

# REQUEST FOR QUOTE



Commissioning Agent  
Services

SHIPPENSBURG  
UNIVERSITY

FRANKLIN SCIENCE  
CENTER RENOVATION

Project No. DGS C-412-0056  
Phase 1

Technical Submission



Aramark Engineering  
and Asset Solutions

2400 Market Street  
Philadelphia, PA 19103

April 19, 2022

Barbara Laraia  
PA Department of General Services

Re: Commissioning Agent Services for DGS C-412-0056 Phase 1

Dear Ms. Laraia,

We are pleased to respond and provide a proposal and cost estimate for Commissioning Agent Services during the design stages of the Department of General Services Project No. DGS C-412-0056 Phase 1, Franklin Science Center Renovation project at Shippensburg University.

Aramark is familiar with the DGS requirements for construction and has worked on many projects for DGS. Kevin Barber is slated as the project manager for this project. Kevin has led projects for the Air National Guard, the Defense Logistics Agency, as well as other projects for PADGS with his prior firm; and he is familiar with the people and processes employed at DGS. Kevin's home office is based in York, PA so he is close to this project geographically, allowing for great efficiency in travel time and any possible expenses.

Kevin will be supported by Allison Bailey, P.E. and Dave Bacco for mechanical, electrical systems, and controls during design as well as Boyd Hoats for building envelope. This team has performed similar tasks for many of our references listed within our response.

We look forward to continuing and strengthening our relationship with the Department of General Services. Should you have any questions, please do not hesitate to contact Matt Campise, Associate Director, at (724) 689-9449.

Sincerely,



Brian Lee, P.E., Vice President, Engineering and Asset Solutions  
Authorized Signatory of Aramark Management Services Limited Partnership



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## A. CONTRACTOR PRIOR EXPERIENCE

For more than 35 years, Aramark Engineering and Asset Solutions has demonstrated proven expertise in developing and implementing energy management programs that promote sustainability and conserve energy. Whether we're working with higher or primary education clients, we bring a customized approach based on the individual drivers of each organization. Aramark is one of the largest third-party commissioning agents in the United States focusing on education facilities. Our unique operational expertise distinguishes our service from our competitors.

Our commissioning philosophy is guided by the following three tenets:

1. Provide a facility that operates to support the educational program
2. Verify systems achieve peak efficiency
3. Confirm building infrastructure is readily maintainable by the operators

Our services will further facilitate a seamless transition to the operations group and provide a technical resource to support building operations.

### Experience At A Glance

Total Projects Commissioned: **900+**

Total GSF Commissioned: **70+ Million**

Constructed Value of Commissioned Projects: **\$11.2 Billion**

### Select Aramark Commissioning Clients

- Baylor University
- City University of New York
- Centenary College
- Drew University
- Edinboro University
- Franklin & Marshall College
- George Washington University
- Institute for Advanced Study
- NYS Office of Mental Health
- Ohio State University
- Penn State University
- Princeton University
- Rutgers, State University of New Jersey
- State of Pennsylvania (PADGS)
- University of Pittsburgh
- University of Kentucky
- University of Pennsylvania
- Washington College
- West Chester University
- West Virginia University

### FACILITIES COMMISSIONED

- Science, research, vivarium, BSL3 and laboratory
- Large classroom, academic, and computer facilities
- Recreation centers (athletic & aquatics)
- Campus & performing arts centers
- Museums, libraries & cultural institutions
- Residential halls
- K-12 Schools and Campuses
- Heating, cooling plants and major electric infrastructure
- Retro-commissioning of existing buildings and systems



## CHEMICAL AND BIOMEDICAL ENGINEERING BUILDING PENNSYLVANIA STATE UNIVERSITY, STATE COLLEGE, PA

### CONTACT:

Dwayne Rush  
Facilities Project Manager  
814-865-6475  
dcr13@psu.edu

**CONSTRUCTION COST:**  
\$144 Million

**GROSS SQUARE FEET:**  
193,000

**CX SERVICES:**  
Design Review  
Installation Inspections  
Performance Verification  
Operations Training  
Building Envelope

**SCHEDULE:**  
June 2018-June 2021



The aging Fenske Laboratory was demolished to make way for a new six-level, state-of-the-art research and instructional laboratory building. The lower level has a large lecture hall, two labs and support spaces, faculty and grad student offices, and group study rooms. The first floor includes the Knowledge Commons and conference rooms, labs and classrooms, and building support spaces. Upper floors include offices along the north and east sides of the building with open shared labs in the interior.

Aramark identified 654 issues with meeting code, specification, and drawing requirements; common practices; and accessibility.

Some of the more notable commissioning finds included:

- VAV reheat coil tube bends are being damaged or have arrived to jobsite damaged. Installed and stored reheats should be inspected and damaged coils should be replaced. Multiple orders have been placed.
- BAS conduits, blue, are installed across coil pull areas. These conduits should be relocated on all units to allow coil and associated coil access panels to be removed.
- FCU-417K.1 has filter access blocked by junction box and conduit. All FCU filters should be able to be removed and installed without being bent/damaged. Filter was bent by installing contractors during initial installation as evident by the damaged filter. Aramark requested that inspection of all FCU Filter areas for proper access be provided or provide small filters that can be installed without being damaged.
- The Victaulic VicFlex AH2-48 flexible sprinkler hoses should be installed with a minimum bend radiuses of 7 in. and 3 maximum 90 deg. bends. Aramark found that many of the flex hoses have been installed with bend radiuses of less than 7 inches, more than 3 bends and/or in some cases torqued compromising the hose itself. Aramark and PSU walked with the contractor and did a random inspection of 20 locations in the building to verify corrective actions had been taken by the installing contractors. About 40% of areas inspected did not meet the installation requirements set forth by the manufacture to meet FM Requirements. PSU required installing contractor to inspect every drop in the building to remedy the installation.
- VAV trend shows reheat valve and discharge air temperature is cycling constantly and not operating per desired sequence. PSUs VAV sequence should modulate reheat valve based on heating PID output of 0-100% and limit valve based on 25°F (adj) DAT limit above space temperature. The discharge air was being controlled to 25°F above space temperature as soon as the space temp falls below 70°F and heating mode is indexed. This issue applies to all VAV with RHs and may also apply to LSVs with RHs.

## WHITMORE LABORATORY RENOVATION

Aramark Engineering and Asset Solutions  
CONFIDENTIAL AND PROPRIETARY



## PENNSYLVANIA STATE UNIVERSITY, STATE COLLEGE, PA

The Pennsylvania State University's Whitmore Laboratory Renovation project provides updates and improvements to undergraduate general chemistry and organic chemistry laboratory teaching spaces. This mechanically intensive project introduced new air handlers and a lab exhaust system, and renovated parts of all four floors. The facility remained partially occupied during construction.

Aramark identified over 98 issues during design reviews and have 15 issues from static inspections. Containing 76 fume hoods in a single room, the functional testing effort were intensive.

Some of the more notable commissioning finds included:

- Design review comment included removal of a chilled water heat exchanger which the University agreed was unnecessary, benefitting with capital savings.
- Many design comments included Penn State standards that were not followed throughout the course of design. This included the steam meter, Ebtron airflow stations, Arc flash requirements, and the use of heat conductive compound in thermowells.
- Aramark provided a detail for the control of the pumps to the design team in accordance with Penn State standards.
- Many comments were made on control sequences requiring the design team to further clarify the intent of the fume hood and laboratory control during unoccupied modes. The initial design did not accommodate setback modes and would have greatly increased the energy usage in this facility.
- Aramark assisted in the solution to allow coil pulls by commenting on the absence of unions and the addition of flanges.
- Piping was found to be installed with dissimilar metals requiring the contractor to add brass fittings in lieu of the iron fittings that were installed.
- Over 14 reheat coils were identified to have damage to the tube bends. Six were able to be repaired and the contractor will be required to replace eight coils.

### CONTACT:

**Chad Illig**  
 Facilities Project Manager  
 814-826-8338  
 cri103@psu.edu

**CONSTRUCTION COST:**  
 \$33 Million

**GROSS SQUARE FEET:**  
 90,600

### CX SERVICES:

LEED Enhanced  
 Design Review  
 Installation Inspections  
 Performance Verification  
 Operations Training  
 Building Envelope

### SCHEDULE:

June 2015-August 2016



## MUELLER LABORATORY RENOVATION PENNSYLVANIA STATE UNIVERSITY, STATE COLLEGE, PA

The Pennsylvania State University's Mueller Laboratory Renovation project provided updates and improvements to undergraduate biology laboratory teaching spaces. The mechanically-intensive project introduced new air handlers and a lab exhaust, and renovated four of the seven floors. The facility was partially occupied during construction.

Aramark identified over 98 issues during design reviews and 57 issues from static inspections and early functional testing.

Some of the more notable commissioning finds included:

- The design contained supply and exhaust boxes for the control of airflows within the space but did not have a box for returns. Aramark commented on the need for a return box to control pressurization within the lab spaces.
- The design did not show directional arrows for pressurization schemes on the documents. This was necessary for review of the design intent for both the end users and the commissioning agent so that a problem could be discovered very easily should the airflow direction be incorrect.
- Access control system door readers were not designed for ADA compliance and would not be accessible for someone in a wheelchair.
- Panel busing size could be reduced due to overcurrent protection that was designed. This saved the university capital during design.
- Aramark was instrumental in policing access to mechanical equipment during installation. Many contractor changes included flipping VAV boxes, notching cable trays, and rerouting some sprinkler piping.
- VAV tracking boxes were not programmed to track the actual airflow. They were using an arbitrary offset that would allow the room to go positive or negative without knowing the condition of the other. The programming is being redesigned to allow for supply boxes to track the actual exhaust flow in negative areas and exhaust boxes to track actual supply flow in positive areas.

### CONTACT:

**Chad Illig**  
Facilities Project Manager  
814-826-8338  
cri103@psu.edu

### CONSTRUCTION COST:

**\$33 Million**

### GROSS SQUARE FEET:

**90,600**

### CX SERVICES:

**LEED Enhanced**  
**Design Review**  
**Installation Inspections**  
**Performance Verification**  
**Operations Training**

### SCHEDULE:

**June 2015-August 2016**



## B. PROJECT UNDERSTANDING AND APPROACH

### PROJECT UNDERSTANDING

The Shippensburg University Franklin Science Center Renovation project involves a full renovation of the existing building and a new addition with a total base construction amount of \$40,500,000. The new construction is anticipated to mainly contain laboratories for the current Biology, Chemistry, and Psychology Departments. Some of the renovated space in the existing building will be reallocated to Computer Science, Software Engineering, and Electrical Engineering areas. The four current departments will also have refurbished areas and shared spaces in the remaining building.



It is anticipated that a Program Development Study (PDS), with Workshops occurring in March 2022 and continuing through a design finish of August 2023.

### PROJECT APPROACH

It is evident that in order to truly assist in the short- and long-term success of this project, our commissioning plan requires a unique and varied blend of technical, operational, and engineering expertise. The challenges involved in the construction of this project focus around:

1. Project schedule
2. Complex building systems
3. Increased integration of systems and components
4. MEP technical expertise
5. Project turnover and operations expectations

We are familiar with these significant challenges through our extensive commissioning, operations backgrounds, and experience with capital and operation teams. Our focus is to “bridge the gap” between the construction teams, design teams, project management, and operations groups. Our solution to these challenges is to develop and integrate a unique commissioning program that will provide collaboration between teams, verify that the design intent (installation and performance) is met, establish parameters for acceptance of the construction/end users, and integrate turnover/operations smoothly and effectively.

A summary of the solutions are outlined in the following bullets.

- Creating partnerships and leading collaboration within the project and construction teams
- Providing “on-site” representation to focus and coordinate the commissioning efforts
- Coordinating and integrating teams of professionals in supporting corrective actions
- Establishing parameters and testing requirements for system acceptance as opposed to component acceptance
- Exercising the systems throughout operating ranges, safety and emergency conditions

Aramark will develop a program specifically geared towards the Franklin Science Center Renovation project at Shippensburg University. Aramark will work directly for the PADGS and provide an unbiased, objective view of the systems installation, operation, and performance. As part of the owner’s building systems commissioning process, Aramark will cooperate with and coordinate all commissioning activities with the project manager, design professionals, construction manager, and contractors. This process is not to take away or reduce the responsibility of the design team or installing contractors, but to provide a finished and fully operational product in accordance with design intent.

Our scope of services consists of the following focused efforts:

## PROFESSIONAL COMMISSIONING SERVICES – PHASE APPROACH

### DESIGN PHASE



Past experience has demonstrated that collaboration, communication, and proper planning are the keys to verifying that the commissioning program is fully integrated into the normal design and construction process. This integration process for the program begins very early by initially employing a carefully prepared kick-off meeting, commissioning plan, and schedule that will guide the effort in and around the construction schedule. The commissioning team leader will develop, organize, implement, observe, document, and lead the commissioning effort in a manner that furthers the success of the project. This effort will not only minimize the impact on project schedule, but also promote efficient system startup and turnover.

A summary of activities in these phases consists of:

- **Owner's Project Requirements (OPR)** – Working with the DGS Design Project Manager, Design Professional, and the Client Agency facilities maintenance staff conduct an OPR workshop early in the concept design stage to develop the project goals, measurable performance criteria, cost considerations, benchmarks, success criteria, and supporting information. Provide descriptions of the following: a) primary purpose of Project, b) environmental and sustainability goals, c) energy efficiency goals, d) indoor environmental quality requirements, e) desired equipment/system quality, reliability, and maintenance requirements, f) facility operation and maintenance requirements including requisite personnel training and orientation.
- **Commissioning Plan (Cx Plan)** – Provide written document that outlines the overall process, organization, responsibilities, schedule, allocation of resources, and documentation requirements of the Commissioning Process to verify and document that the design, construction, and operation of the facility meet the Owner's Project Requirements (OPR).
- **Core Group** – Support DGS Design Project Manager and the Client Agency in providing guidance and decision making for each Cluster Group and for the project in general. There will be a Core Group meeting each month during design and at the start of each stage of design: Concept Design, Detailed Design and Documentation.
  - ❖ Participate in (23) Core Group meetings, occurring each month for up to 1 hour in duration throughout the anticipated design stage.
- **Lean Cluster Group Meetings** – Working with DGS Design Project Manager, the Client Agency, third party cost estimators, and the Design Professional team, help to drive down overall construction costs while maintaining the MEP/FP/ Technology project scope and meeting the client agency's conditions of satisfaction (CoS). Provide constructability evaluations to guide the team and find innovative ways to increase the overall project value. Selected CxA will be part of the following four (4) Cluster Group Meetings: Structure/Envelope/Shell; Laboratory; MEP/FP; and Technology.
  - ❖ Participate in approximately (55) weeks of weekly meetings (up to 1 hour in duration) for each Cluster Group, total of (220) meetings for the 4 Cluster Groups.
- **Teaming Events** – Meetings with the extended project team to integrate design activities, discuss activities of the cluster groups and review cost and schedule progress. There will be a Teaming Event each month during design and at the start of each stage of design: Concept Design, Detailed Design and Documentation.
  - ❖ Participate in a total of (23) Teaming Events, occurring each month for up to a ½ day in duration throughout the anticipated design stage.

- **Design Review** – The Design stage includes three delivery stages: Concept Design, Detailed Design and Documentation. The selected CxA is to provide a review and comments of the Professional’s design documents and Basis of Design (BoD) narrative for compliance with the Owner’s Project Requirements. Design review shall include a back-check of Commissioning Design Review Comments at subsequent design stages.
- **Commissioning Specifications** – Provide Commissioning Specifications for all systems/assemblies being commissioned for inclusion within the Project Construction Documents.

## CONSTRUCTION PHASE

A pivotal aspect of our commissioning program is enabling team reviews and inspections of the systems in their area of expertise (i.e., mechanical, electrical, and plumbing). Deficiencies and outstanding issues are documented in the commissioning database. The intent of the database is to generate a comprehensive list for the project manager to distribute to the design and construction teams for response and action. Subsequent to each focused inspection, a progress report will be issued detailing the deficiencies, resolution actions, and status of each item. We will maintain a current status for each item on the deficiency list as well as document the resolution actions in the final report. The commissioning team leader will act as the point person and bring up issues to the construction and design teams.

The focus of the construction installation phase will include the following:



- **Submittal Review** – Identify and review Contractor submittals applicable to systems/assemblies being commissioned. Identify issues that might result in rework or change orders. Verify the following: a) conformance with Owner’s Project Requirements (OPR) and Basis of Design (BoD), b) achievement of operations and maintenance requirements, c) enablement of performance testing. All submittal reviews and correspondence must take place in eBuilder.
- **Job Construction Meetings** – CxA shall attend regular job construction meetings as necessary to ensure the systems are properly installed, operated and tested, and are functioning correctly to meet the design intent.
- **Commissioning Meetings** – CxA shall hold regularly scheduled jobsite Commissioning Meetings with all project stakeholders to review important aspects of equipment, HVAC system, and Controls System installation. Review and document necessary installation details, system testing procedures, and documentation requirements. Keep meeting minutes and include in the Cx Report.
- **Construction Observation and Testing** – Verify that the performance of the systems/assemblies being commissioned, as installed, meet the Owner’s Project Requirements (OPR), Sustainability Criteria, Basis of Design (BoD), and Contract Documents. Furnish test procedures and checklists prior to equipment installation. Produce a Pre-functional test for each test. Test procedures shall list the entities responsible for executing each test. Provide installation inspections. Direct, witness, and document tests. Evaluate test results and verify that installed systems/assemblies meet the criteria for the Project.
- **Issues and Resolution Log** – Develop a commissioning issues log containing open and continuing items, status, and name of person/organization responsible for resolution.
- **Systems Manual** – During the design and construction of the project, the design and construction documents should be assembled into the systems manual. This assembly of documents provides the details and history of the design and construction of the building and information needed to properly operate the building. The systems manual includes the project final OPR, BOD,

construction record documents, submittals, completed startup, verification checklists, functional and performance checklists, verified sequence of operation, facility guide, training records, and commissioning report. The systems manual should be used in the initial and subsequent training of the building operations staff and occupants. The systems manual should be able to be updated throughout the life of the building. The systems manual is intended to facilitate the construction to maintenance handoff and is to be electronically searchable.

- **Pre-Functional and Functional Performance Testing** – Confirm (but not necessarily witness) manufacturer’s startup of individual equipment components (Pre-Functional Performance Testing). Write, direct completion of, witness, and document full Functional Performance Testing of each system and system component. Confirm proper operation of all control sequences for each season operation. Document in Cx Report.
- **Job Construction Meetings** – CxA shall attend regular job construction meetings as necessary to ensure the systems are properly installed, operated and tested, and are functioning correctly to meet the design intent.
- **Commissioning Meetings** – CxA shall hold regularly scheduled jobsite Commissioning Meetings with all project stakeholders to review important aspects of equipment, HVAC system, and Controls System installation. Review and document necessary installation details, system testing procedures, and documentation requirements. Keep meeting minutes and include in the Cx Report.
- **Construction Observation and Testing** – Verify that the performance of the systems/assemblies being commissioned, as installed, meet the Owner’s Project Requirements (OPR), Sustainability Criteria, Basis of Design (BoD), and Contract Documents. Furnish test procedures and checklists prior to equipment installation. Produce a Pre-functional test for each test. Test procedures shall list the entities responsible for executing each test. Provide installation inspections. Direct, witness, and document tests. Evaluate test results and verify that installed systems/assemblies meet the criteria for the Project.
- **Issues and Resolution Log** – Develop a commissioning issues log containing open and continuing items, status, and name of person/organization responsible for resolution.
- **Systems Manual** – During the design and construction of the project, the design and construction documents should be assembled into the systems manual. This assembly of documents provides the details and history of the design and construction of the building and information needed to properly operate the building. The systems manual includes the project final OPR, BOD, construction record documents, submittals, completed startup, verification checklists, functional and performance checklists, verified sequence of operation, facility guide, training records, and commissioning report. The systems manual should be used in the initial and subsequent training of the building operations staff and occupants. The systems manual should be updated throughout the life of the building.
- **Pre-Functional and Functional Performance Testing** – Confirm (but not necessarily witness) manufacturer’s startup of individual equipment components (Pre-Functional Performance Testing). Write, direct completion of, witness, and document full Functional Performance Testing of each system and system component. Confirm proper operation of all control sequences for each season operation. Document in Cx Report.
- **Training Plans and Records** – Review, pre-approve, and verify training of the Client Agency personnel by the Contractor, to operate and maintain systems/assemblies being commissioned. Include training plan, training materials, and records in final Systems Manual.
- **End of Warranty Cx Report** – Provide post-occupancy operation commissioning, including incomplete, delayed, and seasonal testing, as well as warranty issues. Post-occupancy operations shall begin at Substantial Completion and shall continue through to the end of the warranty period.
- **Preliminary and Final Cx Report** – A preliminary commissioning report should be prepared that shows the commissioning progress and equipment performance to date at the time the Certificate

of Occupancy is issued. At the completion of the project, the final commissioning report should be assembled and provided to the owner and others as required by the OPR and local jurisdiction requirements. This report includes the final commissioning plan, copy of design and submittal review reports, all startup, inspection, verification, functional and performance test forms and reports, the verified sequence of operation, the final Issues and Resolutions log, and summary of the performance of commissioned systems.

## SYSTEMS TO BE COMMISSIONED

- Building Assembly Systems including Building Shell, Exterior Wall Assemblies, and Roof Assemblies for the new building addition, new walls, and roof enclosure.
- Protective Systems including Fire Suppression and Fire Alarm Systems. (Commissioning efforts for these systems are to be completed prior to final demonstration for local Authority Having Jurisdiction.)
- Plumbing Systems including Domestic Hot Water Systems, Laboratory Gases and Compressed Air Systems.
- Heating, Ventilating, Air Conditioning and Refrigeration Systems (HVAC) including Heat Generation, Refrigeration, Ventilation, Laboratory Exhaust (fume hoods) and HVAC Control Systems.
- Electrical Systems including Power Distribution, Lighting and Controls, and Emergency Generator Systems.

## C. GEOGRAPHIC LOCATION

The proposed Project Manager, Kevin Barber, is located in Dover, PA which is just 45 miles from Shippensburg University. Travel time will not be necessary for reimbursement.

Dave Bacco, the proposed commissioning agent for all electrical systems, is located in Indiana, PA which is 132 miles from the project. Mackenzie Ailes lives in Philadelphia, PA which is 150 miles from Shippensburg University. Boyd Hoats lives in Sweet Valley, PA which is 160 miles from Shippensburg University. Travel time will not be necessary for reimbursement.

## D. PROJECT WORK PLAN

- I. Please see the charts on the following pages for a high-level summary showing all the tasks and deliverables to complete the project in the Pre-Design Phase and the Design Phase.

**DESIGN PHASE**

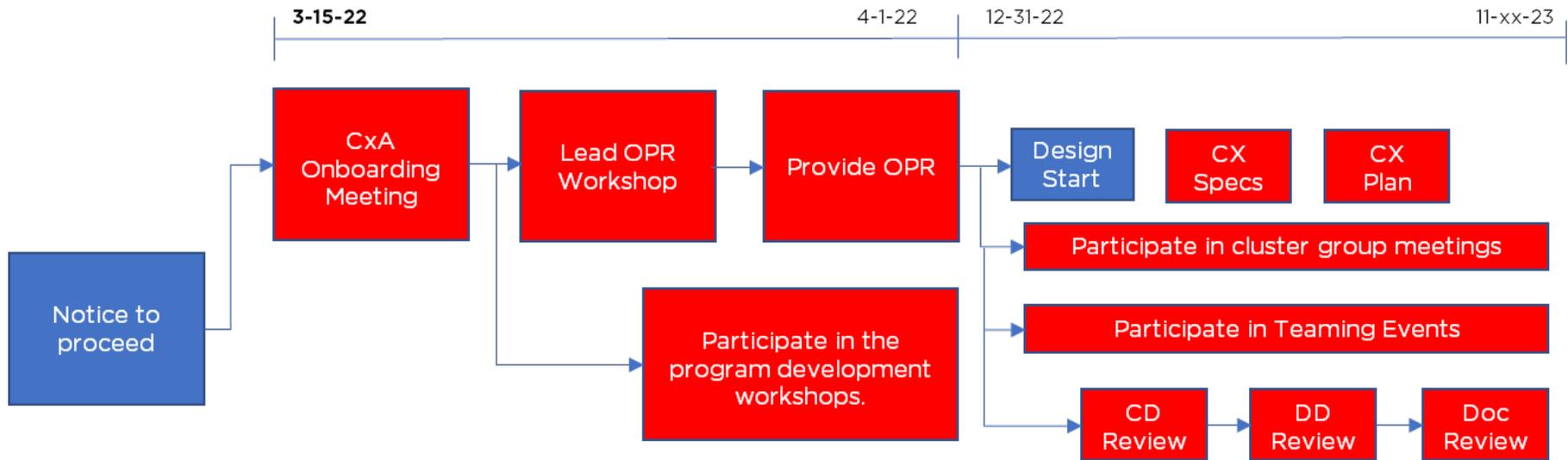
i.

**Red** indicates Cx Agent Responsibilities

- Performed within 2 weeks of previous activity

**Blue** indicates actions by others

Pre-Design/Design Phase



**II. Indicate all resources need to complete the assignment including staff assignments, consultants, and reimbursements.**

Aramark will perform all commissioning activities with its own personnel. Staff assignments are indicated in the organizational chart. Reimbursements will be submitted for mileage only which is detailed in Section C above.

**III. Note inefficiencies or risks to successful implementation, and any planning efforts to mitigate issues such as travel distance, schedule conflicts and required coordination.**

Aramark has no scheduling conflicts associated with performing the commissioning requirements of this project.

**IV. Indicate the anticipated number of hours required for completion of the work described in the Scope of Work (Attachment A).**

The estimated number of hours per phase are as follows:

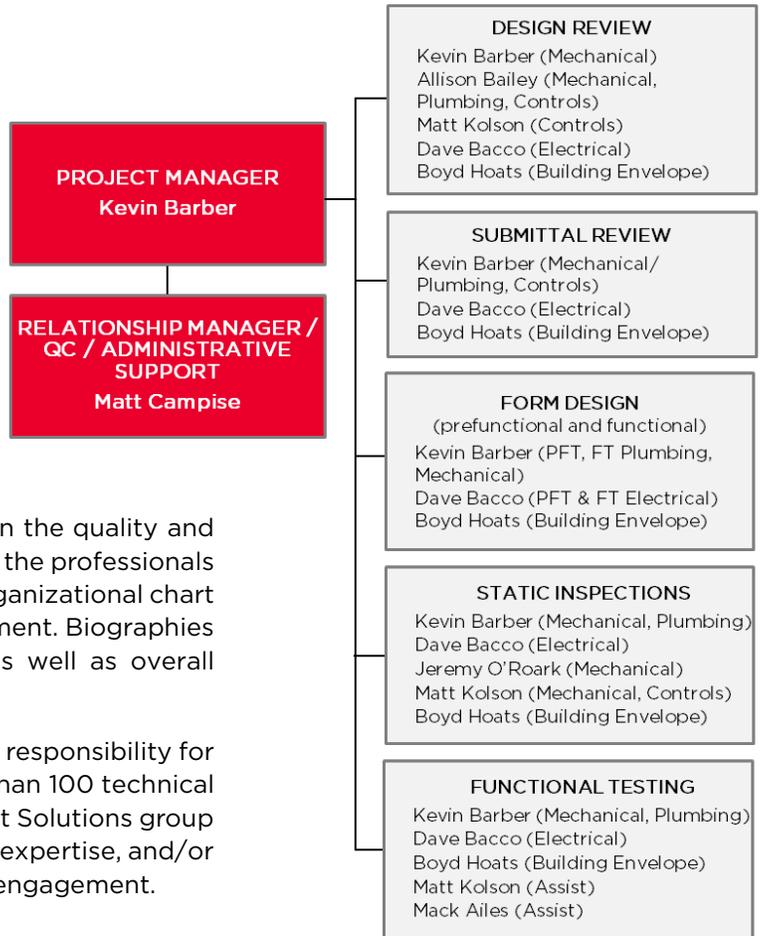
Design Phase: 441  
Construction Phase: 768



### E. PROJECT PERSONNEL AND QUALIFICATIONS

All of Aramark’s engagements rely on our experienced professional staff to function as the catalyst for the success of the overall program. Our staffing strategy for managing this relationship expertly and efficiently is straightforward:

- Provide PADGS with a qualified commissioning agent to lead the overall program and serve as the primary contact person.
- Support PADGS with a core technical team comprised of individuals with the requisite technical experience and skill sets.
- Provide experienced “quality assurance” resources to verify that the highest level of quality services is provided.



The success of our approach has always been the quality and consistency of our senior leadership as well as the professionals that comprise the core technical team. The organizational chart illustrates the proposed team for this engagement. Biographies including experience with similar projects as well as overall expertise are included on the next pages.

Although the proposed staff will have primary responsibility for the proposed engagement, any of the more than 100 technical professionals within the Engineering and Asset Solutions group will be made available to PADGS if their skills, expertise, and/or availability will add incremental value to this engagement.

Aramark’s Engineering and Asset Solutions group consists of more than 100 technical professionals including: Professional Engineers (PE) Certified Commissioning Professionals (CCP), LEED Accredited Professionals (LEED AP) and other technical designations. We verify that each facility’s operating, maintenance, and program support requirements are met during construction and renovation.

- |   |   |
|---|---|
| (17) Professional Engineers (PE)                            | (14) LEED Accredited Professionals (LEED AP)              |
| (27) Certified Energy Managers (CEM)                        | (6) LEED Green Associates                                 |
| (2) Commissioning Process Management Professionals (CPMP)   | (2) Registered Architects/NCARB                           |
| (4) Certified Measurement Verification Professionals (CMVP) | (3) Certified Building Commissioning Professionals (CBCP) |

**KEVIN BARBER****Cx Manager**

- 4.0 Million GSF Commissioned
- 50 Commissioning Projects
- Penn State World Campus MiPS Certification Renewable Energy & Sustainability Systems – Solar Energy
- Penn State University Bachelor of Science Energy Engineering

Mr. Barber is an energy engineer with over five years' experience as a lead commissioning agent. On behalf of Aramark, Mr. Barber provides professional services to various clients in the Mid-Atlantic region while focusing on close collaboration and quality assurance with our Aramark team. Prior to joining Aramark, Mr. Barber successfully managed and/or supported the execution as the lead Commissioning Agent on Pennsylvania projects for Penn State University, State College Area School District, Allegheny Health Network, Geisinger, PA Air National Guard, PA Department of General Services, and the Defense Logistics Agency, as well as many other Mid-Atlantic region clients.

Kevin is slated as the Project Manager for the Franklin Science Center Renovation project. His primary responsibility is to ensure that all of the commissioning tasks as described within this response are completed. Kevin will lead the design team; review mechanical, plumbing, and controls submittals; design the functional test forms for mechanical systems; perform static inspections; and perform functional testing.

**MATTHEW CAMPISE****Associate Director**

- 30 Million GSF Commissioned
- 70+ Commissioning Projects (Project Manager)
- Washington and Jefferson College Bachelor of Arts Chemistry

Mr. Campise possesses more than 29 years of experience in building automation controls and commissioning and has been with Aramark for 14 years. Currently, Matt manages 12 direct reports who perform as commissioning managers primarily throughout the state of Pennsylvania. Matt serves as the Relationship Manager to our larger clients within the state including Penn State University, University of Pennsylvania, UPMC, and Allegheny Health Network. He also serves directly as project manager for several projects at Penn State Health and has completed commissioning for over 10 projects for this client in the past four years.

Matt will primarily be responsible for quality control as well as major issue resolution on this project.

**ALLISON BAILEY, P.E.****Senior Cx Manager**

- 10 Million GSF Commissioned
- 50+ Commissioning Projects (Project Manager)
- Ohio State University Bachelor of Science Mechanical Engineering
- Professional Engineer (KY, OH, and WV)

Ms. Bailey possesses more than 22 years of experience in HVAC design, DDC control programming, HVAC system troubleshooting, project management, and project coordination.

Currently, Allison supports commissioning programs throughout the region and is involved in all design reviews as the design lead and mechanical systems reviewer. She is also project manager for several projects at Baylor University and has recently completed, as project manager, our largest commissioning project at the South Halls Residence Facilities for Ohio State University. She has been the design leader for all of the reference projects listed within this proposal and is familiar with the Penn State standards of design for mechanical systems.

Allison is proposed in a support role for this project. She will provide design reviews of mechanical, plumbing, and control systems.

**DAVID BACCO, E.I.T.****Cx Manager**

- 5.3 Million GSF Commissioned
- 250+ Commissioning Projects (Electrical Lead)
- University of Pittsburgh Bachelor of Science Electrical Engineering

Mr. Bacco possesses more than 27 years of electrical building design, project management, evaluations, and engineering experience. Currently, Dave supports all electrical commissioning programs throughout the region. He is frequently in State College and has performed the same duties on all of the reference projects listed within this proposal. Dave is familiar with both the written Penn State electrical standards as well as the electrical construction Penn State standards, and his value to the commissioning process and the University is undeniable. Many of the issues he presents in design review comments and static inspections are of the highest return on investments for our clients.

Dave is proposed in a support role for the project. He will conduct design reviews, provide submittal reviews, design the pre-functional and functional test forms, conduct static inspections, and perform the functional testing for the electrical systems. Dave will also witness the fire alarm testing and security system testing.

**BOYD HOATS, JR****Project Manager**

- University of Tennessee - Knoxville
- Bachelor of Architecture
- Luzerne County
- Community College
- Associates Degree in Architectural Engineering

Mr. Hoats is a project manager with 27 years of comprehensive project management experience. Currently, he is performing project management for Samsung Electronics and Thomas Jefferson University Hospital projects.

Mr. Hoats is also the architectural CPM with Aramark's Facility Condition Assessment and Commissioning teams, where he utilizes his extensive expertise in assessing building envelope conditions, recommending solutions to correct deficiencies, and insuring the proper implementation of the design documents. He is currently providing building envelope commissioning services to several of our clients in the PA area, including projects for Allegheny Health Network. He has also worked on projects for Penn State University and Penn State Health.

Boyd is proposed in a support role for the project. Boyd will provide input to the OPR and conduct design reviews, design the pre-functional and functional test forms, conduct static inspections, and perform functional testing for the building envelope.

**JEREMY O'ROARK****Senior Manager**

- 3.5 Million GSF Commissioned
- 40 Commissioning Projects
- Penn State University
- Bachelor of Science Mechanical Engineering
- Fundamentals-in-Engineering Certification

Mr. O'Roark possesses more than 18 years of experience in mechanical engineering and commissioning and has been with Aramark for over nine years. On behalf of Aramark, he provides commissioning services for clients throughout Central Pennsylvania. Mr. O'Roark has served or is serving as the project manager on several large high-profile projects within Central Pennsylvania including several projects at the Pennsylvania State University such as the Chemistry and Biomedical Engineering Building and West 1 and 2.

Jeremy is proposed in a support role for this project. He will assist with static inspections of the mechanical installation.

**MATT KOLSON****Manager**

- 1.5 Million GSF Commissioned
- 25 Commissioning Projects
- Penn State University Undergraduate Studies

Mr. Kolson is a building control systems professional with over 20 years of progressive experience as a software engineer and control systems technician. Matt is currently the project manager for several projects at Penn State University Park which are in various stages of completion. He also manages our building automation system program at UPMC Altoona where Aramark employs two professionals who maintain and program the building automation systems within this facility.

Matt is proposed in a support role for this project. He will assist with static inspections of the mechanical and controls systems and will assist with functional testing of the mechanical systems.

**MACKENZIE AILES****Manager**

- 1.8 Million GSF Commissioned
- 35+ Commissioning Projects
- Penn State University Bachelor of Science Energy Engineering

Mr. Ailes is a Commissioning Manager for Aramark Engineering and Asset Solutions, providing building commissioning services to various projects and clients in the Northeast Region.

Current projects include the Penn State University Hazleton Campus Library Renewal, several projects on the campus of University of Pennsylvania, and projects with the Allegheny Health Network.

Mack is proposed in a support role for this project. He will assist with functional testing of the mechanical systems.



## F. APPENDIX

Aramark Management Services Limited Partnership is pleased to submit the attached proposal to provide Commissioning Agent Services for the Franklin Science Center Renovation project at the Shippensburg University for the Pennsylvania Department of General Services (PADGS).

We would be honored to be selected to perform commissioning and appreciate the opportunity provided to build on our relationship with the PADGS. We would dedicate the appropriate resources to provide the highest quality services. We understand the importance of the integration and seamless operation of the building system infrastructure. Aramark is one of the largest third-party commissioning agents in the United States, and our unique operational expertise distinguishes our service from our competitors.

### HISTORY

For more than 35 years, Aramark Engineering and Asset Solutions has demonstrated proven expertise in developing and implementing energy management programs that promote sustainability and conserve energy. We bring a customized approach based on the individual drivers of each organization.

Aramark has extensive experience and technical capacity to meet, and exceed, the required needs for commissioning the Franklin Science Center Renovation project. Aramark has been commissioning buildings and their increasingly complex systems for more than three decades. We have commissioned more than \$11.2 billion and 70 million GSF of new and renovated facilities. Our technical credibility, operator's perspective, and construction experience has and will continue to aid in the satisfaction of each commissioning project's many objectives.

Our commissioning philosophy is guided by the following three tenets:

1. Provide a facility that operates to support the program
2. Verify systems achieve peak efficiency
3. Confirm building infrastructure is readily maintainable by the operators

Our services will facilitate a seamless transition to the operations group and provide a technical resource to support the building operations.

Aramark is a national leader in providing complete facility management solutions in education. Our dedicated technical services include:

- Building Commissioning
- Building Retro-commissioning
- Energy Management
- Utility Master Planning
- Deferred Needs Assessment
- Engineering Design Review

