe with anti-seep collars with a minimum projection of two feet beyond the pipe. Anti-seep collar design calculations shall be provided.”*

Proposed Modification: Allow smooth lined corrugated high-density polyethylene (SLCPP) outlet pipes for basins. Also allow concrete anti-seep collars for BMP’s 1 & 4 to be designed in accordance with the PADEP E&S Control Manual.

Justification: SLCPP pipes have proven to be superior to concrete pipes in terms of longevity and economy and are now approved for use by PENNDOT. Additionally, the burial depths are well within the cover limits specified by the pipe manufacturer. Regarding anti-seep collars, based on calculations provided in the report and in accordance with guidance provided in the PADEP E&S Control Manual the proposed anti-seep collar dimensions/configuration for BMP’s 1 & 4 are adequate.

Chapter 149 – Subdivision of Land

§ 149-700.A.

Ordinance Requirement: *“Within 60 days after approval of the preliminary plan, a final plan and all necessary supplementary data shall be officially submitted to the Township. However, an extension of time may be granted at the option of the Board of Supervisors upon written request of the applicant.”*

Proposed Modification: Submission of a combined Preliminary and Final Land Development Plan for review and approval by Westtown Township.

Justification: The scope of the proposed project is relatively limited and Applicant is submitting sufficient information and materials to satisfy the requirements for final land development plan review and approval with this Application. Section 149-600.C. of the SALDO permits the Township to review a Preliminary Plan for final approval under certain circumstances which are met with

this Application. Efficiency in review and approval by the Township's consultants, staff and representatives will be served by the combined Preliminary and Final Land Development Plan Application submission.

§149-924.D(12)d

Ordinance Requirement: *"Compensatory trees shall be 3 ½ inches in caliper and planted in accordance with the standards contained within § 149-925. Evergreen trees may be substituted at a ratio of two evergreens to one deciduous tree. Alternative types of compensatory planting may be permitted, when approved by the Board of Supervisors."*

Proposed Modification: Rather than providing all compensatory trees at 3 ½ inches in caliper, instead allow the required number of inches of compensatory tree caliper to be attained through the planting of varying calipers of tree stock (including 3 ½" caliper trees) based upon the surrounding context within which each tree is to be installed. Further, allow certain buffer trees along Shady Grove Way that are not compensatory and that are being proposed and installed as part of the Westtown School Solar project to be included in the tabulation of compensatory trees required for the Oak Lane Project. Specimen trees, where proposed, would be provided at 3 ½ inch caliper. But tree plantings within the proposed Shady Grove Way buffer and in/around stormwater management facilities would be provided with a marginally smaller caliper size (between 2" and 2 ½ inches in caliper).

Justification: Through the Oak Lane Project and the Solar Project, the Westtown School is providing many more inches of tree caliper than would be required as compensatory trees based upon the sizes, quantities, and types of trees that will be removed. This modification would permit the Westtown School to take compensatory credit for more of the trees being planted as part of these projects, even as the total number of inches of trees being proposed between the two projects exceeds the compensatory tree requirement. It will also allow for an appropriate allocation of sizes of proposed trees in areas where planting 3 ½ caliper trees, which are appropriate for specimen trees, is arguably excessive - such as in the Shady Grove Way buffer and in/around stormwater management BMPs. In this way, Westtown School would be fulfilling their compensatory tree obligations while maximizing the effect those tree plantings will have in their respective locations.

§149-925.H(1)

Ordinance Requirement: *"Deciduous trees: 3 1/2-inch caliper."*

Proposed Modification: Specimen trees, where proposed, would be provided at 3 ½ inch caliper. But tree plantings within the proposed Shady Grove Way buffer and in/around stormwater management facilities would be provided with a marginally smaller caliper size (between 2" and 2 ½ inches in caliper).

Justification: This modification would allow for an appropriate allocation of sizes of proposed trees in areas where planting 3 ½ caliper trees, which are appropriate for specimen trees, is arguably excessive - such as in the Shady Grove Way buffer and in/around stormwater management BMPs. In this way, Westtown School would be providing a greater number trees that would be required as compensatory while maximizing the effect those tree plantings will have in their respective locations.

§149-925.H(3)

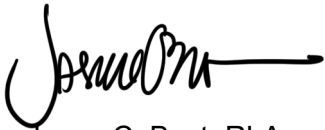
Ordinance Requirement: “*Shrubs, hedges, yews: two feet in height.*”

Proposed Modification: Shrubs, hedges, and yews, where proposed, would be provided at the prescribed 24-inch size in areas where they are intended to function as accent plantings or as groundcovers in the vicinity of the proposed support building and parking lot. But shrub plantings within the proposed stormwater management facilities would be provided in a smaller size.

Justification: Shrub plantings, especially native species, that are proposed within stormwater management BMPs are often very fast growers once established. Further, these plantings, even if planted at the required 24” size, will not be highly visible from public rights-of-way or the areas where the athletic fields/facilities are located. The size of these plants is expected to meet or exceed 24-inches in size within the span of the two-year warranty and replacement period.

Should you have any questions, please do not hesitate to call me. We thank you for your time and consideration of these waiver/modification requests.

Sincerely,
ELA GROUP, INC.



Jason C. Best, RLA
Senior Project Manager
Corporate Office

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