



**ADDENDUM | 01**  
**Mary C. Howse Elementary School**  
**641 Boot Road, West Chester, PA 19380**  
**BHA Job No. 22-114**

**DATE OF ISSUANCE:**      **November 17, 2023**

**OWNER:**                      Damon Gonzaga  
                                     1181 McDermott Drive  
                                     West Chester, PA 19380

**FROM ARCHITECT:**        Nate Moran, RA  
                                     Blackney Hayes Architects

**The bidder shall complete the attached Addendum Received Form upon receipt of this Addendum and return the form to Blackney Hayes Architects. The form shall be emailed to [nmoran@blackneyhayes.com](mailto:nmoran@blackneyhayes.com).**

**The following information shall become part of the Contract Documents for the above referenced project.**

#### **PRE-BID MEETING**

Pre-bid Meeting was held at 4:00PM on November 15, 2023 at Mary C. Howse Elementary School. A copy of the Pre-bid Agenda and Sign-in Sheet are attached to this Addendum.

#### **RESPONSES TO BIDDERS' QUESTIONS**

Q1. The table of contents lists spec section 263600 Transfer Switches but that section appears to be omitted from the specs. Please review and issue in the next addendum.

**A1. 26300 Transfer Switches has been issued as a part of this addendum.**

Q2. We would formally like to request that Carrier be added as an approved manufacturer for the Chillers, RTU's, Air terminal units, & ductless split systems.

**A2. Carrier is an approved manufacturer except for the Air Terminal Units. The classroom unit-ventilators must be by Aerdale.**

Q3. Bid Due Date Time – 12/15/23 @ 5:00 PM. Any chance the due date time can be moved up to 1 or 2PM on this day?

**A3. Bids are due 12/15/23 at 1:30PM. Refer to revised specification section.**

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**The Project Manual and Drawings for the above referenced project are amended as follows:**

#### **PROJECT MANUAL**

Section 00 1113 – Advertisements for Bid

- Bids will be due on the referenced date at 1:30PM. Section has been reissued.

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#### **ASSOCIATES**

Carmen Bushong, AIA  
Tyler Cooney, AIA, LEED AP BD+C  
Patrick Gallagher, RA, CSI, CDT  
John Townsend, NCIDQ

Section 26 3600 – Transfer Switches

- Issued entire transfer switch specification.

Section 27 5134 Intercom and PA

- Under Section 2.3 Description of Network Intercom / PA / Messaging Features Insert the following: “a. Approved Equals: Bogen Nyquist E7000” under paragraph A.

**CHANGES TO DRAWINGS**

**CIVIL:**

Drawing C-100 – General Notes

The Standard Plan Notes for west Whiteland Township have been added to the plan. The notes are being included with this Addendum.

Drawing C-122 PARTIAL SITE PLAN

A note has been added requiring the site contractor to trim vegetation in the area of the two existing school speed limit flashing devices along boot road to provide optimal visibility.

Drawing C-133 GRADING DETAIL SHEET

Additional detail for ramps on either side of the crosswalk between the new parking lot and the school are being provided.

Drawing C-142 and C-143 PARTIAL EROSION CONTROL PLANS AND EROSION AND SEDIMENT CONTROL DETAILS

A Rock Filter has been added at the end of Channel 1 and a Standard PaDEP Rock Filter Detail has been added to Sheet C-143.

Drawing C-142 and C-144 PARTIAL EROSION CONTROL PLANS AND EROSION AND SEDIMENT CONTROL NOTES & DETAILS

The location of Silt Sock Group 2 has been adjusted but the size and quantity maintained. A new Silt Sock Group 7 has been added to the plan and detail. Group 7 includes 235 feet of 12 inch compost sock.

Drawing C-142 and C-145 PARTIAL EROSION CONTROL PLANS AND EROSION AND SEDIMENT CONTROL NOTES

A note indicating “ALL RUBBISH AND SUBSTANCES, WHETHER ORGANIC OR INORGANIC, SHALL BE STORED IN SUITABLE CONTAINERS AND PROPERLY DISPOSED OF AS SOON AS IS PRACTICAL. ALL GARBAGE-LIKE MATERIALS SHALL BE CONTAINED IN VERMIN-PROOF CONTAINERS.” has been added to the notes and a location for garbage containers in the staging area has been added to the plan.

Drawing C-144 EROSION AND SEDIMENT CONTROL DETAIL

A Tree Protection Detail has been added to the plan sheet.

Drawing C-501 CONSTRUCTION DETAIL

The Paving Section Detail is being revised to indicate a minimum 8” of 3A modified subbase.

Drawing L-101 and L-102– Landscape Plan and Landscape Notes and Details

As per discussions with the Township Landscape Consultant, multiple revisions to the locations and number of plantings have been made. For estimating purposes, a revised Plant Material List with the qualities and descriptions of the landscaping from Sheet L-102 is being provided with the addendum.



Drawing C-903 – POST-CONSTRUCTION STORMWATER MANAGEMENT NOTES AND DETAILS

The infiltration bed section view has been retitled “INFILTRATION BED 1 SECTION VIEW” and the dimensions revised to be consistent with the plan view.

**ARCHITECTURAL:**

Drawing PH1.00 – PHASING PLAN

Revise “Phase 1B” at the corridor between Kindergarten 111 and 113 to be “Phase 1C”. No change to the dates.

Drawing AD1.01A-D – ENLARGED DEMOLITION PLANS – AREAS A THRU D

Revise note “EXISTING TERRAZZO FLOORING TO REMAIN, EXISTING TERRAZZO WALL BASE TO BE REMOVED” to “EXISTING TERRAZZO FLOORING TO REMAIN, EXISTING WALL BASE TO BE REMOVED”.

Add note in existing Gymnasium: “REMOVE (E) WALL PADS, TYP”.

Add note in existing Gymnasium: “REMOVE (E) ROCK-CLIMBING WALL”, see SK-1.

Drawing AD1.01B – ENLARGED DEMOLITION PLAN – AREA B

Revise note in Boiler Room “REMOVE (E) CONC PAD” to “(E) CONC PAD TO BE REMOVED BY HC, REFER TO MECH DWGS”.

Drawing AD1.01C – ENLARGED DEMOLITION PLAN – AREA C

Add notes to remove portions of existing brick at existing concrete lintel in (9) locations. Refer to SK-4 for dimensional extents.

Drawing AD1.01D – ENLARGED DEMOLITION PLAN – AREA D

Add typical note to hallway outside existing Library: “EXISTING TERRAZZO FLOORING TO REMAIN, EXISTING WALL BASE TO BE REMOVED”.

Drawing AD1.03 – OVERALL DEMOLITION RCP

Add note at mezzanine, detail 2: “REMOVE PORTION OF EXISTING ROOF DECK FOR NEW ROOF HATCH”.

Drawing A1.02 – OVERALL ROOF PLAN

Revise roof area plan-north of the Library (Phase 1) to be part of Phase 1 roof work, not Phase 5. See SK-2.

Drawing A1.02C-D – ENLARGED ROOF PLAN – AREAS C AND D

Add note at roof area plan-north of the Library: “PATCH ROOF COMPLETED IN PHASE 1 AS REQUIRED FOR INTERIOR WORK REQUIRED DURING PHASE 5.”

Drawing A3.12 – BUILDING ELEVATIONS – COURTYARD

Revise elevation “3” extents to show exterior of existing Library. Refer to SK-3.

Existing brick at concrete lintel shall be removed/replaced with thin brick in (9) locations. Refer to SK-4.

Drawing A5.41 – ROOF DETAILS

Detail 7 – Add new aluminum gutter guard at new gutter.

Drawing A5.42 – ROOF DETAILS

Detail 8 – Add new aluminum gutter guard at new gutter.



Drawing A6.24 – ENLARGED PLANS & INTERIOR ELEVATIONS - AREA B (GYMNASIUM)  
Add note on Detail 5: "PATCH (E) WALL AS REQUIRED WHERE (E) ROCK-CLIMBING WALL IS REMOVED".

Drawing A6.25 – ENLARGED PLANS & INTERIOR ELEVATIONS – AREA B (BOILER ROOM)  
Revise all handrails to be galvanized steel. They shall not be painted.  
Delete note "(E) HANDRAILS TO REMAIN" at the existing steps at door 028.1. Add new guardrail and handrail; see SK-5.  
Delete square footage on housekeeping pads removed.  
Revise (3) housekeeping pads notes to read "HOUSEKEEPING PAD BY HC".

## **MECHANICAL:**

Drawing H0.01 – PHASING PLAN – PHASE 1  
Delete "AND CONNECTING CORRIDOR" from PHASE 1B note referencing ELL 114.  
Revise "UNIT VENTILATORS 1-5" to read "UNIT VENTILATORS 2-4" in PHASE 1A note referencing KINDERGARTEN 111.  
Revise delineation between PHASE 1A and PHASE 1B. KINDERGARTEN 109, 110, and 111 shall be part of PHASE 1A. RESOURCE 112 and KINDERGARTEN 113 shall be part of PHASE 1B. PHASE 1C CORRIDOR in between shall be available for work from June 20, 2025 through August 15, 2025.

Drawing HD1.01A – DEMOLITION FLOOR PLAN – AREA A  
Add ATC panel in Janitor's Closet adjacent to Administration area. Add note referencing panel to read "REMOVE EX. ATC PANEL". Work shall occur in Phase 5.

Drawing HD1.01B – DEMOLITION FLOOR PLAN – AREA B  
Add "AND CONCRETE PADS" to note referencing the removal of the existing boilers.

Drawing H2.01B – FLOOR PLAN – AREA B  
Replace Kitchen 104 exhaust hood model "GHEW" with "GHEP". Hood shall be low-profile with tapered sides.

Drawing H5.03 – DETAILS  
Replace 2-way control valve on HOT WATER UNIT HEATER PIPING DIAGRAM (VERTICAL) with 3-way control valve. Configure per HW COIL PIPING DIAGRAM, 3-WAY VALVE.

Drawing H6.03 – SCHEDULES  
UNIT VENTILATOR SCHEDULES – Delete note reference #17 from UV-1 and UV-5. These units will not be pre-purchased by the District.

Drawing H7.01 – ATC SCHEMATICS  
Revise title of "DX VAV ROOFTOP UNIT CONTROL SCHEMATIC – RTU-C3 & RTU-C4" to "DX VAV ROOFTOP UNIT CONTROL SCHEMATIC – RTU-2." Replace 2-way heating coil control valve with 3-way valve.  
Replace 2-way control valves on FAN COIL UNIT CONTROL SCHEMATIC with 3-way control valves for both heating and cooling coils.  
Replace 2-way control valve on UNIT HEATER CONTROL SCHEMATIC with 3-way control valve.

Drawing H7.02 – ATC SCHEMATICS  
Replace 3-way control valve on 4-PIPE UNIT VENTILATOR CONTROL SCHEMATIC with 2-way control valves for heating coil. Note for clarity, the cooling valve indicated is a 2-way valve.



## **PLUMBING:**

### **Drawing P0.01 – PHASING PLAN – PHASE 1**

Delete “AND CONNECTING CORRIDOR” from PHASE 1B note referencing ELL 114.  
Revise delineation between PHASE 1A and PHASE 1B. KINDERGARTEN 109, 110, and 111 shall be part of PHASE 1A. RESOURCE 112 and KINDERGARTEN 113 shall be part of PHASE 1B. CORRIDOR in between shall be available for work from June 20, 2025 through August 15, 2025 (PHASE 1C).

### **Drawing PD1.01A – DEMOLITION PLAN – AREA A – DRAIN & VENT PIPING**

Revise Plumbing Demolition Note on floor plan for Admin/Principal Toilet to Plumbing Demolition Note 15.  
Revise Plumbing Demolition Note on floor plan for first single toilet in north Kindergarten Room (New Kindergarten 111) to Plumbing Demolition Note 15.

### **Drawing PD1.01B – DEMOLITION PLAN – AREA B – DRAIN & VENT PIPING**

Revise Plumbing Demolition Note 10 in Plumbing Demolition Notes to read: Disconnect & remove existing 3” RWC down to existing floor in demolished chase and prepare for new connection. Verify exact conditions in field and refer to new work plan.  
Revise Plumbing Demolition Note 17 in Plumbing Demolition Notes to read: Disconnect & remove existing wall hung lavatory and trim in their entirety and cap and abandon existing waste piping in existing wall to remain. Verify exact conditions in field and refer to new work plan.

### **Drawing PD1.01C – DEMOLITION PLAN – AREA C – DRAIN & VENT PIPING**

Replace Plumbing Demolition Note 7 on floor plan at floor cleanout in Girls Gang Toilet with Plumbing Demolition Note 3.  
Add Plumbing Demolition Note 16 on the floor plan for the water closets in Boys Gang Toilet.  
Add the following to Plumbing Demolition Note 13 on the Plumbing Demolition Notes: Cap existing 4” sanitary piping below floor.

### **Drawing PD1.01D – DEMOLITION PLAN – AREA D – DRAIN & VENT PIPING**

Revise Plumbing Demolition Note 21 on the Plumbing Demolition Notes to read: Disconnect & remove existing floor cleanout buried below existing tile floor and associated sanitary piping down to and including fitting at connection to main. Prepare existing sanitary piping below floor for new fitting and floor cleanout. Verify exact pipe size and exact conditions in field and refer to new work plan.

### **Drawing PD2.01D – DEMOLITION PLAN – AREA D – SUPPLY PIPING**

Replace Plumbing Demolition Note 12 on the floor plan for demolished sink adjacent to Library with Plumbing Demolition Note 2.  
Revise Plumbing Demolition Note 11 on the Plumbing Demolition Notes to read: Disconnect & remove existing wall hydrant in its entirety including existing supply piping in chase and above ceiling. Verify exact conditions in field and refer to new work plan.  
Replace Plumbing Demolition Note 13 on the floor plan for demolished wall hydrant adjacent to Library with Plumbing Demolition Note 12 and revise Plumbing Demolition Note 12 on the Plumbing Demolition Notes to read as follows: Disconnect & remove existing wall hydrant and prepare existing supply piping in existing wall for new wall hydrant. Remove existing supply piping above ceiling in its entirety from limit of demolition and prepare for new connection. Verify exact conditions in field and refer to new work plan.



**Drawing P2.01A – FLOOR PLAN – AREA A – DRAIN & VENT PIPING**

Plumbing Drawing Note 1 shall include existing storm mains as applicable.

Add new floor cleanout on existing 4" sanitary main in Corridor C100A immediately upstream of new 4" connection from Toilet 107A.

Add new 4" floor cleanout on existing 6" storm main in Corridor C100A immediately upstream of new 6" storm connection from new 6" RWC in JC 009.

**Drawing P2.01B – FLOOR PLAN – AREA B – DRAIN & VENT PIPING**

Add the following note on the 4" rainwater piping from the 4" roof drain located in Instrumental Music 308: 4" RW from 4" RD-1 above.

Add the following sentence to Plumbing Drawing Note 12: Connect to existing waste and vent piping at existing wall and modify piping as required.

Add the following sentence to Plumbing Drawing Note 13: Existing waste and vent piping to remain in existing chase including existing sanitary piping below floor and existing vent piping above ceiling.

**Drawing P2.01C – FLOOR PLAN – AREA C – DRAIN & VENT PIPING**

Add the following note on the 2" vent piping above the ceiling in Corridor C100B from the sinks located in Classroom 310 and Gifted 311 308: 2" Vent up to 3" VTR.

Add 4" FCO Tag and Plumbing Drawing Note 1 to the floor cleanout located in Classroom 312.

Add Plumbing Drawing Note 2 on the floor plan at the 2" sanitary connection from the sink in Classroom 312 to the existing 4" sanitary main below the floor in Classroom 312.

Add the following sentence to Plumbing Drawing Note 4: Install fernco coupling on inlet and outlet of units to enable easy removal for maintenance/replacement.

Add Plumbing Drawing Note 9 to the Plumbing Drawing Notes: Connect new 4" sanitary to existing 4" sanitary piping below floor. Verify exact size and location of new connection point in field.

Enlarged Plan – TLT 019 & TLT 020 – Drain & Vent Piping - Replace Plumbing Drawing Note 2 with Plumbing Drawing Note 9 on sanitary connection in Toilet 020.

Enlarged Plan – TLT 019 & TLT 020 - Add 4" FCO upstream of change of direction on existing 4" sanitary main below floor in Toilet 019 and connect to existing 4" sanitary main. Add Plumbing Drawing Note 9 where new 4" FCO piping connects to existing 4" sanitary main in TLT 019.

**Drawing P2.01D – FLOOR PLAN – AREA D – DRAIN & VENT PIPING**

Delete Plumbing Drawing Note 3 on the floor plan in Design Lab 213.

Add Plumbing Drawing Note 3 on the floor plan at the 2" sanitary connection from the sink in Classroom 320 to the existing 4" sanitary main below floor in Classroom 320.

Revise the note in Classroom 318 related to the 4" RWC to read as follows: 4" RWC down below floor with wall cleanout. Connect to existing 5" storm piping below floor. Verify exact size and location of new connection point in field.

**Drawing P2.02 – OVERALL ROOF PLAN – PLUMBING**

Add 3" VTR on roof from vent piping in Boiler Room 028.

**Drawing P3.01B – FLOOR PLAN – AREA B – SUPPLY PIPING**

Delete Enlarged Toilet Room Plan from this Drawing. It will be relocated to Drawing P3.01C.

**Drawing P3.01C – FLOOR PLAN – AREA C – SUPPLY PIPING**

Add Enlarged Plan - TLT 019 & TLT 020 – SUPPLY PIPING.



Drawing P3.01D – FLOOR PLAN – AREA D – SUPPLY PIPING

Replace Plumbing Drawing Note 1 on the floor plan for new wall hydrant (NFWH-1) at Girls 016 & Boys 018 with Plumbing Drawing Note 3.

Revise Note on Enlarged Plan at new supply piping down to new wall hydrant (NFWH-1).

Add Plumbing Drawing Note 3 to Plumbing Drawing Notes: New wall hydrant replaces existing in approximately the same location. Provide new supply piping. Refer to Enlarged Plan.

Drawing P4.01 – ENLARGED BOILER ROOM & KITCHEN PLANS – PLUMBING

Revise Lavatory Fixture Tag in TLT 029 on Enlarged Drain & Vent Piping Plan to read LAV-2.

Revise second Plumbing Drawing Note 2 on Plumbing Drawing Notes for Enlarged Supply Piping Plan to read 3.

Drawing P5.02 – DETAILS – PLUMBING

Domestic Water Heater Installation Detail: Provide the following note on the flex connector to the water heaters: Provide 1" Flexible Connector.

Revise Recirculating Pump Schedule as follows:

RCP-1 – Performance: 3.0 GPM @ 3.79 TDH, Circuit Setter GPM: 3.0 GPM.

RCP-2 – Performance: 3.15 GPM @ 2.16 TDH, Circuit Setter GPM: 3.15 GPM.

**ELECTRICAL:**

Drawing E0.01 – PHASING PLAN – PHASE 1 - ELECTRICAL

Delete "AND CONNECTING CORRIDOR" from PHASE 1B note referencing ELL 114.

Revise delineation between PHASE 1A and PHASE 1B. KINDERGARTEN 109, 110, and 111 shall be part of PHASE 1A. RESOURCE 112 and KINDERGARTEN 113 shall be part of PHASE 1B. PHASE 1C CORRIDOR in between shall be available for work from June 20, 2025 through August 15, 2025.



Prebid Meeting for Additions and Renovations to

Mary C. Howse Elementary School

West Chester Area School District

November 15, 2023

4:00 PM

1. Nothing stated during this meeting should be construed as a modification or departure from the contract documents. Any modifications necessary as a result of this meeting or questions that arise from any of the contractors in regard to review of the contract documents shall be by written addendum. All questions requiring clarification or altering of Scope of the Work in any way shall be submitted in writing and will be handled via addenda.
2. All questions or requests for clarification must be submitted in writing and faxed to the Architect by December 8, 2023 – 12:00PM. Any modifications resulting from the questions or requests for clarification will be issued via addenda. Please clearly identify your name, company name and contact information on the request or question in case we need to contact you for clarification.
  - a. Please email or direct questions to:
    - i. Nate Moran (Blackney Hayes Architects). P. 215-829-0922 X129  
Email: nmoran@blackneyhayes.com
3. Electronic files:
  - a. For PDF and/or CAD files of the drawings and specs: Email the Architect requesting copies of PDF and or CAD drawings. If the bidder has bought a hard copy of the documents from WCASD and attended the pre-bid meeting, Bidders are to fill out the Architect's release form and email a PDF of the form to the Architect. Passwords and directions to obtain PDF and/or CAD files from the Architect's FTP site will be emailed.
4. Project Scope of Work: Found in Spec Section 01 1100 and Section 01 1200:



## GENERAL CONSTRUCTION CONTRACT

- A. Work in the General Construction Contract (Contract No. GC-1) includes, but is not limited to, Divisions 03 through 14 and the following:
1. Remaining work not identified as work under other contracts.
  2. Foundations, including footings and foundation walls.
  3. Slabs-on-grade, including insulation.
  4. Below-grade building construction, including excavation, backfill, and insulation and waterproofing/dampproofing.
  5. Concrete pads at exterior doors.
  6. Superstructure, including floor and roof construction, except roof systems, and sprayed fire-resistive materials.
  7. Coordinate the size and location of floor and roof openings with all Contractors.
  8. Exterior closure, including walls, parapets, doors, and windows.
  9. Dumpster enclosure walls, foundations, and footings.
  10. Interior construction, including partitions, doors, interior glazed openings, and fittings.
  11. Coordinate the size and location of wall openings with all contractors.
  12. Fire-protection specialties.
  13. Railings and finishes.
  14. Roof ladders and hatches.
  15. Interior finishes: Finish carpentry, architectural woodwork, interior specialties, floor and ceiling finishes, and painting.
  16. Miscellaneous items, including:
  17. Concrete equipment pads, except where noted by other Prime Contractors.
  18. Painting of exposed mechanical, plumbing, sprinkler, and electrical work.
- B. Temporary facilities and controls in the General Construction Contract include, but are not limited to, the following:
1. Temporary facilities and controls that are not otherwise specifically assigned to other contracts.
  2. Unpiped temporary toilet fixtures, wash facilities, and drinking water facilities, including disposable supplies from Notice to Proceed through the completion of construction.
  3. Temporary enclosure for building exterior, except as indicated.
  4. Dewatering facilities and drains.
  5. Project identification and temporary signs.
  6. Pest control.
  7. Temporary stairs.
  8. Temporary site enclosure fencing.
  9. Stormwater control.
  10. Temporary fire-protection facilities.
  11. Barricades, warning signs, and lights.
    - a. Provide for protection of workmen and public as required by applicable regulations, and for the protection of streets, lighting, hydrants, walks, curbs, and adjacent grounds and planting, for the duration of such operations. Repair all damage to the barricades, regardless of who caused the damage.
    - b. Warning lights shall be blinker type, battery or electrically operated. Open flame torches are not permitted.
  12. Security enclosure and lockup.
  13. Maintenance and restoration of Owner's existing facilities used as temporary facilities.

14. Provide for all snow removal as required to access the construction site and work areas in order to maintain productivity after Notice to Proceed through the end of construction. Areas for snow removal also includes construction area and material lay-down area.
15. Provide temporary staging/laydown space with temporary fencing and gates.

#### MECHANICAL CONSTRUCTION CONTRACT

- C. Work in the Mechanical Construction Contract (Contract No. MC-1) includes, but is not limited to, Division 23 and the following:
1. Central hot water and chilled water plants and piping systems.
  2. HVAC systems and equipment.
  3. HVAC instrumentation and controls.
  4. HVAC testing, adjusting, and balancing.
  5. Building automation system.
  6. Mechanical connections to equipment furnished by other contractors.
  7. Kitchen Exhaust hood and ANSUL system.
  8. Removal of refrigerant from HVAC equipment to be removed or demolished.
  9. Concrete and maintenance pads required for mechanical equipment.
  10. Install duct smoke detectors that are furnished under the Electrical Construction Contract. Refer to Electrical Drawings for locations where duct smoke detectors are located. Wiring to shut down the unit and close damper provided as part of this contract. Wiring to the fire alarm panel provided under the Electrical Construction Contract.

#### PLUMBING CONSTRUCTION CONTRACT

- D. Work in the Plumbing Construction Contract (Contract No. PC-1) includes, but is not limited to, Divisions 21 and 22 and the following:
1. Plumbing fixtures.
  2. Domestic hot water heaters.
  3. Domestic and Fire water service extensions to new building addition.
  4. Domestic water distribution.
  5. Domestic water and fire services outside the building are existing to remain.
  6. Grease interceptor and concrete relieving pad.
  7. Sanitary waste within building to 5 feet beyond the exterior wall of the building.
  8. Stormwater drainage within building to 5 feet beyond the exterior wall of the building.
  9. Gas service from gas meter into the building and throughout the building by the Plumbing Contractor. Connection to the gas meter provided by the Plumbing Contractor.
  10. Special plumbing systems.
  11. Plumbing connections to equipment furnished by other contractors.
  12. Furnish roof drains, to be installed by Roofing Construction Contract.
  13. Concrete and maintenance pads required for plumbing equipment.
    - a. Plumbing scope extends to no less than 5 feet beyond the exterior walls of the building unless noted otherwise.
    - b. Temporary Facilities and Controls: Provide the following temporary facilities and controls for all Separate Contractors in accordance with Division 01 Section "Temporary Facilities and Controls":
    - c. Temporary Construction Water.

## ELECTRICAL CONSTRUCTION CONTRACT

- E. Work in the Electrical Construction Contract (Contract No. EC-1) includes, but is not limited to, Divisions 26 through 28 and the following:
1. Site Electrical Distribution:
    - a. Remove utility poles, primary cabling, conduits, and concrete as shown on the contract documents and coordinate new utility service drop location with PECO.
    - b. Provide new primary service conductors, conduits, concrete, trenching, and backfill from new utility pole drop location as shown on the contract documents to the existing PECO secondary transformer.
    - c. Utilize existing secondary conduits for new secondary conductors from existing secondary transformer to existing switchboard inside the existing building.
    - d. Provide new telecom conduits, concrete, trenching, and backfill from utility pole to inside building as shown on the contract documents.
    - e. Provide new conduits, cabling, concrete, trenching, and backfill from existing generator to new emergency electrical equipment inside building.
  2. Site Lighting:
    - a. Disconnect existing site lighting fixtures.
    - b. Remove existing lighting poles and concrete bases.
    - c. Remove existing wiring and conduit.
    - d. Install new light fixtures, poles, wiring, conduit, and concrete bases as per Drawings.
      - 1) Power and lighting at the flagpole lighting.
      - 2) Site communications and security.
      - 3) Electrical service and distribution.
      - 4) Exterior and interior lighting and light pole bases.
      - 5) Communication and security.
      - 6) Special electrical systems.
      - 7) Electrical connections to equipment furnished by other contractors.
      - 8) Temporary removal and relocation of the existing roof mounted EMS cell phone booster system. Relocation must be coordinated with the Owner and local authorities having jurisdiction. Final location will be identified by the Owner. Electrical Construction Contractor to anticipate a minimum of three moves of the booster system for the phasing of the Work.
      - 9) Concrete and maintenance pads required for electrical equipment.
      - 10) Furnish duct smoke detectors. Installation of duct smoke detectors to be completed under the Mechanical Construction Contract. Wiring to shut down the unit and close damper provided under the Mechanical Construction Contract. Wiring to fire alarm panel provided under this Contract.
- F. Temporary Facilities and Controls: Provide the following temporary facilities and controls for all Separate Contractors in accordance with Division 01 Section "Temporary Facilities and Controls":
1. Electric power service and distribution.
  2. Lighting, including site lighting.
  3. Electrical connections to existing systems and temporary facilities and controls furnished by the other contractors.

## ROOFING CONSTRUCTION CONTRACT

- G. Work in the Roofing Construction Contract (Contract No. RC-1) includes, but is not limited to Section 074113.13 "Formed Metal Roof Panels", Section 074213.13 "Formed Metal Wall Panels", Section 075323 "Ethylene-Propylene-Diene-Monomer (EPDM) Roofing", Section 076200 "Sheet Metal Flashing and Trim", Section 077100 "Roof Specialties".
1. Demolition of the existing roof system, including but not limited to, copings, flashings, counter flashings, existing roof curbs scheduled for demolition, etc.
  2. Provide copings at dumpster enclosure, including blocking.
  3. Roofing, including roof insulation, coverings, flashings, roof specialties, and roof accessories.
    - a. At Roof Areas Cut by Another Contractor: Patch and flash new roof around all penetrations and openings.
  4. Create temporary tie-ins of rainwater conductors, temporary vents and other roof penetrations as required.
  5. Roofing Contractor to install roof drains (furnished by Plumbing Contractor) and all associated steel and materials for proper installation of roof drains. Plumbing Contractor to install piping for rainwater from roof drains, through floor and to 10'-0" from exterior of building.
  6. Where Formed Metal Wall Panels and Formed Metal Roof Panels are indicated on the Drawings, the Roofing Construction Contract shall provide the metal wall panels, and shall also provide the sheathing, weather barrier, mineral wool insulation, and support framing and furring behind metal panels.
  7. Where exterior signage is shown to be mounted over Formed Metal Wall Panels on the Drawings, the General Construction Contract shall be responsible for furnishing the signage, and the Roofing Construction Contract shall be responsible for installing the exterior signage over the Formed Metal Wall Panels.
  8. Roofing Contractor to provide all roof blocking.
  9. Roofing Contractor to provide all temporary roof protection.

## SPRINKLER CONSTRUCTION CONTRACT

- H. Work in the Sprinkler Construction Contract (Contract No. SPC-1) includes, but is not limited to, Division 21 and the following:
1. New fire protection service distribution piping to all areas of the building. The entire building will be sprinkled.
  2. Concrete and maintenance pads required for fire sprinkler equipment.

## SITework CONSTRUCTION CONTRACT

- I. Work in the Site Construction Contract (Contract No. SC-1) includes, but is not limited to, Divisions 31 through 33 and the following:
1. Site preparation, including clearing, earthwork, and subdrainage systems.
  2. Site improvements, including roadways, parking lots, pedestrian paving, site development furnishings and equipment, flagpole, and landscaping.
  3. Sanitary sewerage and storm drainage from utility connection points to no less than 5 feet of the exterior walls of the building.
  4. Underground gas service from utility to the existing gas meter, including trenching and backfilling is by the Utility Company. Restoration of paving, hardscaping, landscaping, etc. from the utility to the gas meter and from the gas meter to the building provided by Sitework Contractor.

5. Provide all of the subgrade areas under the building within 9" (+/-) of the GC's concrete pad elevation and 10'-0" out from the exterior wall/perimeter. Note: the "subgrade" will be a roughly graded area to receive the GC's concrete pad and stone base with a tolerance of +/- 1".
  6. Flagpole, foundation, and flag.
  7. Provide field surveys of in-progress construction and site work. Provide certification that the Work is in accordance with the drawings.
  8. Provide and maintain Erosion and Sediment Controls throughout duration of construction.
  9. Dumpster enclosure slab.
- J. Temporary facilities and controls in the Site Construction Contract include, but are not limited to, the following:
1. Mow grass to maintain maximum height of 6 inches in areas bound by construction fencing.
  2. Provide uniped sewers and drainage, including drainage ditches, dry wells, stabilization ponds, and containers.
  3. Tree and Plant Protection.
  4. Temporary roads and paved areas.
  5. Snow removal.

#### KNOWLEDGE OF CONTRACT REQUIREMENTS (011100)

- K.
1. Each Prime Contractor and his Subcontractor's, Sub-Subcontractor's, and material men shall consult in detail the General Conditions, all Divisions and Sections of the Specifications, all Drawings, and all Addenda for instructions and requirements pertaining to the Work, and at his and their cost, shall provide all labor, materials, equipment, and services necessary to furnish, install, and complete the work in strict conformance with all provisions thereof.
  2. Each Prime Contractor will be held to have examined the site of the Work prior to submitting his proposal and informed himself, his Subcontractors, Sub-Subcontractors, and material men of all existing conditions affecting the execution of the work.
  3. Each Prime Contractor will be held to have examined the Contract Documents, and Modifications thereto, as they may affect subdivisions of the work and informed himself, his Subcontractors, Sub-Subcontractors, and material men of all conditions thereof affecting the execution of the work.

#### 5. Anticipated Timeline:

- a. Last Day for questions – December 8, 2022 - 12:00 PM.
- b. Bids Due – December 15, 2022 by 1:30PM at the Spellman Education Building, 782 Springdale Drive, Exton, PA 19341.
- c. Expected Board Approval of Project – ~January 5, 2024.
- d. Submit Insurance, bonds, agreements executed and returned within 10 days after Notice of Intent to Award
- e. Notice to Proceed will be within 10 days after returning the executed agreements, with bonds and insurances.
- f. Start Construction – as noted on the Phasing documents – June 20, 2024.
- g. Construction Completion (all phases) – August 15, 2026

6. Project is bid under a multiple primes contract – General, Plumbing, Mechanical (HVAC), Electrical, Roofing, Sprinkler, and Sitework Contracts.
7. Site inspections after today – Wednesday, November 22, 2023 at 1:00PM, and Saturday, December 2, 2023, at 10:00AM. Additional times may be arranged for weekdays after 3:30PM but must be scheduled with WCASD personnel. Contractors CANNOT show up at the school without notice and get access. If Bidders would like to visit the site at these times, the School District MUST be notified a day in advance. Call Damon Gonzaga at 484-266-1256.
8. Proposals need to be submitted in TRIPLICATE! In a sealed envelope clearly marked with bid information and contractor's firm on outside. One form provided in specs so please make copies. Bid security in form found in the specifications should be used and is to be in 10% of the base bid.
9. We have established a final completion date of August 15, 2026 as this is the last day before teachers return from summer break. This is a working building. Shutdowns will need to be scheduled and managed around a working building.
10. Successful bidder will be required to provide Performance and Payments bonds and in the form provided in the Specifications. AIA standard Surety standards bonds are NOT accepted. Bonds must be provided by sureties rated by the Best Rating Guide in accordance with the Contract Documents.
11. Builders Risk is carried by the Owner. There is a \$10,000 deductible that will be paid by the responsible contractor for any incident.
12. Project is subject to Prevailing Wage. Prevailing Wages project rates are included in Specifications (00 7346) and Certified Payrolls are required to accompany applications for payment.
13. FBI clearances are required per the Specifications for all contractor's and subcontractor forces prior to stepping foot on the project. The District has a policy of issuing badges for your forces to wear during the project. They will be issued and returned by you at the end of the project. Any badge not returned is subject to a \$250 deduction from your contract price.
14. The School District has a non-taxable status on all items that do not become a permanent part of the real estate. Please refer to the PA Sales and Use Tax Guide for clarification. We can provide you a tax exemption form if requested.
15. The School District has a STRICT no alcohol, no drugs, no weapons, no tobacco, no vaping, no obscenity policy. Any violation shall be grounds for removal from site. We don't allow our own people to do it, we can't allow you.
16. We will send out a list of attendees with a copy of these notes in addendum number one, along with any clarifications or modifications to the bid documents.

17. Construction permits will be paid by the School District including Building, HVAC, Plumbing, Electrical and Sprinkler permits. Any other fees or permits required by West Whiteland Township (contractor licensing fees, inspection fees above the (initial) required building code inspections performed by Township personnel), etc., or any other governing agencies, are to be paid for by the Contractor who is responsible for the portion of the Work.
18. Fees related to Utilities will be paid as specified in the Contract Documents.

DOCUMENT 001113 ADVERTISEMENT - FOR BIDS

NOTICE TO BIDDERS

The West Chester Area School District, Chester County, Pennsylvania, solicits sealed bids for the Mary C. Howse Elementary School in West Chester, PA for the following contracts:

Contract No. GC-1 – General Construction

Contract No. MC-1 – Mechanical

Contract No. PC-1 – Plumbing

Contract No. EC-1 – Electrical

Contract No. SPC-1 – Sprinkler

Contract No. SC-1 – Sitework

Contract No. RC-1 – Roofing

Sealed bids, addressed to Ms Lynnette Scott, Purchasing Agent, must be clearly marked on the outside with bidder's name and name of project bid, and are due at the Spellman Education Building, 782 Springdale Drive, Exton, PA 19341 by 1:30 pm on December 15, 2023, at which time they will be publicly opened and read. Faxed bids will not be accepted.

Sealed bids shall be accompanied by a certified check or bid bond in the amount of ten percent (10) of the amount of the bid, made payable to the West Chester Area School District. Checks or bonds will be returned to unsuccessful bidders after the contract has been awarded, or the bids rejected. The successful bidder's check or bond will be returned when his contract has been properly completed. In case the successful bidder fails to enter into contract within ten (10) days after notification of acceptance of bid, said check or bond shall be forfeited to the School District. All bids must be accompanied by Non-Collusion Affidavit, Contractor's Qualification Statement, and Bid Security in accordance with the Bid Documents. Bids must remain in force for sixty (60) days after the date of the bid opening and may be rejected any time prior to the expiration of said date.

The successful bidder will be required to furnish a Performance and Payment Bonds in amounts equal to 100% of the contract price. Surety shall be satisfactory to the School District and shall be included in the contractor's bid amount.

Bid Documents will be available starting November 6, 2023 after 9:00 am at the Facilities and Operations Building, 1181 McDermott Drive, West Chester, PA 19380, telephone (484) 266-1253, and at the Mandatory Pre-Bid Meeting. A \$100.00 non-refundable fee is required for the Bid Documents, made payable to West Chester Area School District. All substitution requests must be submitted to the Owner/Architect at least five (5) days prior to receipt of bids.

A Mandatory Pre-Bid Meeting will be held on November 15, 2023 at 4:00 pm at Mary C. Howse Elementary School, 641 Boot Road, West Chester, PA 19380. All visitors are required to follow the WCSD Health and Safety policy.

Recommendation for Award of Bids will be made to the School Directors at a School Board Meeting. The School Board reserves the right to accept or reject any or all Bids, and to make or not make awards in the best interest of the West Chester Area School District.

Ms. Linda Cherashore  
Board Secretary



Mary C. Howse ES Additions and Renovations  
West Chester Area School District

Addendum 01 November 17, 2023  
BHA Project No. 22-114

END OF DOCUMENT 001113

## SECTION 263600 - TRANSFER SWITCHES

### PART 1 GENERAL

#### 1.01 Scope

Furnish and install automatic transfer switches (3ATS) with number of poles, amperage, voltage, and withstand current ratings as shown on the plans. Each automatic transfer shall consist of a mechanically held power transfer switch unit and a microprocessor controller, interconnected to provide complete automatic operation. All transfer switches and control panels shall be the product of the same manufacturer.

#### 1.02 Acceptable Manufacturers

Automatic transfer switches shall be ASCO Series 300 (3ATS). Any alternate shall be submitted to the consulting engineer in writing at least 10 days prior to bid. Each alternate bid must list any deviations from this specification.

#### 1.03 Codes and Standards

The automatic transfer switches and accessories shall conform to the requirements of:

- A. UL 1008 - Standard for Automatic Transfer Switches
- B. CSA C22.2 No.178 – 1978
- C. NFPA 70 - National Electrical Code
- D. NFPA 99 – Health Care Facilities
- E. NFPA 110 - Emergency and Standby Power Systems
- F. IEEE Standard 446 - IEEE Recommended Practice for Emergency and Standby Power Systems for Commercial and Industrial Applications
- G. NEMA Standard ICS10-2005 (formerly ICS2-447) - AC Automatic Transfer Switches
- H. NEC Articles 700, 701, 702
- I. International Standards Organization ISO 9001: 2008
- J. IEC 60947 – 6 – 1

### PART 2 PRODUCTS

#### 2.01 ATS Info

- A. Life safety Non-automatic transfer switch – 200A – 208V – Nema 1 enclosure
- B. Life safety Automatic transfer switch – Open Transition – 200A – 208V – Nema 1 enclosure
- C. Equipment Non-automatic Transfer switch – 400A – 208V – Nema 1 enclosure
- D. Equipment Automatic transfer switch – Delayed transition - 400A – 208V – Nema 1 enclosure
- E. 5350 annunciator
- F. 5101-Gen Kit – Start signal monitoring
- G. Approved Manufacturers - Cummins

#### 2.02 ATS Accessories

- A. 6DL Description (NTS only): Retransfer to normal mode. While in manual retransfer mode if an emergency source failure should occur and the normal source is still available manual retransfer will be automatically bypassed. A pilot light indicates manual retransfer mode.
- B. 7ES Description : 5101 Engine Start Circuit Monitor. 5101-ATS module pre-wired to the Feature 7 NC Start Signal ready for integration into a engine start monitoring system. (Must be wired to 5101-GEN module at generator)
- C. 11BE Description : Adds the following features to the Group G controller: (1) Serial RS-485 Modbus Communications (2) Multi-Schedule Engine Exerciser (3) a 300 Entry Event Log and (4) a common alarm output function. When applied on 3-phase systems it also enables: (1) 3-Phase Emergency Source VLL sensing (2) Phase Rotation Monitoring (3) Emergency Source VLL Unbalance Monitoring.
- D. 18RX Description : REX (Relay Expansion Module) with Normal and Emergency available output contacts (18B & 18G)
- E. 30AA Description (Delayed Transition ONLY): Load shedding circuit initiated by opening of a customer - supplied contact
- F. 72EE Description : Quad - Ethernet Module with AES - 128 bit with encryption and (4) RJ - 45s, includes 11BE feature bundle
- G. 135L Description : Power Meter on Load Side with CT

#### 2.03 Mechanically Held Transfer Switch

- A. The transfer switch unit shall be electrically operated and mechanically held. The electrical operator shall be a single-solenoid mechanism, momentarily energized. Main operators which include over current disconnect devices will not be accepted. The switch shall be mechanically interlocked to ensure only one of two possible positions, normal or emergency.
- B. The switch shall be positively locked and unaffected by momentary outages so that contact pressure is maintained at a constant value and temperature rise at the contacts is minimized for maximum reliability and operating life.
- C. All main contacts shall be silver composition. Switches rated 800 amperes and above shall have segmented blow-on construction for high withstand current capability and be protected by separate arcing contacts.
- D. Inspection of all contacts shall be possible from the front of the switch without disassembly of operating linkages and without disconnection of power conductors. A manual operating handle shall be provided for maintenance purposes. The handle shall permit the operator to manually stop the contacts at any point throughout their entire travel to inspect and service the contacts when required.
- E. Designs utilizing components of molded-case circuit breakers, contactors, or parts thereof which are not intended for continuous duty, repetitive switching or transfer between two active power sources are not acceptable.
- F. Where neutral conductors must be switched, the ATS shall be provided with fully- rated neutral transfer contacts.
- G. Where neutral conductors are to be solidly connected, a neutral terminal plate with fully-rated AL-CU pressure connectors shall be provided.

#### 2.04 Group 'G' Controller with Integrated User Interface Panel

- A. The controller shall be connected to the transfer switch by an interconnecting wiring harness. The harness shall include a keyed disconnect plug to enable the controller to be disconnected from the transfer switch for routine maintenance.
- B. The controller shall direct the operation of the transfer switch. The controller's sensing and logic shall be controlled by a built-in microprocessor for maximum reliability, minimum maintenance, inherent serial communications capability, and the ability to communicate via the Ethernet through optional communications module
- C. A single controller shall provide single and three phase capability for maximum application flexibility and minimal spare part requirements. Voltage sensing shall be true RMS type and shall be accurate to  $\pm 1\%$  of nominal voltage. Frequency sensing shall be accurate to  $\pm 0.1\text{Hz}$ . Time delay settings shall be accurate to  $\pm 0.5\%$  of the full scale value of the time delay. The panel shall be capable of operating over a temperature range of  $-20$  to  $+70$  degrees C, and storage from  $-55$  to  $+85$  degrees C.
- D. The controller shall be enclosed with a protective cover and be mounted separate from the transfer switch unit for safety and ease of maintenance. Sensing and control logic shall be provided on printed circuit boards.
- E. The controller shall meet or exceed the requirements for Electromagnetic Compatibility (EMC) as follows:
  - 1. IEC 60947 – 6 – 1 Multiple Function Equipment Transfer Switching Equipment.  
61000-4 Testing And Measurement Techniques - Overview
    - a. IEC 61000 – 4 - 2 Electrostatic Discharge Immunity
    - b. IEC 61000 – 4 - 3 Radiated RF Field Immunity
    - c. IEC 61000 – 4 - 4 Electrical Fast Transient/Burst Immunity
    - d. IEC 61000 – 4 - 5 Surge Immunity
    - e. IEC 61000 – 4 – 6 Conducted RF Immunity
  - 2. CISPR 11 – Conducted RF Emissions and Radiated RF Emissions

## 2.05 Enclosure

- A. The 3ATS shall be furnished in a NEMA type 1 enclosure unless otherwise shown on the plans.
- B. Provide strip heater with thermostat for Type 3R enclosure requirements.
- C. Controller shall be mounted on, visible, and operational through enclosure door.

## PART 3 OPERATIONS

### 3.01 Controller Display and Keypad

- A. A 128\*64 graphical LCD display and keypad shall be an integral part of the controller for viewing all available data and setting desired operational parameters. Operational parameters shall also be available for viewing and limited control through communications port. The following parameters shall only be adjustable via DIP switches on the controller.

1. Nominal line voltage and frequency
2. Single or three phase sensing on normal
3. Transfer operating mode configuration, (open transition, or delayed transition)

All instructions and controller settings shall be easily accessible, readable and accomplished without the use of codes, calculations, or instruction manuals.

### 3.02 Voltage and Frequency Sensing

A. Voltage and frequency on both the normal and emergency sources (as noted below) shall be continuously monitored, with the following pickup ,dropout, and trip settings capabilities (values shown as % of nominal unless otherwise specified.

<u>Parameter</u>	<u>Sources</u>	<u>Dropout/Trip</u>	<u>Pickup/Reset</u>
Undervoltage	N & E	70 to 98%	85 to 100%
Overvoltage	N & E	102 to 116%	2% below trip
Underfrequency	N & E	85 to 98%	86 to 100%
Overfrequency	N & E	101 to 111%	2% below trip

- B. Repetitive accuracy of all settings shall be within 1% at +25C
- C. Voltage and frequency settings shall be field adjustable in 1% increments either locally with the display and keypad or remotely via serial communications port access.
- D. Source status screens shall be provided for both normal & emergency to provide digital readout of voltage and frequency. *Note: Single phase sensing on emergency*
- E. The backlit 128\*64 graphical display shall have multiple language capability.  
Languages can be selected from the user interface.

### 3.03 Time Delays

- A. A time delay shall be provided to override momentary normal source outages and delay all transfer and engine starting signals, adjustable 0 to 6 seconds. It shall be possible to bypass the time delay from the controller user interface.
- B. A time delay shall be provided on transfer to emergency, adjustable from 0 to 60 minutes 59 seconds for controlled timing of transfer of loads to emergency. It shall be possible to bypass the time delay from the controller user interface.
- C. A generator stabilization time delay shall be provided after transfer to emergency adjustable 0 or 4 seconds.
- D. A time delay shall be provided on retransfer to normal, adjustable 0 to 9 hours 59 minutes 59 seconds. Time delay shall be automatically bypassed if emergency source fails and normal source is acceptable.
- E. A cooldown time delay shall be provided on shutdown of engine generator, Adjustable 0 to 60 minutes 59 seconds.

- F. All adjustable time delays shall be field adjustable without the use of special tools.
- G. A time delay activated output signal shall also be provided to drive an external relay(s) for selective load disconnect control. The controller shall have the ability to activate an adjustable 0 to 5 minutes 59 seconds time delay in any of the following modes:
  - 1. Prior to transfer only.
  - 2. Prior to and after transfer.
  - 3. Normal to emergency only.
  - 4. Emergency to normal only.
  - 5. Normal to emergency and emergency to normal.
  - 6. All transfer conditions or only when both sources are available.
- H. In the event that the alternate source is not accepted within the configured Failure to Accept time delay, the common alert indication shall become active.
- I. The controller shall also include the following built-in time delay for delayed transition operation.
  - 1. A time delay for the load disconnect position for delayed transition operation adjustable 0 to 5 minutes 59 seconds.

### 3.04 Additional Features

- A. The user interface shall be provided with test/reset modes. The test mode will simulate a normal source failure. The reset mode shall bypass the time delays on either transfer to emergency or retransfer to normal.
- B. A set of contacts rated 5 amps, 30 VDC shall be provided for a low-voltage engine start signal. The start signal shall prevent dry cranking of the engine by requiring the generator set to reach proper output, and run for the duration of the cool down. setting, regardless of whether the normal source restores before the load is transferred.
- C. Auxiliary contacts, rated 10 amps, 250 VAC shall be provided consisting of one contact, closed when the ATS is connected to the normal source and one contact closed when the ATS is connected to the emergency source.
- D. A single alarm indication shall light up the alert indicator and de – energize the configured common alarm output relay for external monitoring.
- E. LED indicating lights shall be provided; one to indicate when the ATS is connected to the normal source (green) and one to indicate when the ATS is connected to the emergency source (red).
- F. LED indicating lights shall be provided and energized by controller outputs. The

lights shall provide true source availability of the normal (green) and emergency (red) source, as determined by the voltage sensing trip and reset settings for each source.

G. LED indicating light shall be provided to indicate switch not in automatic mode (manual); and blinking (amber) to indicate transfer inhibit.

H. LED indicating light shall be provided to indicate any alarm condition or active time delay (red).

*The following features shall be built – in to the controller, but capable of being activated through keypad programming or the serial port only when required by the user:*

I. Provide the ability to select “commit/no commit to transfer” to determine whether the load should be transferred to the emergency generator if the normal source restores before the generator is ready to accept the load.

J. A variable window inphase monitor shall be provided in the controller. The monitor shall control transfer so that motor load inrush currents do not exceed normal starting currents, and shall not require external control of power sources. The inphase monitor shall be specifically designed for and be the product of the ATS manufacturer. The inphase monitor shall be equal to ASCO feature 27.

K. An engine generator exercising timer shall be provided to configure weekly and bi- weekly automatic testing of an engine generator set with or without load for 20 minutes fixed. It shall be capable of being configured to indicate a day of the week, and time weekly testing should occur.

*The following feature shall be built – into the controller, but capable of being activated through keypad programming, communications interface port, or additional hardware.*

L. Terminals shall be provided for a remote contact to signal the ATS to transfer to emergency. This inhibit signal can be enabled through the keypad or serial port.

M. System Status - The controller LCD display shall include a “System Status” screen which shall be readily accessible from any point in the menu by depressing the “ESC” key. This screen shall display a clear description of the active operating sequences and switch position. For example,

*Normal Failed*

Load on Normal  
TD Normal to Emerg  
2min15s

Controllers that require multiple screens to determine system status or display “coded” system status messages, which must be explained by references in the operator’s manual are not permissible.

N. Self Diagnostics – The controller shall contain a diagnostic screen for the purpose of detecting system errors. This screen shall provide information on the status input signals to the controller which may be preventing load transfer commands from being completed.

O. Communications Interface – The controller shall be capable of interfacing, through

an optional serial communication port with a network of transfer switches, locally (up to 4000 ft.). Standard software specific for transfer switch applications shall be available by the transfer switch manufacturer. This software shall allow for the monitoring, control, and setup of parameters.

- P. Data Logging – The controller shall have the ability to log data and to maintain the last 99 events, even in the event of total power loss. The following events shall be time and date stamped and maintained in a non – volatile memory.

1. Event Logging

1. Data and time and reason for transfer normal to emergency
2. Data and time and reason for transfer emergency to normal
3. Data and time and reason for engine start
4. Data and time engine stopped
5. Data and time emergency source available
6. Data and time emergency source not available

2. Statistical Data

1. Total number of transfers
2. Total number of transfers due to source failure
3. Total number of day's controller is energized
4. Total number of hours both normal and emergency sources are Available
5. Total time load is connected to normal
6. Total time load is connected to emergency
7. Last engine start
8. Last engine start up time
9. Input and output status

4.01 Optional Features *(The following section is optional and should be deleted if not required)*

A. Accessory Package - An accessory bundle shall be provided that includes:

1. A fully programmable engine exerciser with seven independent routines to exercise the engine generator, with or without load on a daily weekly, bi – weekly, or monthly basis.
2. Event log display that shows event number, time and date of events, event type, and reason (if applicable). A minimum of 300 events shall be stored.
3. RS – 485 communications port enabled.
4. Common alarm output contact.

(This feature shall be equal to ASCO accessory 11BE, and shall be capable of being activated for existing switches through optional accessory dongle).

- B. Controller Power Supply - A backup power UPS shall be provided to allow controller to run for 3 minutes minimum without AC power. (This feature shall be equal to ASCO accessory 1UP, and shall be capable of being added to existing switches without modification).



- C. Expansion Module - A relay expansion module (REX) is a standard feature when delayed transition transfer is specified. A REX module shall also be provided for open transition transfer that includes one form C contact for source availability of the normal (18G) and emergency (18B) sources. Additional output relay shall be provided to indicate a common alarm. The REX module shall have the capability of being daisy chained for multiple sets of contacts. (This feature shall be equal to ASCO accessory 18RX, and shall be capable of being added to existing switches without modification).
- D. Current Sensing Card - A load current metering card shall be provided that measures either single or three phase load current. It shall include current transformers (CT's) and shorting block. Parameters shall be able to be viewed via the user interface. (This feature shall be equal to ASCO accessory 23GA (single phase), 23GB (three phase), and shall be capable of being added to existing switches without modification).
- E. Communications Module – Shall provide remote interface module to support monitoring of vendor's transfer switch, controller and optional power meter. Module shall provide status, analog parameters, event logs, equipment settings & configurations over embedded webpage and open protocol. Features shall include:
1. Email notifications and SNMP traps of selectable events and alarms may be sent to a mobile device or PC.
  2. Modbus TCP/IP, SNMP, HTTP, SMTP open protocols shall be simultaneously supported.
  3. Web app interface requiring user credentials to monitor and control the transfer switch supporting modern smart phones, tablets and PC browsers. User will be able to view the dynamic one-line, ATS controls status, alarms, metering, event logging as well as settings.
  4. Secure access shall be provided by requiring credentials for a minimum of 3 user privilege levels to the web app, monitor (view only), control (view and control) and administrator (view, control and change settings). 128-Bit AES encryption standard shall be supported for all means of connectivity.
  5. Shall allow for the initiating of transfers, retransfers, bypassing of active timers and the activating/deactivating of engine start signal shall be available over the embedded webpage and to the transfer switch vendor's monitoring equipment.
  6. An event log displaying a minimum of three-hundred (300) events shall be viewable and printable from the embedded webpages and accessible from supported open protocols.
  7. Four (4) 100 Mbps Ethernet copper RJ-45 ports, two (2) serial ports, and LEDs for diagnostics.
  8. DIN rail mountable.

This option shall be equivalent to ASCO accessory 72EE

*\*Note Spec Writer: The following section is optional and should be deleted if not required.*

- I. Power Meter – (This feature shall be equal to ASCO accessory 135L)

*The Power Meter shall conform to the requirements of:*

1. UL 3111-1-Electrical Measuring and Testing Equipment
2. CAN/CSA-C22.2 No. 23-M89-CSA Safety Requirements for Electrical and Electronic Measuring and Test Equipment
3. The Power Meter shall be capable of operating without modification at a nominal frequency of 45 to 66Hz.

4. The Power Meter shall be rated for an operating temperature of -4°F to 158°F and a storage temperature of -22°F to 176°F. and shall be rated for an 85% non-condensing, relative humidity.
5. The Power Meter shall accept inputs from industry standard instrument transformers (120 VAC secondary PT's and 5A secondary CT's). Direct phase voltage connections, 0 to 600VAC nominal, shall be possible without the use of PT's.
6. The Power Meter shall accept single, 3 phase, or three & four wire circuits. A fourth CT input shall be available to measure neutral or ground current.
7. The Power Meter shall contain a built-in discrete contact to wire an ATS 14A auxiliary contact to indicate switch position.
8. The Power Meter shall accept AC voltage from the sensing lines for operation. Additional provisions shall be provided for external DC voltage input range 9-36 VDC with a nominal of 24 VDC.
9. The Power Meter shall be equipped with a continuous duty, long –life, 4 line x 20 character green backlit LCD
10. All setup parameters required by the Power Meter shall be stored in non-volatile memory and retained in the event of a control power interruption.
11. The Power Meter shall be flush mountable on a surface.
12. The Power Meter enclosure shall be sealed to IP-51 (NEMA 1) and the faceplate shall be sealed to IP-65 (NEMA 4). All push buttons shall be sealed tact switches.
13. The Power Meter shall send, when prompted, information to a central location equipped with a manufacturer supplied critical power management system or 3<sup>rd</sup> party monitor through manufacturer supplied communication modules. All 3<sup>rd</sup> party monitor must utilize industry standard open protocols Modbus/RTU.Modbus/TCP or SNMP.
14. An embedded RS-485 port will be provided which will enable communication at 9600, 19.2K, 38.4K, or 57.6K baud. DIP switches will be provided on the RS-485 port allowing a user to select 2-wire or 4-wire communication as well as the option to activate a terminating resistor on the port.
15. The Power Meter shall help facilities comply with NEC 220. It shall provide Maximum Demand calculations for the past 24 months, as per standards with 15 minute averages.
16. The following data will be available on the display and Modbus registers of the Power Meter:
  - *Line-to-neutral voltages ( $V_{AN}$ ,  $V_{BN}$ , and  $V_{CN}$ )*
  - *Line-to-neutral voltage average ( $V_{AVE}$ )*
  - *Line-to-line voltages ( $V_{AB}$ ,  $V_{BC}$ , and  $V_{CA}$ )*

- *Line-Line voltage average ( $V_{LAVE}$ )*
  - *Current on each phase ( $I_A, I_B,$  and  $I_C$ )*
  - *Current on the neutral conductor ( $I_N$ )*
  - *Average current ( $I_{AVE}$ )*
  - *Active power, KW per phase and total ( $W_A, W_B, W_C,$  and  $W_T$ )*
  - *Apparent power, KVA per phase and total ( $V_{AA}, V_{AB}, V_{AC},$  and  $V_{AT}$ )*
  
  - *KWHours importing, exporting and net ( $KWH_{IMP}, KWH_{EXP},$  and  $KWH_{NET}$ )*
    - *KVARHours leading, lagging and net ( $KVARH_{LEAD}, KVARLAG,$  and  $KVARH_{NET}$ )*
  - *Power factor (PF)*
  - *Signal Frequency (Hz)*
  - *Digital Input*
17. The Power Meter shall offer an LCD which can display no less than nine different languages.
18. Displaying each of the metered values shall be done through the use of menu scroll buttons. There will be an escape button which will be used to take the user back to the previous page or to cancel a setting change. Pressing escape no more than three times will return the user to the home screen.
19. For ease of operator viewing, the display can be configured to remain on continuously, with no detrimental effect on the life of the Power Meter.
20. The display's contrast shall be configurable in intervals of 10% (ranging 0%-100%).
21. Setup of a system requirements shall be allowed from the front of the Power Meter.

*\*Note Spec Writer: The following section is optional and should be deleted if not required.*

#### 5.01 ATS Remote Annunciator

##### General

Provide and install ATS Remote Annunciators for monitoring and control of automatic transfer switches remotely over Ethernet.

##### A. Hardware Specifications

The ATS Remote Annunciator shall be listed to cUL-60950-1 and UL 1008 and include the following features and ratings:

- *User-configured labels with ATS names and power sources*
- *Dual 10/100 Base-T auto sensing and auto crossover Ethernet ports*
- *LED indication of source acceptability, switch position, common alarm, time delay and Ethernet link activity*
- *Push button for transfer/retransfer control operations and time delay bypass*
- *Push buttons for Alarm Silence and Lamp Test*
- *Key lock to enable and disable the transfer push button*
- *Audible and visual alarm to indicate Communication Error ATS Locked Out Failure to Synchronize Extended Parallel and any of the 8 user-configured discrete inputs*
- *Programmable watchdog timer that can generate a system reset upon timeout (minimum 1 sec)*
- *Factory reset capability*
- *100 ms power ride-through*

#### B. Software Specification

The ATS Remote Annunciator shall contain embedded web pages accessible via various web browsers with the following capabilities:

- *Configuration for protocol and communications management with the ability of auto discovering transfer switches on network*
- *Ability to create and print customized labels for ATS names and power sources*
- *The ability to choose a continuous or periodic audible alarm with customizable interval time*
- *View detailed packet status counters i.e. transmitted received and dropped packets with the ability to reset counters*
- *ATS source name configuration page which allows users to configure power source names and print labels*
- *Upgrade firmware from Ethernet network without interrupting equipment operation*

#### C. Communications

Dual 10/100 Base-T (RJ-45) Ethernet ports are provided to support TCP/IP communications for up to eight automatic transfer switches via individual remote connectivity modules or daisy-chained serial modules into a single Connectivity Module. Additional features include:

- *Supports Full Duplex Flow Control (IEEE 802.3x)*
- *3.3V power supply with 5V I/O tolerance*
- *Supports 3 LEDs to indicate traffic link speed and collision*

#### D. Mounting

The ATS Remote Annunciator is suitable for:

- *Surface mounting using mounting screws studs*
- *Flush Mount from behind a cutout section (Enclosure Door Mounting)*
- *Flush Mount from the front of a cutout section (Enclosure Door Mounting)*

#### E. Power Supply

The ATS Remote Annunciator shall be capable of accepting 24VDC, 120 VAC or 240 VAC power source.

#### F. Environmental

The ATS Remote Annunciator shall have an Ambient Operating Temperature range of -4 ° to 158 ° F (-20 ° to +70 ° C) @ 5~85% humidity and Ambient Storage Temperature of -40 ° to 185 ° F (-40 ° to 85 ° C).

## PART 6 ADDITIONAL REQUIREMENTS

### 6.01 Withstand and Closing Ratings

- A. The ATS shall be rated to close on and withstand the available RMS symmetrical short circuit current at the ATS terminals with the type of overcurrent protection shown on the plans. WCR ATS ratings shall be as follows when used with specific circuit breakers:

ATS Size	Withstand & Closing Rating MCCB (480v/60hz)	W/CLF
30	22,000A	100,000
70 - 200	22,000A	200,000
230	25,000A	100,000
260 – 400	42,000A	200,000
600	50,000A	200,000
800 – 1200	65,000A	200,000
1600 – 2000	85,000A	200,000
2600 – 3000	100,000A	200,000

### 6.02 Tests and Certification

- A. The complete 3ATS shall be factory tested to ensure proper operation of the individual components and correct overall sequence of operation and to ensure that the operating transfer time, voltage, frequency and time delay settings are in compliance with the specification requirements.
- B. Upon request, the manufacturer shall provide a notarized letter certifying compliance with all of the requirements of this specification including compliance with the above codes and standards, and withstand and closing ratings. The certification shall identify, by serial number(s), the equipment involved. No exceptions to the specifications, other than those stipulated at the time of the submittal, shall be included in the certification.
- C. The ATS manufacturer shall be certified to ISO 9001: 2008 International Quality Standard and the manufacturer shall have third party certification verifying quality assurance in design/development, production, installation and servicing in accordance with ISO 9001: 2008.

### 6.03 Service Representation

- A. The ATS manufacturer shall maintain a national service organization of company- employed personnel located throughout the contiguous United States. The service center's personnel must be factory trained and must be on call 24 hours a day, 365 days a year.
- B. The manufacturer shall maintain records of switch shipments, by serial number, for a minimum of 20 years.

- C. For ease of maintenance, the transfer switch nameplate shall include drawing numbers and serviceable part numbers.



**Stantec Consulting Services Inc.**  
1060 Andrew Drive, Suite 140  
West Chester PA 19380-5602

October 20, 2023

Project/File: 202711937

**John Weller, AICP**  
West Whiteland Township  
101 Commerce Drive  
Exton, PA 19341

Dear John Weller, AICP,

**Reference: Mary C Howse Land Development**

Enclosed please find the following for your review:

- Five copies of the following Plans
  - Land Development Plans, Sheets 1 – 23 of 23 dated **August 31, 2023**;
  - Lighting Plans, Sheets 1 – 9 of 9, dated
- CD containing the following information:
  - Land Development Plans, Sheets 1 – 23 of 23 dated **August 31, 2023**;
  - Erosion and Sediment Control Report dated **August 31, 2023**;
  - Post Construction Stormwater Management Report dated **August 31, 2023**
  - Lighting Plans, Sheets 1 – 9 of 9, dated

The plans have been revised per the review letters received from:

- Spotts Stevens and McCoy review dated October 9, 2023;
- Theurkauf Design and Planning review dated September 26, 2023;
- McMahon review dated October 10, 2023;
- Township Code Enforcement review dated October 9, 2023;

Our responses to each of the comments contained therein are as follow:

**Spotts, Stevens McCoy review dated October 9, 2023**

#### **COMPLIANCE WITH ZONING ORDINANCE**

1. The plan proposes a net increase of impervious area consisting of both building and parking lot. Sections 329-9.C(2) & (3) allow a maximum of 10% building 15% impervious respectively. The existing stie already exceeds both of these amounts (in accordance with variances granted on October 13, 1995). Expanding the non-conformities will require additional variances.  
**Stantec Response: As noted in John Weller's Planning Commission Memorandum and discussed at the October 17<sup>th</sup> Planning Commission Meeting, the acquisition of the adjacent**

Reference: Mary C Howse Land Development

**lot, labeled "Lot 2" on the plan, allows for the proposed condition to be within the limits of relief granted by the Zoning Hearing Board in 1995.**

No change for addendum.

2. All rubbish and substances, whether organic or inorganic, shall be stored in suitable containers and properly disposed of as soon as is practical. All garbage-like materials shall be contained in vermin-proof containers, Section 325-35. The location of garbage containers shall be shown on the plan.

**Stantec Response: Site Plan Note 10 on Sheet C-100 and Erosion/Sediment Control Note 6 on Sheet C-145 have been revised and added to include the requirement. The contractor garbage containers are to be kept in the staging area. The location of the containers has been added to the Partial Erosion Control Plan, Sheet C-142.**

Included in addendum.

3. The plans shall demonstrate that all incidental storage complies with Section 325-35.B.

**Stantec Response: The plans have been revised to indicate new black vinyl chain link fence around the perimeter of the chiller pad, trash enclosure, gas meter and generator enclosure at the rear of the building.**

No change for addendum. The fence was on the bid docs.

4. The "Student Drop Off" signs appear to be misplaced:

- a. Interior drives shall be designed to prevent blockage of vehicles entering or leaving the site, Section 352-37.A(1). The "Student Drop Off" sign located on the east side of the access from Boot Road and immediately before the entrance into the new parking lot would cause backups onto Boot Road.

**Stantec Response: A vehicle circulation narrative has been added to sheets C-100 and C-122 and the vehicle circulation paths for the parent drop off and bus drop off has been added to Sheet C-121 to clarify the intent of the signage.**

**As discussed at the October 17<sup>th</sup> Planning Commission Meeting, the traffic patterns are to be consistent with the current patterns, with parent drop off at the rear of the school and the bus drop off at the loop area at the front of the school. The addition of the new parking area and drive aisle will allow for approximately 350 feet of additional onsite vehicle queuing area to reduce backups onto boot road. In the event of a backup, the school staff, who direct traffic during student drop off and pickup, would be able to parent drop off traffic down the existing drive aisle to remove additional cars from Boot Road.**

No change for addendum.

- b. Accessways, parking areas and loading areas shall have clearly defined parking bays and traffic circulation lanes designated by markings, curbs, barriers and/or landscaped islands so that operators of vehicles intending to patronize such parking areas shall not impede traffic as a result of any confusion "Student Drop Off" signs at the northeast end of the new parking lot do not appear to be appropriate locations at which to drop off students.

**Stantec Response: See response to comment 4.a.**

No change for addendum.

- c. If the above two locations are intended to be for directional signs to a student drop off location, then the actual location for student drop off shall be noted on the plan and directional arrows added to the above-noted signs.

**Stantec Response: See response to comment 4.a.**

No change for addendum.



Reference: Mary C Howse Land Development

## COMPLIANCE WITH SUBDIVISION AND LAND DEVELOPMENT ORDINANCE

5. The owner's affidavit shall be signed and notarized prior to the Township endorsing the plan, Section 281-16.B(10)(a).

**Stantec Response: Agreed.** No change for addendum.

6. The source of title shall be provided on the plan, Section 281-16.C(13)(a)

**Stantec Response: As stated in Note 4 in the title block of the plans, the boundary shown on the plan is for reference only and is based on a plats and plans for Mary C. Howse Elementary School prepared by Edward B. Walsh & Associates, Inc., dated May 10, 1995. For this project, the boundary has not been certified by a PLS. No alterations to the property lines are included with the project.** No change for addendum.

7. The square footage of the vestibule shall be noted on the plan, Section 281-16.D(2)(b).

**Stantec Response: The square footage of the vestibule has been added to the plan. Please note that the proposed vestibule area is under the existing canopy, which is being counted as existing building. No additional building area is being counted for the proposed vestibule.** No change for addendum.

8. The potable water source shall be shown on the plan, Section 281-16.D.(6).

**Stantec Response: Utility Note 1 on Sheets C-100 and C-161 has been revised to clarify that AQUA PA, Inc. provides the water for the school. The existing potable and fire water services are shown on the plans. No changes to the existing water serve are proposed.** No change for addendum.

9. Parking areas and access driveways required for nonresidential shall be constructed of a minimum of eight inches of 3-A modified, two inches ID-2 binder and 1 ½ inches ID-2 wearing course. Additional subbase or 3-A Modified may be required by the Township in the field should the Township deem is appropriate due to any soil subgrade conditions. All construction shall conform to PennDOT Publication 408, latest edition, Section 281-45.B. The paving detail shall be changed to comply with this section and notes shall be added to the plan to include the last two sentences of this section of the ordinance.

**Stantec Response: The detail has been revised on Sheet C-501 to indicate 8" of 3A modified subbase and to include the requested notes. Due to the heavy bus traffic, the School District is proposing 5" of binder course and 1-1/2 wearing course.** Included in addendum.

## COMPLIANCE WITH STORMWATER MANAGEMENT ORDINANCE

10. Evidence of the applicant having received a PaDEP NPDES construction activities permit shall be provided to the Township prior to endorsement of the Plan, Section 270-17.A(1).

**Stantec Response: Agreed. A Notice of Intent for the NPDES has been submitted to the Chester County Conservation District. Responses to their recent technical review comments are provided at the end of this letter.** No change for addendum.

11. Evidence of the applicant having received E&S plan approval shall be provided to the Township prior to endorsement of the Plan, Section 270-17.A(2).

**Stantec Response: Erosion and sediment control plans and narrative are included in the**

Reference: Mary C Howse Land Development

**Township submission and are also under review by the Conservation District as part of the NPDES application.**

**No change for addendum.**

12. The post construction total runoff volume shall not exceed the predevelopment total runoff volume for all storms equal to or less than the 2-yr, 24-hr design storm, Section 270-19.A. A Summary sheet for the volume calculations shall be provided in the PCSM report. The summary shall specifically address the 2-year volume increase due to the change in groundcover and quantify the mitigated stormwater volume in proposed BMP(s).

**Stantec Response: A Summary of Flow chart, with a 2-year volume summary table can be found in Section 7, page 16, or the PCSM narrative.**

**No change for addendum.**

13. If a stormwater management practice does not provide water quality treatment, than water quality BMPs shall be utilized to provide pretreatment prior to the runoff entering the stormwater management practice, Section 20-19.F. The PCSM plan and details should indicate which structures are proposed to receive the oil/water separator and water quality inlets (snouts).

**Stantec Response: The locations of the water Quality Structures are called out as BMP #2 on the Post Construction Stormwater Management Plan, Sheet C-901. They include an Oil/water Separators for storm manhole ST6 and Snouts for storm inlets ST10 and ST12. Operation and maintenance procedures are called out on Sheet C-901 and details are provided on Sheet C-903.**

**No change for addendum.**

14. Where roof drains are designed to discharge to infiltration practices, they shall have appropriate measures to prevent clogging by unwanted debris. Such measures shall include but are not limited to leaf traps, gutter guards and cleanouts, Section 271-20.P. The PCSM plans should indicate where these will be located and appropriate details shall be provided.

**Stantec Response: Nate?**

**No change for addendum these details are on the architectural plans. I do need info from you to resolve this.**

15. Excavation for the infiltration bottom of the seepage bed, trench or like facility, Section 271-20.S. The attached Township standard notes shall be added to the plan.

**Stantec Response: The Standard Plan Notes for West Whiteland Township has been added to Sheet C-100. Sequence of Construction item 10 has been revised to reference the Stormwater Management Facility Construction Notes.**

**Included in addendum.**

16. Only the proposed regulated activity shall be subject to the peak flow rate control standards of this chapter. However, undisturbed areas for which the discharge point has not changed are not subject to the peak flow rate control standards, Section 270-22.D. The runoff rate analysis submitted for DP-002 and DP-003 are acceptable due to the minimum changes made in these areas. The analysis for DP-001 must include a total drainage boundary (including LOD and non-disturbed areas) and calculated time of concentrations for the pre and post development conditions in order to appropriately calculate peak flows and properly design the outlet structure.

Complete delineation of flow paths used for calculating the time of concentration for the predevelopment and post-construction conditions shall be included, Section 270-032.B(14).

**Stantec Response:**

**No change for addendum.**

17. Upon completion, the applicant shall be responsible for post-construction testing of the facilities sufficient to demonstrate that such facilities function as intended, such testing shall be coordinated

Reference: Mary C Howse Land Development

with the Township Engineer and shall be included in the developer agreement, Section 270-27.I(11). We recommend that this be noted on the plan.

**Stantec Response: The requested note has been added as PCSWM General Note 14 on Sheet C-902.**

No change for addendum.

18. Rainfall intensities shall be obtained from the latest version of the Precipitation-Frequency Atlas of the United States, National Oceanic and Atmospheric Administration (NOAA), National Weather Service, Hydrometeorological Design Studies Center, Silver Spring, Maryland (NOAA Atlas 14), Section 270-29.E(13). A copy of the NOAA Atlas chart shall be included with the stormwater report to verify the data used in the analysis.

**Stantec Response:**

No change for addendum.

19. Roof drains and collector locations shall be shown on the storm drainage plans, Section 270-29.F.

**Stantec Response:**

No change for addendum. These should be on the Architectural Plans.

20. A minimum of 4 inches of topsoil shall be provided on all disturbed areas prior to final seeding and mulching. Section 270-30.G. The permanent stabilization chart on sheet C-143 must be updated to reflect this.

**Stantec Response: Please note that Sheet C-141 was added in response to CCCD Administrative Review comments. The referenced chart is now on Sheet C-144. The permanent stabilization chart has been revised to indicate a 4" minimum depth of topsoil as required.**

21. The following shall be included on the SWM site plan:

No change for addendum.

- a. A listing of all regulatory approvals required for the proposed project and the status of the review and approval process for each, Section 270-32.A.(2).

**Stantec Response: Nate.**

- b. The statement of Section 270-32.A(3), signed by the applicant.

**Stantec Response: The requested signature block has been added to sheet C-901.**

- c. The statement of Section 270-32.A(5), signed by the design engineer.

**Stantec Response: The requested signature block has been added to sheet C-901.**

22. The graphic scales on the PCSM and Drainage plans do not appear to be correct, Section 270-32.B(5).

**Stantec Response: The plans scales have been checked and revised.**

23. The following documents shall be prepared and submitted to the Township for review and approval as part of the SWM site plan:

- a. An O&M Agreement, Section 270-32.F(2)

**Stantec Response: Agreed. The School District will comply and coordinate with the Township.**

No change for addendum.

- b. Any written deed, deed amendment or equivalent document (if needed) to be recorded against a subject property, as shown on the SWM site plan maps or plan sheets, or

No change for addendum.  
The scales were wrong on the Twp submission but foxed for the bid docs.

Reference: Mary C Howse Land Development

recorded plan sheets for the purpose of protecting and prohibiting disturbance to a BMP or conveyance, Section 270-32.F(4)

**Stantec Response: The Post Construction Stormwater Management Plans, Sheets C-901, C-902 and C-903 are to be recorded as part of the NPDES permit requirements.**

No change for addendum.

24. An Operation and Maintenance Plan shall be submitted and include the items of Section 270-42.

**Stantec Response: The Post Construction Stormwater Management Plans, Sheets C-901, C-902 and C-903 are to be recorded as part of the NPDES permit requirements. These sheets include operation and maintenance procedures for the proposed stormwater BMPs on Sheet C-902.**

No change for addendum.

25. The rations runoff coefficients for the proposed conveyance calculations shall be updated to reflect the coefficients in Table C-2 of the Ordinance.

**Stantec Response:**

No change for addendum.

26. Drainage point labels shall be provided on sheet C-701 for all areas of disturbance.

**Stantec Response:**

No change for addendum.

27. Proposed contours must be included on sheets C-702 and C-703.

**Stantec Response:**

No change for addendum.

28. The conflict between building hatching and labels/utility lines shall be eliminated.

**Stantec Response: The drafting has been revised to place the leaders above the building hatch.**

No change for addendum.

29. There are two items on sheet C-903 labeled as Infiltration Bed 1 Plan View. The separation distance between the outside and pipe and the outer limit of the bed are not consistent.

**Stantec Response: The detail on the right has been corrected to "INFILTRATION BED 1 SECTION VIEW" and the dimension for the separation distance corrected.**

Included in addendum.

30. The discharge point descriptions from the 1.2 General PCSM Planning and Design section and the remainder of the PCSM narrative do not match. The cardinal directions must be updated based on current and proposed drainage patterns.

**Stantec Response:**

No change for addendum.

## LIGHTING

31. Fixtures that are selected for building mount and pole mount shall be "Full Cut-off" per Section 281-48(C)(2).

**Snyder Hoffman Associates Response: All fixtures are full cut off with the exception of the flagpole light which is directed up at the flag.**

No change for addendum.

32. Lighting shall be controlled by automatic switching devices such as timers, motion detectors and/or photocells, to extinguish offending sources between 11:00 pm, or one hour following close of business, whichever comes first, and dawn to mitigate glare and sky-lighting consequences. Where all-night safety or security lighting is deemed necessary, the lighting intensity levels shall

Reference: Mary C Howse Land Development

generally not exceed 25% of the levels normally permitted by this chapter, but in no case shall they be less than the minimum levels for safety or security as invoked by IESNA, Section 281-48(C)(3)(c). Lighting control intent shall be added to the plans in order to be in compliance.

**Snyder Hoffman Associates Response:** Lighting shall be controlled through an exterior lighting control system to comply with the ordinance. A Lighting Narrative of Operation has been added to the Lighting Plan Sheet SE1.00.

No change for addendum.

33. The lighting plans shall include pole cut sheets and details identifying the overall mounting height of the light fixtures to show compliance with Section 281-48(C)(5)(a).

**Snyder Hoffman Associates Response:** Cut sheet information has been added to the plans.

Maybe?

34. The mounting height for the fixtures is provided in the additional remarks column of the Site Lighting Fixture Schedule on the Lighting Plan Sheet SE1.00.

Maybe?

35. The plans shall include all items as specified, including fixture cut sheets, Section 281-48(D)(3).

**Snyder Hoffman Associates Response:** Cut sheet information has been added to the plans.

Maybe?

## GENERAL

36. The signature block for the Township Engineer's review is not required and therefore shall be removed from the cover sheet.

**Stantec Response:** The Township Engineer's signature block has been removed from the cover sheet.

No change for addendum.

37. The parking aisle width shall be 24 feet, not 22 feet as shown.

**Stantec Response:** As per discussion at the October 17<sup>th</sup> Planning Commission Meeting and Condition 6 of the Planning Commissions list October 31, 2023 Draft Motion Memorandum, the Township is satisfied as to the adequacy of the 22-foot-wide drive aisle within the proposed parking lot.

No change for addendum.

## Theurkauf Design and Planning review dated September 26, 2023

1. Nonconforming Use – The school is an existing nonconforming use in the R-1 Residential District. The proposed expansions of building and parking are permissible under section 325-105.B. of the Zoning Ordinance (ZO) by conditional use.

As such, the proposed use shall not be materially detrimental to the surrounding area. Specifically, Section 325-124.A.3 (ZO) requires that the plan demonstrate compliance with Township standards for landscaping, screening, and buffering.

**Stantec Response:** As noted in John Weller's Planning Commission Memorandum and discussed at the October 17<sup>th</sup> Planning Commission Meeting, the acquisition of the adjacent lot, labeled "Lot 2" on the plan, allows for the proposed condition to be within the limits of relief granted by the Zoning Hearing Board in 1995.

No change for addendum.

With the exception of the waivers discussed in comments 5.b and 5.c below, the intent of the plan is to comply with the Township standards for landscaping, screening, and buffering.

Reference: Mary C Howse Land Development

2. Sidewalks – Section 281-31 of the subdivision and land development ordinance (SLDO) requires minimum 5-foot wide sidewalks for all development. The plan does not indicate a sidewalk along Boot Road.

There is no provision of sidewalks in any of the surrounding residential development, and the Township Bicycle and Pedestrian Plan does not show this area of Boot Road to be a priority for pedestrian accommodation. In lieu of the required sidewalk, the Township should consider a contribution toward pedestrian improvements in a higher priority area.

**Stantec Response: As per discussion at the October 17th Planning Commission Meeting, the sidewalk requirement of §281-31 of the S/LDO shall be deemed satisfied by the Applicant agreeing to cooperate with Township plans to provide a public, multi-modal, non-motorized trail within the existing Boot Rd. right-of-way.**

No change for addendum.

3. Bicycle Route – The Township Bicycle and Pedestrian Plan shows Boot Road to be a part of a bicycle loop route, to be appropriately marked. School District participation in this effort is a suggested condition of plan approval.

**Stantec Response: See response to Comment 2 above.**

No change for addendum.

4. Historic Resource Impact – The proposed development is across the street from historic resource #174, the Hannah White Stone Farmhouse. The Township Historical Commission should review the proposed development and offer comment.

**Stantec Response: Agreed. The Township Historical Commission reviewed the plan at their October 9, 2023 meeting. It was determined that the project would have no adverse impact on the historic resource and unanimously passed a motion in favor of the Board of Supervisors approving the project. The motion did not contain any conditions.**

No change for addendum.

5. Screen Buffers – In accordance with section 281-35.A (SLDO), 50 foot wide screen buffers are required adjacent to residential uses on the east, north, and west sides of the property. Section 281-35.D (SLDO) requires these buffers to be landscaped as follows:

<u>Buffer/Length</u>	<u>Plant Type</u>	<u>Required Qty.</u>	<u>Proposed Qty.</u>
East /550 LF	Shade Tree	11	24
	Evergreen Tree	22	6
	Small Shrub	110	79
North/ 520 LF	Shade Tree	10	14
	Evergreen Tree	21	0
	Small Shrub	104	0
East / 300 LF	Shade Tree	6	9
	Evergreen Tree	12	8
	Small Shrub	60	32

- a. East Buffer – Overall, the buffer plantings are deficient by the value equivalent of (8) evergreen trees. Part of the buffer includes existing Lot 2, which is predominantly wooded. However, the Nask property is not completely buffered and may be impacted by proposed development. Eight (8) additional evergreen trees should be proposed along the Nask lot line.

Reference: Mary C Howse Land Development

**Stantec Response: Eight additional evergreens have been added to the plan near the Nask Property lot line. Included in addendum.**

- b. North Buffer – Proposed improvements are over 600 feet from the lot line and will have no impact on adjacent residential lots. I would have no objection to a waiver to not require these buffer plantings.

**Stantec Response: A waiver was discussed at the October 17th Planning Commission Meeting and is being requested to not provide plantings along the North Buffer as proposed improvements are over 600' away from the lot line and will have no effect on the adjacent residences. This waiver request has been noted on Sheet C-100.**

**No change for addendum.**

- c. West Buffer – The proposed building addition is 20 feet from the lot line, so the 50 foot screen buffer is not feasible. Since the proposed addition meets the building setback requirement, a waiver from the 50 foot buffer width would be appropriate.
- d. However, the proposed buffer plantings are insufficient, and could not be placed over the proposed stormwater pipe as shown. In order to justify a waiver on the buffer planting requirement, building addition elevations demonstrating an aesthetically compatible façade should be provided. Alternatively, a dense planting of shallow rooted evergreen trees, such as Leyland Cypress could be proposed between the pipe and the property line.

**Stantec Response: A waiver was discussed at the October 17th Planning Commission Meeting and is being requested to not provide a 50' screen buffer along the west property line, as it is not feasible. A row of tightly spaced Leyland Cypress has been added to the plan, per the review comment recommendation. This waiver request has been noted on Sheet C-100.**

**No change for addendum.**

6. Tree Protection and Compensatory Planting – Section 281-34 (SLDO) requires compensatory plantings for mature trees that are removed. In accordance with section 281-34.G.1 (SLDO), compensatory plantings are not required for invasive species (e.g. Bradford Pear, Norway Maple). In accordance with section 281-34.G.5 (SLDO), any proposed tree meeting size standards may be credited toward the compensatory requirement. Based on the plan description of existing trees to be removed, required compensatory plantings are as follows:

<u>Trees TBR</u>	<u>DBH "TBR</u>	<u>Req. Compensatory "</u>	<u>Req. Compensatory Trees</u>
12-24"	106	26.5	14
24-36"	82	27.33	14

Total Compensatory Trees Required: 28

The plan shows 78 proposed trees applicable to the compensatory requirement. The plan exceeds the ordinance requirement.

**Stantec Response: The quantity of compensatory plantings has been reduced. Included in addendum.**

7. Site Element Screens – Section 281-35.G (SLDO) requires vegetated screens for the proposed parking lot. The proposed lot has the required site element screen.

**Stantec Response: No comment.**

**No change for addendum.**



Reference: Mary C Howse Land Development

8. Street Trees – Street trees are required within the ROW along all streets in accordance with section 281-36 (SLDO), as follows:

<u>Frontage/Length</u>	<u>Required Qty.</u>	<u>Proposed Qty.</u>
Boot Road/462 LF	9	9

The plan is compliant.

**Stantec Response:** No comment. No change for addendum.

9. Utility Conflicts – Section 281-36.D.5.b (SLDO) requires trees to be planted no closer than 10 feet from underground utilities. The plan proposes seven (7) trees within 10 feet of underground water, electric, and communication lines and shall be revised accordingly.

**Stantec Response:** Proposed tree locations have been shifted to avoid utility conflicts.

Included in addendum.

10. Parking Lot Landscaping– Section 281-37 (SLDO) requires landscaping for parking lots with more than 10 more spaces, in order to mitigate heat and aesthetic impacts. Section 381-34.B.1 (SLDO) requires minimum 9-foot by 18-foot planting islands spaced not more than 135 feet apart or every 15 parking stalls. Section 281-34.B.4 (SLDO) states that each island shall contain one shade tree, at least 50% of which shall be native. The plan is compliant.

**Stantec Response:** No comment. No change for addendum.

11. Building Façade Landscaping – Section 281-37.D (SLDO) requires landscaping between building facades and parking to provide a comfortable pedestrian environment. No new parking is proposed adjacent to the building.

The noncompliant façade condition with existing parking will remain unchanged. This requirement is inapplicable.

**Stantec Response:** No comment. No change for addendum.

12. Plant Cultural requirements – Section 281-33.C.4 (SLDO) requires plantings to be selected consistent with functional, aesthetic and maintenance/replacement considerations. Hydrangea quercifolia can be highly susceptible to deer damage. The applicant should consider replacing some or all of the these with a more tolerant large flowering shrub species, such as Aesculus Parviflora.

**Stantec Response:** The species Aesculus parviflora has been substituted for Hydrangea quercifolia.

Included in addendum.

13. Tree Protection Detail – The plan does not indicate a tree protection fencing detail and shall be revised to provide one consistent with section 281-34.D.4.a (SLDO).

**Stantec Response:** A tree protection detail has been added to sheet C-144.

Included in addendum.

14. Plan Errors – The plan shall be revised to correct the following:

- a. Township note #2 on sheet L-102 should reference West Whiteland Township, not Newtown Township.

**Stantec Response:** The plan error has been corrected.

No change for addendum.  
This was found and corrected before the Bid docs went out.



Reference: Mary C Howse Land Development

- b. The plant schedule specifies 55 *Itea virginica*, but the plan indicates 59.  
**Stantec Response: The plan error has been corrected.** Included in addendum.
- c. The plant schedule specifies 89 *Liriope muscari*, but the plan indicates 107.  
**Stantec Response: The plan error has been corrected.**
15. Species Mix Requirements – Section 281-33 (SLDO) establishes native species and diversity requirements for trees and shrubs. The plan is compliant.  
**Stantec Response: No comment.** No change for addendum.
16. Landscape Plan Preparation- Section 281-33.C.7 (SLDO) requires that landscape plans be prepared and sealed by a Pennsylvania registered landscape architect. The plan requires the required signature and seal and shall be revised accordingly.  
**Stantec Response: The PA landscape architecture seal has been added to the plans.** No change for addendum.
17. Cost Estimate – A landscape cost estimate will be required upon approval of the Final Plan in accordance with Section 281-33.C.6.i (SLDO).  
**Stantec Response: A cost estimate will be provided upon approval of the Final Plan.** No change for addendum.
18. Conclusion – The Township shall consider the appropriateness of waivers on sidewalks and screen buffer plantings. Aside from these issues, the plan requires a number of minor revisions for compliance.  
**Stantec Response: No comment.** No change for addendum.

**McMahon review dated October 10, 2023**

1. ZO Section 325-37.A(4) – The proposed parking lot provides parking stalls that are 9 feet wide by 18 feet long, which meets the Township's requirements; however, the aisle width is only 22 feet wide. Even though the proposed parking aisle is designated for one-way traffic flow, based on industry standards, a wider aisle should be provided for effective access to and from 90-degree parking stalls. We recommend a 24-foot parking aisle, which is also consistent with the Township's minimum requirements for interior drive cartway widths.  
**Stantec Response: As per discussion at the October 17<sup>th</sup> Planning Commission Meeting and Condition 6 of the Planning Commissions list October 31, 2023 Draft Motion Memorandum, the Township is satisfied as to the adequacy of the 22-foot-wide drive aisle within the proposed parking lot.** No change for addendum.
2. ZO Section 325-39.H – The Township does not have a specific parking requirement for elementary schools; however, the expanded parking field within the site will provide 97 parking spaces. Based on the Institute of Transportation Engineer's (ITE) publication *Parking Generation Manual*, 5<sup>th</sup> Edition, the 575 student school has a peak parking demand of 75 vehicles, which is accommodated by the proposed parking supply. We support the proposed parking supply; however we question whether there is an opportunity on site to accommodate additional parking for special events, which may require additional overflow space.  
**Stantec Response: This item was discussed at the October 17<sup>th</sup> Planning Commission Meeting and the School District confirmed the proposed number of parking spaces is typical for similar sized elementary schools in the district. Additional parking could be provided in**

Reference: Mary C Howse Land Development

**the basketball court area at the rear of the school if needed for special events. The School District would prefer to restore the gravel area to a meadow c**

No change for addendum.

3. Based on brief field observations, the existing parent pick-up and drop-off procedures appear to include use of the existing gravel area just north of Boot Road east of the existing driveway. As such, even with the current use of this gravel area, the parent drop-off queue in the morning was observed to nearly extend to Boot Road. Since the proposed improvements include removal of the gravel area, there is concern there may be insufficient stacking area in the future to accommodate parent traffic. Therefore, with the addition of the new parking lot, we recommend the school develop a new traffic management plan that shows how the reconfigured on-site circulation areas will be used to accommodate parent pick-up and drop-off procedures in the future. The traffic management plan should demonstrate that the existing storage area for parent vehicles will not be decreased by the proposed on-site circulation changes.

**Stantec Response: The addition of the new parking area and drive aisle will allow for approximately 350 feet of additional onsite vehicle queuing area to reduce backups onto boot road. In the event of a backup, the school staff, who direct traffic during student drop off and pickup, would be able to parent drop off traffic down the existing drive aisle to remove additional cars from Boot Road.**

**A vehicle circulation narrative has been added to sheets C-100 and C-122 and the vehicle circulation paths for the parent drop off and bus drop off has been added to Sheet C-121 to clarify the intent of the signage.**

No change for addendum.

4. SALDO Section 281-31 – The Township should determine whether sidewalk is required along Boot Road in connection with this land development; however, we note the Township's Bicycle and Pedestrian Plan does not show pedestrian facilities in this area.

**Stantec Response: As per discussion at the October 17th Planning Commission Meeting, the sidewalk requirement of §281-31 of the S/LDO shall be deemed satisfied by the Applicant agreeing to cooperate with Township plans to provide a public, multi-modal, non-motorized trail within the existing Boot Rd. right-of-way.**

No change for addendum.

5. SALDO Section 281-28.F – The available sight distances at the access intersection should be labeled on the plans, and a PennDOT-style sight distance note stating the required sight distances should be included on the plan and the following note should be added to the plan:

"All sight distance obstructions (including but not limited to embankments and vegetation) shall be removed by the applicant to provide a minimum of XXX sight distance to the left and XXX sight distance to the right for a driver existing the proposed driveways onto the through highway. The driver must be considered to be positioned ten feet from the near edge of the close through travel lane (from the curbline if curbing is present) at an eye height of the (3' 6") above the pavement surface located in the center of the closest highway designated for use by approaching traffic. This sight distance shall be maintained

No change for addendum. There is adequate sight distance.

**Stantec Response: The required and available sight distances have been labeled on Sheet C-122 and the requested note added to Sheets C-100 and C-122.**

6. SALDO Section 281-31.B – The applicant and the applicant's engineer should ensure that all proposed pedestrian facilities along all internal aisles (including curb ramps and pedestrian access routes) are consistent with current ADA requirements.

Reference: Mary C Howse Land Development

Included in addendum.

**Stantec Response:** Addition elevations have been provided on Sheet C-133 for the areas of pedestrian facilities to demonstrate compliance with current ADA requirements.

7. Based on a brief field view, the existing school speed limit flashing devices are partially obstructed from the view of oncoming vehicles by overhanging vegetation, especially the flashing device on the westbound Boot Road approach to the school. We recommend this vegetation should be trimmed back in order to provide optimal visibility of these devices.

**Stantec Response:** A requirement for the contractor to trim vegetation in area of existing school speed limit flashing devices to provide optimal visibility has been noted on Sheets C-121 and C-122.

Included in addendum.

8. Chapter 295-12 – The subject development is not located within the Township's Act 209 Transportation Service Area, and as such, is not subject to the Township's Transportation Impact Fee.

**Stantec Response:** No comment.

No change for addendum.

#### Township Code Enforcement review dated October 9, 2023

1. There are several locations where new sidewalk will be installed. The minimum width of sidewalks shall be 5 feet.

No change for addendum.

**Stantec Response:** the 5' minimum width of sidewalk has been noted on the sidewalk detail on sheet C-501. The new sidewalk is shown at a minimum of 5' on the plans.

2. A demolition permit will be required for the proposed removal of the existing modular classroom on site.

No change for addendum.

**Stantec Response:** The modular classrooms are being rented. The modular rental company will be removing the classrooms from the site once construction permits. The general contractor will be removing the awning and concrete walks being used to access the modular classrooms. A demolition permit for the work will be obtained if required by the Township.

3. The plan will need to be reviewed by Aqua Pennsylvania, Inc. to confirm adequate water flow is available to serve the building additions.

**Stantec Response:** There is no increase in water demand for the building associated with the proposed improvements, due to the lower flow flush valves and faucets. The fire service is also existing, and the fire flow will not change as the building was fully sprinklered prior to this project.

No change for addendum.

4. The plan shall indicate whether any new bathrooms are proposed for either of the new additions. If so, the plan shall include any proposed site work required.

**Stantec Response:** A new sanitary lateral, connected to the on-site septic system, is proposed for the large building addition. All renovated toilet rooms and new plumbing fixtures within the existing building are connected to the existing sanitary laterals within the building.

No change for addendum.

#### Chester County Conservation District review dated November 6, 2023

Reference: Mary C Howse Land Development

1. Please provide a rock filter at the end of Vegetated Channel 1, to be maintained until the channel and its drainage area are permanently stabilized. 102.11(a)(1).

**Stantec Response: Rock Filter 1 has been added at the end of Channel 1 on Sheet C-142 as requested. Standard Construction Detail 4-14 has been added to Sheet C-143. Sequence of Construction items 10 and 30 have been revised to include the installation, maintenance, and removal of the rock filter.**

Included in addendum.

2. Please ensure all perimeter controls are below earth disturbance activities, for example please see the filter sock in the northeast corner of the site that is shown within graded areas and check rest of plan. 102.11(a)(1).

**Stantec Response: The filter sock at the northeast corner has been adjusted outside of the grading area.**

Included in addendum.

3. It appears the slopes in the staging area slope to the east, please provide perimeter controls on the down slope side of the staging area. 102.11(a)(1).

**Stantec Response: Compost filter sock group 7 has been added along the east side of the staging area on Sheet C-142 and the detail has been updated on Sheet C-144 to include group 7.**

Included in addendum.

Please let us know if you have any questions or require further information.

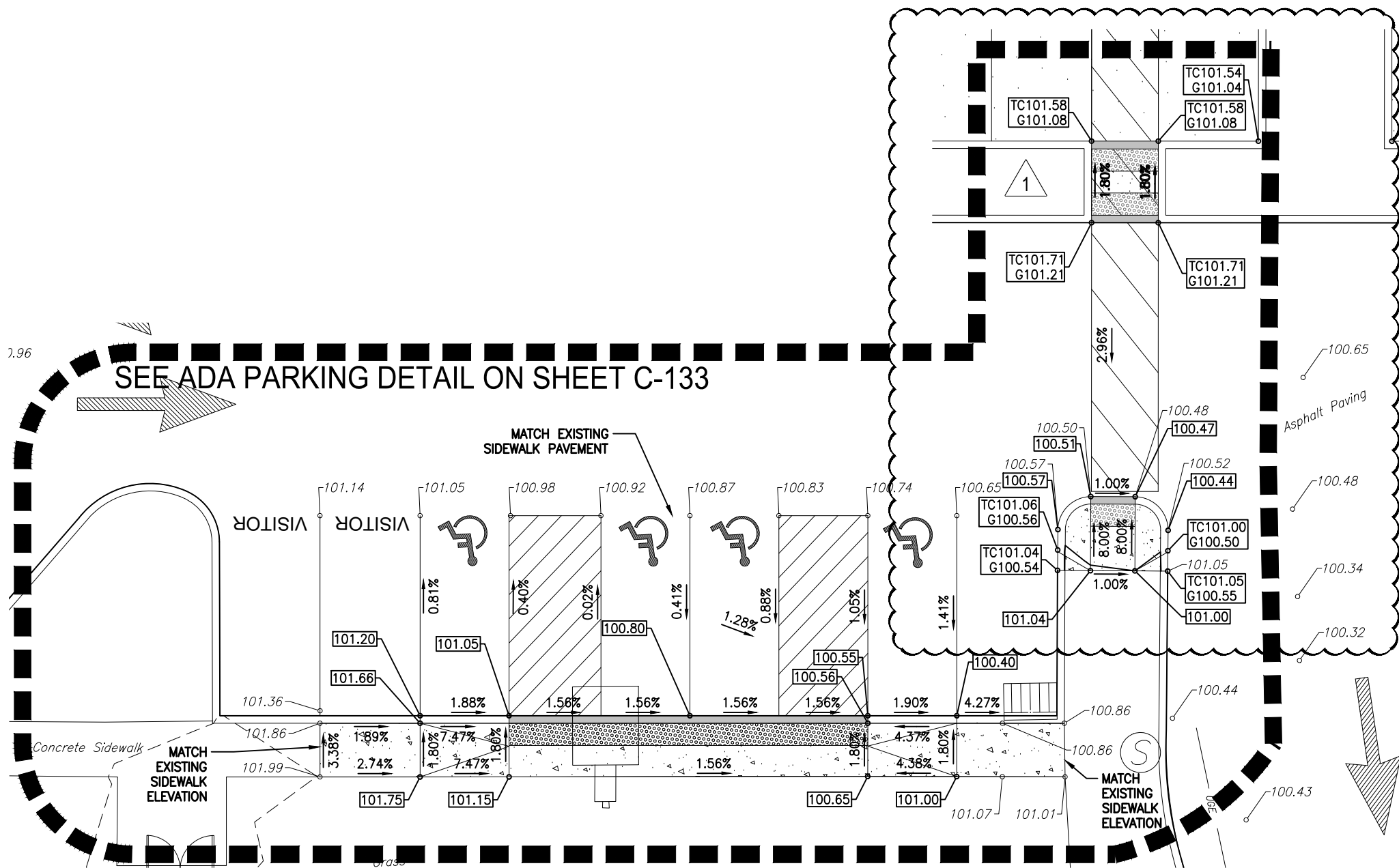
Sincerely,

**STANTEC CONSULTING SERVICES INC.**

**John F. Grant** PE  
Senior Associate  
Phone: (610) 840-2510  
Mobile: (610) 393-3131  
john.grant@stantec.com

Attachment: [Attachment]

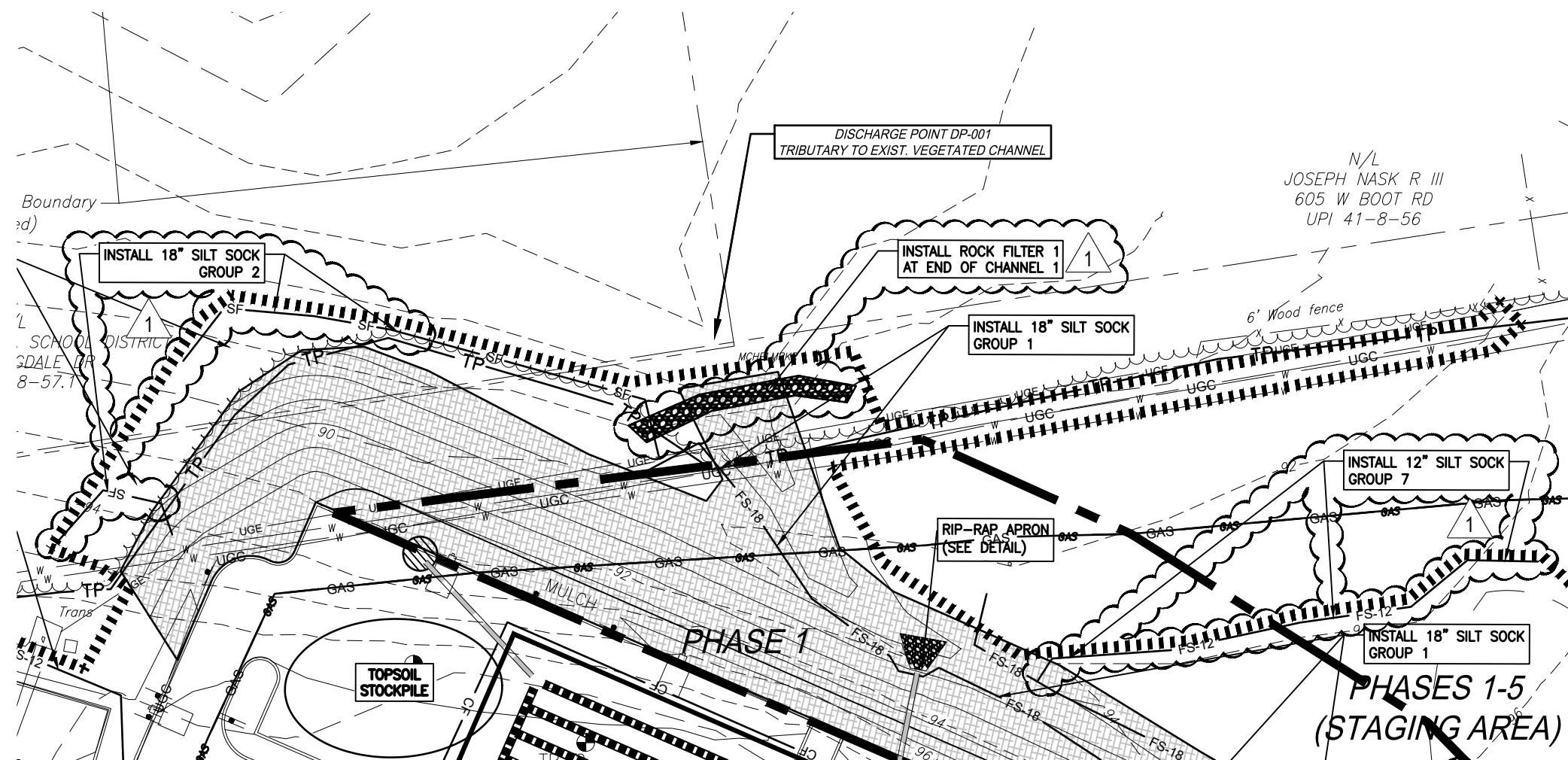
## ADA Parking Detail



## ADA PARKING DETAIL

SCALE 1" = 10'

# Compost Sock and Rock Filter Locations





## Compost Sock Chart



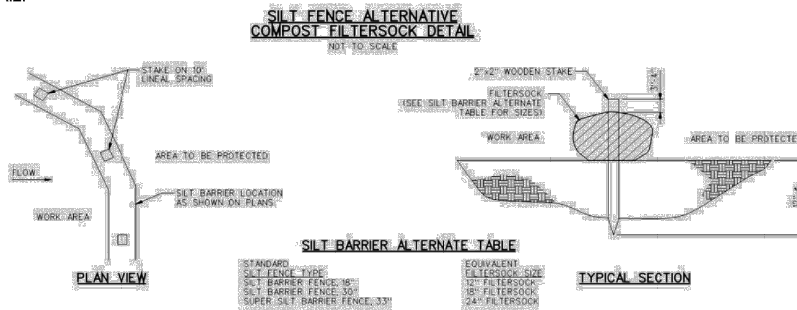
1 OF 1

Project Name:	Mary C. Howse Elementary		
PREPARED BY:	JFG	DATE:	6/30/2023
REVISED BY	JFG	DATE:	11/14/2023

## STANDARD WORKSHEET 1

### Compost Filter Sock

CONSTRUCTION DETAIL:

[illegible]

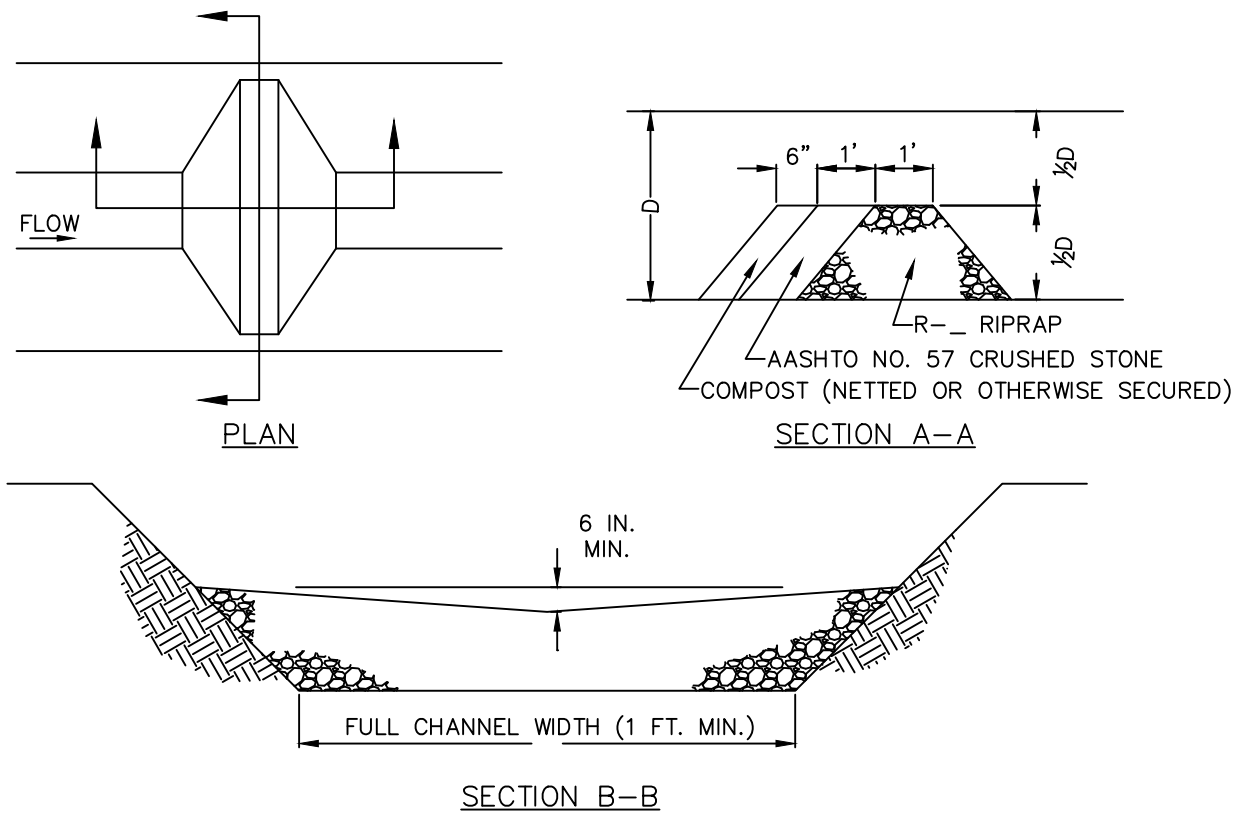
NOTE: Group compost filter sock (silt sock) sizes calculated from individual silt sock with steepest/largest up-gradient drainage area.

## PLANT MATERIALS LIST – MARY C. HOWSE ELEMENTARY SCHOOL, WEST WHITELAND TWP., PA

QTY	KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	REMARKS	MATURE SIZE
DECIDUOUS TREES							
2	AC	AMELANCHIER CANADENSIS	SERVICEBERRY	8–10' HT.	B&B	HEAVY, MULTI-STEM	20' HT. X 20' SPREAD
5	AR	ACER RUBRUM 'OCTOBER GLORY'	'OCTOBER GLORY' RED MAPLE	2–2 1/2" CAL.	B&B		40' HT. X 35' SPREAD
3	BN	BETULA NIGRA 'HERITAGE'	'HERITAGE' RIVER BIRCH	10'–12' HT.	B&B	3 TRUNK MIN. OF SIMILAR SIZE	40' HT. X 40' SPREAD
3	CC	CERCIS CANADENSIS	EASTERN REDBUD	8–10' HT.	B&B	MULTI-STEM	25' HT. X 25' SPREAD
2	CR	CORNUS 'RUTGAN' STELLAR PINK	AURORA DOGWOOD	2–2 1/2" CAL.	B&B	TREE-FORM	15'–30' HT. X 15'–30' SPREAD
5	GT	GLEDTISIA TRIACANTHOS INERMIS 'SKYLINE'	SKYLINE HONEYLOCUST	2–2 1/2" CAL.	B&B	MATCHED	45' HT. X 30' SPREAD
1	MV	MAGNOLIA VIRGINIANA 'HENRY HICKS'	SWEETBAY MAGNOLIA	8–10' HT.	B&B	HEAVY, MULTI-STEM	20'–30' HT. X 20'–30' SPREAD
1	LS	LIQUIDAMBAR STYRACIFLUA	SWEETGUM	2–2 1/2" CAL.	B&B		60'–80' HT. X 40'–60' SPREAD
3	NS	NYSSA SYLVATICA	BLACK GUM	2–2 1/2" CAL.	B&B		30'–50' HT. X 20'–30' SPREAD
9	PA	PLATANUS x ACERIFOLIA	LONDON PLANETREE	2–2 1/2" CAL.	B&B	MATCHED	80'–90' HT. X 60'–70' SPREAD
3	PO	PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	2–2 1/2" CAL.	B&B		75'–100' HT. X 75'–100' SPREAD
2	QC	QUERCUS COCCINEA	SCARLET OAK	2–2 1/2" CAL.	B&B		50'–70' HT. X 40'–50' SPREAD
1	QP	QUERCUS PHELLOS	WILLOW OAK	2–2 1/2" CAL.	B&B		40'–75' HT. X 25'–50' SPREAD
EVERGREEN TREES							
8	AF	ABIES CONCOLOR	WHITE FIR	7–8' HT.	B&B		40'–70' HT. X 20'–30' SPREAD
18	CL	CUPRESSOCYPARUS LEYLANDII	LEYLAND CYPRESS	5–6' HT.	B&B	7' O.C. SPACING	40'–60' HT. X 15'–20' SPREAD
3	IO	ILEX OPACA	AMERICAN HOLLY	7–8' HT.	B&B		40'–50' HT. X 18'–30' SPREAD
6	PS	PINUS STROBUS	EASTERN WHITE PIN	7–8' HT.	B&B		50'–80' HT. X 20'–40' SPREAD
SHRUBS							
37	AP	AESCLUSUS PARVIFLORA	BOTTLEBRUSH BUCKEYE	24–36"	#5 CONT.	4' O.C. SPACING	8'–12' HT. X 8'–15' SPREAD
5	CS	CORNUS SERICEA 'CARDINAL'	'CARDINAL' REDTWIG DOGWOOD	24–30"	#5 CONT.	5' O.C. SPACING	6'–10' HT. X 6'–9' SPREAD
38	IGS	ILEX GLABRA 'SHAMROCK'	SHAMROCK INKBERRY	18–24"	#3 CONT.	3' O.C. SPACING	3'–4' HT. X 3'–4' SPREAD
59	IVL	ITEA VIRGINICA 'LITTLE HENRY'	'LITTLE HENRY' SWEETSPIRE	15–18"	#3 CONT.	2.5' O.C. SPACING	1.5'–2' HT. X 2'–2.5' SPREAD
25	MP	MYRICA PENSYLVANICA	NORTHERN BAYBERRY	24–30"	#5 CONT.	5' O.C. SPACING	5'–10' HT. X 5'–10' SPREAD
17	RK	ROSA VAR. KNOCKOUT	KNOCKOUT ROSE	24–30"	#3 CONT.	3' O.C. SPACING	4' HT. X 4' SPREAD
30	VD	VIBURNUM DENTATUM	ARROWWOOD VIBURNUM	24–30"	#3 CONT.	4' O.C. SPACING	6'–10' HT. X 6'–10' SPREAD
GROUND COVER/ PERENNIALS							
107	LV	LIRIOPE MUSCARI 'VARIEGATA'	VARIEGATED LILYTURF		#1 CONT.	18" O.C.	1'–2' HT. X 1'–2' SPREAD

\* NOTE: THE ULTIMATE SIZE OF PLANT MATERIAL CAN VARY SUBSTANTIALLY DUE TO CONTEXT AND GROWING CONDITIONS. RESOURCES ALSO VARY GREATLY ON ULTIMATE HEIGHT AND WIDTH ESTIMATES. ESTIMATES ARE OFTEN LISTED FOR TREES GROWN IN THE WILD. ULTIMATE SIZE OF CULTIVATED TREES IS TYPICALLY LESS. ESTIMATES LISTED HERE ARE COMPILED FROM A VARIETY OF CATALOGUES AND ON-LINE SOURCES.





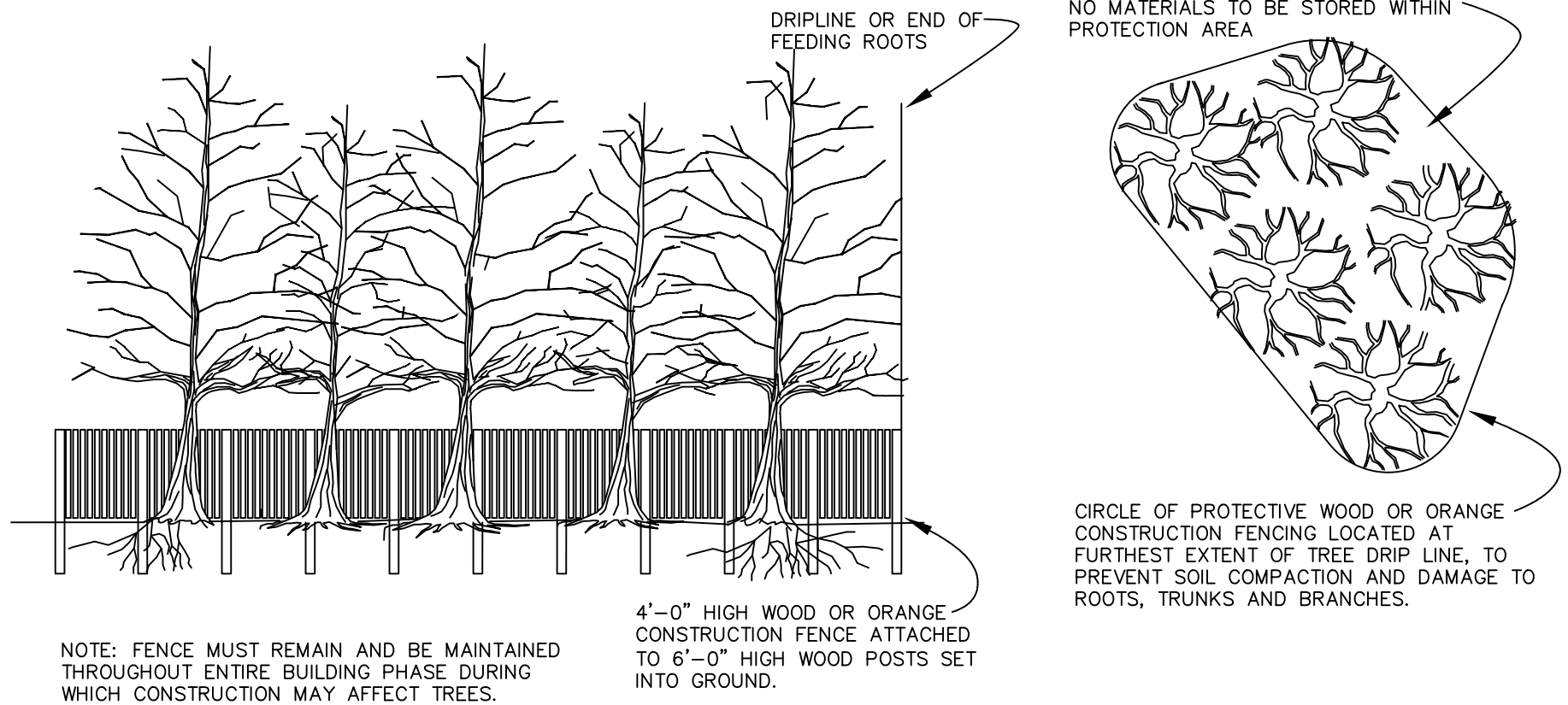
ROCK FILTER NO.	LOCATION	D (FT)	RIPRAP SIZE (R- )
1	CHANNEL 1	2	3

FOR D ≥ 3 FT. – USE R-4  
 FOR D ≥ 2 FT. TO D < 3 FT. – USE R-3  
 NOT APPLICABLE FOR D < 2 FT.

**NOTES:**

SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH 1/2 THE HEIGHT OF THE FILTERS.

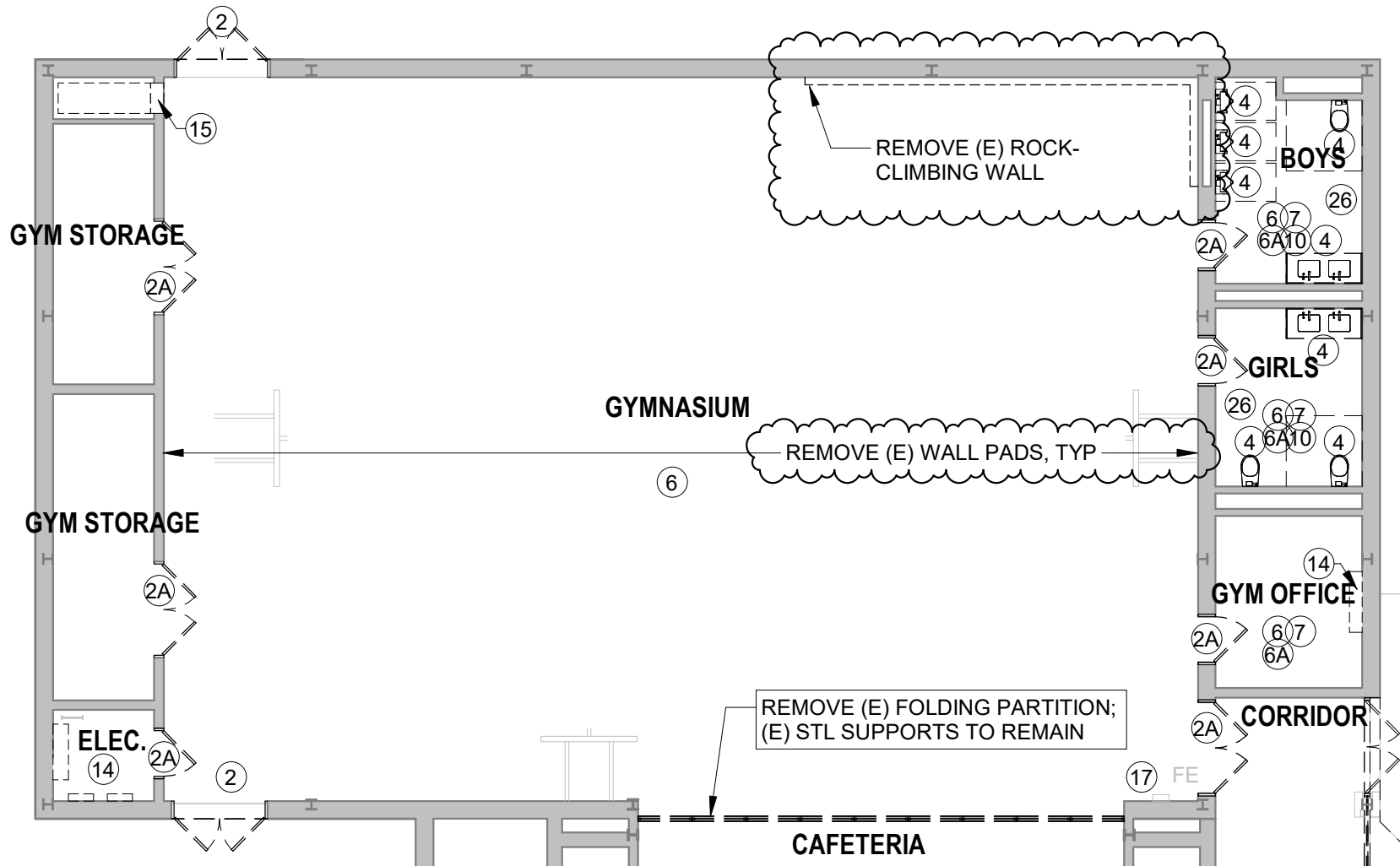
IMMEDIATELY UPON STABILIZATION OF EACH CHANNEL, REMOVE ACCUMULATED SEDIMENT, REMOVE ROCK FILTER, AND STABILIZE DISTURBED AREAS.



TREE PROTECTION DETAIL

NOT TO SCALE

1



1 **ENLARGED DEMOLITION PLAN - GYMNASIUM**  
3/32" = 1'-0"

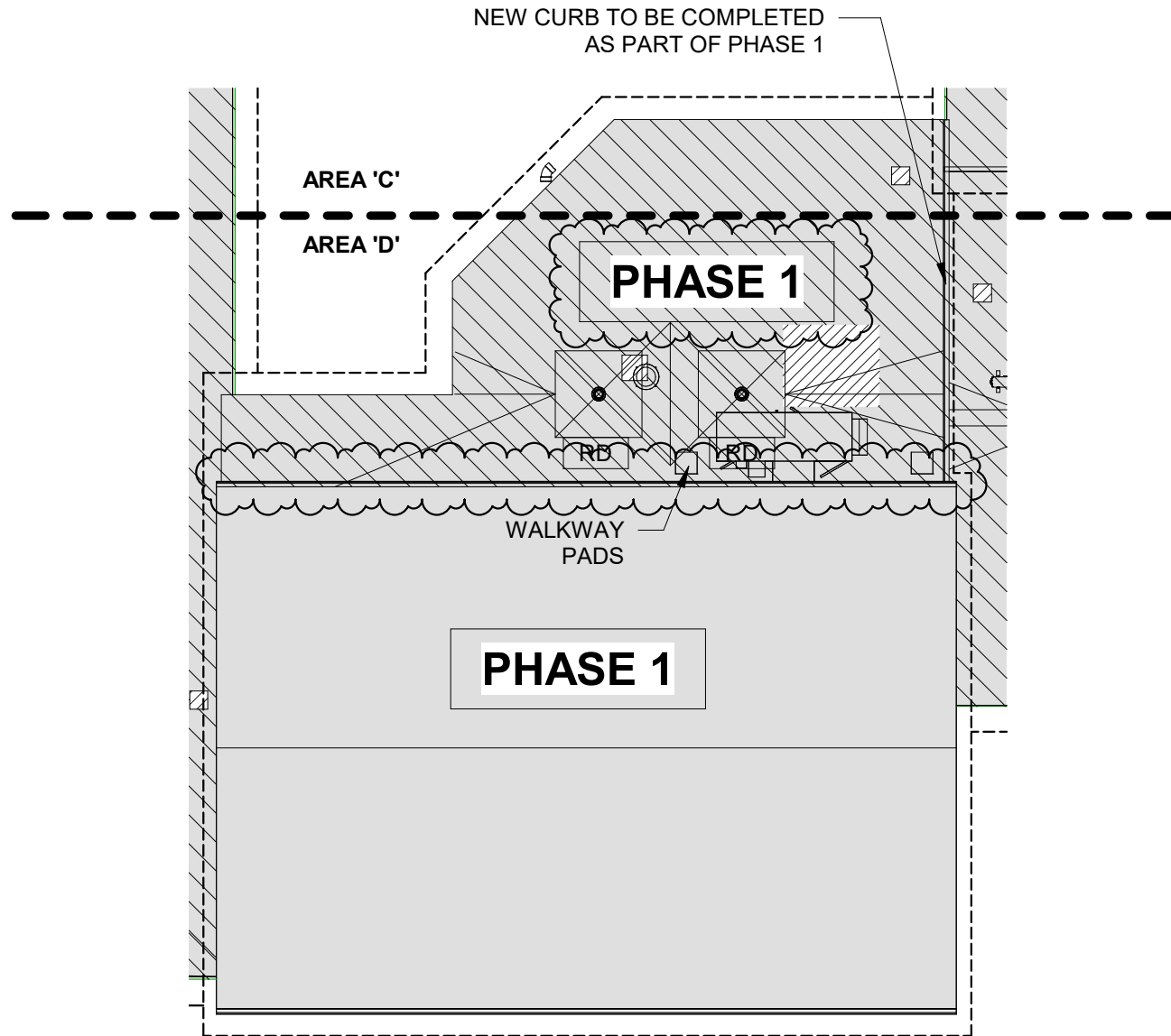


Mary C. Howse  
Elementary

150 S. Independence Mall West  
Suite 1200  
Philadelphia, PA 19106  
phone: 215.829.0922  
facsimile: 215.829.0596

BHA Job Number: 22-114  
Scale: 3/32" = 1'-0"  
Drawn By: NM  
Sheet(s) Affected:  
Date: 11/17/23  
Revision:

Sheet Name:  
**DEMO PLAN - GYMNASIUM**  
Sheet No:  
**SK-1**  
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1 **LIBRARY ROOF PHASING**  
1/16" = 1'-0"

Mary C. Howse  
Elementary

150 S. Independence Mall West  
Suite 1200  
Philadelphia, PA 19106  
phone: 215.829.0922  
facsimile: 215.829.0596

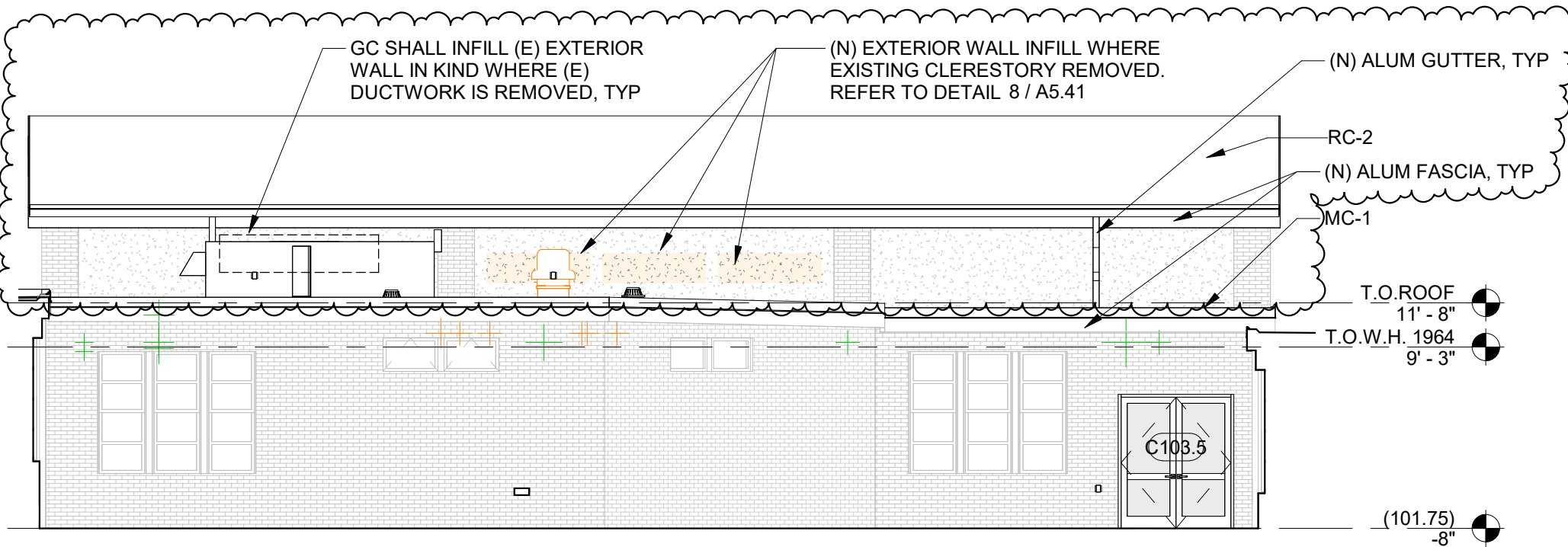
BLACKNEY  
HAYES  
ARCHITECTS

BHA Job Number:	22-114
Scale:	1/16" = 1'-0"
Drawn By:	NM
Sheet(s) Affected:	
Date:	11/17/23
Revision:	

Sheet Name:  
**ROOF PHASING  
PLAN**  
Sheet No:

**SK-2**

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1 **EAST ELEVATION - COURTYARD**  
1/8" = 1'-0"



Mary C. Howse  
Elementary

150 S. Independence Mall West  
Suite 1200  
Philadelphia, PA 19106  
phone: 215.829.0922  
facsimile: 215.829.0596

BHA Job Number: 22-114  
Scale: 1/8" = 1'-0"  
Drawn By: NM  
Sheet(s) Affected:  
Date: 11/17/23  
Revision:

Sheet Name:  
**LIBRARY  
ELEVATION**  
Sheet No:  
**SK-3**  
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(E) CONC LINTEL

DASHED GRAY LINE INDICATE  
(E) BRICK TO BE REMOVED

METAL LATH

MORTAR BED

WEATHER BARRIER AND  
DRAINAGE MAT. OVERLAP  
FLASHING

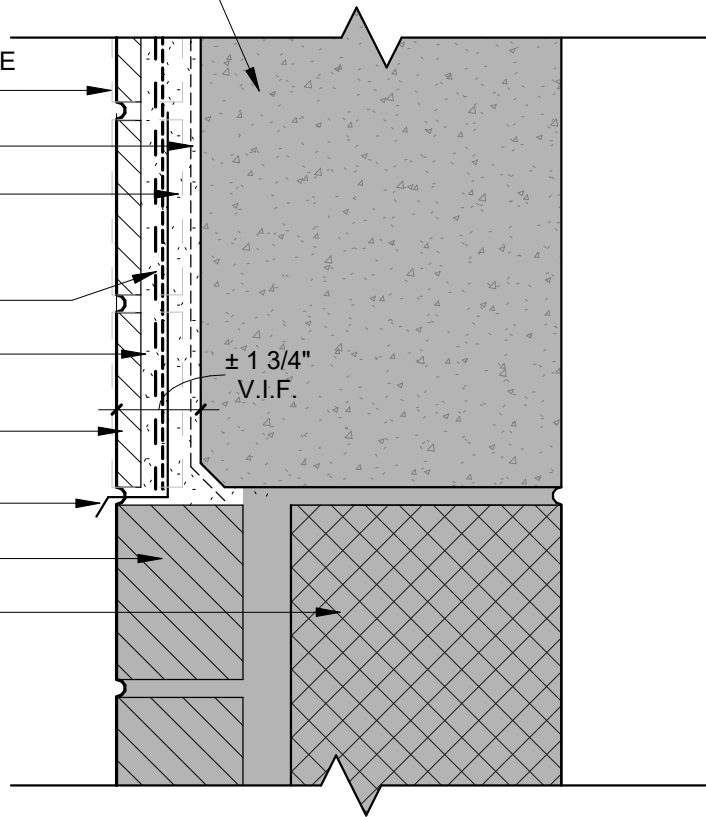
(N) THINSET

(N) THIN BRICK, TO MATCH  
BR-1. ALIGN W/ (E) BRICK

(N) ALUM FLASHING  
UP CAVITY 8"

(E) BRICK

(E) WALL CONSTRUCTION



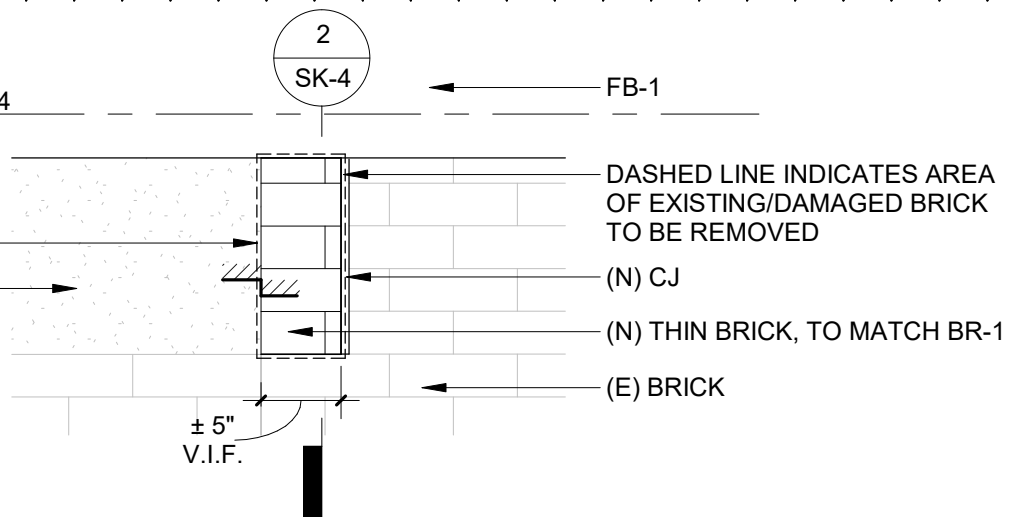
## 2 DETAIL - BRICK REPAIR AT CONC LINTEL

3" = 1'-0"

T.O.W.H. 1964  
9' - 3"

(N) BACKER ROD & SEALANT AT  
THIN BRICK RETURN

(E) CONC LINTEL



## 1 DETAIL - BRICK REPAIR AT COURTYARD

1" = 1'-0"

Mary C. Howse  
Elementary

150 S. Independence Mall West  
Suite 1200  
Philadelphia, PA 19106  
phone: 215.829.0922  
facsimile: 215.829.0596

BHA Job Number: 22-114

Scale: As indicated

Drawn By: NM

Sheet(s) Affected:

Date: 11/17/23

Revision:

Sheet Name:

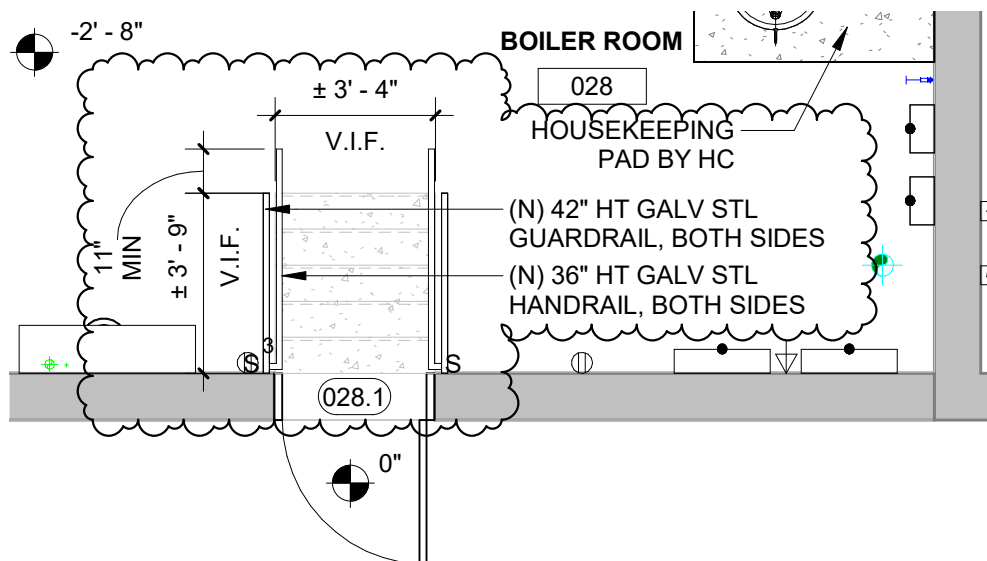
BRICK REPAIR  
DETAIL

Sheet No:

SK-4

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BLACKNEY  
HAYES  
ARCHITECTS



1 **BOILER ROOM 026 - EXISTING STAIR PLAN**  
1/4" = 1'-0"



Mary C. Howse  
Elementary

150 S. Independence Mall West  
Suite 1200  
Philadelphia, PA 19106  
phone: 215.829.0922  
facsimile: 215.829.0596

BHA Job Number: 22-114  
Scale: 1/4" = 1'-0"  
Drawn By: NM  
Sheet(s) Affected:  
Date: 11/17/23  
Revision:

Sheet Name:  
**BOILER ROOM  
STAIR PLAN**  
Sheet No:  
**SK-5**  
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**ATTACHMENTS:**

22-114 BHA Mtg Sign In Sheet\_2023 1115  
22-114 Prebid Meeting Notes\_2023 1115  
22-114 001113 Advertisement for Bids\_Addendum 01\_2023 1117  
263600 Transfer Switches  
20231120\_2 submission  
ADA Parking Detail  
Compost Sock and Rock Filter Locations  
Compost Sock Chart  
Revised Plant Materials List  
Rock Filter Detail  
Tree Protection Detail  
22-114 SK-1\_DEMO PLAN - GYMNASIUM\_ADDENDUM 01\_2023 1117  
22-114 SK-2\_ROOF PHASING PLAN\_ADDENDUM 01\_2023 1117  
22-114 SK-3\_LIBRARY ELEVATION\_ADDENDUM 01\_2023 1117  
22-114 SK-4\_BRICK REPAIR DETAIL\_ADDENDUM 01\_2023 1117  
22-114 SK-5\_BOILER ROOM STAIR PLAN\_ADDENDUM 01\_2023 1117

**END OF ADDENDUM 01****ISSUED BY THE ARCHITECT:**

A handwritten signature in black ink, appearing to read 'Nate Moran', followed by a horizontal line.

(Signature)

Nate Moran, RA – Project Architect

(Printed name and title)



**ADDENDUM RECEIVED**

Date: \_\_\_\_\_

To: Blackney Hayes Architects

Attention: \_\_\_\_\_

Project: Mary C. Howse Elementary School

Addendum Number \_\_\_\_\_

**This correspondence acknowledges that we have received the above referenced Addendum.**

**Accepted by:**

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

