

SECTION 011000 – SUMMARY OF WORK

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and General Provisions of the Contract, including Special Requirements, General Conditions and other Division 1 Specifications Sections apply to this Section.

1.2 PROJECT DESCRIPTION

- A. Work under this project entails upgrading HVAC building systems in areas of Pucillo Gymnasium facility. Work of the General Contractor includes selective demolition of support areas, structural upgrades for new units, and replacement of finishes and GWB and ACT ceiling. HVAC Work includes selective demolition, HVAC systems, ductwork and appurtenances and building controls. Electrical work includes selective demolition, power, wire, and conduit, light fixtures and lighting controls.

1.3 WORK INCLUDED

- A. Work shall include, but is not necessarily limited to, the furnishing of all labor, supervision, materials, tools and equipment and performing all work necessary to complete all General Construction, HVAC, and Electrical Work to the satisfaction of and subject to approval of the Professional and the University.
- B. The Drawings and Specifications are intended to function as a common set of documents. Anything shown on the drawings but not in the specifications or mentioned in the specifications and not shown on the drawings, shall be equally binding as if both were noted on the drawings and called for in the specifications.

The Drawings are generally diagrammatic and indicative of the Work to be installed. Exact locations of equipment, utilities and points of termination shall be verified in the field and if necessary, reviewed with the Professional. Should it be found that any system or equipment cannot be installed as shown on the Drawings, the Professional and University shall be consulted before installing or making changes to the layout.

Contractors shall carefully examine the Architectural, Structural, HVAC, and Electrical Contract Drawings and Specifications. If any discrepancies occur between the drawings or between the drawings and specifications, the discrepancies shall be reported to the Professional in writing and obtain written instructions as to the manner in which to proceed. No departures from the Contract Documents shall be made without prior approval from the University.

All items of labor, material and equipment not specified in detail or shown on the drawings but incidental to or necessary for the complete and proper installation and proper operation of the several branches of the work described herein or reasonably implied in connection therewith, shall be furnished as if called for in detail by the specifications or drawings.

- C. Work for the Project will be accomplished by separate Contractors according to Pennsylvania Statute.

- 1.4 SCOPE OF WORK: Each Contract shall be performed concurrently and coordinated closely with construction activities performed on the Project under other Contracts. Work shall include, but is not necessarily limited to the following:

A. General Construction – MI-1213.G

1. The General Contractor shall be the lead Contractor on the project and will coordinate the work and Master Project Schedule with all Prime Contractors.
2. Provide temporary facilities as defined in Section 015000.
3. Provide temporary protection of existing material finishes from damage such as lockers, plumbing fixtures, toilet partitions, and other items identified to remain in place during demolition and construction activities. Provide dust barriers as indicated and where needed to minimize the spread of dust.
4. Perform selective building demolition as indicated. Coordinate with Prime Contractors for sequencing of utilities shutdown and other prime Contractor's removal of mechanical and electrical equipment and systems.
5. Provide all cutting and patching to perform the work. Coordinate cutting and patching requirements and their locations with each respective Prime Contractor.
6. Cut and patch existing EPDM and built-up roof systems as needed to accommodate new roof curb, piping, and steel dunnage penetrations needed for placement of new roof top mounted HVAC equipment. Provide temporary protection of existing roof system membrane adjacent to cutting and patching activities as indicated.
7. Renovate existing building as indicated on the Drawings.
8. Provide and install structural steel components required to reinforce existing building structure and new roof deck openings, and to erect (2) steel dunnage platforms as indicated on the drawings.
9. Provide new GWB bulkheads, GWB and ACT ceilings, access doors, and interior painting as indicated on the drawings.
10. Provide insulated painted metal blank off panels at (4) louver locations.
11. Provide ballasted guardrail system where indicated.
12. Provide flashing and sealing of roof penetrations and curbing made by other Prime Contractors.
13. Install sleeves and inserts and other items provided by other Prime Contractors.
14. Provide all necessary fire stopping associated with the execution of the work. Openings in the existing building not used by any Prime Contractor will be fire stopped by the General Contractor.
15. Provide daily clean-up and professional overall final cleaning for the entire building and final cleaning of exterior construction site.

B. HVAC Construction – MI-1213.H

1. Provide input to General Contractor for preparation of the Master Project Schedule.
2. Coordination of work with other Prime Contractors.
3. Provide demolition of equipment and systems as indicated on the HVAC drawings. HVAC Contractor shall terminate and/or shut off respective service to equipment or building areas to allow for removal and demolition work.
4. Provide cutting and patching to perform the HVAC work.
5. Cutting of roof penetrations for HVAC work on the roof shall be the responsibility of the General Contractor. The General Contractor will flash all penetrations and curbs. Coordinate with the General Contractor exact requirements for penetration and opening sizes, and structural support of all roof-mounted equipment or openings.
6. Provide roof top air handling units, exhaust fans, condensing units, and other accessories and appurtenances.

7. Provide air handling distribution systems including variable air volume boxes with electric reheat, fan coil units, ductwork, dampers, air terminals, accessories, and structural supports.
8. Provide miscellaneous heating and cooling equipment and associated accessories.
9. Provide cleaning of existing ductwork identified to be cleaned on HVAC drawings.
10. Refurbish fire dampers identified on the HVAC drawings.
11. Provide condensate piping from mechanical equipment.
12. Provide all curbs other related above-roof structures and associated blocking necessary to install roof-equipment at correct height above adjacent finished roof surface. Coordinate curb sizes with and openings with General Contractor.
13. Provide support blocking for equipment mounted at grade level.
14. Maintain connection of existing DDC HVAC instrumentation and control systems to remain and extend new as required for full integration of systems with campus BAS.
15. Provide building automation systems and accessories as required. This includes all required hardware, software, system integration, wiring, and accessories.
16. Provide preparation of surfaces to receive paint. Painting of all conduits, supports and equipment required to be painted will be by the General Contractor.
17. Providing training, start-up, and testing, adjusting, and balancing of all systems.

D. Electrical Construction – MI-1213.E

1. Provide input to General Contractor for preparation of the Master Project Schedule.
2. Coordination of work with other Prime Contractors.
3. Demolition work for electrical as shown on the Drawings. Electrical Contractor shall terminate and/or shut off respective service to equipment to allow for removal and demolition work.
4. Provide cutting and patching to perform the electrical work.
5. Cutting of roof penetrations for electrical work on the roof shall be the responsibility of the General Contractor. The General Contractor will flash all penetrations and curbs. Coordinate with the General Contractor exact requirements for penetration and opening sizes, and structural support of all roof mounted equipment or openings.
6. Provide electrical connections to HVAC equipment including breakers, disconnect switches, conduit and wiring.
7. Provide interior lighting fixtures and lighting controls including breakers, conduit and wiring.
8. Provide fire alarm system work including removal and reinstallation of fire alarm devices, new fire alarm devices, low voltage cabling, conduit and connection to the existing building fire alarm system.
9. Provide preparation of surfaces to receive paint. Painting of all conduits, supports and equipment required to be painted will be by the General Contractor.

1.5 DESCRIPTION OF BASE BIDS

A. Base Bid #1:

Base Bid #1 shall consist of all General, HVAC, and Electrical Work as shown in the Contract Documents, including, but not limited to, the items described in 1.4 above.

1. General Construction (Contract #MI-1213.G):

- a. Base Bid #1 will consist of all General Construction Work as shown in the Contract Documents including, but not limited to, the items described in Scope of Work in this section.
- b. Base Bid #2 will consist of all the work in Base Bid #1 except for the following changes:
Delete the work on Drawings A1.01, A1.02, A2.00, A2.02 and S101 associated with Classroom 208, Classroom 209, Classroom 212, Storage 210, Office 210A, Storage 210B, Classroom 211 and RTU-7.
- c. Base Bid #3 will consist of all the work in Base Bid #2 except for the following changes:
Delete the work on Drawings A1.02, A2.02 and S101 associated with RTU-6.

2. HVAC Construction (Contract #MI-1213.H)

- a. Base Bid #1 will consist of all HVAC Work as shown in the Contract Documents including, but not limited to, the items described in Scope of Work in this section.
- b. Base Bid #2 will consist of all the work in Base Bid #1 except for the following changes:
Delete the work on Drawings H-003, H-004, H-005, H-102, H-103, H-104 associated with Classroom 208, Classroom 209, Classroom 212, Storage 210, Office 210A, Storage 210B, Classroom 211, RTU-7, HV#7 CU and H&V Unit 7. Include work associated with replacement of F-13
- c. Base Bid #3 will consist of all the work in Base Bid #2 except for the following changes:
Delete all work on Drawings H-004, H-103 and H-104 associated with RTU-6 and H&V Unit 6.
Include work associated with relocation of existing HV#6 CU.

3. Electrical Construction (Contract #MI-1213.E)

- a. Base Bid #1 will consist of all Electrical Work as shown in the Contract Documents including, but not limited to, the items described in Scope of Work in this section.
- b. Base Bid #2 will consist of all the work in Base Bid #1 except for the following changes:
Delete all work on Drawings E-004, E-005, E-006, E-103, E-104 and E-105 associated with Classroom 208, Classroom 209, Classroom 212, Storage 210, Office 210A, Storage 210B, Classroom 211 and RTU-7.

Include work to electrically refeed HV#7 CU and H&V Unit 7.

- c. Base Bid #3 will consist of all the work in Base Bid #1 except for the following changes:

Delete all work on E-105 associated with RTU-6.

Include work to electrically relocate/refeed HV#6 CU and refeed H&V Unit 6.

1.6 WORK SEQUENCE

A. Milestones

Construction Start: April 1, 2024

Athletic Training Area, Gymnasium & Second Floor Classrooms Start: May 13, 2024

Athletic Training Area Work shall be complete July 12, 2024

Overall Completion date for all other areas: August 9, 2024

B. Work Hours

1. General: The Contractor is responsible for providing sufficient staff to perform the work and complete the Project in the time allotted. Working hours indicated below are not intended to restrict the Contractor's ability to perform the Work and may be expanded as permitted.
2. Working hours will be according to a schedule agreed upon by the Contractor, Construction Manager (if applicable), and the University. Contractors are permitted to schedule work between 7:00 AM and 5:00 PM, 7 days a week. Work during different hours, or work on State and National Holidays, must be approved by the University.
3. Working hours may be expanded in isolated and/or emergency instances when a particular operation must be performed in a continuous sequence that extends the working day beyond the approved working hours. Coordinate with the University in these instances.
4. The University's failure to approve expanded working hours or work on holidays will not because for a claim against the University.

1.7 WORK UNDER SEPARATE CONTRACTS OR BY OWNER

- A. The University will perform certain operations and/or award independent contract(s) for performance of construction-related operations at the Project site. These operations will be conducted simultaneously with the Work under this Contract. All Separate Prime Contractors are expected to cooperate fully with other independent contractors so that work on those contracts may be carried out smoothly, without interfering with, or delaying, the Work under this Contract.
- B. The University may undertake or award other contracts for work unrelated to this Project, but which may be at or near the site(s) of the Work under this Contract. The Contractor, other contractors, and University employees, shall cooperate with each other and shall adapt scheduling and performance of their work to reasonably accommodate each other, heeding any direction that may be provided by the University. The Contractor shall report to the University any interferences or conflicts immediately, whether committed or experienced.

1.8 UNIDENTIFIED HAZARDOUS MATERIALS (ASBESTOS, LEAD, ETC.)

- A. General: There is a possibility that hazardous materials not identified in the Contract Documents may be discovered on this Project. Should hazardous or suspicious materials be encountered, the Contractor shall immediately stop work in that area and notify the University. The University will investigate the suspicious material and if it is found to be hazardous, the University will be responsible for having it removed.
- B. Asbestos: There is no known asbestos on this Project. All known asbestos-containing material has been removed from the building.
- C. Mercury: All fluorescent and high intensity discharge lamps containing mercury and which are intended for disposal shall be turned over to the University for recycling. The Contractor shall package the lamps and store in a location as directed by the University.
- D. PCBs: The General Contractor shall remove and properly dispose of ballasts found to contain PCBs.

1.9 WORK RESTRICTIONS

- A. Existing Facilities, Infrastructure, and Occupancy.
 - 1. The building shall remain partially occupied during the execution of the Work.
 - 2. Building alarm systems are to remain operational during construction for all occupied areas.
- D. The Contractor shall provide a reasonable individual to accept deliveries of materials and equipment and provide labor and equipment to unload delivery trucks. The University will not accept or sign for deliveries of materials or equipment to the Contractor, and the University will not handle or store materials or equipment for the Contractor.
- E. The Contractor shall make suitable prior arrangements with the University for the delivery of large equipment or materials in large vehicles to the Project site. The intent is to avoid such deliveries at time of peak commuter traffic to the University. The University will determine if other University entities, such as University Police, need to be involved.
- F. Staging and storage areas are identified on the Drawings. The Contractor may not use any other campus locations for use as staging or storage areas without prior approval of the University. Any additional storage or work areas needed for operations shall be off campus and shall be obtained and paid for by the Contractor. The Contractor is responsible for protection and safekeeping of products stored in staging and storage areas on campus. Stored products that interfere with operations of the University or other contractors shall be moved. Roofing materials and bulk materials, of any type and for any contractor, shall not be stored or stockpiled overnight on new or existing roofs.
- G. Loading the structure with weight that will endanger the structure is not permitted. Ductwork, conduit, ceiling systems, lighting fixtures, or any other miscellaneous equipment shall not be suspended from new or existing metal roof decks. These components shall be suspended from the structural members, or from a suspension system supported by the structural members. All concentrated loads must be approved by the University. If concentrated loads are not approved, the Separate Prime Contractor furnishing the equipment must provide acceptable means of distributing the load.
- H. The Contractor shall make a reasonable attempt to arrange its on-site work to minimize interference with normal University business activities, particularly those activities not directly related to the actual Work or the operation thereof.

- I. Contractors are authorized to work whatever hours are required to complete the Work by the specified Contract completion date. The University will normally be providing quality assurance coverage from 7:00 AM to 3:00 PM, Monday through Friday, holidays excepted. Contractors are required to notify the University in writing at least five (5) working days in advance of any work that is planned for outside of the normal coverage hours for the University. Contractors shall not perform any testing or cover-up work outside the normal coverage hours for the University without the prior written approval of the University. The University's failure to approve an expanded work-hour schedule or work on holidays shall not be grounds for a claim against the University.
- J. The Contractor shall comply with all University personnel identification and vehicle registration requirements while on the campus.
- K. Contractor employees shall park privately-owned vehicles in an area designated by the University. Contractor employee parking shall not interfere with existing and established parking requirements of the University.
- L. The Contractor shall keep fire hydrants adjacent to the Project accessible at all times. No materials or obstructions shall be placed within twenty (20) feet of any such hydrant, or within any other distance as required by law or ordinance.
- M. The Contractor shall keep driveways and entrances servicing the campus and adjacent buildings clear and available to the University and to emergency vehicles at all times. Such areas shall not be used for parking or storage of materials. Deliveries shall be scheduled to minimize space and time requirements for storage of materials and equipment.
- N. The Contractor shall maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. The Contractor shall not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from the University.
- O. The Contractor shall provide protection for all existing roads, walkways, pavement, buildings, appurtenances, ground structures, signs, trees, landscaping, grass, etc., scheduled to remain. The Contractor shall provide means to protect such items from damage and shall repair any damage caused by its operations, at no cost to the University. The Contractor shall return the premises to like-original condition and/or to match adjacent areas that were not affected by the work, subject to approval by the University. Any restoration of the site shall include replacement of landscaping with "like" plants of the same species, size, and shape. Grass remediation shall be by "sod" method rather than seeding. All work shall be approved by the University.
- P. At the end of each day, the Contractor shall clean the Project site of scraps, packaging containers, and other trash, and have it removed from the campus. This shall include waste and packaging that has blown outside of the Project site.
- Q. Smoking and other use of tobacco products are prohibited in University buildings, including buildings under construction. Contractors and their employees working on University property are prohibited from smoking in University buildings.
- R. Alcoholic beverages and controlled substances shall not be carried, consumed, or stored on University property.
- S. Open fires or burning are not permitted on university property.
- T. Burying of waste materials on site, to include materials from clearing and grubbing operations, is prohibited without written permission of the University. The Contractor shall remove any such material from the Project site and recycle or dispose of it in a legal manner.

- U. The Contractor shall not plan for any blasting operations without prior written approval of the University.
- V. The Contractor is responsible for the behavior of its employees and shall immediately remove from the site any employee engaging in racial or sexual harassment, whether by work or deed. This includes "catcalls" and inappropriate language. The University will require any Contractor's, subcontractor's, or supplier's personnel to be removed from the job site in the event of misconduct or improper interaction with university students or staff.
- W. Regardless of the proximate cause, in the event of any damage occurring to university or private property by any Contractor activity during the life of the contract, the Contractor shall promptly advise the University and participate in a joint assessment of the damage with university personnel. It is essential that the Contractor take all actions necessary to avoid claims by third parties.
- X. The University shall have first right of refusal on all removed equipment. Existing pieces of equipment and materials that are to remain the property of the University will be tagged by the University prior to the start of work. Such items shall be moved and/or stored by the Contractor when directed by the University. Equipment shall be stored as complete units with all associated accessories and auxiliary equipment. Equipment shall be disconnected and carefully removed and shall be transported to the storage areas as directed. Equipment shall be stored in a neat and workmanlike manner, tagged, and identified for future use.

1.9 PROJECT UTILITY SOURCES

- A. The location of existing utilities and equipment is shown on the Drawings in an approximate way only and has not been independently verified by the University. The Contractor shall determine the location of all utilities and equipment, including those overhead and underground, before commencing Work, and shall take all necessary precautions to prevent injury or damage during the performance of the Work. The Contractor agrees to be fully responsible for any and all damages that might be occasioned by the Contractor's failure to locate and preserve any and all items.
- B. The Contractor, when performing excavation or demolition work, shall fully comply with the requirements of P.L. 852, Act 287, December 10, 1974, as amended, relative to protection of underground utilities, which shall include, but not be limited to, the following actions:
 - 1. Ascertain the approximate location and type of utility lines at the site by inspecting drawings or by obtaining a list of utility companies' lines on the site from the county Recorder of Deeds and then contacting the utility companies.
 - 2. A minimum of five (5) working days before excavation or demolition, request from the utility companies the steps contractors should take to avoid any damage.
 - 3. Inform the responsible supervisor or foreman and each equipment operator of the information obtained in 1. and 2. above.
 - 4. Report to the utility company and the University any damage to a utility line made or discovered in the course of the work.
 - 5. Alert the University and occupants of premises as to any emergency created or discovered in the course of the work.

6. Provisions of 1., 2., and 3. above do not apply in an emergency. An emergency is any condition constituting a clear and present danger to life or property by escaping gas, exposed wires, or other utility line breaks or defects.
- C. The Contractor shall locate, identify, shut-off, and disconnect utility services that are indicated for removal or replacement. The Contractor shall also locate and identify utility services that are not indicated for removal or replacement. If the utility services that are not indicated for removal or replacement must be shut down during construction, the Contractor shall provide bypass connections, as necessary, to maintain continuity of service to occupied areas of buildings and the campus. All switching, securing, and disconnection of University utility services shall be performed in the presence of a knowledgeable University technician or utility representative.
- D. During excavation around underground utilities, when the Contractor reaches a point approximately three feet from the estimated location of any underground utility, machine excavation shall be stopped and hand excavation shall be used to uncover the utility line. In the case of utilities as shallow as 12 inches below the surface, hand digging shall begin at the surface or immediately below any pavement. The Contractor is liable for the repair of any utility lines cut, broken, or otherwise damaged, at no additional cost to the University.
- E. If a utility line is broken or damaged, or if service is interrupted in any way, the Contractor must immediately notify the University (or the Campus Police outside of normal working hours) and the appropriate utility company. The Contractor shall take immediate action to restore the utility to full service.
- F. For any planned utility service interruptions, the Contractor shall furnish a request to the University for approval at least five (5) working days in advance, or as specified by the University. The request shall identify the affected buildings and the duration of the planned outage. The University will coordinate with affected personnel, as applicable. If the discontinued service is due to any emergency breakdown, the Contractor shall notify the University as soon as possible, and the University will notify those affected tenants and customers, as applicable. Power outages that involve portions of buildings may have to be scheduled for off-hours or weekends.

1.10 EXISTING CONDITIONS PHOTOGRAPHS

- A. Each Separate Prime Contractor prior to beginning any Work, shall furnish photographs or video showing the pre-existing conditions upon which its Work will be constructed. The photographs or video shall include the actual work site and the surrounding areas, and the specific locations or subject matter of the photographs or video shall be done in the presence of the University's project manager.
- B. Photograph documentation shall be in digital format furnished on a CD delivered to the Project Manager.

1.11 INDUSTRY STANDARDS

- A. Except where the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract. Such standards are made a part of the Contract by reference.
- B. Where the date of issue of a referenced standard is not specified, standards in effect as of date of Contract shall be in force.
- C. The quantity or quality levels shown or specified shall be the minimum and/or maximum provided or performed. The actual installation may comply exactly with the minimum or exceed

the minimum, within reasonable limits, if not detrimental to the Work. Uncertainties should be referred to the University for a decision before proceeding.

- D. If two or more specified standards provide differing or conflicting minimum and/or maximum levels of quantity or quality, the University shall be consulted for a decision as to the differing or conflicting levels before proceeding.
- E. Where copies of standards are needed for performance of the Work, the Contractor shall obtain copies directly from the publication source. Although copies of standards needed for enforcement of requirements may be included as part of required submittals, the University reserves the right to require the Contractor to submit additional copies, as necessary, for enforcement of requirements.
- F. Trade association names and titles of general standards are frequently abbreviated. Where such acronyms or abbreviations are used in the Technical Specifications or other Contract Documents, they mean the recognized name of the trade association, standards-generating organization, authority having jurisdiction, or entity applicable to the context of the provision.

PART 2 – PRODUCTS (Not applicable)

PART 3 – EXECUTION (Not applicable)

END OF SECTION 011000