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August 14, 2025

Project No. 21-109

Ms. Dana Drake
Environmental Program Manager
Waterways & Wetlands Program
400 Waterfront Drive
Pittsburgh, PA 15222

RE: DEP FILE E0205225-004
Technical Deficiency Response Letter
Quaker Valley High School New Campus
Leet Township, Leetsdale & Edgeworth Boroughs, Allegheny County, PA

Dear Ms. Drake:

On behalf of Quaker Valley School District, Streamline Engineering, Inc., submits this letter in response to DEP's technical deficiency letter dated June 16, 2025. This letter describes changes to the campus design as a result of discussions with DEP during a site meeting held on May 21, 2025 and revisions to the Joint Permit Application as a result of the design changes and the responses to the comments.

The original plan was to enlarge an existing stormwater management pond on an intermittent stream, UNT-1, at the toe of the project site. During the meeting on May 21st, DEP officials stated that the Joint Permit Application would not be approved if a stormwater management pond is designed to be in-line with the stream. Therefore, the original stormwater management layout was revised to shift the stormwater management pond (SWMF-1) off of UNT-1. This shift resulted in reducing the size of SWMF-1 and enlarging SWMF-2 to compensate for the needed storage volume for stormwater detention and retention. The change of the design also required additional channels and culverts to separate runoff drainage from the campus directed to the stormwater management facilities from the offsite runoff directed to the natural streams. These stormwater management changes to avoid stream impacts did not result in changes to the proposed high school campus layout. The changes are mainly with the stormwater management facilities to avoid natural water resource impacts.

Streamline has prepared a revised Joint Permit Application incorporating these changes. Please find below the description of the changes in response to DEP's comments.

Engineering Comments

1. §105.261(3): A calculation sheet is provided which attempts to demonstrate that the 100-yr flows of UNT-1 and UNT-2 are contained to the stream channels and thus that the Chapter 105 regulatory floodway would also be contained to the stream channels. However, what has been submitted is insufficient to demonstrate that the flows will be contained within the channels throughout the length that they run through the project site. The following comments discuss the issues with the analysis in further detail. If the issues presented in the following comments cannot be addressed, then an assumed 50' regulatory floodway should be utilized. This would likely lead to a large amount of additional aquatic resource impacts and require the submission of a revised Aquatic Resources Impact Table (ARIT), site drawings showing the updated floodway, revised project narrative, etc. to evaluate the additional impacts.

   Response: *The hydrologic and hydraulic analysis was revised to include a HECRAS analysis to demonstrate that the 100-year floodplain for the streams within the project site are contained within the channel banks. The steep gradient of the stream bed, and the deep incised channels due to rapid runoff from upgradient areas have resulted in supercritical flow conditions that are contained within the channel banks. The small contributing drainage areas and the supercritical flow conditions result in hydraulic depths of 1 to 1.5 feet during the 100-year flood event which do not exceed the channel depths of 3 feet or deeper.*

   The HECRAS analysis is based on channel sections that were surveyed by Streamline during July 2025. Twelve sections representing UNT-2, eight on UNT-1, two on UNT-3, two on UNT-4/5, and five on UNT-6, were surveyed and coded into a HECRAS model. The streams were further modeled using the existing topographic map by Thrasher Group Inc. dated 4-20-2022 and by USGS LiDAR mapping dated 2020.

   The 100-year flood extents are reduced using the HECRAS analysis versus the flood extent using the approximate method using the Mannings Equation.

   The H&H Report and associated plans, profiles and sections have been revised to include the revised methodology and results.

2. §105.261(4): In order to calculate the hydraulic capacities of the stream channels, numerous assumptions were made about the physical attributes of the channels (bottom width, side slope, channel height, channel slope, etc.). To verify these assumptions, provide cross sections of the stream channels which were created using field data from the site

   Response: *No assumptions were made about the stream channels. Engineers observed the streams and measured representative sections while in the field, to calculate the hydraulic capacities of the stream channels, which is consistent with Federal, State, Local and professional engineering standards. The stream slopes were determined using 2-foot contour mapping and verified using DEM terrain with 1-foot contour precision.*

To go beyond the reasonable estimation for streams this size as requested by DEP, Streamline conducted further survey of multiple sections in the stream and drainage channels on the site for coding into a HECRAS model. The stream cross sections are included in the revised H&H Report in this submittal. The results are similar as the approximation method.

3. §105.261(4): It is likely that the actual cross sections generated from field data do not form a uniform trapezoidal channel as was used in the analysis. Because of this, it is highly recommended that a modelling software such as HEC-RAS or Hydraflow Express be used to analyze the hydraulic capacities of the irregular channels.

   Response: *The H&H Report was revised to include HECRAS modeling as requested. The flood extents determined by the extensive HECRAS modeling are similar to the results that were obtained when previously using Mannings equation in an assumed typical trapezoidal section after review of generated topographic mapping of the site.*

4. §105.261(4): Only three locations were used to calculate the hydraulic capacities of the stream channels (2 of which assumed nearly identical channel dimensions). The physical makeup of the stream channels on the site varies drastically and these assumptions are very likely not representative of the channels throughout the entire site (for example, there may be some areas where one or both stream banks are laid way back). In order to evaluate the hydraulic capacity of the stream channels the entire length of the site, a large number of locations spanning the entire length of the channels within the site should be used in the analysis. As mentioned in the comment above, cross sections of the stream channels at these locations should also be provided to verify assumed channel characteristics.

   Response*: As shown in the HECRAS computer model results, the channels do not vary drastically, especially for the computed hydraulic depths associated with streams this size and for the site's steep gradient stream slopes. The HECRAS computer model shows results in hydraulic depths of 1-foot to 1.5 feet.*

   Sections for the HECRAS model include surveyed sections and sections generated by extracting geometry from 2-foot contour mapping. Any variation in channel width would be included from the extracted geometry.

5. §105.261(3): It is assumed that a form of the Manning's equation was used to calculate the predicted bankfull flows. If manual calculations are still used for this analysis, please show the equation on the calculation sheet to confirm this.

   Response: *The predicted channel flow depths have been recalculated using the HECRAS computer model. The results are shown in the revised H&H analysis. The Manning's equation approximation was removed from the H&H analysis.*

6. §105.261(3): There is a proposed wall and associated grading to support the pedestrian walkway along UNT 2 on the south end of the project. Based on the existing contours, it does not appear that the stream would be confined to the channel delineated on the drawings. Please provide additional documentation which demonstrates that the stream channel is confined to what is shown on the plans at this location. It may be helpful to provide cross sections for this part of the stream which also shows the proposed wall and grading. If it

cannot be demonstrated that the stream here is confined to the channel during the 100-yr storm flows, this wall and the proposed grading would be considered an aquatic resource impact. Additionally, because the wall and proposed grading would be constricting the channel, an H&H analysis will need to be done to evaluate the flood heights and flow velocities in this section.

Response: *The wall has been removed from this project. No work below the pump house is anticipated for this project. The H&H analysis was extended to this area for existing conditions (omitting the backwater effects of the Beaver Street culvert) to determine the extent of 100-year floodplain on the project site. No alterations in this lower reach (UNT2.3) are proposed, and therefore, not modeled.*

7. §105.161(a)(3): It is noted that proposed culverts 1, 2, and 5 are not being embedded. Since the drainage areas for these culverts are less than 100 acres, the culverts should be embedded 6" into the streambed. If the culverts will not be embedded, demonstrate and/or explain how stream flow undermining the culvert will be prevented and how aquatic organism passage will be maintained.

   Response: *The proposed design has been revised to embed the culverts 6 inches in natural streams.*

8. §105.13(e)(1)(i)(B): The delineated drainage areas for the culverts in the H&H report include areas with no contour data in the provided drainage area maps. Provide the contour data for the entirety of the delineated drainage areas so that the accuracy of the drainage areas can be verified. Additionally, discuss how these drainage areas were delineated without the complete contour data.

   Response: *Mapping was provided by Thrasher Group Inc. dated 4-20-2022 which covered the whole Quaker Valley School property and surrounding property. The offsite contours have been added per request. The offsite areas not covered by the Thrasher mapping, are shown using USGS 2020 LiDAR mapping available from PASDA Maps and ARCGIS viewer to delineate the drainage areas.*

9. §105.13(e)(1)(i)(C): Please remove the pre development contours from the post development drainage area map so that the drainage areas and time of concentration pathways can be verified.

   Response: *The pre development contours have been removed from the post development drainage area map.*

10. §105.13(e)(1)(i)(C): The TC flow path for the post development Culvert 1 DA may incorrectly identify the flow segments. Based on the flow path drawn, following the first 200' on the proposed grass field area, the flow path will follow a storm pipe until it discharges to proposed drainage channel #3. Discuss if this should all be considered pipe flow and revise the calculations as necessary.

    Response: *The flow path just misses the first inlet in the field and follows the grass toe until it reaches the next inlet. The t_c is to not represent the longest flow path, but represent the longest <u>time</u> flow path. The flow path was adjusted to make missing the first inlet clearer.*

11. §105.161(d): While the TC paths are shown on the DA maps, it does not appear the actual TC calculations were included in the H&H report. Please provide these calculations such that the inputs used in the Hydraflow model can be verified.

    Response: *The revised report includes the TC calculation.*

12. §105.161(d): Demonstrate how the CN values input into Hydraflow were obtained for each of the drainage areas analyzed in the H&H report.

    Response: *The tables showing the derivation of the CN for each subbasin are included in Appendix D, Hydrologic Parameters, of the revised H & H Report.*

13. §105.161(b): Hydrographs 6 in the model is named PostDev Culvert 5 to SWMF1. Should this be named PostDev Culvert 2 to SWMF1 instead? If so, please revise for clarity.

    Response: *The Hydraflow model has been revised to reference the contributing stream to the culvert. The design flow for Culvert 5 is the flow for stream reach UNT2.2.*

14. §105.161(a)(1): According to the HY-8 model, the max headwater elevation at Culvert 5 during the 100-yr event is 848.18'. Based on the UNT-2 Profile on the drawings, this puts the water surface elevation just above the height of the proposed headwall and well over the height of the proposed wing walls. This could lead to erosion of the embankment behind the headwalls and wingwalls which may destabilize the structure and/or the roadway over time. Evaluate the possibilities of utilizing a larger culvert to reduce the max head elevation or providing some sort of additional stabilization to the embankment to prevent erosion from occurring.

    Response: *The design flow for Culvert 5 continues to be the 100-year flood event. Culvert 5 has been changed to a 60" RCP. See revised HECRAS model in the H & H Report.*

15. §105.13(e)(1)(i)(C): The plan proposes to replace two existing storm pipes at the headwaters of UNT-1 where the stream crosses under Camp Meeting Road. The two existing storm pipes are an 18" and a 24" pipe which are connected by an existing inlet. Provide more information on the replacement structures. Will the replacement pipes be the same length as the existing ones? Will the replacement pipes have different inlet, outlet elevations, or slopes? How will the replacement pipes be connected?

    Response: *Replacement of these pipes is no longer considered.*

16. §105.13(e)(1)(i)(C): Based on the proposed storm drain design table, the pipe runs from E7-E8 and E8 to the 24" outfall are set to be 30" pipes. Are these the replacement pipes mentioned in the comment above? If so, the plan drawing (Sheet B104) should be revised to call for both to be replaced with 30" pipes as depicted in the calculations. Additionally, ensure that the proposed invert, outlet elevations, and pipe lengths are accurately depicted on the UNT-1 stream profile as these should all match the information on the proposes storm drain design table.

Response: *Replacement of these pipes are no longer considered.*

17. §105.151(3): Show and/or explain how the water surface elevations and velocities for the existing conditions at the locations of Culverts 1, 2, and 5 were calculated as identified in the tables of Section 6 of the H&H narrative. These do not seem to match what was calculated on the "Calculate Flow Properties in UNT-1 and UNT-2 – Existing Conditions" table in the Calculation Sheet.

    Response: *The water surface elevations and velocities for existing conditions have been revised with HECRAS modeling calculations.*

18. §105.161(e): In the risk assessment, please discuss the calculated increases to both flow velocity and WSEL from existing to proposed conditions at the culvert locations. In this discussion, please explain in detail why the increase in WSEL will not increase the risk of flooding and explain how the increased flow velocities will be managed to prevent erosion from occurring.

    Response: *The risk assessment was revised to include the effects of the changes to water surface elevations and velocities.*

19. §105.13(e)(1)(i)(G): Show the proposed Sanitary Line at crossing 3 on the UNT-1 profile on the drawings.

    Response: *The UNT-1 profile has been revised to include crossing 3.*

20. §105.13(e)(1)(i)(B): Please label the existing sanitary line stream crossings where the existing line will be removed and/or abandoned on the UNT-1 and UNT-2 Existing Site Plan (Sheet B102). Note that these crossings where the line will be removed and/or abandoned should also be identified as impacts on the Aquatic Resource Impact Table.

    Response: *The sanitary line stream crossings to be removed have been added to the plans and to the ARIT.*

21. §105.13(e)(1)(i)(B): It is not clear based on the drawings what work is being done regarding the gas line for this project. Please revise the line type/weight for the proposed gas line to clearly show what is being installed and ensure that the section of existing gas line which is being removed and/or abandoned is clearly shown and labeled.

    Response: *The line weight for the proposed gas line has been increased for clearer visibility (which is now located in Camp Meeting Road). Labels for the portions of the gas line to be removed have been added to the plan. The remaining gas line labelled abandon will not be removed.*

22. §105.301(10): Based on the drawings, Outfall 5 is a stormwater outfall located at the outlet end of Culvert 5. Provide more information on this outfall configuration. Will the stormwater pipe discharge through a hole in the culvert end wall? Is Outfall 5 discharging to Riprap Apron 4? What is the invert elevation of Outfall 5 and how high is it from the streambed/riprap apron?

Response: *A detail for the end wall for Culvert 5 has been added to clearly depict the elevation and location of the stormwater pipe which will go through the wingwall of the endwall to enter UNT-2.*

23. §105.301(3): Outfall 2, which discharges stormwater from a proposed rock trench to UNT 1, is currently aligned to be facing upstream. The outfall alignment should be revised to face either across or downstream so as to minimize disruption of the stream flow.

Response: *The rock trench will now discharge to a proposed inlet on the new driveway. The discharge will be directed to SWMF-1.*

24. §105.231(iii): Based on the plan drawings, it appears that UNT-1 will be converted to a rock-lined channel from the inlet of Culvert 1 upstream to the outfall of proposed drainage channel #3. Please provide a detail or a section view in the plan drawings for this portion of constructed stream channel. Include information on channel dimensions, rock sizing, and slope. A low flow channel should be provided to allow for aquatic organism passage. Provide calculations demonstrating that the rock size chosen will remain stable during the 100-yr flood event and that the channel is sized appropriately to convey the 100-yr storm flows.

Response: *Channel details for proposed channel changes have been added to the detail sheets.*

25. §105.282: There is an existing stormwater pipe which discharges onto the site from under Camp Meeting Road and appears to become a stream with defined banks and flowing water, as witnessed during a site visit on 5/21/2025. On the plans, this is identified as a brown "Roadway Drainage" line. See screenshot below. As proposed, this pipe will now discharge to a steep slope with no defined channel or erosion protection which may lead to erosion of the slope supporting Camp Meeting Road. Please provide a stabilized channel for this stream which routes it to either proposed drainage channel #3 or UNT-1.

Response: *New storm inlets and piping are proposed for Camp Meeting Road at the entrance to the school. These new storm inlets and piping will replace the stormwater inlet that directs water to the receiving channel labeled as UNT-4 (formerly called Roadway Drainage). The storm runoff from the new system will be directed to Channel C3 which eventually enters into SWMF-1.*

26. §105.46(b): Pump Arounds 1 and 2 are proposed to route water from UNT-1 around the work area to UNT-2. However, these pump around lines appear to go to an area where UNT-2 is within an existing culvert, thus the water will not be routed directly to the channel of UNT-2. Revise the E&S plan drawing to show the bypass line discharging directly to the stream channel.

Response: *The E&S Plan drawing has been revised to show the bypass line discharging directly to the UNT-2 channel.*

27. §105.46(a): It is noted that a submission was made to Allegheny County Conservation District for an Individual NPDES permit. Please discuss the status of this permit application. The Waterway & Wetlands Program will conduct a concurrent review, but should we complete our review and evidence that other, required permits have not been secured, the Department may withdraw this application. You would then need to resubmit your application.

Response: *Acknowledged. The application for the NPDES permit which incorporates the revised site development plan was re-submitted to the ACCD at the end of June 2025.*

Environmental Comments

28. §105.13(e)(1)(vii), §105.14(b)(7), & §105.18a(b)(3)(ii)(A): While you stated that other sites and locations were infeasible, you did not provide a detailed discussion of what other sites were considered. Accordingly, evaluate the feasibility of utilizing one or more other sites for the new high school and associated facilities to avoid or minimize impacts to the waters of this Commonwealth.

Response: QVSD desires to continue to operate its high school program at a site within the District's boundaries and considered several alternative locations in various areas of the School District. Planning criteria for a new high school were developed by the School District's facility planning consultants, and those criteria formed the basis for the planning objectives for the acquisition of a site(s) to support the facility. These objectives greatly exceeded the capabilities of the current high school site.

Foremost among these objectives is the site area. The Pennsylvania Department of Education (PDE) provides guidelines for the acreage for various school configurations in its PlanCon Part C instructions. Under those guidelines, high school sites supporting Grade 9-12 should have a base area of 35 acres, with one (1) additional acre for each 100 FTE (full-time equivalent) of capacity. Using this guideline, with an FTE capacity of approximately 1000, the overall site should have an area of 45 developable acres.

With the site area requirement in mind, the District used the following criteria to identify potential sites for the new high school:

- Identified a parcel or several adjoining parcels having 45+ developable acres of land or large enough acreage to create 45+ developable acres.
- Used Allegheny Tax Records and GIS Systems, to limit the parcels having 45+ acres of land to only those parcels located within the entire QVSD geographical boundaries.
- Used programs such as West Penn Multi-List, CoStar, and Loopnet to determine which, if any, of the above-referenced parcels were listed for sale.
- Using aerial mapping, focused on parcels with open and flat-lying areas.
- Using Google Earth, which showed size and topography, narrowed the potential properties based on suitability for development.
- This produced 10 potential properties based on size, location, topography, flood zone, access and public utilities.
- Reviewed applicable Zoning Ordinances, to determine the specific geographical areas where schools were permitted.
    - Of those locations, many of the properties were in areas of dense development and would require the assembly of numerous properties, in order to obtain 45+ acres of usable property.
- When Zoning Ordinance regulations were not considered, it was determined that QVSD would still need to assemble a large number of properties in order to obtain 45+ acres of usable property. Because many of the properties contained existing improvements, they were not candidates for selection due to economic infeasibly.

The above-referenced search revealed 5 potential sites for use as the new high school that are located within the QVSD geographical boundaries:

- Site 1 - 82.36 Acres+/- (One Owner 2 Parcels) and adjoining 37.64 Acres +/- (QVSD Owned)
- Site 2 - 51.42 Acres+/-
- Site 3 –100.04 Acres+/-
- Site 4 – A. 61.80 Acres +/- and B. 52.75 Acres +/-
- Site 5 – 79.83 Acres+/-

Based on the property area, zoning, access to utilities and major roads, and obvious environmental issues, three of the five properties were considered for further analysis.

Two sites were eliminated due to limited property access, utilities, steep topography with minimal usable property area, existing wetland areas and riparian buffers required along existing streams that traverse the properties.

In October of 2016, QVSD began a civil site review, preliminary geological review, and a preliminary environmental review for 1 of the 3 properties.

In December of 2016, QVSD was approached by the owner of the current site, who expressed interest in selling that property to QVSD.

In 2017, QVSD conducted a review of the current site, including a review of the following records from the property owner: property survey, topography survey, utility survey, limited geotechnical borings, environmental reports, wetland investigations, and others. Using the information from the property owner, several potential grading options for the current site were created.

Additionally, QVSD's consultants were asked to produce potential grading options for 2 other properties that had been identified as potential options. QVSD's consultants identified the following respective site/civil issues for the 2 properties:

<u>Property 1 - 82.36 Acres+/- and adjacent 37.64 Acres +/- (QVSD owns)</u>

- Tributary of Big Sewickley Creek (classified as TSF) traverses' property, limiting the usable property area.
- Wetland's study would need to be performed to identify other possible limitations for this site.
- 100-foot riparian buffer required on either side of stream.
- Existing sanitary sewer system has limited capacity. Existing pump station and force main would require major upgrade. Also, it would require installing a pump station on the property and approximately 1500' of force main across private property to the upgraded existing pump station.
- Extensive earthwork (1.2 million cubic yards for a balanced cut/fill) would be required to produce approximately 45 acres of usable property.

- Reasonable from stormwater management perspective.

Property 2 - 79.83 Acres+/-

- Various tributaries of Little Sewickley Creek (classified as HQ-TSF) traverses' property, limiting the usable property area.
- 100 foot riparian buffer required on either side of stream.
- Points of access to property were a private road and a narrow public road in very poor condition.
- Additional parcels would be needed to meet the site area requirement.
- Anticipated road access would greatly impact a small, unnamed tributary stream of Little Sewickley Creek.
- Challenging from a stormwater management perspective
- Utility access is unknown
- Extensive earthwork (1.4 million cubic yards for a balanced cut/fill) would be required to produce approximately 44 acres of usable property.

With respect to the current site (Property 3), QVSD's consultants identified the following:

- Reasonably accessible to property by local roads.
- Reasonable from a stormwater management perspective.
- The property drains into two watersheds. An unnamed tributary of Little Sewickley Creek (classified as HQ-TSF) and unnamed tributary of the Ohio River (classified as WWF)
- Extensive earthwork (1.4 million cubic yards for a balanced cut/fill) would be required to produce approximately 52 acres of usable property.
- Reasonable from stormwater management perspective
- Utility access is good

QVSD contracted on June 6, 2017 to have due diligence performed on the current site. The due diligence included: Survey – Property Boundaries, Existing Utility Locations and Topography; Phase I Environmental Site Assessment; Wetland Identification; Civil Site Information; Geotechnical Exploration and Evaluation and revisions to potential grading plans utilizing the performed Geotechnical Exploration and Evaluation.

The due diligence was performed on the current property in June, July and August. Adjacent undeveloped 6.68 acres was also included as part of the due diligence performed.

QVSD's consultants provided the Board with a summary of the property search and evaluation for a new high school site, including the property information previously generated for the 82.36 Acres+/- and adjacent 37.64 Acres +/- (QVSD owns) site, the 79.83 Acres+/- site and the current site. The QVSD Board ultimately decided, based on the extensive property research and evaluation presented, the current site was the most viable for a new high school campus. The current site provides good access from a county road, existing utilities near the site with capacity for a new high school campus, sufficient room to provide buffers around the campus with adjoining neighborhoods, sufficient area to provide stormwater management for the campus and help correct a current flooding problem off-site, and the proposed development of the property poses the least amount of

impacts to the Waters of the Commonwealth. Significantly, development of the two other potential sites posed more impact to the Waters of the Commonwealth than the current site.

The current high school site, at approximately 14.55 acres, is roughly one-third of the PDE recommended area. The conceptual plans developed in order to "test-fit" the proposed high school building on the proposed site demonstrate that the developed area of 47.3 acres comports with the PDE site planning guidelines.

In addition to the benefits brought to the public by way of an improved educational facility, the new facility located at the proposed site will provide the following improvements, some of which, in the absence of the development, would leave failed conditions uncorrected:

a) The on-site parking will be more than double that of the current amount at the existing facility;
b) Car and bus traffic will be segregated and routed over appropriately sloped roadways;
c) Pedestrian walkways will be isolated and safer than the current conditions;
d) Vehicular access to and from of the site will be improved;
e) Stormwater management will be provided and will benefit all downstream properties;
f) Water quality basins will be constructed in order to offset any environmental impacts from the proposed impervious areas;
g) Improvements will be made to the existing unstable site conditions adjacent Camp Meeting Road;
h) The existing streambed adjacent Camp Meeting Road will be stabilized;
i) Classrooms will be designed to provide flexible classroom layouts to enhance the learning climate and support departmental collaboration;
j) Classroom deficiencies at the existing current high school, which deficiencies include undersized classrooms, numerous spaces without windows or natural light, and spaces with poor climate control, low ceilings and sound issues, will be completely eliminated;
k) Special education classrooms will now be full size and located within the flow of the learning program, with support spaces being located near learning spaces. Current inadequacies with the Life Skills space will be fully corrected;
l) Large group instruction rooms, special education resource rooms, small group rooms, dedicated teacher workspaces / offices for planning time, and additional conference rooms, all of which are either absent or lacking at the current high school, will be added to enhance the learning climate;
m) Music instruction classrooms, practice rooms and storage which cannot be accommodated at the existing high school will be accommodated at the new high school;
n) Significant improvements and upgrades will be made to science labs, art studios, applied learning labs and media center, to name a few, and each will be appropriately designed to meet current educational needs;
o) Existing deficiencies with the gym and related facilities, which deficiencies include limited seating, limited storage, poor ventilation and sound, inadequate fitness rooms, no health classrooms, and woefully inadequate locker rooms which are poorly ventilated and lack private changing areas, will be eliminated; and
p) The existing high school suffers from multiple deficiencies based on current criteria established by PDE. Although many of these deficiencies are permitted to exist under PDE's grandfathering rules, they remain deficiencies adversely affecting the educational opportunities available to students. The new high school will meet all current requirements established by PDE and significantly enrich the educational experience for all students.

The proposed location, therefore, appropriately accommodates the school district's needs for its high school facility and provides an opportunity for improving the quality of its program, and improving the life safety features of its high school facility. Additionally, the development corrects conditions which currently pose risks to the public.

Due to the criteria established by PDE, QVSD must develop the high school on 45+ acres of usable land. Within the School District (including Leet Township), due to topography and other physical features, the Site is the most suitable land within the School District to relocate the high school. After an exhaustive search, the School District did not find any site nearly as favorable as this site. The Site includes 108 acres, providing ample opportunity to provide surrounding landscape buffers and poses the least amount of impacts to the Waters of the Commonwealth.

29. §105.13(e)(1)(vii), §105.14(b)(7), & §105.18a(b)(3)(ii)(A): Related to the preceding comment, evaluate the feasibility of continuing to use the current high school with renovations or constructing the new high school on the existing site in a manner that would avoid or minimize adverse impacts to the waters of this Commonwealth.

Response: *The Quaker Valley School District ("QVSD") serves the students and families Aleppo Township, Bell Acres Borough, Edgeworth Borough, Glenfield Borough, Glen Osborne Borough, Haysville Borough, Leetsdale Borough, Leet Township, Sewickley Borough, Sewickley Heights Borough and Sewickley Hills Borough. The public (those communities comprising the School District) benefit in many ways from the services that QVSD provides.*

The benefit to the public will be made greater by locating the proposed high school at the proposed location on Camp Meeting Road in Leet Township.

QVSD's existing high school, located on Beaver Street in Leetsdale, PA, has served the citizens of Leet Township as well as all of the other aforementioned surrounding municipalities comprising the Quaker Valley School District since the district's formation in 1956. Prior to that time, there were 10 independent school districts serving the 11 municipalities. Students from those areas who sought to enroll in high school, after the eighth grade, could attend Leetsdale High School, Sewickley High School or Ambridge High School.

Upon the jointure of the 10 independent school districts in 1956, Leetsdale High School became the only high school within the consolidated Quaker Valley School District. That facility, which is currently known as "Quaker Valley High School", was constructed in 1926 and has served as the public high school for the 11 municipalities making up the school district since 1956. The facility has been expanded and renovated several times since its original construction. It is now 98 years old.

While many efforts have been made to modernize the existing facility, those efforts have, in recent years, become less and less effective and the financial investments required to sustain the basic operations have increased. The original facility was designed and constructed in an era before modern construction technologies were developed and in widespread use. The "load-bearing" nature of the walls of the facility significantly limits the feasibility of internal structural modifications. The need to reconcile the existing changes in the floor elevations throughout the facility, in order to enable accessibility mandated by the Americans with

Disabilities Act (ADA), will require an inordinate amount of structural reworking and further reduces the feasibility of these modifications.

The compression arches ("flat arch" construction) employed in the earliest portions of the building further complicate the ability to execute alterations which will expand the spaces inside that facility. The exterior and corridor walls must remain in-place. Removal or the creation of larger openings in those walls would require the tedious installation of steel beams, columns to supports the beams and new pile foundations that would have to be drilled many feet under the existing structure using a drilling rig inside the existing building.

If there were no other impediments, these antiquated structural features, alone, due to the cost of implementing the work, the disruption to the educational operations and the complexity of the schedule required to perform the work, inexorably limit the feasibility of revitalizing the facility.

There is also a residual degradation of the facility in process, which is indirectly driven by the infeasibility of renovating the facility. All buildings, including newer ones, contain components with predictable serviceable lives. While the components of the superstructure may typically remain serviceable for 75 to 100 years (we are at year 98 of this life cycle), most of the other components have a substantially shorter anticipated serviceable life. For example, the finishes should only remain serviceable for another 15 to 25 years. Mechanical systems have piping which generally functions for 50 to 60 years; however, the equipment (fans, pumps, boiler, chillers, etc.) should only be expected to remain serviceable for another 20 to 30 years.

After these anticipated serviceable lives expire, it becomes necessary to upgrade or replace the components. The context for the existing high school, a building which includes an outmoded superstructure, has placed the school district in a position where it cannot continue to replace retiring equipment, where the superstructure is not feasibly adaptable and, in the case of the oldest parts of the building, where the superstructure is close to the end of its life cycle. It is simply not feasible to install, for example, new mechanical and electrical systems inside a superstructure that is in the final years of its life cycle.

But the limitations posed by the building's structural systems are not the only impediments to implementing facility improvements, as, over the many decades in which the facility has been in use, the school's functions have absorbed all available areas of the site. The existing site in Leetsdale is heavily constrained: by Route 65 on the southwest side, by Beaver Street on the northwest side, by a supermarket complex to the south and by a residential development to the north. This significantly limits the ability to expand the high school to accommodate increases in the student population, as well as the need for other programs and facilities, as explained below. The existing site is not functional. The on-site parking is extremely limited, with the majority of the parking located approximately 50 vertical feet below the entrance to the building. The parking areas are regularly fully-loaded and congested. Further, the build-out of the site facilities and the expansion of the building on the constrained site has also resulted in a traffic pattern around the building with poor site lines and intermingling of the pedestrian patterns. The vertical distance from the majority of the parking areas to the building entrances also poses a significant impediment to achieving compliance with the ADA. Accessibility cannot be achieved without unreasonably long ramps, exterior elevators or a combination of the two. These constraints prevent the feasible redevelopment of the site as well as the expansion of the building in a practical manner.

These impediments and constraints have played prominently in the District's facility planning studies which have been underway for most of the past decade. QVSD is responsible for delivering effective education for all of its students and must do so within predefined financial boundaries set forth by the legislature. Accordingly, not only do the physical and performance limitations of the current facility inhibit the growth and vitality of the educational program at the current high school, those same limitations result in a reduction in the consistent loading of the students within the various educational spaces comprising the facility - which in turn leads to imbalances among the staff assignments. In an operation, wherein the preponderance of the operating costs are attributable staff salaries and benefits, such imbalances inherently result in higher operating costs.

30. §105.13(e)(1)(vii), §105.14(b)(7), & §105.18a(b)(3)(ii)(A): In your Environmental Assessment, you stated that Leetsdale Borough has requested that in your current design that you provide stormwater management to mitigate for an upstream, off-site residential area within Leet Township that drains to UNT-1. Accordingly, evaluate the feasibility of utilizing one or more alternative locations or other for the aforementioned stormwater management to avoid or minimize impacts to the waters of this Commonwealth.

Response: *The site development plan has been revised to relocate SWMF-1 offline from UNT-1. Runoff from a portion of the upstream residential area and drainage from Camp Meeting Road will be collected by proposed roadway drainage and routed to SWMF-1. The impact to UNT-1 for SWMF-1 has, therefore, been eliminated. A reduction to satisfy the Leetsdale Borough will be accomplished by controlling the stormwater from the project site which will result in a reduction of the peak runoff flows during flood events at the Beaver Street culvert.*

31. §105.13(a) & 105.14(5)(c): During the field site visit with you on May 21, 2025, additional watercourse resources were identified, which will be directly affected by your project. As such, provide resource classification information, Riverine Level 2 rapid condition assessment results, discussion of resource functions, or studies conducted for these additional resources, which are also listed below, and any other watercourse resources found during your investigation, revise your Aquatic Resources Impact Table (ARIT), site drawings, project narrative, etc. as needed, and address the following items:

Response: *The Environmental Assessment (EA) is revised to incorporate the additional streams identified during the May 21, 2025 site visit. The EA revisions include resource classifications, Riverine Level 2 Rapid Condition Assessments, discussion of the resource functions, a revised ARIT, and narratives and drawings presenting the revised site development plan.*

    a. Regarding the feature labeled as Roadway Drainage on Sheet B100, Overall Existing Plan, which was found to have a defined channel and banks with flowing water, and based on the results of your investigation, provide the following information:

        i. §105.13(e)(1)(i)(A) & §105.152(a)(1): Revise your site plan to include said watercourse and its floodway and any proposed work to the storm pipe crossing beneath Camp Meeting Road and the culvert crossing downstream of said pipe.

        Response: *UNT-4/5 is a single roadway drainage channel with divided flow into two channels, UNT-4 and UNT-5. The UNT-5 segment is a short segment that ends without connection to a receiving stream. UNT-5 is within a few feet of and is parallel to UNT 4. UNT-5 receives road*

drainage from Camp Meeting Road that seems to be intended for UNT-4 but the drainage seems to overflow a partially clogged driveway culvert and has eroded another channel parallel to UNT-4. UNT-4 shows some continuation of channel and flow with a connection to UNT-1. Therefore, UNT-4 and UNT-5 are combined as one stream with a divided flow section.

During the multiple site visits Streamline conducted, UNT-4/5 had flow during one occasion, which was during the May 21, 2025 site visit with DEP and USACE when it rained the previous night into morning. During other site visits the channels were dry. These watercourses do not show groundwater connectivity and are considered ephemeral channels as confirmed by Jeremy Roberts with the USACE.

Because these two channels run parallel and receive the same source of water, a decision is made on which channel UNT4/5 a flood event would result in a floodway of determinable size. Streamline determined that the channel for UNT4 is the main channel since it shows a resemblance of connection to UNT-1. Therefore, the floodway for UNT4/5 is shown in the revised H&H analysis to be within the UNT4 channel, and the channel profile, sections and the culvert in the driveway is to be removed and the UNT-4/5 channel will be filled in as part of the proposed project.

ii. §105.13(e)(1)(i)(G), §105.152(a)(2), & §105.231(e)(1)(iii): Provide cross sectional views of the watercourse before and after the structure or activity is constructed, including, but not limited to, any proposed changes to the stormwater pipe crossing under Camp Meeting Road, the removal of the culvert crossing downstream of said pipe, and any proposed channel changes.

Response: *Refer to Response 31.a.i. regarding UNT4/5.*

iii. §105.231(e)(1)(ii): Related to the preceding comment, provide a stream profile for a reasonable distance upstream, to include the aforementioned storm pipe, and downstream, to show how this stream flow will be conveyed to UNT-1. This stream profile should also show the proposed channel change, bed slopes, normal water surface and depths, flood water surfaces, and existing obstructions.

Response:*. Refer to Response 31.a.i. regarding UNT4/5.*

iv. §105.231(e)(1)(ii): Related to the preceding comment, provide a stream profile for a reasonable distance upstream, to include the aforementioned storm pipe, and downstream, to show how this stream flow will be conveyed to UNT-1. This stream profile should also show the proposed channel change, bed slopes, normal water surface and depths, flood water surfaces, and existing obstructions.

Response: *Refer to Response 31.a.i. regarding UNT4/5.*

§105.13(e)(1)(vii) & §105.14(b)(7): Related to the preceding comment, evaluate the feasibility of modifying your design to minimize the adverse impacts to the watercourse, such as, constructing

the new channel with natural streambed material and/or including a low flow channel, to maintain stream functions and aid aquatic organism passage.

Response: *Channel 3 will receive the runoff from a large portion of the site. It is designed per the PA DEP E&S Control Manual to withstand the erosive velocities. A low flow channel and natural streambed would not be sustainable and would not be in conformance with PA DEP Chapter 102 requirements.*

b. Regarding the feature located adjacent 4' north and running parallel to the aforementioned watercourse, and based on the results of your investigation, provide the following:

i. §105.13(e)(1)(i)(A): Revise your site plan to include the watercourse and its floodway.

Response: *Refer to Response 31.a.i. The floodway for this watercourse is associated with UNT-4.*

ii. §105.13(e)(1)(i)(G) & §105.231(e)(1)(iii): Provide cross sectional views of the watercourse before and after the structure or activity is constructed, including, but not limited to, any proposed channel changes.

Response: *Refer to Response 31.a.i. Cross sectional views are included in UNT-4.*

iii. §105.231(e)(1)(ii): Related to the preceding comment, provide a stream profile for a reasonable distance upstream and downstream, to show how this stream flow will be conveyed to UNT-1. This stream profile should also show the proposed channel change, bed slopes, normal water surface and depths, flood water surfaces, and existing obstructions.

Response: *This watercourse is associated with UNT-4. Refer to Response 31.a.i. regarding UNT4/5. A separate profile is not provided.*

iv. §105.13(e)(1)(vii) & §105.14(b)(7): Evaluate the feasibility of alternative layouts and designs or other to avoid or minimize impacts to the watercourse, such as utilizing the existing steam channel.

Response: *Refer to Response 31.a.i. regarding UNT4/5.*

v. §105.13(e)(1)(vii) & §105.14(b)(7): Related to the preceding comment, evaluate the feasibility of modifying your design to minimize the adverse impacts to the watercourse, such as, constructing the new channel with natural streambed material and/or including a low flow channel, to maintain stream functions and aid aquatic organism passage.

Response: *Impacts to this channel is considered in impacts to UNT-4.*

c. Regarding the drainage feature flowing from Wetland 1 to UNT-1 to the Ohio River, and based on the results of your investigation, provide the following:

i. §105.13(e)(1)(i)(A): Revise your site plan to include the watercourse and its floodway.

Response: *Streamline labeled this watercourse UNT-3. The plans have been revised to include this watercourse and floodway.*

ii. §105.13(e)(1)(i)(G) & §105.231(e)(1)(iii): Provide cross sectional views of the waters and floodway to be impacted before and after the structure or activity is constructed, including, but not limited to, any proposed channel changes.

Response: *No channel changes are planned for UNT-3. Therefore, no impacts are proposed.*

iii. §105.231(e)(1)(ii): Related to the preceding comment, provide a stream profile for a reasonable distance upstream and downstream, to show how this stream flow will be conveyed to UNT-1. This stream profile should also show the proposed channel change, bed slopes, normal water surface and depths, flood water surfaces, and existing obstructions.

Response: *No channel changes are planned for UNT-3. Therefore, no impacts are proposed.*

iv. §105.13(e)(1)(vii) & §105.14(b)(7): Evaluate the feasibility of alternative layouts and designs or other to avoid or minimize impacts to the watercourse, such as utilizing the existing steam channel.

Response: *No channel changes are planned for UNT-3. Therefore, no impacts are proposed.*

v. §105.13(e)(1)(vii) & §105.14(b)(7): Related to the preceding comment, evaluate the feasibility of modifying your design to minimize the adverse impacts to the watercourse, such as, constructing the new channel with natural streambed material and/or including a low flow channel, to maintain stream functions and aid aquatic organism passage.

Response: *No channel changes are planned for UNT-3. Therefore, no impacts are proposed.*

32. The streams identified as UNT-3, UNT-4, and UNT-5 in your response submitted on May 23, 2025, were investigated during the aforementioned site visit. While the upper reaches of these streams were evaluated as ephemeral streams, you will need to determine whether any portions of the lower reaches, such as the confluence with UNT-2, exhibit groundwater connectivity. Additionally, based on the results of your investigation, provide the following:

a. §105.13(e)(1)(i)(A): Revise your site plan to include said watercourses and associated floodways.

Response: *These channels being referred to previously as UNT-3, UNT-4 and UNT-5 are ravines with no bed or bank as confirmed by Jeremy Roberts of USACE at the site visit on May 21,2025. Therefore, these*

ravines were previously not labeled as watercourses and were not further referenced. The tail ends of these ravines meet a manmade channel which is being referred to as UNT-6. This channel has defined bed and bank and is mapped on the plans with a drainage area and floodway.

b. §105.13(e)(1)(i)(G) & §105.231(e)(1)(iii): Provide cross sectional views of said watercourses before and after the structure or activity is constructed, including, but not limited to, any proposed enclosures, outfalls, and/or channel changes.

Response: *Cross sectional views have been provided for UNT-6.*

c. §105.191(2) & §105.231(e)(1)(ii): Related to the preceding comment, provide stream profiles for a reasonable distance upstream and downstream, to show how this stream flow will be conveyed to UNT-2. This stream profile should also show the proposed channel changes, enclosures, outfalls, bed slopes, normal water surface and depths, flood water surfaces, and existing obstructions.

Response: *A stream profile has been provided for UNT-6.*

33. §105.13(e)(1)(vii) & §105.14(b)(7): Evaluate the feasibility of the following alternatives to avoid or minimize impacts to UNT-1:

a. You propose to construct a stormwater basin (SWMF-1) in the stream channel of UNT-1. Accordingly, evaluate the feasibility of alternative designs and layouts to avoid or minimize impacts to UNT-1, such as relocating or reducing the size of SWMF-1.

Response: *The plans were revised showing the relocation of SWMF-1 to minimize impacts to UNT-1.*

b. You propose to place and maintain fill in 637 LF of UNT-1 and construct and maintain 610 LF of new channel in a new location, a portion of which will be enclosed within a 104 LF 48" RCP enclosure with 29 LF R-6 riprap outlet apron (ENC-1), which will carry an access road to the high school, and a 209 LF 48" RCP enclosure with 29 LF R-6 riprap outlet apron (ENC-2) downstream of ENC-1. Accordingly, evaluate the feasibility of alternative designs and layouts to avoid or minimize impacts to the watercourse, such as alternative routings for your stormwater management system and/or utilizing the existing stream channel of UNT-1.

Response: *The UNT-1 will not be rerouted and the proposed culverts for the new access driveway will be reduced in length to reduce stream impacts. Both culverts will have lengths less than 100 feet.*

c. Related to preceding comment, you propose to relocate 266 LF and eliminate 27 LF of UNT- 1 stream channel. Accordingly, evaluate the feasibility of alternative designs to avoid or minimize impacts to UNT-1, such as reducing the reaches of UNT-1 stream channel being relocated, maintaining the full span of UNT-1, and/or reducing the length of the enclosures.

Response: *The UNT-1 will not be rerouted and the proposed culverts for the new access driveway will be reduced in length to reduce stream impacts. Both culverts will have lengths less than 100 feet.*

d. Related to the preceding comment, evaluate the feasibility of modifying your design to minimize impacts to UNT-1, such as incorporating low flow channels, constructing the inlet for ENC-1 with natural streambed material in lieu of a rock lined channel, replacing the stilling well at the outfall of ENC-1, and including low flow channels in the enclosures, within SWMF-1, and in the primary spillway of SWMF-1, to maintain stream functions and aid aquatic organism passage.

Response: *SWMF-1 has been relocated to avoid impacts to UNT-1. The UNT-1 will not be rerouted and the proposed culverts for the new access driveway will be reduced in length to reduce stream impacts. Both culverts will have lengths less than 100 feet.*

34. §105.13(e)(1)(vii) & §105.14(b)(7): Evaluate the feasibility of the following alternatives to avoid or minimize impacts to UNT-2:

a. Evaluate the feasibility of alternative designs and layouts to avoid or minimize impacts to UNT-2, such as different routings for your stormwater management.

Response: *All of the existing stormwater runoff located south of the ridge on the property, discharges into UNT-2. The SWMFs are upgradient of UNT-2 and, therefore, can only discharge into UNT-2, the receiving stream.*

b. Related to the preceding comment, evaluate the feasibility of reducing the length of ENC-2 to avoid or minimize impacts to UNT-2.

Response: *The length of Culvert 5 (formerly ENC-2) has been reduced to less than 100 feet.*

c. Related to the preceding comment, evaluate modifying your design to minimize impacts to UNT-2, such as including a low flow channel to aid aquatic organism passage.

Response: *Culvert 5 will be embedded 6 inches to aid in aquatic organism passage.*

35. §105.13(e)(1)(ix): Related to the preceding comments, you propose to purchase stream mitigation credits to offset the project's steam impacts. As such, provide a credit availability or reservation letter(s) from the compensation provider(s). The letter must be from the credit provider and addressed to the applicant and include at a minimum the following:

i. Legal name of the credit provider;

ii. WO&E Compensation Operation Permit number;

iii. Contact information for the credit provider;

iv. Statement by credit provider attesting to credit availability or reservation (i.e. a credit may not be simultaneously represented in credit availability letters to multiple applicants);

v. Specify the credit type(s) and amounts by resource type(s); and

vi. Specify any time limitations (e.g. expiration date) placed on the credit availability or reservation commitment.

Response: *The information needed for mitigation is acknowledged. The applicant will elect the mitigation plan once the type and amount of impacts are approved by DEP and USACE for this project. A request for a jurisdictional determination was sent to the USACE. The results of the JD have not been received.*

36. §105.13(a), §105.13(e)(1)(x)(A), §105.14(5)(c), §105.18a(b)(1)(ii)(3), & §105.20a(a): During the aforementioned site visit, it was discussed that further investigation is needed for the currently delineated Wetland 1 and for a potential second wetland, which will be directly affected by your project. As such, provide resource classification information, Wetland Level 2 rapid condition assessment results, discussion of resource functions, or studies conducted for these additional resources, which are also listed below, and other wetland resources found during your investigation, revise your Aquatic Resources Impact Table (ARIT), site drawings, project narrative, etc. as needed, and address the following items:

a. Regarding the currently delineated wetland north of UNT-1, and based on the results of your investigation, provide the following:

i. §105.13(e)(1)(x)(A): The boundary of the wetland appeared to extend further north than indicated. As discussed during the site visit, conduct further field investigations to see if this wetland boundary should be expanded and provide wetland data forms, including an upland sample point, supporting your delineated wetland boundaries.

Response: *The Wetland W-1 was revisited and the delineation was checked. An upland sample point was added to confirm the delineation. The upland point data sheet was added to the revised Wetland Determination and Water Resource Evaluation Report.*

ii. §105.13(e)(1)(viii)(A), §105.14(b)(7), & §105.18a(b)(1)(ii)(3): You propose to place fill in and to route a rock lined drainage channel through Wetland 1. Accordingly, evaluate the feasibility of alternative designs and layouts, such as routing the drainage channel outside of the wetland or reducing the amount of fill placed in the wetland.

Response: *Phillips & Associates, Inc. investigated the possibility of routing the location of the channel outside the wetland area; however, the geotechnical exploration on the site revealed the underlaying material in this area is colluvial deposit. The colluvial deposit on this site is from the Pittsburgh Redbeds. In order to construct the proposed fill slopes, outside of Wetland 1, it will require the removal of the colluvial material down to bedrock. The required excavation to remove the colluvial deposit down to bedrock will undercut the portion of the wetland 1 area where the rock channel is proposed. Therefore, even if the proposed fill slopes were constructed outside of*

Wetland 1, Wetland 1 will be undercut and disturbed. Accordingly, we are proposing to keep the rock channel in the same location.

iii. §105.13(e)(1)(viii), §105.14(b)(7), & §105.18a(b)(1)(ii)(3): Related to the preceding comment, evaluate the feasibility of modifying your design to minimize impacts to Wetland 1, such as constructing the rock lined channel with natural streambed material.

Response: *See the response to Comment 36a.ii. The proposed velocity of stormwater runoff in the proposed channel requires rip-rap to prevent erosion of the channel. The natural streambed material is not adequate to prevent channel erosion.*

iv. §105.13(e)(1)(ix), §105.14(b)(7), & §105.20a(a): Related to the preceding comment, you propose to construct on-site wetlands adjacent to Wetland 1 to mitigate for the loss of wetlands. Accordingly, provide construction details and a monitoring plan for the proposed wetland construction, and, additionally, demonstrate that there will be sufficient hydrology to maintain the new wetland. If instead you propose to purchase mitigation bank credits, provide the same information as requested above regarding your stream mitigation plan.

Response: *On-site mitigation for Wetland W1 has been eliminated from the project. Once the project impacts have been agreed upon, the appropriate credit availability or reservation letter(s) with the required information per Review Comment 35 from the compensation provider(s) will be obtained and provided to DEP.*

b. §105.13(a), §105.13(e)(1)(x)(A), §105.14(5)(c), & §105.18a(b)(1)(ii)(3): During the aforementioned site visit, hydrophytic vegetation was observed at the perimeter of the existing pond at the approximate location of SP-3 within your wetland delineation report. As such, reevaluate said location for the presence of a wetland landward of the sedimentation pond. Based on the results of your investigation, if a wetland is found to be present, provide the following information:

i. §105.13(e)(1)(i)(A) & §105.152(a)(1): Revise your site plans to include the wetland.

Response: *Wetland W2 has been delineated along the eastern perimeter of the existing pond. The data sheets for the wetland sampling point and upland point are provided in the revised Wetland Determination and Water Resource Evaluation Report. The site plans are revised to show Wetland W2.*

ii. §105.13(e)(1)(i)(G), §105.152(a)(2), & §105.231(e)(1)(iii): Provide cross sectional views of the wetland before and after the structure or activity is constructed.

Response: *Wetland W2 will not be impacted by the project. The site development plan has been revised to avoid impacts to Wetland W2 and to the lower reach of UNT-1. Coss sectional views are therefore not needed.*

iii. §105.13(e)(1)(viii)(A), §105.14(b)(7), & §105.18a(b)(1)(ii)(3): Related to the preceding comment, based on your currently proposed work, the wetland would be entirely filled. Accordingly, evaluate the feasibility of alternative designs and layouts to avoid or minimize impacts to said wetland, such as relocating or reducing the size of SWMF-1.

Response: *SWMF-1 has been relocated to be offline from UNT-1. Therefore, Wetland W2 and the lower reach of UNT-1 will not be impacted by the project. Impacts to UNT-1 are reduced to two proposed culvert crossings for the new driveway, the removal of one existing culvert on UNT-1, and two sanitary sewer line relocations.*

iv. §105.13(e)(1)(ix), §105.14(b)(7), & §105.20a(a): Related to the preceding comment, if you are able to demonstrate that you cannot avoid or further minimize impacts to this potential wetland, you may have to increase the amount of wetland mitigation to be provided.

Response: *See the responses to Review Comment 36b.ii and iii. Impacts to UNT-1 have been significantly reduced, and any impacts to Wetland W2 have been eliminated.*

37. §105.14(b)(4) & §105.18a(b)(5): Provide documentation demonstrating that all fill to be placed is clean fill.

Response: *The Erosion & Sediment Control Plan (Narrative Sheet 2 of 2) specifies that all fill must be clean fill as defined by PADEP (Reference Document No. 258-2182-773) which states, "Clean Fill is uncontaminated, nonwatery-soluble, non-decomposable inert solid material". The construction specifications to be developed for the project will also have the necessary clean fill language.*

38. §105.14(a)(1): Provide proof of ownership, an easement, or permission from the owner of the storm pipes crossing beneath Camp Meeting Road and located in the head waters of UNT-1 to complete your proposed replacement of said structure.

Response: *The existing storm water pipe crossing beneath Camp Meeting Road will not be modified or replaced. This activity has been eliminated from the project.*

39. §105.14(a)(1): If you propose to modify or replace the storm water pipe crossing beneath Camp Meeting Road and located in the feature labeled as Roadway Drainage on Sheet B100, Overall Existing Plan, provide proof of ownership, an easement, or permission from the owner of the storm pipe to complete any proposed work.

Response: *The existing storm water pipe crossing beneath Camp Meeting Road will not be modified or replaced. This activity has been eliminated from the project.*

40. §105.14(b): In your application, you stated that the sanitary utility line relocation will be completed by the applicant; however, during the aforementioned site visit, you stated that the work may be completed be the utility line owner instead. Accordingly, provide the following:

a. If the applicant will be completing the work, provide proof of ownership, an easement, or permission from the owner of the sanitary sewer lines to complete your proposed work.

Response: *The QVSD will be responsible for relocating the sanitary sewer lines. Enclosure 1 is the agreement between the Quaker Valley School District (QVSD) and the Leet Township Municipal Authority, granting permission for the relocation of the sanitary sewer lines. The permit authorization to perform the work is requested under this permit application.*

b. If the owner is to conduct the work, provide evidence that the owner has submitted or will submit an application for the necessary Chapter 105 Water Obstruction and Encroachment permits prior to the start of your proposed work. Alternately, provide the name and contact information for the owner of this utility line. In addition, revise your ARIT to remove this activity.

Response: *The permit applicant will perform this work. See the response to 40.a.*

41. §105.14(b): In your application, you stated that the removal of the gas utility line running along UNT-2 will be completed by the applicant; however, during the aforementioned site visit, you stated that the work may be completed be the utility line owner. Accordingly, provide the following:

a. If the applicant will be completing the work, provide proof of ownership, an easement, or permission from the owner of the gas utility lines to complete your proposed work. In addition, revise your ARIT to reflect that removing the existing gas line is a permanent impact.

Response: *The QVSD will be responsible for removing a portion of the line to be abandoned. The portion of gas line to be removed will be from the existing gas line angle point (gas marker) south to a point south of the proposed lower school driveway. The portion of the gas line to be removed is parallel and in the stream bed of UNT-2. Enclosure 2 is an email received from Columbia Gas Company granting permission to remove the gas utility line to be abandoned. The permit authorization to perform the removal work is requested under this permit application.*

The ARIT has been revised to show that removal of the gas line will be a permanent impact.

b. If the owner is to conduct the work, provide evidence that the owner has submitted or will submit an application for the necessary Chapter 105 Water Obstruction and Encroachment permits prior to the start of your proposed work. Alternately, provide the name and contact information for the owner of this utility line. In addition, revise your ARIT to remove this activity.

Response: *The permit applicant will perform this work. See the response to 41.a.*

42. §105.14(b): You show that a new gas utility line crossing UNT-2 will be constructed by the utility owner upstream of the SWMF-1 secondary spillway. Accordingly, provide evidence that the owner has submitted or will submit an application for the necessary Chapter 105 Water Obstruction and Encroachment permits prior to the start of your proposed work. Alternately, provide the name and contact information for the owner of this utility line.

Response: *QVSD's consultants met with Columbia Gas, on August 12,2025, regarding the status of their plans for the relocation of the gas line facilities which cross the QVSD property. Columbia Gas let us know they have*

decided to abandon all the gas lines that cross through QVSD property and relocate their gas line under the northern travel lane pavement of Camp Meeting Road (marked in red on the Plan-Quaker Valley Install Vs Relocation Markup). The gas line will not be crossing UNT-2 as previously indicated on the plans. The agreement with the gas company is provided as Enclosure 2. The email contains contact information for the owner of this utility line.

43. §105.13(e)(1)(x) & 105.15(b)(5): Per the letter, in your submission, from the Pennsylvania Historical and Museum Commission (PHMC) dated January 9, 2025, the project has the potential to affect the property associated with the Muotta House (Resource #2004RE03024), which was determined eligible for listing in the National Register of Historic Places under Criterion C in the area of architecture. Accordingly, demonstrate that said PHMC concern has been resolved.

Response: *The USACE has taken the lead on the cultural resource reviews, and is coordinating with the PHMC. Enclosed is a letter dated July 31, 2025 from the USACE, which explains the status of the USACE process.*

If you have any questions on this submittal, please contact Streamline Engineering, Inc.

Respectfully yours,
STREAMLINE ENGINEERING, INC.

Martha L. Frech, P.E.
President

Enclosures

Cc: Charlie Gauthier – Quaker Valley School District
Geoff Phillips – Phillips & Associates, Inc.
Emily Mueller – GRB Law

ENCLOSURE 1
Leet Township Municipal Authority

LEET TOWNSHIP MUNICIPAL AUTHORITY
194 Ambridge Avenue
Fair Oaks, PA 15003

August 6, 2024

Board of Commissioners
Township of Leet
194 Ambridge Avenue
Fair Oaks, PA 15003

Subject: Leet Township Municipal Authority
Quaker Valley School District
Proposed New High School
Sanitary Sewer Review

Dear Commissioners:

The Leet Township Municipal Authority (LTMA) has reviewed the drawings pertaining to the proposed sewer line relocation relative to the subject project. These drawings, which were prepared by Phillips & Associates, Inc., were revised on July 8, 2024.

At its regular meeting held August 6, 2024, the Leet Township Municipal Authority approved these drawings contingent upon the developer entering into a standard developer's agreement prepared by the LTMA Solicitor.

Very truly yours,

LEET TOWNSHIP
MUNICIPAL AUTHORITY

Gary Augustine, Chairman

cc: Harlan S. Stone (via email)
Geoffrey C. Phillips, P.E. (via email)
Dan Gramc, Developer's Council (via email)
Charlie Gauthier, Quaker Valley School District (via email)

ENCLOSURE 2
Columbia Gas Email

From:	Kisow \ Austin \ Kaleb
To:	Charlie Gauthier (gauthierc@qvsd.org); Geoffrey Phillips
Subject:	Quaker Valley Columbia Gas Preliminary Plan Mark Up
Date:	Thursday, July 11, 2024 11:52:09 AM
Attachments:	Quaker Valley Install Vs Relocation Markup.pdf

Good Morning,

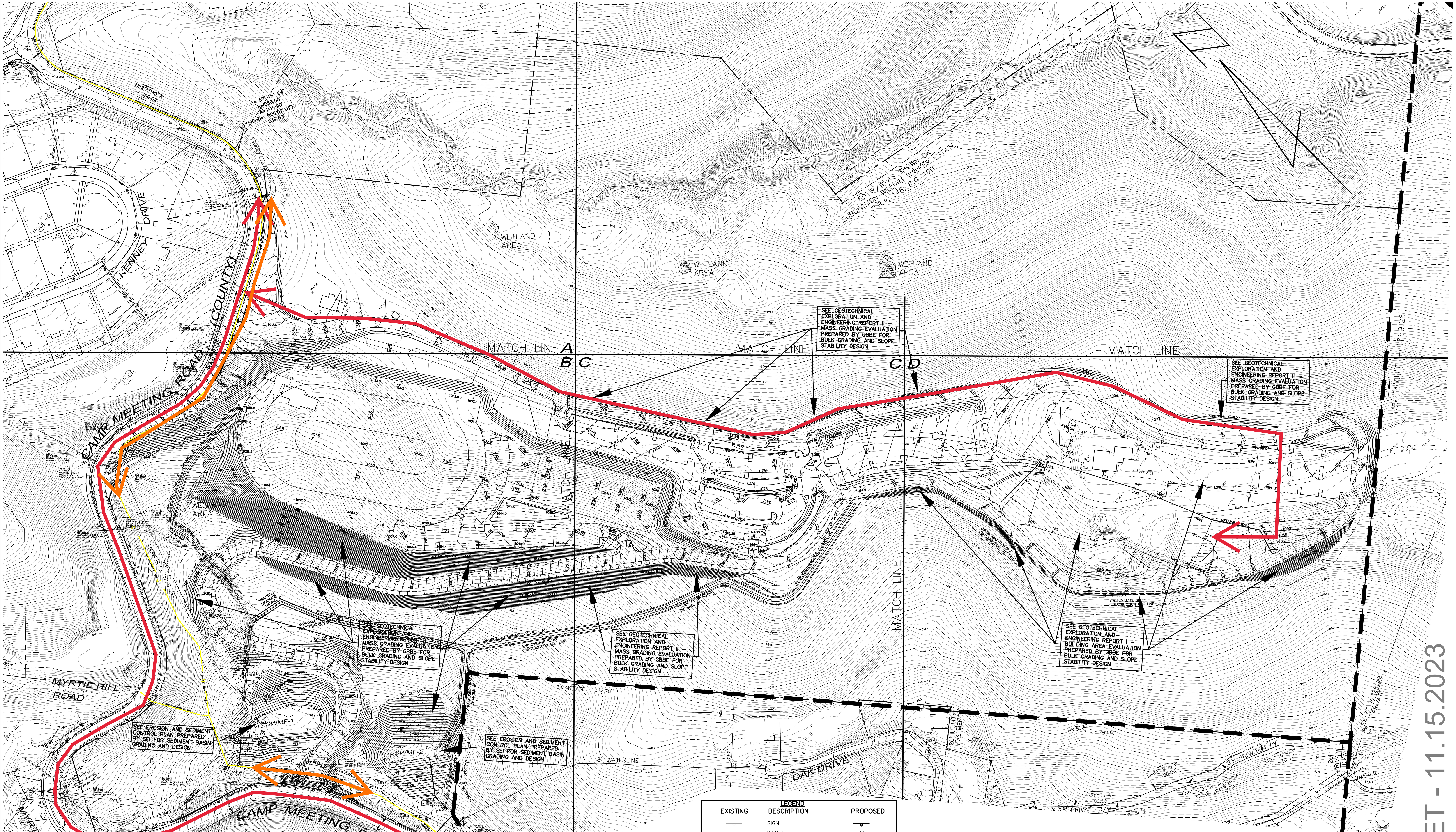
Attached is a mark up of Columbia Gas's proposed replacement/relocation project on Camp Meeting Rd. We are committing at a minimum that we will relocate the section of the pipeline that is in conflict with the southern entrance to the school (orange arrow). We are looking into the scope of expanding the replacement of this project (red arrow on Camp Meeting Road), but we are still looking into the design.

There will also be a ~3,400'-4'' gas line installed to service the school as well.

This mark up drawing is our preliminary plan, and once I am able to get the area base mapped and the engineering drawing designed, I will be able to provide those drafts with you as well.

Thank you,

Austin K Kisow, E.I.T.
Associate Field Engineer I | Columbia Gas of PA
5250 Grand Ave, Pittsburgh, 15225 | Cell: 724.809.0497
✉: akisow@nisource.com



EXISTING	LEGEND DESCRIPTION	PROPOSED
	SIGN	
w	WATER	W
wv⊗	WATER VALVE	WV⊗
	FIRE HYDRANT	
san	SANITARY SEWER	SAN
stm	STORM SEWER	STM
MH○	MANHOLE	○
	INLET	□
	SANITARY CLEANOUT	C.O. ○
g	GAS	G
GV	GAS VALVE	GV⊗
	UTILITY POLE	Ø
	UTILITY POLE W/ LIGHT	
oh, ug	UNDERGROUND, OVERHEAD	U, O
e, t, c	ELECTRIC, TELEPHONE, CABLE	E, T, C
U/FO	UNDERGROUND FIBER OPTIC	U/FO
	GUY WIRE	
	SETBACK LINE	
	PROPERTY LINE	
	CENTERLINE	
	RAILING	
P/A	PLANTING AREA	P/A
1072	CONTOUR LINE	1072
	TOP CURB ELEV.	TC=
	BOTTOM CURB ELEV.	BC=
	TOP OF COLUMN	TCOL=
	FINISH SIDEWALK ELEV.	FSW=
	STREET LIGHT	
	TREE	
	HANDICAP RAMP w/DWS	
	CONCRETE	
	RIP-RAP	

PROPERTY OWNER/DEVELOPER

QUAKER VALLEY SCHOOL DISTRICT
100 Leetsdale Industrial Drive, Suite B
Leetsdale, PA 15056
PHONE: (412) 749-3600
CONTACT: Charlie Gauthier
Director of Facilities and Administrative Services

GENERAL NOTES

1.) THE LOCATION, DIRECTION AND SIZE OF ALL UTILITIES SHOWN ON THIS PLAN ARE BASED ON VISUAL EVIDENCE IN THE FIELD, OR PER INFORMATION PROVIDED BY THE UTILITY COMPANIES, OR FROM PREVIOUSLY PREPARED PLANS, AND THOSE UTILITIES SHOWN ARE NOT NECESSARILY ALL OF THE EXISTING UTILITIES.

2.) IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY EXACT FIELD LOCATION PRIOR TO ANY EXCAVATION BY NOTIFYING THE PENNSYLVANIA ONE CALL SYSTEM AT LEAST THREE (3) DAYS IN ADVANCE BY CALLING 1-800-242-1776.

3.) PROPERTY IS LOCATED OUTSIDE THE 500-YEAR FLOOD PLAIN AS SHOWN ON THE FEDERAL FLOOD INSURANCE RATE MAP FOR TOWNSHIP OF LEET, BOROUGH OF LEETSDALE AND BOROUGH OF EDGEWORTH, ALLEGHENY COUNTY, PA F.I.R.M. PANEL NO.42003C0154H, DATED SEPTEMBER 26, 2014.

4.) ALL UNDERGROUND PIPE SIZES AND TYPES HAVE BEEN OBSERVED FROM GROUND LEVEL. NO ATTEMPT HAS BEEN MADE TO ENTER UNDERGROUND FACILITIES FOR ACTUAL MEASUREMENTS.

5.) FIELD SURVEY OF PROPERTY BOUNDARY, UTILITIES, EASEMENTS, RIGHT OF WAYS, PHYSICAL STRUCTURES, ETC. BY DENNIS DULL LAND SURVEYING, 120 KLINE AVENUE, NORTH VERSAILLES, PA 15137 PH: (412) 823-0283

6.) AERIAL TOPOGRAPHIC MAPPING BY THE THRASHER GROUP, INC., 600 WHITE OAK BOULEVARD, P.O. BOX 940, BRIDGEPORT, WV 26330 PHONE: 1 (800) 273-6541. DATE OF AERIAL PHOTOGRAPHY: 4-20-22

UTILITY COMPANIES CONTACTS

ELECTRIC:
DUQUESNE LIGHT COMPANY
2841 NEW BEAVER AVENUE
PITTSBURGH, PA 15233
CONTACT:

GAS:
COLUMBIA GAS OF PA, INC.
700 N. MERCER AVENIE
NEW BRIGHTOPN, PA 15066
CONTACT:

WATER:
MUNICIPAL AUTHORITY OF THE BOROUGH OF EDGEWORTH
313 BEAVER ROAD
SEWICKLEY, PA 15143
CONTACT:

SANITARY:
LEET TOWNSHIP MUNICIPAL AUTHORITY
198 AMBRIDGE AVENUE
FAIR OAKS, PA 15003
CONTACT:

TELEPHONE:
VERIZON PENNSYLVANIA INC.
201 STANWIX STREET
10TH FLOOR
PITTSBURGH, PA 15222
CONTACT:

CABLE:
COMCAST CABLE COMMUNICATION, INC.
201 STANWIX STREET
10TH FLOOR
PITTSBURGH, PA 15222
CONTACT:

CABLE:
VERIZON PENNSYLVANIA INC.
201 STANWIX STREET
10TH FLOOR
PITTSBURGH, PA 15222
CONTACT:

GOVERNMENTAL CONTACTS

MUNICIPALITY:
LEET TOWNSHIP
198 AMBRIDGE AVENUE
FAIR OAKS, PA 15003
PHONE: 724-266-2280
CONTACT:

CAMP MEETING ROAD:
ALLEGHENY COUNTY
DEPARTMENT OF PUBLIC WORKS
501 COUNTY BUILDING
542 FORBES AVENUE
PITTSBURGH, PA 15219
PHONE: 412-350-5874
CONTACT:

MUNICIPALITY:
BOROUGH OF LEETSDALE
373 BEAVER STREET
LEETSDALE, PA 15056
PHONE: 724-266-4820
CONTACT:

MUNICIPALITY:
BOROUGH OF EDGEWORTH
301 BEAVER ROAD
EDGEWORTH, PA 15143
PHONE: 412-741-2866
CONTACT:

GRAPHIC SCALE
100 50 0 100 200
100 SCALE

CALL BEFORE YOU DIG!
PENNSYLVANIA LAW REQUIRES
3 WORKING DAYS NOTICE FOR
CONSTRUCTION PHASE AND 10 WORKING
DAYS NOTICE IN DESIGN STAGE.
STOP CALL
PENNSYLVANIA ONE CALL SYSTEM, INC.
1-800-242-1776

SUBMITTAL SET - 11.15.2023

NO.	REVISION DESCRIPTION
1	
2	
3	
4	
5	
6	
7	
8	

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
GEOFFREY C. PHILLIPS
ENGINEER
NO. 39238-E

BULK GRADING PLAN

NEW QUAKER VALLEY HIGH SCHOOL

210 Camp Meeting Road
Sewickley, Allegheny County, Pennsylvania
QUAKER VALLEY SCHOOL DISTRICT

PHILLIPS & ASSOCIATES, INC.
ENGINEERING • PLANNING CONSTRUCTION
1122 MOSSIDE BOULEVARD
N. VERSAILLES? MONROEVILLE? — see print: ...WALL, PENNSYLVANIA 15148
PHONE (412) 825-4090
FAX (412) 825-4092

DRAWN BY:
CHECKED BY:

SCALE	DATE
1"=100'	11/01/23

JOB NUMBER
22-003

SHEET NUMBER
BG100