



November 18, 2020

Mr. Steve Norcini, PE
Township Engineer
Radnor Township
301 Iven Avenue
Wayne, PA 19087-5297

Re: Preliminary / Final Land Development Plan Submission – Response to Comments
Radnor Township School District – Accessibility and Wellness Improvements

Dear Steve,

ELA has received the Preliminary/Final Land Development review comments from Gannett Fleming (dated 10/19/2020) and Gilmore & Associates (dated 10/23/2020) and for the above-mentioned project. The DCCD had additional comments which were also addressed during this review period. The attached plans have been revised to address both DCCD and the Township Engineer's review comments. Response to comments are noted in ***bold italics*** below.

With this submission of revised plans please find the following:

- a. Thirteen (13) full size copies of the Preliminary/Final Major Land Development Plans; dated September 18, 2020 with a revision date of November 17, 2020.
- b. Nine (9) 11 x 17 size copies of the Preliminary/Final Major Land Development Plans; dated September 18, 2020 with a revision date of November 17, 2020.
- c. One (1) Thumb Drive containing both AutoCAD and PDF electronic files.
- d. One (1) Copy Of Letter dated November 18, 2020 from the School District concerning the waiver request for §255-43.1.B(2) of the Subdivision Ordinance.

Electronically Submitted

- One (1) PDF copy of each of the following available through our FTP site at the following link: <https://elagroup.exavault.com/share/view/291mf-egm38tjw>
 - Preliminary/Final Major Land Development Plans; dated September 18, 2020 with a revision date of November 17, 2020.
 - Post Construction Stormwater Management Report ; dated September 22, 2020 with a revision date of November 17, 2020.
 - This Response Letter
 - The Letter from the School District noted as Item d above.

These were posted on November 18, 2020.

Gannett Fleming Letter of October 19, 2020

New Waiver Requests

Based on our discussions at our teleconference meeting on November 11, 2020 we are requesting the additional waivers from the Subdivision and Land Development Ordinance:

§255-29.A(6): Parking Facilities – Parking Island Every 10 Spaces. The Applicant is requesting a modification of this section to allow twelve parking spaces in the renovated maintenance yard area. The justification for this request is as follows:

- As part of the design of this area it was essentially decided to move the required island/planting bed to the edge of the maintenance area to allow placement of the needed fence and place trees on the outside to assist in screening the maintenance area.
- The area in question is part of the renovated maintenance parking lot. The School District wishes to maximize the available parking in that area for storage of District owned vehicles.

§255-20.B(1)(n): Plan Information – Improvements Within 500' The Applicant is requesting a modification of this section to the existing basemapping as currently shown on the plans. The justification for this request is as follows:

- The site is lined by existing streets on three sides of the property with an adjacent parcel to the northeast corner. The existing basemapping shows approximately 100' off the property line so it includes existing cartways, utilities and adjacent driveways along and across the streets which would be impacted by any work done on the site.
- The proposed work is located entirely on the center part of campus and will have no requirement to connect to or impact any existing improvements located off site.

§255-43.1.B(2): Dedication of Park Land or Fee-in-Lieu-Of The Applicant is requesting a modification of this section as it pertains to providing park land or fee-in-lieu-of. The justification for this request is provided in the attached correspondence from the School District.

Sewage Facilities Planning

1. Final Plan approval will not be granted until Planning Approval or a Planning Exemption is received from the PA DEP. **Response: The “Net Zero” request is currently under review at PA DEP. We will forward the decision to the Township once received.**

Zoning

1. The Lot Coverage Data table does not appear to match the areas shown on the plans. The total impervious covers on the table appears to be significantly less than that of the plans. It appears that bleachers, gravel paving, track and related surfaces, tennis courts, and walls were not included in the impervious cover tabulation. Please revise the table to include all impervious areas and to be consistent with the plans. Additionally, the Building area removed on the table is less than the area shown on the plans. This must be revised. **Response: We have revised the chart as requested.**

2. §280-87.B – All evergreen vegetation to be planted shall not be less than five feet in height at the time of planting and shall be of such species that the expected height at maturity shall not be less than 15 feet. The landscape plan must be revised to include this note. **Response: This note has been added as Note No. 4 on both Landscape Plans (Sheets 18 & 19) under “Zoning Ordinance Requirements”**
3. §280-87.C – All deciduous trees to be planted shall not be less than eight feet in height with a two-inch caliper. The landscape plans must be revised to indicate the caliper of the proposed deciduous trees. **Response: This note has been added as Note No. 5 on both Landscape Plans (Sheets 18 & 19) under “Zoning Ordinance Requirements”.**
4. §280-103.A – As a general requirement, each use in the Township shall provide sufficient off-street parking area to serve its users. There are 426 existing parking spaces, including 1 van ADA space and 16 standard ADA spaces. The applicant is proposing 432 total parking spaces including 4 van ADA spaces and 16 standard ADA spaces. The applicant has indicated in their October 1, 2020 letter to the Township, that the intent of the project is to address the inadequacies with the existing high school building and athletic fields and not to increase the number of staff or students. Parking should be calculated under §280-103.A(5) and §280-103.A(20). It appears that the site has an existing nonconformity for the current parking. Additional parking must be provided, or a variance requested for this condition. **Response: We have discussed this comment with Township Staff and have furnished documentation as requested and await a decision on the matter.**
5. §280-109.A – No fence or wall, except for retaining walls or the walls of a building as permitted under the terms of this chapter, shall exceed a height of six feet. There are numerous locations where the fence is proposed higher than six feet. This must be revised, or a variance requested. **Response: As discussed at our meeting on November 11, 2020, we have lowered all fence heights on the site at 6’ or less for the exception of the new fence at the south end of Encke Field which remains at 8’ to aid in protecting spectators.**
6. §280-112.C – Areas containing slopes steeper than 14% but less than 20% shall be distinguished from areas containing slopes of 20% and steeper. Areas containing slopes of 20% and steeper shall be separately identified. The area of steep slopes must clearly be labeled on the plans. **Response: We have delineated the designated areas on Plan Sheets 7, 8 & 9.**

Subdivision and Land Development

1. §255-20.B(1)(d)[1] – The plans must indicate the zoning district boundaries. **Response: We have added the Zoning Boundaries on both the Cover Sheet (Sheet 1) and on the Overall Conditions Plans (Sheet 7 through 9).**
2. §255-20.B(1)(d)[3] –The Zoning Information table on Sheet 1 of the plan must be revised to include the riparian buffer setback and accessory structure setback. **Response: The Table has been revised.**
3. §255-20.B(1)(l) – The plans must be revised to show all adjoining properties (with names and addresses of landowners). **Response: The requested information has been added to Plan Sheets 8 & 9.**
4. §255-20.B(1)(n) – Existing principal buildings (and their respective uses) and driveways on the adjacent peripheral strip; Sewer lines, storm drains, culverts, bridges, utility easements, quarries,

railroads and other significant man-made features within 500 feet of and within the site (this includes properties across streets) must be shown on the plans, or a waiver requested from this section. **Response: A waiver of this requirement has been requested.**

5. §255-20.B(1)(o)[1] – The plans must be revised indicate the widths of cartways and rights- of-way of adjacent roadways. **Response: This information has been added on all plans that show the areas in question.**
6. §255-20.B(1)(o)[2] – The plans must be revised to indicate setback lines and rear and side yard lines. **Response: This information has been added on all plans that show the areas in question.**
7. §255-20.B(5)(c)[1][e] – A transportation impact study shall be required for all institutional developments. The applicant has requested a waiver from this requirement. **Response: A waiver of this requirement has been requested.**
8. §255-29.A(6) – No more than 10 parking spaces shall be permitted in a continuous row without being interrupted by landscaping and concrete curb. The proposed parking area shows 12 parking spaces in a continuous row. This must be revised, or a waiver requested. **Response: As discussed at our meeting we wish to maximize the amount of parking within the renovated maintenance area, so we are now requesting a waiver of this section.**
9. §255-32.C – There are no Erosion and Sedimentation control details provided on the plans. The plans must be revised to include the applicable details. **Response: Erosion and Sediment Control Details are included in sheets 49-50 of 53 in the plan set.**
10. §255-37.D – Curb cuts shall be provided at all street crossings. Please revise the plans accordingly and provide a detail of the curb cuts. **Response: Curb cuts have been added at all new street crossings with sidewalks. Curb cuts have been added to the existing sidewalk from the Rowland Field parking lot to the bus shelter walk on the south side of Raider Road.**
11. §255-37.G – Sidewalks and pedestrian paths shall be laterally pitched at a slope not less than ¼ inch per foot of slope to allow for adequate surface drainage. The majority of the sidewalk does not meet this requirement. This must be revised. **Response: The sidewalks along the south side of the access drive to the parking area have been revised to show a lateral cross slope. As discussed at the aforementioned meeting we have the ramps designed to drain longitudinally into trench drains to promote a sheet flow and avoid concentrating the flow at either edge of the ramps. All other paths have lateral slopes.**
12. §255-43.1.B(2) – For all nonresidential or institutional subdivisions and/or land developments involving more than 5,000 square feet of floor area, the amount of land to be dedicated for park and recreational area shall be 2,500 square feet per 6,400 square feet of floor area (existing or proposed), or portion thereof, unless the developer agrees to a fee in lieu of \$3,307 per 6,400 square feet of floor area(existing or proposed). **Response: The School District is providing information directly to the Township Staff as requested.**
13. §255-54.B – The plans indicate that there are fire hydrants being removed but not replaced. The locations of app proposed fire hydrants must be shown on the plans. **Response: We have added a new fire hydrant in the area of the fire hydrant that was removed (Plan Sheets 14 & 15).**

Stormwater

1. §245-22 – It appears that the Recharge Volume calculations are only accounting for a net increase of impervious surface area of ~50,000 sf. Please revise these calculations to account for the entire increase of impervious area for the project. **Response: The recharge volume calculations have been revised in the report to accurately reflect the equations in the SWM Ordinance.**
2. §245-23 – It appears that the Water Quality Volume was calculated incorrectly. Please revise the calculation to utilize the appropriate area and impervious cover percentage. **Response: The water quality volume calculations have been revised to accurately reflect the equations in the SWM Ordinance.**
3. §245-25 – It appears that the rate control requirements are not entirely met for POI A and POI B. Additionally, it appears that the values for the “Post-Development Allowable Flow Rate” are incorrect. The post-developed flow rate should be less than that of the pre- developed flow rate for the appropriate storms according to the B-2 Stormwater District. No adjustments should be made to the pre-development flows to establish an “allowable” post-development flow rate. Please revise the calculations to meet these requirements. **Response: The calculations have been revised to show both Discharge Point flow rates combined and meeting the Rate Control Requirements of the B-2 Stormwater District. Please refer to the calculation provided in the Combined TOTAL SITE (DP-001 + DP-002) rate control charts in the PCSM Report to see how this reduction was calculated. The “Allowable Post Dev Flow” was calculated by taking the flow rate reduction for the Limits of Disturbance since the overall watersheds are drastically larger. For example, the equation represents reducing the 2-year Limit of Disturbance Areas to the 1-year Limit of Disturbance Area, using the “LOD Area” rates from Hydraflow rather than overdesigning for a significant drainage area. This equation was utilized to simplify calculations, while considering BOTH the NPDES modeling and Township requirements.**
4. Sheet 44: CS-A2 Detail – The 24” SLCPP Out to Ex. 1-1 Invert appears to be incorrectly labeled as 570.50 in the Section A-A and Section B-B views. Please revise to reflect the correct elevation. **Response: The CS-A2 Detail has been revised to show the correct label of the 24” SLCPP Out to Ex. 1-1 on sheet 45.**
5. Storm Sewer Inventory Report – There are several instances of conveyance pipes that have a slope of 0.0%. Please revise these pipes to have a minimum slope of 0.5%. This does not apply to perforated pipe intended for infiltration. **Response: The conveyance pipes that are shown at 0.0% are considered to be part of the Infiltration Facility and/or routings associated and shown for graphical purposes. The pipes are required to be at 0% in order for adequate maintenance access throughout the system in order to provide easy access scoping/cleanout to the maintenance rows.**
6. Sheet 17: Subgrade Plan – Please revise the plan to include the structure label (i.e. MH-4), invert elevations and top of grate/rim elevations for all proposed structures. Please ensure that these structure labels and all corresponding dimensional data are consistent with the Storm Sewer Inventory Report. **Response: The grading plans (Sheets 14-15 of 53) have been revised to show the structure labels, invert elevations and top of grate/rim elevations for all proposed structures. Notes on the subgrade plan (Sheet 17 of 53) have been added to direct to the grading plan for this information. The subgrade plan has been provided for the use of the synthetic turf field internal drainage/grading for contractors, as it is a typical plan within synthetic turf field design.**

7. Sheets 22 & 23: Stormwater Plan & Profiles – Several of the profiles contain dimensional information that is inconsistent with the plans. Please revise these inconsistencies. **Response: *The Plan and Profiles have been revised accordingly.***
8. Sheets 22 & 23: Stormwater Plan & Profiles – Please revise all applicable profiles to display utility crossings including but not limited to the proposed water and sanitary sewer lines. There must be a minimum of 18” vertical clearance between the crown of the lower pipe and the invert of the upper pipe. **Response: *Known utility crossings are marked on the plan profiles. A note has been included on the profile sheets to indicate a required minimum of 18” vertical clearance between the crown of the lower pipe and invert of the upper pipe.***
9. Please provide a detail for the R-Tank Double Access Module. **Response: *The Double Access Module is detailed on Sheet 46 of 53, ACF R Tank Sheet 3 of 7.***
10. Please provide a detail for the connections to the existing stormwater system. **Response: *Details have been provided for the Storm Pipe Connection to Existing structure, and a Precast Storm Doghouse Structure Opening included on plan sheets 44 and 45 of 53.***

Sanitary Sewer

1. The Gravity profile appears to show the proposed sanitary sewer line from SSMH-2 to SSMH-1 crossing through a proposed retaining wall along the edge of the concrete plaza. This must be revised to address the conflict. **Response: *We are coordinating with the project structural engineer to provide the necessary sleeves and structural design to allow the layout as proposed.***
2. Information regarding the sizing of the proposed 3” force main must be provided. **Response: *Based on the projected peak flows from the Field House, the pump station pumps (and pump station) are designed at 85gpm @ 48TDH. DEP’ s standards require a minimum velocity of 2.0 feet/second, while 3.5 feet/second is recommended to keep solids in suspension. Our force main selection of 3” DR-11 has an internal diameter of 2.83”. At 85gpm, this provides a velocity of 4.34 feet/second. This velocity keeps solids to in suspension while avoiding excessive headloss that a smaller diameter force main would create and costs less than a larger force main pipe size from a material standpoint. If an alternative force main diameter and/or material is desired, we will review the desired sized and material with the Township.***

General

1. §263.8.D(2) – A plan must be submitted illustrating the size, species and location of trees that are proposed to be removed and the size, species and location of new trees to be planted in compliance with the tree replacement formula. The tree replacement schedule is inconsistent with the number of trees shown and being removed. Additionally, the tree Replacement table indicates 69 replacement trees to be planted but it appears that only 67 are proposed (4 of which are not labeled). The Plant List indicates 68 trees to be planted but the Zoning Ordinance Requirement for Tree Replacement table indicates 69 trees. Please revise the table and the plans to be consistent. **Response: *We have revised the Demolition Plans to show the detailed information on trees to be removed. We have also revised the Landscape Plans to show the correct number of proposed trees.***

2. The plans must be revised to include tree protection fence for all trees within 25 feet of disturbance. **Response: The tree protection fence has been added to the demolition plans.**
3. The construction sequence must be updated to include installation of tree protection fence. **Response: The construction sequence has been updated to include installation of tree protection fencing in the Site-Specific Sequence of Construction note 5.**
4. The plans contain a callout to the proposed ramp stating, "See Sheet 6 of 52 for Ramp Grading" that appears to be incorrect. Please revise this callout to indicate the correct sheet. **Response: This Sheet citation has been corrected.**
5. The applicant must appear before the Shade Tree Commission and gain approval prior to this plan being presented to the Board of Commissioners. **Response: We contacted the Township Arborist who visited the site on November 16, 2020 and confirmed both our list of trees to be removed and those proposed. We are filing the application to be on the December agenda.**
6. The attached tree protection detail from Rockwell and Associates must be added to the plan. **Response: We have added the detail to Plan Sheet 50.**
7. The sanitary sewer notes on Sheet 2 of 53 must be revised to indicate Radnor Township, not Sewer Authority. **Response: This note has been revised.**

Gilmore & Associates Letter of October 23, 2020

Subdivision and Land Development Comments

1. Section 255-37 The sidewalk facilities shall accommodate pedestrians with disabilities, in accordance with ADA standards as follows:
 - a. Provide cross slopes and longitudinal slopes for all proposed walkways along the accessible routes to verify ADA compliance. **Response: The lateral slopes for accessible route which run along Raider Road from the ticket plaza up to the ADA spaces in the renovated parking lot have been added to the grading plan.**
 - b. Provide details for all proposed curb ramps at no more than a 1": 10' scale. The details are to include widths, cross slopes, longitudinal slopes, and spot elevations. The ramps should be designed in accordance with PennDOT RC 67M. **Response: We are working with staff to determine the extent of the ramps prior to detailing.**
 - c. The parking area next to the Rowland Baseball Field is likely to be utilized for stadium events. An accessible route should be provided between the baseball lot and the stadium. It is recommended to install an ADA compliant curb ramp at the existing sidewalk south of the driveway. ADA complaint curb ramps should also be installed at the existing raised crosswalk. **Response: The intent of these four spaces is to serve Rowland Field as well as make the upper parking lot, constructed in 2015, ADA compliant with the appropriate number of ADA reserved spaces. The nine (9) new spaces located by the natatorium are intended for Prevost and Encke Fields. The existing sidewalks from Rowland Field to**

the service drive currently do not have ramps and we have provided them. If found acceptable locations, we will provide the details as requested in 1a above.

- d. Provide ADA complaint ramps for crosswalk at the service driveway. ***Response: We have added the ramps as requested.***
2. Parking is not allowed within 20 feet of a crosswalk. The New Parking Spaces/Drop Off Area is within the 20 feet of a crosswalk. Consider installing a curb bump-out at this crosswalk to physically restrict this area from being encroached on. ***Response: The proposed parking spaces are to be limited to staff usage during the day and the area used as a drop off lane after school hours. This is being done to address the double parking and drop off issues that occur during youth sports.***
3. Identify all existing and proposed signs. ***Response: We have identified all proposed traffic signs.***
4. Provide a Stop Sign (RI -1) exiting the service driveway approach. ***Response: The Stop Sign has been added.***
5. Sheet 30 identifies multiple handicap parking signs to be used. Clearly identify which handicap parking signs are being as Sheet 13 only identifies them as ADA signage. ***Response: We have clarified the type of sign to be installed on both Sheets 12 and 13.***
6. Provide a curb detail. ***Response: Curb detail has been added to Sheet 38.***

Sincerely,
ELA Group, Inc.



Hugh D. Cadzow, RLA
Principal and Senior Project Manager
ELA Sport

CC: Rodger Philips, PE, Township Engineer
Radnor Township School District
ELA Sport