UWCHLAN HILLS ELEMENTARY SCHOOL
FEASIBILITY STUDY OVERVIEW

for the

DOWNINGTOWN AREA SCHOOL DISTRICT
Chester County, Pennsylvania

BRESLIN RIDYARD FADERO ARCHITECTS

December 5, 2016
Who we are:

- Founded in 1963
- 95% of our work is for PA Public School Districts
- Completed 27 Feasibility Studies
- Designed 39 New Elementary Schools or major additions

Feasibility Study preparation team:

Robin Breslin, AIA
Stephen Behrens, AIA, LEED AP® BD+C
Terry DeGroot, PE - TerraForm Engineering
Charles Rightmyer - Consolidated Engineers

Special Thanks to:

Dale Lauver, Director of Facilities
Robert Giering, Principal
James McCusker, Head Custodian
OVERALL APPROACH TO FACILITY ASSESSMENT:

- Gathered Building Plans (Architectural, Mechanical, Electrical, Plumbing, Structural, & Site)
- Field surveyed existing School Building and Site
- Interviewed District and Building Administration to obtain input and information
- Prepared updated Floor Plan and compared sizes to PDE recommendations
- Met with Township Officials to understand municipal perspective and priorities
- Developed prioritized list of infrastructure needs looking out 10 years
- Prepared Options for future of Uwchlan Hills Elementary School and reviewed with Administration and Board Facilities Committee
- Developed Room Schedules, Construction Phasing, Budgets, and evaluated advantages/disadvantages for each Option
# Infrastructure Assessment

## UWCHLAN HILLS ELEMENTARY SCHOOL

### Infrastructure Assessment

**School:** UWCHLAN HILLS ELEMENTARY SCHOOL  
**Date:** DECEMBER 5, 2016

<table>
<thead>
<tr>
<th>Space</th>
<th>Room #</th>
<th>Floors</th>
<th>Bases</th>
<th>Walls</th>
<th>Ceilings</th>
<th>Soffits</th>
<th>Casework</th>
<th>Marker/Tack Boards</th>
<th>Multi-Media System</th>
<th>Door Condition</th>
<th>Comments</th>
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<tbody>
<tr>
<td><strong>MAIN FLOOR - SECTION A</strong></td>
<td></td>
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<tr>
<td>Multi-Purpose Room</td>
<td>A100</td>
<td>VCT - 3</td>
<td>RB - 3</td>
<td>CMU - 3</td>
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<td>Multi-Purpose - Platform</td>
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<td>Music Room</td>
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<td>GWT - 3</td>
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<td>Girl's Shower (Storage)</td>
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<td>A Corridor</td>
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<tr>
<th>Acronym</th>
<th>Description</th>
<th>Condition</th>
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<tr>
<td>APC</td>
<td>Acoustic Panel Ceiling</td>
<td>1 = Excellent Condition</td>
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<tr>
<td>AS</td>
<td>Acoustic Spray</td>
<td>2 = Very Good Condition</td>
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<td>BRK</td>
<td>Brick</td>
<td>3 = Good Condition</td>
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<td>CMT</td>
<td>Ceramic Mosaic Tile</td>
<td>4 = Poor Condition</td>
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<td>CMU</td>
<td>Concrete Masonry Unit</td>
<td>5 = Critical Condition  / Failed</td>
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<td>Concrete</td>
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<td>CT</td>
<td>Ceramic Tile / GWT - Glazed Wall Tile</td>
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<td>DM</td>
<td>Dry Marker Board</td>
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<td>Exposed Structure</td>
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<td>Glazed Concrete Masonry Unit</td>
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<td>GFB</td>
<td>Ground Face Block</td>
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<tr>
<td>MB</td>
<td>Metal Base</td>
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<tr>
<td>MP</td>
<td>Metal Panels</td>
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<tr>
<td>PLAM</td>
<td>Plastic Laminate</td>
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<td>P</td>
<td>Plastic</td>
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<tr>
<td>PP</td>
<td>Plastic Panels</td>
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<tr>
<td>QT</td>
<td>Quarry Tile</td>
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<td>RF</td>
<td>Resilient Flooring</td>
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<td>TB</td>
<td>Terrazzo Tile</td>
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<td>TF</td>
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<td>VFB</td>
<td>Vinyl Fabric</td>
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<td>VMC</td>
<td>Vinyl Composition Tile</td>
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<tr>
<td>VD</td>
<td>Vinyl</td>
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**Notes:**
- One-story building on three floor levels. Upper and lower most floor elevations are separated by 10'-0". The classrooms are arranged in a "pod" configuration. The building structure is steel frame, with brick veneer exterior walls. Most of the interior partitions are CMU. The building has changed very little since its construction in 1971 other than a major HVAC upgrade in 2003. Two temporary classrooms are positioned to the south of the main building.

**BRESLIN ARCHITECTS**

**DECEMBER 5, 2016**
ACCESS BARRIERS

Numerous Accessibility (ADA) issues for students and staff with disabilities:

• 3 separate floor elevations with no ramp or elevator
• Step between main building and Temporary Classrooms
• No accessible toilet facilities available
• Multi-Purpose Room stage ramp not compliant
• Handrails and other features not compliant
SECURITY AND ADMINISTRATION:

• Poor visibility for Receptionist
• Poor security layering
• Administration Staff squeezed
• Little storage and no lockable records room
• Nurse’s suite inadequate for testing/exam and no office for confidentiality
CORE FACILITIES UNDERSIZED:

• Library - work room lost to data closet
• Multi-Purpose Room - insufficient safety perimeter
• Kitchen - most equipment at end of life
• Cafeteria serving - crowded, out-of-date configuration
• Storage - M/P Room tables in the Boiler Room; paper in showers
• Exterior - no loading dock; no grounds storage
BUILDING MECHANICAL SYSTEMS:

• Original components at end of life
• Last major upgrade 13 year ago (not total replacement)
• Main electrical service out of code compliance
• Air handler condensate pan above main electrical service
• Problems with water tempering at sinks
• No fire sprinkler system
• Original single pane windows waste energy
NEGATIVE IMPACT ON 21st CENTURY EDUCATION:

- Rigid 4-classroom cluster limits flexibility
- Inadequate small group instruction space
- Inadequate assembly space
- Instrumental Music in a former storage room
- Technology integration is difficult
- Extremely limited Teacher Planning and locking storage
SITE DEFICIENCIES:
• Commingling of bus and car traffic
• Inadequate queuing space for cars
• Students must cross bus lane from parent drop-off
• Insufficient parking for staff and visitors
• No existing stormwater management
SUMMARY OF OPTIONS

OPTION 1
Interior and Site work per Capital Improvement Plan (not a complete renovation)

OPTION 2
Eliminate UHES and distribute students to other schools

OPTION 3
Renovate existing classrooms and add new Multi-Purpose Room and 3-story Classroom Wing

OPTION 4
Retain only existing Multi-Purpose Room, demolish classrooms and add new 2-story Classroom Wing, core facilities and Administration

OPTION 5
Construct new UHES and demolish existing building
PHASE 1: (6 months)
• Multi-Purpose Room Wing and Boiler Room “head end”
• 4 Temporary Classrooms needed

PHASE 2 & 3: (8 months)
• 8 Classrooms affected
• 8 Temporary Classrooms needed

PHASE 4: (4 months)
• Library, Administration and 4 Classrooms affected
• 4 Temporary Classrooms needed

PHASE 5: (4 months)
• 4 Classrooms affected
• 6 Temporary Classrooms needed
OPTION 1 - Summary

TOTAL PROJECT COST: $ 17,836,000
DURATION: 24 months min.
CONSTRUCTION COST / SQ. FT.: $ 210 *
* includes temporary classrooms

ADVANTAGES:
• Lowest cost project that retains school operations
• Traffic Study may not be required
• All athletic fields and play areas remain in place

DISADVANTAGES:
• Most complex phasing and greatest disruption of school operations
• Temporary classrooms still required post-construction
• Net loss of education space due to interior alterations
• Many space deficiencies and program challenges inherent in the existing building remain
• Stormwater management likely needed for new parking
OPTION 2 - Summary
Eliminate UHES and distribute students to other schools

TOTAL PROJECT COST: $ 2,200,000

ADVANTAGES:
• Lowest cost option
• Reduction in district operating cost (one less building)
• Reduced Administrative Staffing needs

DISADVANTAGES:
• Permanently removes the school building
• Limits DASD future flexibility for redistricting
• Loss of any existing impervious credit if a school building were considered for the site in the future
• Zoning challenges increase if a school building were considered for the site in the future
**UWCHLAN HILLS ELEMENTARY SCHOOL - OPTION 3**

**PHASE 1:** (12 months)
- Multi-Purpose Room addition
- (4) additional Temp. Classrooms
- Existing parking remains

**PHASE 1A:** (summer work)
- New entry drive
- Begin parking lot, remove fuel tank

**PHASE 2:** (12 months)
- Classroom Wing addition
- (4) additional Temp. Classrooms
- Balance of new parking lot

**PHASE 2A:** (summer work)
- Building interior alterations
- Bus Loop

**PHASE 3:** (3 months)
- Service drive
- Remove Temp. Classrooms

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**PHASE 1:**
- Multi-Purpose Room addition
- (4) additional Temp. Classrooms
- Existing parking remains

**PHASE 1A:**
- New entry drive
- Begin parking lot, remove fuel tank

**PHASE 2:**
- Classroom Wing addition
- (4) additional Temp. Classrooms
- Balance of new parking lot

**PHASE 2A:**
- Building interior alterations
- Bus Loop

**PHASE 3:**
- Service drive
- Remove Temp. Classrooms
OPTION 3 - Summary

TOTAL PROJECT COST: $ 27,313,000
DURATION: 27 months
CONSTRUCTION COST / SQ. FT.: $ 265 *
* includes temporary classrooms

ADVANTAGES:
• Lowest cost expansion option
• Addresses deficiencies of some core spaces
• Eliminates Temporary Classrooms at completion
• Improves bus/car traffic separation
• Maintains athletic fields

DISADVANTAGES:
• Most complex phasing and construction safety risk
• Highest unforeseen change order risk
• Security concerns with Temporary Classrooms
• Flexibility challenges remain in Classroom areas
• Creates windowless spaces and further isolates classrooms from views to the landscape
PHASE 1: (16 months)
- Majority of New Construction

PHASE 1A: (summer work)
- New entry drive

PHASE 2: (6 months)
- Demolition of Existing Building
- New Parking Lots and Driveways

PHASE 2A: (summer work)
- Selective Building Demolition
- Interior Alteration of Existing Building
- New Bus Lane and Parking

PHASE 3: (1 month)
- Demolish Existing Bus Lane and Parking
OPTION 4 - Summary

TOTAL PROJECT COST: $ 35,594,000
DURATION: 25 months
CONSTRUCTION COST / SQ. FT.: $ 266

ADVANTAGE:
• All new Instructional Space (except Gym and Stage)
• Eliminates Temporary Classrooms at completion
• Improves bus/car traffic separation
• Classrooms take full advantage of access and views to natural landscape

DISADVANTAGES:
• Most costly option and most complex sitework
• Largest building to maintain and supervise
• Work around existing building increases construction safety challenges and risk
• Space deficiencies and safety challenges remain in the Multi-Purpose Room
PHASE 1: (16 months)
• Construct New School

PHASE 1A: (summer work)
• New entry drive connection

PHASE 2: (5 months)
• Demolition of existing school
• New athletic fields

PHASE 2A: (summer work)
• Partial Demolition of existing school
• Bus loop and Parent Drop off
OPTION 5 - Summary

TOTAL PROJECT COST: $ 32,692,000
DURATION: 21 months
CONSTRUCTION COST / SQ. FT.: $ 276 *
* includes complete demolition of existing building

ADVANTAGES:
• All new construction offers best flexibility in design to meet current and future goals
• Safest vehicle circulation scheme
• Classrooms take full advantage of access and views to natural landscape

DISADVANTAGES:
• More expensive than Option 3
• Loss of some athletic fields
• Requires relocation of existing playground equipment
# SUMMARY OF OPTIONS

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<tr>
<th>OPTION</th>
<th>DESCRIPTION</th>
<th>COST</th>
<th>TIME</th>
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</thead>
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<td>1</td>
<td>Interior and Site Improvements</td>
<td>$17.8</td>
<td>24 months</td>
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<td>Eliminate UHES and distribute students to other schools</td>
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<td>Renovate existing classrooms and add new Multi-Purpose Room and 3-story</td>
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<td></td>
<td>Classroom Wing</td>
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<td>4</td>
<td>Retain only existing Multi-Purpose Room, demolish classrooms and add new</td>
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<td>25 months</td>
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<td>2-story Classroom Wing, core facilities and Administration</td>
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<td>5</td>
<td>Construct new UHES and demolish existing building</td>
<td>$32.7</td>
<td>21 months</td>
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QUESTIONS?

Thank You!