



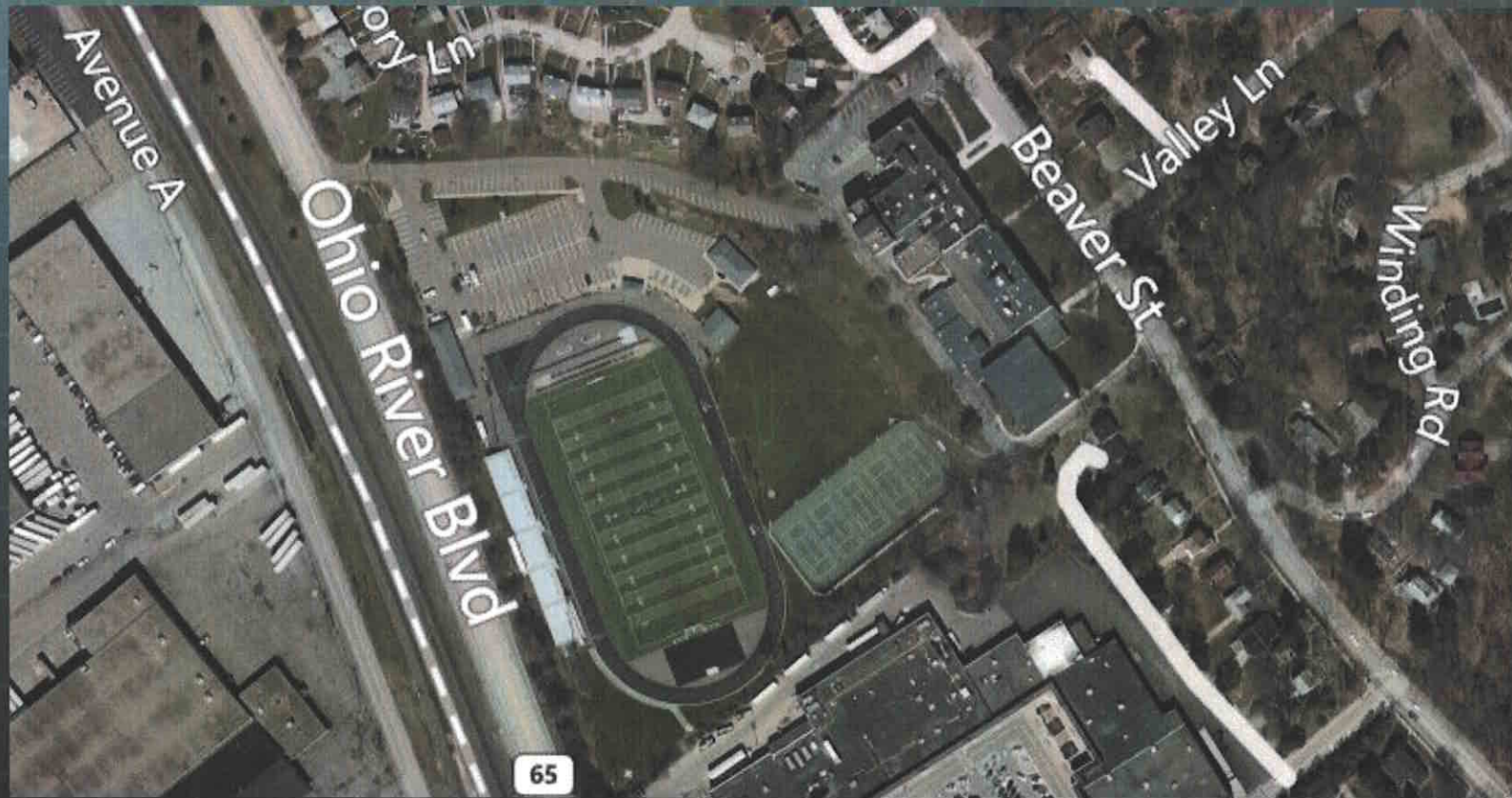
QVHS Facility Update

September 20, 2016

Dr. Heidi Ondek, Superintendent

Executive Summary

Long Term Development at Existing High School Site Beaver Street, Leetsdale Borough, Allegheny County, PA September 20, 2016



Quaker Valley HS Site

Long Term Development of the Existing High School Site to support future High School Facility Planning...

- In Western PA it is fairly common to have various site constraints however numerous issues converge on this site making development impractical and costly.
- While it may not be impossible to overcome, the site conditions are undesirable and will result in compromises. The building and site design will be challenged with compromises to the Educational Program driven by the site constraints.
- Long-Term investment in the existing High School site for the 'High School of the Future' is not Recommended

Preliminary Exploration:

Civil Engineering Considerations

- Floodplain Mapping
- Site Topography
- Site Utilization



Geoff Phillips, PE

Geotechnical Considerations

- Character of Soils / Location of Coal Seam
- Subsurface Water
- Foundations
- Earthmoving – Fill & Retaining Walls



Doug Beitko, PE

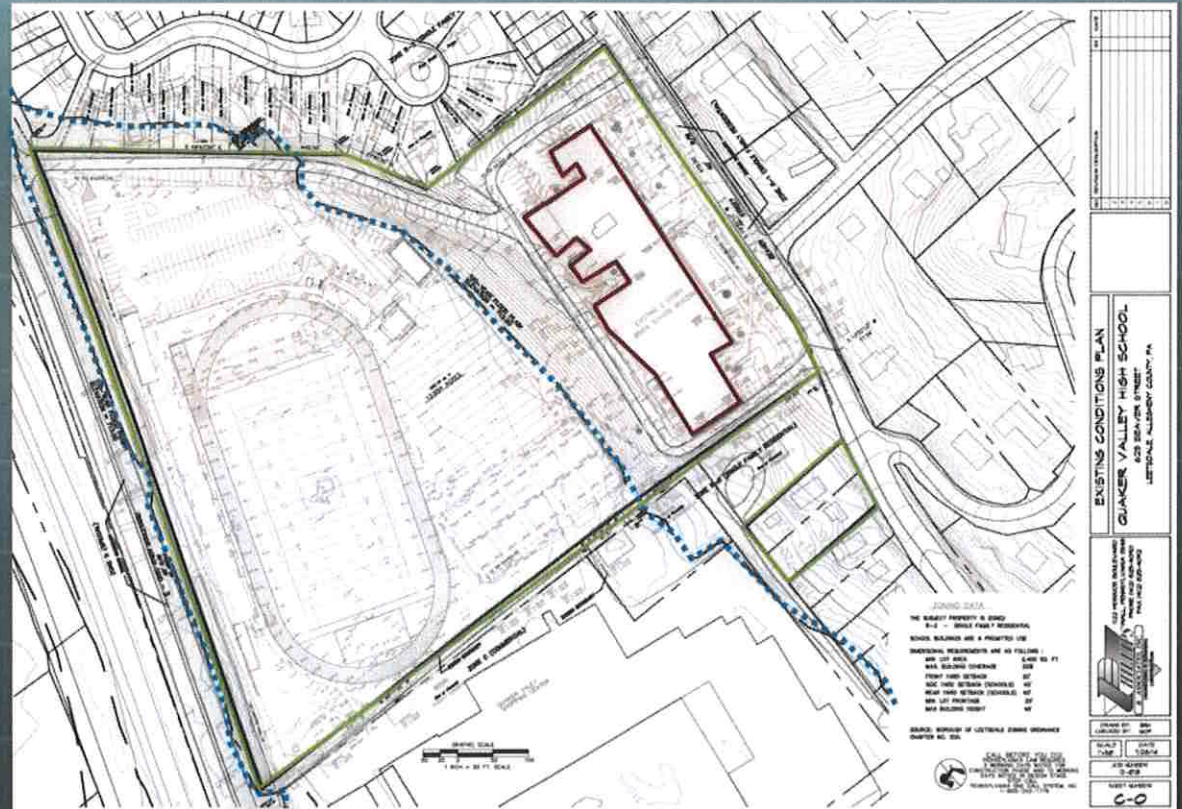
Architectural Considerations

- Educational Goals/High School of the Future
- Building Area/Organization
- Site Circulation
- Construction Logistics



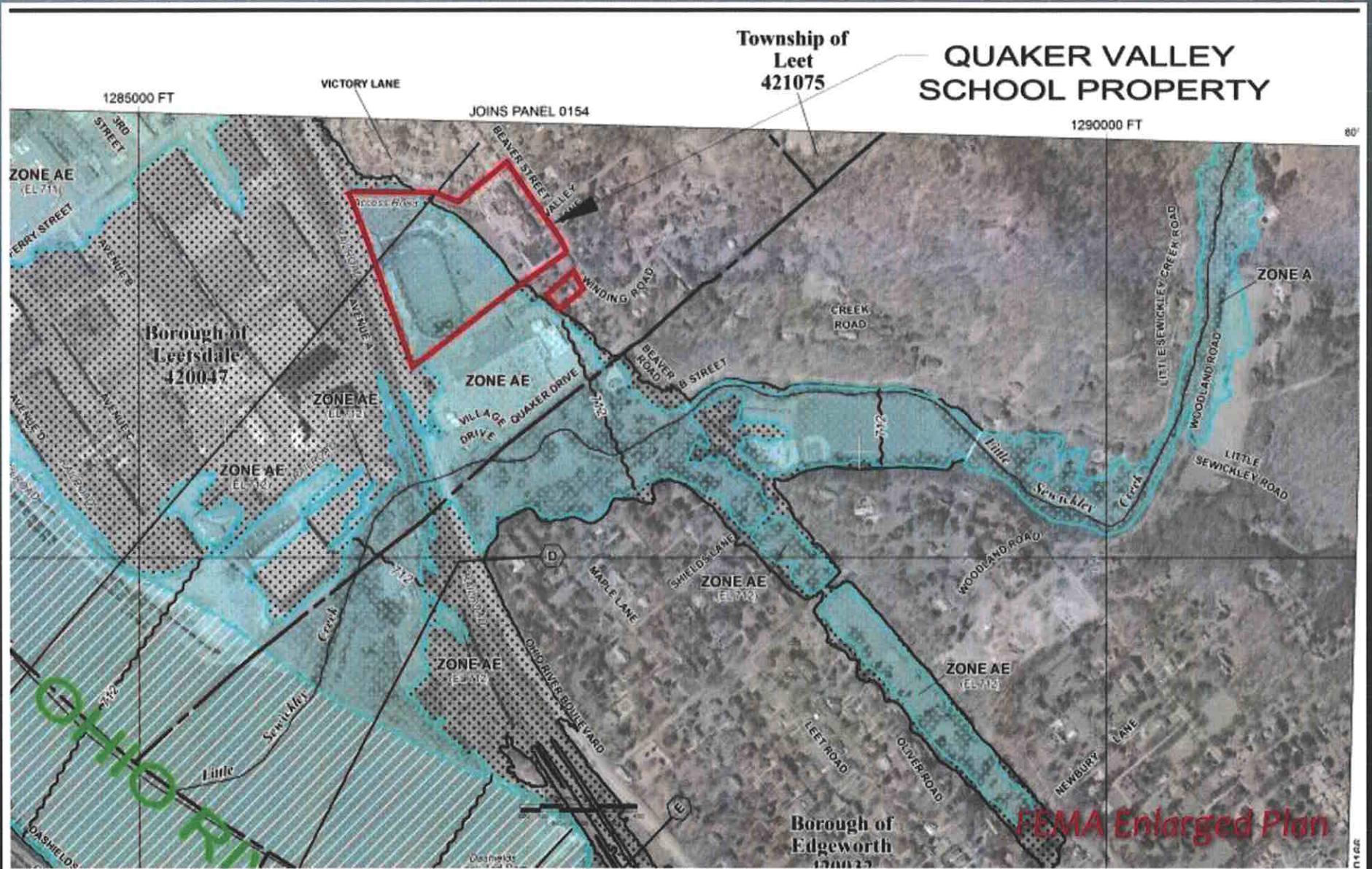
Cassi Renninger, RA
(formerly w/ Eckles)

Existing Quaker Valley High School Site



- Area of Campus Property 13.984 Acres
- Two Parcels along Beaver Street 0.40 Acres
- Total High School Building Area 126,500 S.F.
(All Floors Included)
- Footprint Area of Existing High School Building 53,500 S.F.
- Elevation Difference Across Campus 53 feet
(Low Elevation 706, High Elevation 759)
- 100 year Floodplain Elevation 713.00 feet

Floodplain Mapping (Cont.):

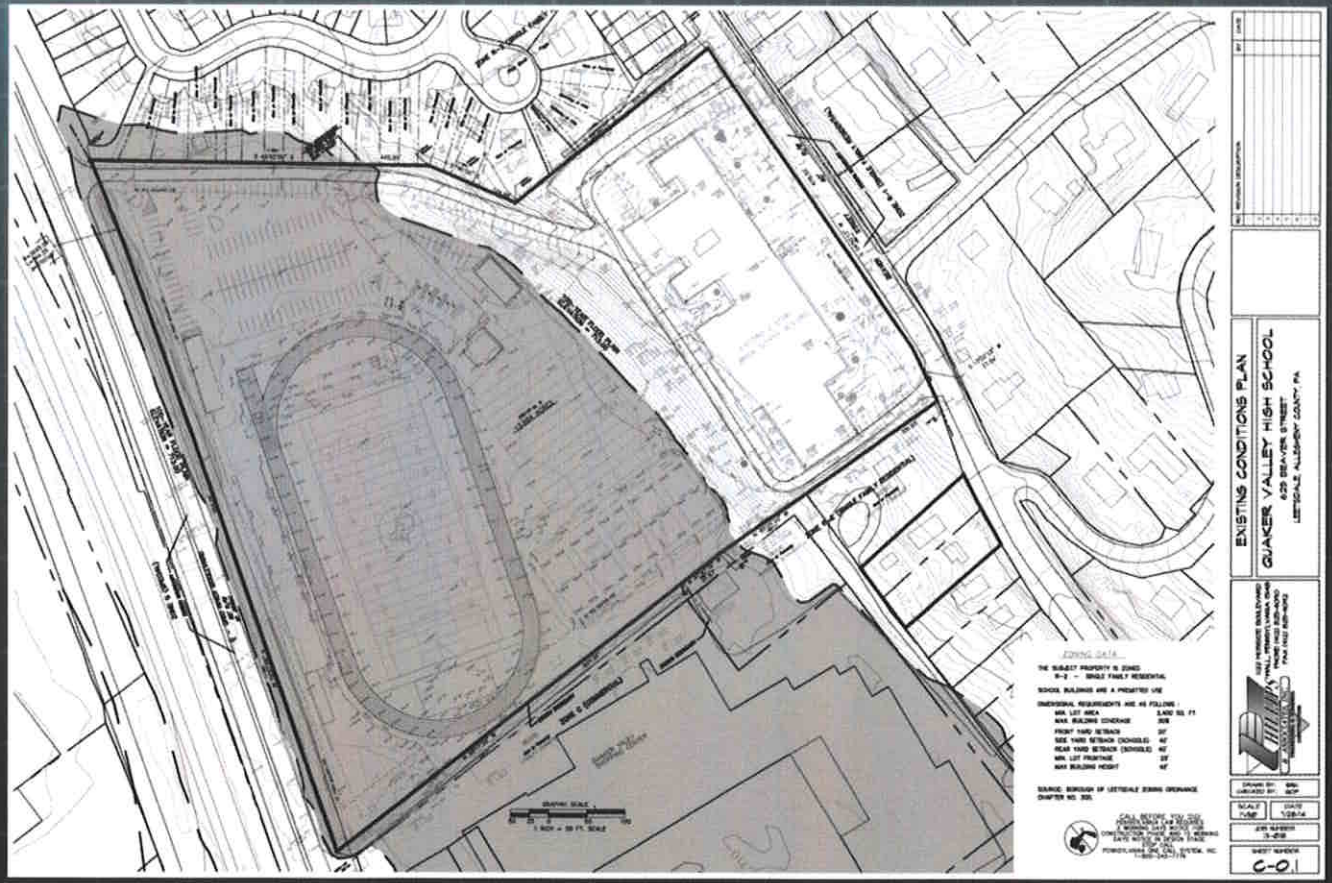


Floodplain Area (Existing HS Site):

Area of Campus Property

- Campus Area Covered by 100 year Floodplain
- Development Area Not in Floodplain

13.984 Acres
9.6 Acres (70% of Site)
4.38 Acres (30% of Site)



100 year Floodplain at HS Site

Floodplain Permitting

- **Borough of Leetsdale Flood Requirements – 18” above Base Flood Elevation**
- **Floodplain Permits Required for Possible Development in Floodplain Area**
- **Permit Work Required**
- **Permit Timeline – Could take 3-4 years**
- **May only receive approval for limited fill placement or may not receive approval at all**
- **Additional Costs to Prepare Floodplain Permits and all pertinent surveying and engineering work**

Conceptual Educational Planning:

- **21st Century Educational Facility**
 - Educational Program Driven Design
 - Flexible Learning Environments
 - Project Based & Real World Exploratory Studios
 - Arts & Athletics Venues to Support Programs and Community Use
 - Community Utilization with Safe/Secure Access
 - Adequate Building & Site Support Spaces
- **Total Building Area (Single Story) 222,000 S.F.**
 - Based on 2014 preliminary programming
(areas intentionally somewhat conservatively large)
 - Future High School Building Area – 210,000 S.F.
 - Future Administration Area – 12,000 S.F.

Conceptual Site Planning:

- **Site Circulation & Parking** **Approx. 550,000 to 650,000 S.F.**
 - Minimum Required Parking Lots, Campus Drives, Sidewalks, Bus Drop-Off, Student Drop-Off, Stormwater Management, etc.
- **Total Building Area (Single Story)** **Approx. 222,000 S.F.**
- **Minimum Required Site Area** **Approx. 17.5 to 20 Acres**
 - For just the Building, Parking, etc.
 - Additional property area will be needed if property grade difference is greater than 5 to 10 feet)
 - *Does not include Stadium or Bus/Maintenance*
- **Pennsylvania Department of Education (PDE) Acreage Recommendation – Approx. 42 Acres (35 acres for HS +1/100 students).**
 - Current site is 14 acres and not all of it is usable. Based on Floodplain alone, current site is only 4.3 usable.

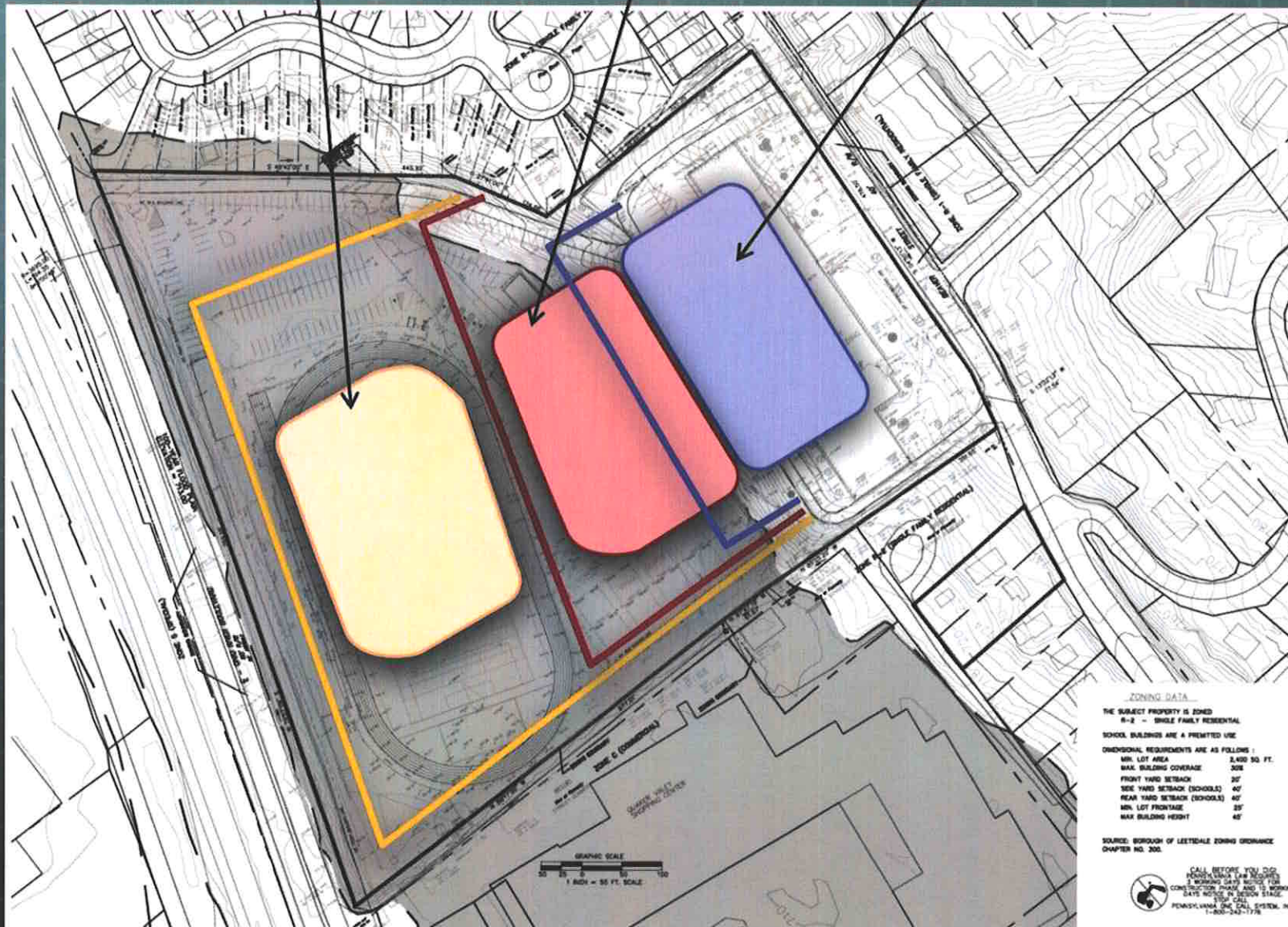
Grading Considerations (Existing HS Site):

- Due to the significant elevation difference (53 feet) between Beaver Street and the stadium, development of this site will require numerous retaining walls for transition of access driveways around the new school. In addition, the significant elevation difference reduces the buildable/usable area of the site.

Lower-Level
Plateau
Building Pad

Mid-Level
Plateau
Building Pad

High
Plateau
Building Pad



ZONING DATA
 THE SUBJECT PROPERTY IS ZONED
 R-2 - SINGLE FAMILY RESIDENTIAL
 SCHOOL BUILDINGS ARE A PERMITTED USE
 DIMENSIONAL REQUIREMENTS ARE AS FOLLOWS:
 MIN. LOT AREA 2,400 SQ. FT.
 MAX. BUILDING COVERAGE 30%
 FRONT YARD SETBACK 35'
 SIDE YARD SETBACK (SCHOOLS) 40'
 REAR YARD SETBACK (SCHOOLS) 40'
 MIN. LOT FRONTAGE 25'
 MAX. BUILDING HEIGHT 42'

SOURCE: BOROUGHS OF LEITSDALE ZONING ORDINANCE
 CHAPTER NO. 200.

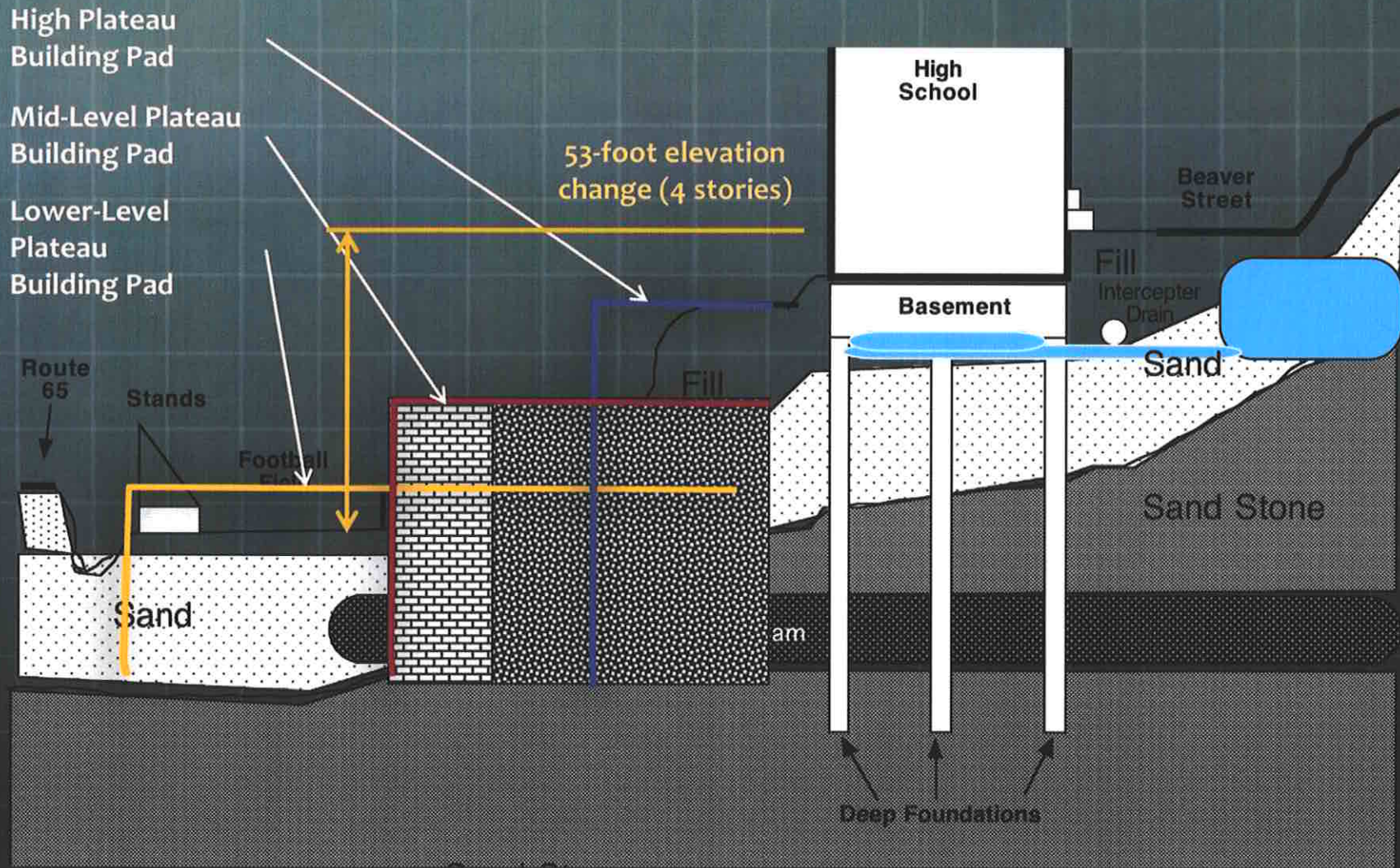
CALL BEFORE YOU DIG
 PENNSYLVANIA LAW REQUIRES
 A WORKING GATE SERVICE (WGS)
 CONSTRUCTION PHASE AND IS WORKING
 DATE NOTICE IN REGION 3 STATE.
 WWW.CALLBEFOREYODIG.COM
 PENNSYLVANIA CALL CENTER SYSTEM, INC.
 1-800-242-1178

NO.	REVISION DESCRIPTION	DATE

EXISTING CONDITIONS PLAN
QUAKER VALLEY HIGH SCHOOL
 622 BEAVERS STREET
 LEITSDALE, ALLEGHENY COUNTY, PA

DRAWN BY: BML	DATE: 10/26/24
CHECKED BY: BML	SCALE: 1"=50'
DATE: 10/26/24	JOB NUMBER: 24-018
DATE: 10/26/24	SHEET NUMBER: 3-OF-8
DATE: 10/26/24	CLIENT: C-01

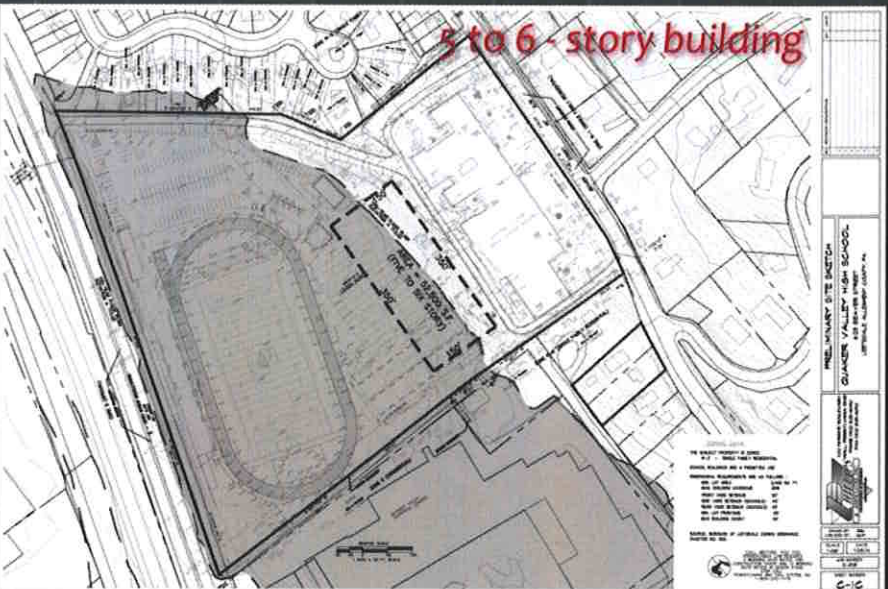
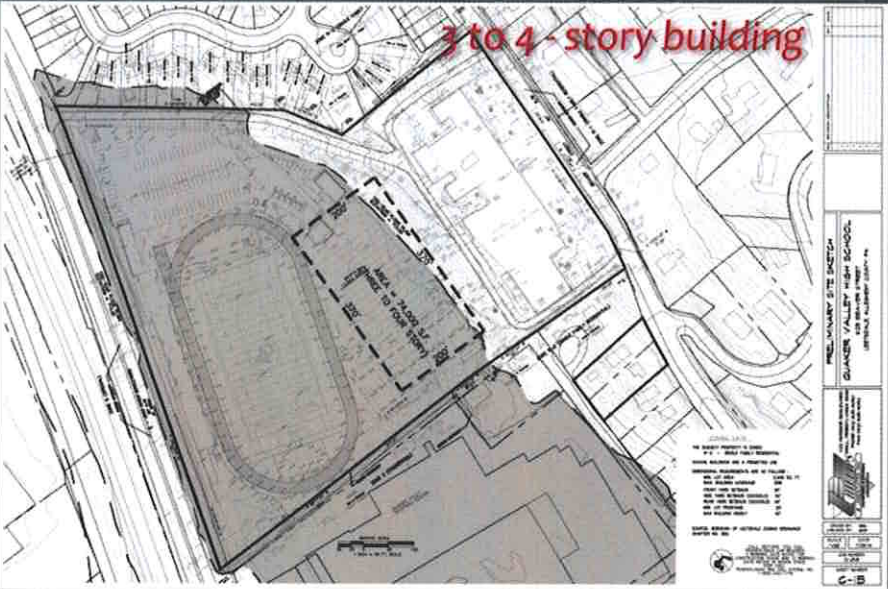
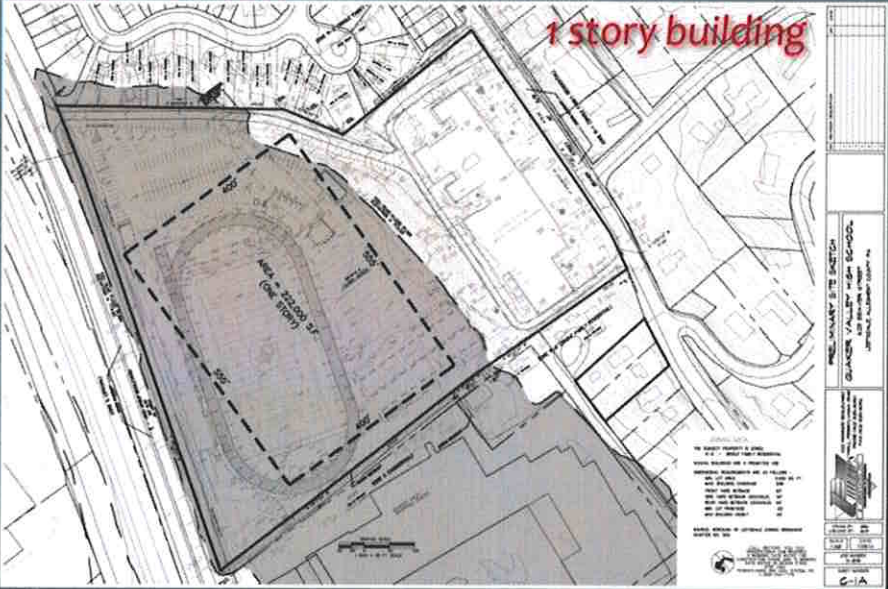
Diagrammatic Site Section (Existing HS Site):



Diagrammatic Building Footprint:

Theoretical Building Footprint

- 1 Story
- 3-4 Story
- 5-6 Story



Site Planning with all Facilities:

Minimum Usable Acreage for Theoretical HS Campus

- **Future High School Building Area** (210,000 S.F. - One Story) **4.82 Acres**
- **Future District Administration Area** **0.30 Acres**
- **School and Admin. Supporting Infrastructure** (Min. Parking, Drives, etc.) **15 Acres**
- **Practice Fields/Physical Education** **3.8 Acres**
- **Campus Maintenance Facility** **0.5 Acres**

Subtotal

24.42 Acres

- **Stadium** (Home & Visitors Bleachers, Fieldhouse, Track & Field) **6.5 Acres**
- **Ballfields** (Baseball and Softball) **8.5 Acres**
- **Tennis Courts** **1.1 Acres**
- **Sports Parking Lots** **3.8 Acres**
- **Transportation Garage/School Bus Parking Area** **3.0 Acres**

Subtotal

22.9 Acres

TOTAL (Minimum Useable Acreage)

47.32 Acres

Note: Pennsylvania Department of Education (PDE) Acreage Recommendation – Approx. 42 Acres (35 acres for HS +1/100 students). Current site is 14 acres and not all of it is usable.

Construction Logistics (Existing HS Site):

- Temporary Facilities should be seriously considered for Students during Construction
- Multiple Phases/Additional Coordination
- Increased Permitting, Design, & Construction Timelines
- Increased Permitting, Design & Construction Costs

Executive Summary:

- Developing this site as a redesigned High School campus will be extremely challenging, floodplain permitting will be difficult and may not be possible.
- Existing site is not large enough to accommodate desired building and site programs. Maximizing utilization of the site will require significant site development prior to any building construction including significant cut & fill, deep foundation systems, and large retaining walls.
- Maintaining students on campus during construction would be unadvisable and may not be feasible.
- The increased costs associated with addressing the extraordinary site issues may result in reduced program. To satisfy the educational program, costs will need to increase significantly.

It is not recommended to continue with Long-Term investment in the existing High School site for the purpose of creating the 'High School of the Future'.