

REQUEST FOR QUOTE



pennsylvania
DEPARTMENT OF GENERAL SERVICES

Commissioning
Agent Services

DEPARTMENT OF
CORRECTIONS

QUEHANNA
MOTIVATIONAL
BOOTH CAMP

Project No.
DGS 1580-0004-001

Technical Submission

aramark 
ENGINEERING
SOLUTIONS

2400 Market Street
Philadelphia, PA 19103



March 17, 2023

Re: Commissioning Agent Services for DGS 1580-0004-001, Department of Corrections, Quehanna Motivational Boot Camp

To: John Wert

We are pleased to respond and provide a proposal and cost estimate for Commissioning Agent Services during the construction stages of the Department of General Services Project No. DGS 1580-0004-001, Department of Corrections, Quehanna Motivational Boot Camp.

Aramark is familiar with the DGS requirements for construction and has worked on many projects for DGS across the commonwealth. Matt Kolson is slated as the project manager for this project due to his location and his strength in automatic temperature control systems as well as ongoing commissioning experience with DGS. He is currently performing commissioning services for DGS at the New Community Living Center at the Hollidaysburg Veterans' Home as well as the Blair County District 9-0 PennDOT renovation and expansion project. We are also managing multiple commissioning efforts on projects in the State College area which will allow for great efficiency when visiting the project and performing commissioning responsibilities. Proximity to the project will allow Aramark personnel to be much more efficient with our testing and inspections as a four-hour day will likely be split between this project and others within the area.

Matt and his support team slated for this project are all located in central Pennsylvania with close proximity to the project location. Both Matt and Jeremy reside in Windber, PA. They have worked together on many projects in the region and are very familiar with HVAC, plumbing, electrical, and building envelope systems.

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, Director of Commissioning Services, at (724) 689-9449.

Sincerely,

A handwritten signature in blue ink that reads "Brian M. Lee".

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



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A. PRIOR EXPERIENCE

For more than 40 years, Aramark Engineering Solutions has demonstrated proven expertise in developing and implementing energy management programs that promote sustainability and conserve energy. Whether we are 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. 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**

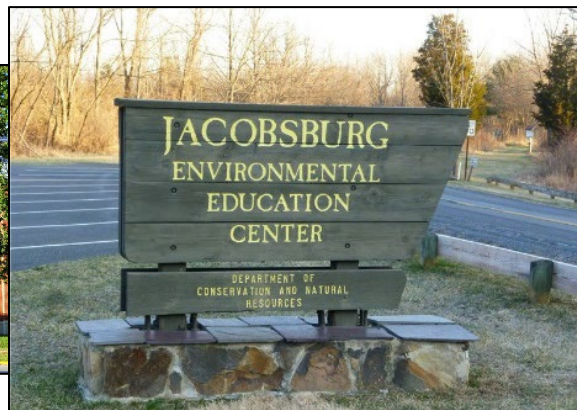
Constructed Value of Commissioned Projects: **\$11.2 Billion**

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

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



**PENNSYLVANIA DEPARTMENT OF GENERAL SERVICES
 SCI BENNER TOWNSHIP**

LOCATION:
 Bellefonte, PA

GROSS SQUARE FEET:
 629,573

CONTACT:
 David Smead, CFMM3
 814-353-3690, ext. 3500

SCHEDULE:
 2017-In progress



The campus consists of:

- 9 inmate housing units at 32,008 square feet each
- 40,671 sq. foot unit
- 15,307 sq. foot unit
- 23,255 sq. foot outside administration facility
- 18,890 sq. foot security administrative building
- 24,570 sq. foot health services facility
- 24,273 sq. foot dietary services facility
- 49,810 sq. foot laundry facility
- 31,200 sq. foot maintenance shop
- 67,261 sq. foot multi-use building

Aramark acted as the commissioning consultant that reported directly to PADGS. Contractors were responsible for their own functional testing which was witnessed by a Cx Authority hired by the construction manager. Aramark performed static inspections and witnessed functional testing to make sure all was being completed in the best interest of the state. Essentially, Aramark were the experts that made sure the state received the services they contracted.

COMMISSIONING SUCCESS:

Throughout inspections and functional testing, Aramark found several issues. Select major issues included:

- **Smoke Evacuation Systems:** This issue is still not 100% resolved. The firefighters override panel has been remade and reprogrammed to operate per code requirements. We are to be involved with retesting, but this effort is still in the programming phase and yet to be completed.
- **RTU BAS Controls:** The HVAC contractor bought units with packaged controls that could not meet the facilities requirements. After the prison was occupied, humidity issues occurred in the summer and freeze stat issues occurred all winter. Therefore, the contractor decided to change out to field-installed BAS controls to match the rest of the facility. Aramark brought up the issue that functionality and custom operation would not be possible with the packaged controls very early which would have saved project budget and delays but through contractor resistance, this issue prolonged the finish of the project
- **Hot Water System:** The hot water system shutdown during the first winter that the prison system was occupied when the temperature dropped below 0°F. Aramark spent the night on site with the Department of Corrections staff to get the system operating correctly to keep the prison from freezing.
- **Condensing Water System:** Condensing water system/cooling tower operation did not work very well as the cooling tower was too low, causing the condenser pumps to cavitate. Thus, the cooling tower had to be raised.
- **Balancing:** There were many balancing issues, including the building connected to the campus loop backwards.

**NEW YORK STATE DEPARTMENT OF CORRECTIONS AND COMMUNITY SUPERVISION
GREEN HAVEN CORRECTIONAL FACILITY**

LOCATION:
Stormville, NY

GROSS SQUARE FEET:
100,000

CX SERVICES:
Submittals Review
Installation Inspections
Performance Verification
Operations Training

CONTACT:
Adam Card, P.E.
Wendel, 716-688-0766

SCHEDULE:
2023-In progress

Green Haven Correctional Facility is a maximum security level facility for males. Aramark was recently awarded this HVAC Controls Upgrade project from Wendel and is currently in the beginning stages.

The systems and equipment to be commissioned are:

- Direct Digital Controls (DDC) and Building Management System (BMS)
- Includes integration of all new points
- Steam PRV Controls
- Variable Frequency Drives
- New control valves installed as part of the project.
- Replacement actuators install as part of the project
- Outside Air Testing, Adjusting and Balancing



**OHIO MENTAL HEALTH AND ADDICTION SERVICES
 TWIN VALLEY BEHAVIORAL HEALTHCARE HOSPITAL**

LOCATION: Columbus, OH	CONSTRUCTION COST: \$112 Million	CX SERVICES: Design Review BAS Commissioning Installation Inspections Performance Verification Operations Training
CONTACT: Thomas Baker 614-995-4551 thomas.baker@ofcc.ohio.gov	GROSS SQUARE FEET: 285,000	
	SCHEDULE: 2019-In progress	



Twin Valley Behavioral Healthcare Hospital is being replaced by a 208-bed, 285,000 square foot facility that will be 100% new construction, including all mechanical, administrative, food service, and support space. Patient accessible areas will be designed to reflect state-of-the-art safety and security requirements, including ligature-resistant fixtures and hardware and highly durable construction.

This new facility will provide a secure environment for residential patient units, clinical/admitting space, full kitchen, indoor and outdoor recreation, and required support operations consisting of administrative offices, food and bulk storage facilities and maintenance operations. Expected Occupancies include Institutional, Assembly, Storage, Food Processing, and more. Key features of this facility will include the development of a “secure building envelope” for patients.

Aramark was selected for this facility due to our vast experience of commissioning healthcare projects particularly with a specialty in mental health behavioral facilities. We have been providing all commissioning services for the New York State Office of Mental Health which sees over 700,000 individuals each year at over 25 facilities. Aramark commissions any new projects at any given facility.

COMMISSIONING SUCCESS:

Still early in design, Aramark is currently reviewing very early sets of documents and are involved in the selection of equipment for mechanical, electrical, plumbing, and building envelope systems.

**PENNSYLVANIA DEPARTMENT OF GENERAL SERVICES
 JACOBSTOWN STATE PARK VISITOR'S EDUCATION & ADMINISTRATIVE FACILITY**

LOCATION: Nazareth, PA	CONSTRUCTION COST: \$3.3 Million	CX SERVICES: Design Review Installation Inspections Performance Verification Operations Training Building Envelope
CONTACT: Paul Ebright, P.E. 717-783-7929 pebright@state.pa.us	GROSS SQUARE FEET: 11,000 GSF	
	SCHEDULE: 2013-2015	

Jacobstown Environmental Education Center is a 1,168-acre Pennsylvania state park offering environmental education from preschool to high school-level environmental programs, historical programs, teacher workshops, and public interpretive programs.



COMMISSIONING SUCCESS:

Aramark identified a total of 118 issues, including 50 found during design and 68 during construction. From the commissioning activities we can attribute an estimated \$53,500 in cost savings and an estimated \$7,500 in energy savings.

Some of the more notable issues included:

- **Thermal Comfort and Indoor Air Quality:** There were 19 issues identified affecting the temperature control and ventilation air. During site inspection, it was observed that the ductwork was not being protected as stated in LEED EQ 3. The ductwork was originally planned to be cleaned prior to balancing, but upon review, Aramark recommended that the ductwork be cleaned prior to system start-up.
- **Operations and Maintenance:** There were 31 issues identified that impacted O&M. As an example, the supply and exhaust fans for AHU-1 were continuously shown as in alarm while energized. If not addressed, this would have created numerous nuisance alarms for on-site personnel.
- **System Performance:** During system testing, 7 failure issues were identified where systems or equipment were not fully operational per the design intent. One example was the short cycling of the heat pumps caused by the ground source loop control. The sequence of operation called for ground source supply and return valves V-2 and V-3 to operate in a 2-position manner with V-1 modulating respectively. This did not maintain constant source water temp to the heat pump and resulted in premature component failure in addition to comfort issues. Aramark recommended that bypass valve V-3 be reconfigured as modulating (while keeping V-1/V-2 open), and the unit now operates appropriately.
- **Life Safety:** Eight issues were found during testing, including the main breaker that tripped when the time clock associated with light control was switched to the 'off' position. This was due to the sensitivity of the main breaker being set too low in respect to the current installation.
- **Energy:** Three issues were discovered during testing including that exhaust fans EF-3 & EF-4 were running continuously during occupied mode and controlling to temperature in unoccupied mode, rather than control to temperature 24/7. This item was corrected, and the exhaust fans now stage to control to respective room temperature.

**PENNSYLVANIA STATE UNIVERSITY
 SHAVERS CREEK ENVIRONMENTAL CENTER**

Located in the heart of central Pennsylvania, Shaver’s Creek provides educational and recreational opportunities for families, schools, corporate groups, and Penn State students.

The Shaver’s Creek Environmental Center Additions and Renovations project consisted of approximately 10,400 square feet of new construction and 2,400 square feet of renovations. The Main Building and new Lower Classroom Building utilizes a Variable Refrigerant Split System. The Main building also contains an Energy Recovery Ventilator.

COMMISSIONING SUCCESS:

Aramark generated several issues from static inspections and functional testing. Some of the commissioning finds include:

- VRF in the main building had a power issue and was not working at time of inspection.
- VRF in the main building in one of the rooms moved air but did not heat or cool.
- Final tie-in of the condensate drains for select VRF units to the downspouts was necessary upon installation.
- Domestic HW was slow in getting to the hand sinks.
- BAS graphics were incorrectly linked to VRFs in several spaces. Revision of graphics was required.
- Infrared testing was conducted early morning under cloudy/rainy weather conditions and included all external elevations and the roof surfaces as viewed from ground level. Although the internal temperature of the facility was approximately 70+°F with an external air temperature of 38+/- degrees, however, the buildings could not be pressurized.

LOCATION:
 State College, PA

CONTACT:
 Doug Wenger
 814-863-9622
 jdw132@psu.edu

GROSS SQUARE FEET:
 12,800

CX SERVICES:
 Installation Inspections
 Performance Verification
 Operations Training and
 Coordination
 Building Envelope

SCHEDULE:
 2019 – 2021



B. PROJECT UNDERSTANDING AND APPROACH

PROJECT UNDERSTANDING

Aramark understands that this project includes the construction of a new 12,000 gross square foot addition that will be connected to Building #4 via an enclosed corridor. The one-floor building will include one RTU, several wall heaters, and electrical and plumbing systems.

PROJECT APPROACH

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 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

- Protective Systems including Fire Suppression and Fire Alarm Systems.
- Plumbing Systems including Domestic Hot Water Systems.
- Heating, Ventilating, Air Conditioning and Refrigeration Systems (HVAC) including Heat Generation, Refrigeration, Ventilation, and HVAC Control Systems.
- Electrical Systems including Power Distribution, Lighting, and Controls, and Emergency Generator Systems.
- Communications Systems including Voice/Data and Sound/Video Systems.
- Electronic Safety and Security Systems including Security, Alarm, and Detection Systems.

Note: Building Assembly Systems including Building Shell, Exterior Wall Assemblies, and Roof Assemblies not included based on response to a bid question dated 03.07.2023

C. GEOGRAPHIC LOCATION

Jeremy O’Roark and Matt Kolson are located near Windber, PA and 100 miles from the project location. David Bacco is located in Indiana, PA, which is 84 miles from the project location. Travel time will not be required for reimbursement as travel will be performed on the employee’s time.



D. PROJECT WORK PLAN

I. SUMMARY AND PROJECT APPROACH

SCHEDULE OF MILESTONES

CONSTRUCTION PHASE - APRIL 2023 THROUGH AUGUST 2024

- Perform submittals review
- Conduct Cx kick-off meeting with contractors
- Attend construction meetings as needed
- Hold regular commissioning meetings
- Develop pre-functional test forms and provide to contractors
- Conduct construction observation and testing
- Develop and maintain issues and resolution log
- Witness start-up of Cx systems

ACCEPTANCE PHASE - AUGUST 2024 THROUGH OCTOBER 2024

- Perform functional performance testing of Cx systems
- Conduct Cx meetings as needed
- Develop and deliver Systems Manual
- Review, pre-approve and verify training of personnel.
- Develop End of Warranty Cx Report
- Deliver final Cx Report

II. Resources needed 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. 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. The anticipated number of hours required for completion of the work described in the Scope of Work (Attachment A).

For the Construction Phase, hours are estimated to be 80.

(80 hours estimated based on Bid Response dated 03.07.2023)

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 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 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.

- | | |
|---|---|
| (19) Professional Engineers (PE) | (12) LEED Accredited Professionals (LEED AP) |
| (19) Certified Energy Managers (CEM) | (4) LEED Green Associates |
| (4) Project Management Professionals | (2) Registered Architects/NCARB |
| (4) Certified Measurement Verification Professionals (CMVP) | (2) Certified Building Commissioning Professionals (CBCP) |



MATT KOLSON

Cx 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. Matt is primarily focused at Penn State where his projects include several residence halls, a major medical center, and student centers at two satellite campuses. With a strong mechanical background and a large amount of controls experience, Matt bridges the gap between controls and equipment and holistically commissions systems versus pieces of equipment. Matt also provides commissioning services at UPMC Altoona and Penn State

Matt is slated as the Project Manager for the Quehanna Motivational Boot Camp project and his primary responsibility is to ensure that all of the commissioning tasks as described within this response are completed. Other than electrical, his expertise offers him the ability to complete all of the tasks associated with the commissioning process individually.

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 31 years of experience in building automation controls and commissioning and has been with Aramark for 14 years. Mr. Campise is the Director of Commissioning and oversees the commissioning program. He has been with Aramark for nearly 19 years.

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

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 30 years of electrical building design, project management, evaluations, and engineering experience. Currently, Dave supports all electrical commissioning programs throughout the region and has performed the same duties on all of the reference projects listed within this proposal. 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 this project. He will conduct submittal reviews, design the pre-functional and functional test forms, perform static inspections, and perform functional testing for electrical systems.

JEREMY O'ROARK

Cx Manager

- 5.5 Million GSF Commissioned
- 45 Commissioning Projects
- Penn State University Bachelor of Science Mechanical Engineering
- Fundamentals in Engineering

Mr. O'Roark possesses more than 18 years of experience in mechanical engineering. On behalf of Aramark, he provides commissioning services for clients throughout Pennsylvania and is serving as the project manager on several large high-profile projects within the Mid-Atlantic region. He is currently serving as commissioning project manager on several projects at Penn State University including the College of Engineering Research and Teaching Spaces West 1 & West 2 Buildings, Liberal Arts Research and Teaching Building, and Lasch Building Renovations.

Jeremy is proposed in a support role for this project. He will conduct static inspections and assist with functional testing with regard to standards and controls.

