

ADDENDUM NO. 3

CONTRACT NO. 1 GENERAL CONSTRUCTION
CONTRACT NO. 2 HVAC CONSTRUCTION
CONTRACT NO. 3 PLUMBING CONSTRUCTION
CONTRACT NO. 4 ELECTRICAL CONSTRUCTION

MERCER COUNTY AGRICULTURAL AND
CONSERVATION COMMUNITY
LEARNING CENTER AT
MUNNELL RUN FARM
41 MUNNELL RUN LANE
MERCER, PA 16137

FOR THE
MERCER COUNTY COMMISSIONERS
125 SOUTH DIAMOND STREET
MERCER, PA 16137
HHS DR #4826

To the Contractor:

The following Addendum is intended to clarify and / or amend the Contract Documents as follows. Please note that this Addendum has been reviewed and incorporated into your bid in the proper space on the Proposal Form.

REFERENCE PROJECT MANUAL

1. Reference Division 00 - Contract No. 1 - General Construction:
 - A. Reference Section 000110.1 - Table of Contents - Contract No. 1 - General Construction, Division 10, Revise as follows:
 - 1) Delete "107316 - TRANSLUCENT POLYCARBONATE-PANEL CANOPY ASSEMBLIES"
 - 2) Add "107316.5 – PRE-ENGINEERED CANOPY ASSEMBLIES"
2. Reference Division 10 - Contract No. 1 - General Construction:
 - A. Reference Section 107316 - Translucent Polycarbonate-Panel Canopy Assemblies, Delete this Section entirely.
 - B. Reference Section 107316.5 – Pre-Engineered Canopy Assemblies, the attached Section shall be incorporated into the Contract Documents.
3. Reference Division 23 - Contract No. 2 - HVAC Construction:
 - A. Reference Section 230900 – There is to be standalone controls for all HVAC equipment. This project does not require a BMS system.

REFERENCE DRAWINGS

1. Reference Sheet No. A-1.1:
 - A. Reference Basement Plan B4/A1.1, the concrete slab note in Basement 001 shall read as "Patch/Repair Bot. of Exist'g Conc. Slab as Req'd"
 - B. Reference Floor Plan B6/A1.1, Building 'B', Revise Window Type for the two windows in Comp. Rm. 105 to be "4", in lieu of "5".

Mercer County Agricultural and
Conservation Community
Learning Center at
Munnell Run Farm
Mercer County Commissioners
HHS DR #4826

- C. Reference Keynotes, Revise Keynote 10/CAN to read as “Pre-Engineered Free-Standing Canopy”
 - D. Reference General Notes, Add the following General Note 39:
 “39. All exposed ductwork located in Aquaponics 100 shall be primed and painted by the General Contractor. This does not include the fabric ductwork.”
2. Reference Sheet No. A-2.1:
 - A. Reference Window Elevations, Add the following Note 5 to the Window Notes:
 “5. All window opening dimensions shall be field verified, typ.”
 3. Reference Sheet No. H-1.1:
 - A. All exposed ductwork located in Aquaponics 100 shall be rectangular as shown on the drawings and shall be primed and painted by the General Contractor. This does not include the fabric ductwork.
 - B. The 3/4” HWS&R piping indicated to be direct buried shall be factory pre-insulated direct buried piping consisting of Schedule 40 steel carrier pipe, polyurethane foam insulation, and HDPE outer casing. Install below local frost depth.
 4. Reference Sheet No. ED-101:
 - A. Reference Demolition Note 2, Add the following to Note 2:
 “Provide temporary Class 7, Southern Yellow Pine or equal, CCA treated, wood pole, 20-feet in length, 5-feet buried, installed approximately 5 feet from the existing service pole to maintain electrical service to the existing maintenance building. Field locate temporary pole with other disciplines to avoid conflict with construction. Minimum clearance between OHE and ground is 13-feet. Provide additional triplex cable as required to maintain service if existing conductors are too short. Match existing service cable rating. Remove temporary electrical service conductors and poles when permanent service is established and energized.”

ATTACHMENTS

1. The following is a summary of the heretofore stated Attachments which shall be incorporated into and become a part of the Contract Documents.
 - A. Section 107316.5 – Pre-Engineered Canopy Assemblies

	<u>Vincent Ordinario</u>
H H S D R	Architects / Engineers
Sharon, PA	Pittsburgh, PA

SECTION 107316.5 – PRE-ENGINEERED CANOPY ASSEMBLIES

PART 1 GENERAL

1.01 SCOPE

- A. This section of specifications includes all labor, supervision, equipment, tools, materials and all other means of construction necessary to perform the pre-engineered canopy work as shown on drawings, described in this specification, or as is necessary to complete the work in a first-class manner.
- B. Work includes the following:
1. Design, engineer, manufacture and installation of pre-engineered/pre-manufactured aluminum canopy.
 2. Assemblies shall be pre-engineered, designed to support loads as specified and include all columns, framing, anchors, brackets, and hardware attachments necessary to complete the structural assembly, weatherability and water-tightness performance requirements, as well as all flashings, closures, and trim.
 3. Trained and factory authorized labor with supervision to complete the entire assembly installation.
 4. Foundations: The engineer providing calculations for this section shall review the foundation design as detailed on drawings and verify that it is sufficient for the framing engineered under this Section; downsizing of the foundation will not be permitted.
 - a. See Section 033000 for concrete.

1.02 RELATED WORK INCLUDED IN OTHER SECTIONS

- A. Documents affecting work of this Section include but are not necessarily limited to: All Sections in Divisions 00, 01, and 02 of these Specifications.
- B. Cast-In-Place Concrete - Section 033000.

1.03 STANDARDS

- A. Labor and materials shall meet requirements and recommendations of applicable portions of standards listed.
1. American Architectural Manufacturer's Association, AAMA

1.04 QUALITY ASSURANCE

- A. Manufacturers Qualifications: Single firm with not less than six years experience in the design and manufacturing of similar work.
1. The manufacturer shall be responsible for the design, engineering, configuration and fabrication of the complete canopy system and will ensure that it fully meets all requirements of this specification.
 2. Able to demonstrate successful performance on comparable projects.
 3. All canopy assembly drawings and design analysis shall bear the seal of a registered professional engineer in the Commonwealth of Pennsylvania.
- B. Installer Qualifications: Experienced installer, approved by the manufacturer, with not less than six years experience in the installation of similar work.

C. Design Requirements: Canopies shall include engineering design by a professional engineer licensed in the State of Pennsylvania. All submittals (drawings, engineering data, design calculations, details, etc.) shall be prepared, stamped and sealed by said engineer. Products/systems shall be engineered, manufactured and installed in accordance with applicable building codes, drawing details, and structural loads/wind loading as indicated on drawings, as herein specified, and/or as required by local codes.

1. Designing Engineer shall design canopy for wind and snow loads, as required by building height and region to comply with IBC 2021, minimum loads as follows:
 - a. Withstand winds of up to and including 85mph Vasd Nominal design wind speed; and 110mph Vult Ultimate design wind speed, per IBC 2021 1609.3 or ASCE 7.
 - b. Snow Load: 30 PSF
 - c. Concentrated Load: 250 lbs.

D. Field Measurements: Verify size, location and placement of canopies prior to fabrication, wherever possible.

E. Pre-installation Meetings: prior to commencing with on-site canopy construction work, a Pre-Installation Conference shall be held to verify project requirements, manufacturer's installation instructions, and discuss the first-class quality expectations of the Architect/Owner regarding canopy work and the Contractor's intent to provide same. All Canopy Assembly submittals shall be complete and reviewed as acceptable by the Architect prior to this meeting.

1.05 SUBMITTALS

A. Product Data: Submit manufacturer's technical data, product specifications, installation instructions, and other pertinent information as applicable for each product or material specified.

B. Shop Drawings:

1. Shop drawings shall meet requirements of applicable portions of General Conditions.
2. Shop drawings shall include detailed plans, elevations and details of framing members, aluminum materials (gages, profiles, sections, etc.), details of construction, methods of attachment and anchoring and relationship with adjacent materials.
 - a. Include details of provisions for assembly expansion and contraction and for draining moisture within the assembly to the exterior.
 - b. Submit coordination setting plans for column anchorage/layouts.
 - c. All drawings shall bear the seal of a registered Professional Engineer as specified in Paragraph 1.04.C. Submittals shall include design analysis (calculations), sealed by said Engineer.
3. Verify actual measurements by field measurements before fabrication; show recorded measurements on shop drawings.

C. Samples: Submit selection and verification samples for finish colors.

1. Aluminum Finish: Submit color charts or range samples for initial color selection. Submit finished sample of color selected.
2. Fabrication Samples: Of each system member, made from 12" lengths of full-size framing members and showing details of the following:
 - a. Joinery.
 - b. Anchorage.
 - c. Expansion provisions.
 - d. Drainage.

- D. Closeout Submittals. Submit the following:
 - 1. Maintenance Data for installed products. Include precautions against cleaning materials and methods detrimental to finishes and performance.
 - 2. Warranty: Warranty documents specified herein.

1.06 WARRANTY

- A. Provide manufacturer's warranties as follows:
 - 1. Manufacturer's standard finish warranty, but not less than 10 years.
 - 2. Manufacturer's standard watertightness warranty for entire complete system, but not less than 5 years.
- B. Installer shall furnish a written two-year workmanship warranty covering repairs required to maintain canopy, including flashing, in a satisfactory condition free of leaks at no expense to the Owner.

1.07 DELIVERY, STORAGE, HANDLING

- A. Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact. Sequence deliveries to avoid delays but minimize onsite storage. Store materials protected from exposure to harmful weather conditions, at temperature and humidity conditions recommended by manufacturer.
 - 1. Store and handle in strict compliance with manufacturer's instructions and recommendations. Protect from damage from sunlight, weather, excessive temperatures and construction operations.

PART 2 PRODUCTS

2.01 MANUFACTURER

- A. Canopies as herein specified "Post-Supported Super Lumideck" Canopies, pre-engineered of all extruded aluminum construction, as manufactured by Mapes Industries, Inc., Lincoln, NE.
- B. Additional fabricators/manufacturers approved for bidding, are as hereafter listed. Final approval shall be subject to Architect review of complete system submittals and certificates of compliance with materials, warranty(s), finishes, etc., as herein specified and drawing details. Fabricator/manufacturer is responsible for engineering design by a professional engineer licensed in the State of Pennsylvania. All submittals (drawings, engineering data, design calculations, details, etc.) shall be prepared, stamped and sealed by said engineer. Fabricator/manufacturer's standard warranty shall be modified to meet specified warranty.
 - 1. Atoms AP Canopy by Atoms Architectural Products, Parkersburg, WV.
 - 2. Skyscape Architectural Canopies, Duluth, GA
 - 3. Aluminum Canopies as manufactured by Duo-Gard Industries, Inc.

2.02 MATERIALS

- A. Members shall be extruded aluminum, alloy 6063-T6.
 - 1. Decking shall be 2 3/4" deep x 6" wide interlocking extrusions. Decking shall be self flashing and designed to withstand loads as specified above. Extrusion thickness as designed by manufacturer to comply with drawing dimensions and structural design loading, minimum .078".

2. Fascia shall be "J" Fascia Design (8" overall height), consisting of 8" high extruded "J" style fascia (thickness as designed by manufacturer to comply with drawing dimensions and structural design loading, minimum .125" thick). Fascia complete with closure pieces to decking (canted aluminum support bracket). Fascia shall extend across all sides of canopies.
 3. Columns shall be 4" square aluminum extrusions. Extrusion thickness as designed by manufacturer to comply with drawing dimensions and structural design loading.
 4. Beams shall be 4" x 7" aluminum extrusions. Extrusion thickness as designed by manufacturer to comply with drawing dimensions and structural design loading. Close and seal all exposed ends with aluminum end caps.
 5. Aluminum Finish: All exposed aluminum shall be factory finished with 2-coat 70% Fluoropolymer finish, meeting AAMA 2605, color as selected by the Architect from manufacturer's standard stock colors, including bronze and white options.
- B. Fasteners shall be stainless steel and supplied by the manufacturer.
- C. Sealants as recommended by canopy manufacturer to provide watertight installation.
- D. Post Brackets: Shall be 3" diameter galvanized steel pipe with welded steel top caps and steel base plates (8" square x 3/8") and anchors for surface mounting to concrete piers. 4" x 4" aluminum columns mount over post brackets; provide polyethylene spacers between the two materials.
1. Steel Pipe: ASTM A53, minimum Schedule 40.
 2. Steel Plate: ASTM A36, Grade 36.
 3. Non-corrosive Anchors: All mechanical anchoring products (cast-in and/or post-installed) to concrete shall be in accordance with ACI 318 as amended in Section 1905 of the 2021 IBC.
 4. Galvanizing: hot dipped galvanized after fabrication according to ASTM A123.

2.03 FABRICATION

- A. All connections shall be mechanically assembled utilizing 3/16" fasteners with a minimum shear stress of 350 lb. Pre-welded or factory-welded connections are not acceptable.
- B. Decking shall be designed with interlocking extruded aluminum members with mechanical fasteners field applied to provide structural integrity for the completed assembly.
- C. Size of Canopies: Contractor shall confirm all field dimensions / elevations prior to fabrication. Overall approximate sizes of canopies shall be as indicated on drawings.

PART 3 EXECUTION

3.01 INSPECTION

- A. Installer shall inspect area to receive canopy assemblies to determine that the conditions are in accordance with shop drawings and specifications. Any variance shall be recorded in writing and corrections made before beginning installation.

3.02 INSTALLATION

A. Install items in accordance with manufacturer's instructions and shop drawings, by workmen skilled and familiar with canopy installation.

1. All erection materials shall be supplied by the manufacturer.

B. Isolate between aluminum and dissimilar metals with a protective coating or plastic strip to prevent electrolytic corrosion.

C. Locate and place canopy units plumb, level, straight, true and in proper alignment with adjacent work.
Tolerances:

1. Variation from level: +/- 1/8" maximum in 20'-0" runs, non-cumulative.

D. Drainage: Field drill 2" drain holes in post columns (not through post bracket) and in fascia and beams at each post.

E. Canopies shall be left in a clean condition.

END OF SECTION 107316.5