BURNS McDONNELL

August 3, 2023

Brian D Gaddie, PE
Director of Public Works
Jackson County, Missouri
415 E. 12th Street, Floor 3M
Kansas City, MO 64106

Re: Commissioning Services for 123-22 Commissioning Services for the Jackson County Detention Center, Jackson County, MO: Rev1

Dear Mr. Gaddie,

In accordance with your request of July 27, 2023, we are pleased to resubmit our letter agreement for Commissioning Services on the referenced Project. As requested, Burns & McDonnell has provided revised pricing. The revised pricing removed hours, that were included based on our experience providing commissioning services on similar facilities with similar scope. On these other projects, our commissioning services have been enhanced/benefited by inclusion of additional focus provided on key scope items. The following items have been adjusted from the recommended pricing provided, to that which was identified in the scope of work.

These items are still recommended by Burns & McDonnell but have been adjusted per Jackson County's request.

**TASKS MODIFIED:**

The following tasks hours / budget have been modified.

A. Meeting Attendance: Burns & McDonnell had provided additional meeting attendance based on prior experience with projects of similar scope and complexity. The RFP indicated meetings during the construction phase to not exceed 40 meetings (2 / month). Pricing has been modified to include 40 meetings (Assumed 1-hour meetings for PM (1) and discipline leads (4)).

B. On-Site Support: Burns & McDonnell, as recommended in the interview, had provided pricing to accommodate a part / full time person on-site at the beginning of equipment start-up and continued through acceptance phase. The part / full time support has been removed and limited to the Site Observation time described in the RFP.

C. Site Observations: Burns & McDonnell had provided additional site observation time for all disciplines to enhance the commissioning effort and support the design-build contractor based on previous project experience. The total amount of on-site support was modified/limited to the RFP requested tasks during construction and acceptance phases and limited discipline support to specific construction support.

D. Testing / Retesting: Burns & McDonnell had provided additional time for functional testing and retesting of commissioned systems based on prior project experience with equipment / systems not being ready and/or failing testing. Burns & McDonnell revised functional testing pricing to assume that equipment and systems are ready for complete testing and testing is allowed to progress to completion with minor issues to be resolved.

FILED
NOV 13 2023
MARY JO SPINO
COUNTY CLERK

We appreciate the opportunity to present this revised proposal.

Sincerely,

David Stewart
Project Manager

Joel DeBoer
President

BURNS McDONNELL

# LETTER AGREEMENT FOR PROFESSIONAL SERVICES
# (Doc. No. AE-7)

August 3, 2023

Brian D Gaddie, PE
Director of Public Works
Jackson County, Missouri
415 E. 12th Street, Floor 3M
Kansas City, MO 64106

Re: Commissioning Services for 123-22 Commissioning Services for the Jackson County Detention Center, Jackson County, MO: Rev1

Dear Mr. Gaddie,

In accordance with your requests of March 23, 2023 and July 27, 2023, we are pleased to submit our revised letter agreement for Commissioning Services on the referenced Project as follows. If acceptable, please sign where indicated and return a fully executed copy to the undersigned. Any changes you make are subject to our acceptance in writing. For purposes of this Agreement, Jackson County, Missouri is hereafter referred to as the CLIENT and Burns & McDonnell Engineering Company, Inc. is hereafter referred to as the CONSULTANT.

**PROJECT:**

CLIENT requests CONSULTANT to provide Services as set out in this Letter Agreement on the following Project.

A. Jackson County, Missouri is building a new correctional facility to replace the Jackson County Detention Center (JCDC). The new JCDC will be located at 7000 E US Highway 40 in Kansas City, MO. The new Detention Center facility program includes the following components: Lobby and visitation, administration, staff support, master control, intake/transfer/release, general housing, inmate programs, healthcare, support services, and courtrooms. Key requirements of the new Detention Center include: Project budget $301,162,067.00 and designed to accommodate 1,000 beds with support facility space for expansion of 350 additional beds. The total building area for the JCDC will be approximately 400,000 square feet.

**SYSTEMS TO BE COMMISSIONED:**

The scope of commissioning includes the following systems / equipment:

A. Building HVAC Systems and associated controls

1. Chilled & Hot water systems
2. Air-handling units
3. Air distribution and terminal units
4. Fan coil units
5. Exhaust systems, including smoke evacuation
6. Building management system, energy management system, building automation systems
7. Rooftop Units & Economizers if included

8. Energy Recovery Ventilators
9. Condensate Lines
10. Make-up Air Units
11. Boilers
12. Chillers
13. Cooling Towers.

B. Building lighting control systems;
   1. Interior and exteriors lighting controls

C. Plumbing systems
   1. Domestic hot water heaters (including Insta-Hot Water Heaters)
   2. Recirculation pumps

D. Electrical Systems
   1. Electrical utility equipment
   2. Electrical distribution equipment
   3. Generator

E. Fire Protection/Life Safety system(s)
   1. Integrated Systems Tests including but not limited to: Loss of Power Response and Fire Alarm Response

F. Building Envelope
   1. Air and vapor barrier systems including in the building envelope.

G. Building Security System (75% Sampling)
   1. Electronic Locks
   2. Cameras
   3. Security Central Control
   4. Motion Detectors

**SCOPE OF SERVICES:**

The Services to be provided by CONSULTANT for CLIENT are as follows:

A. Design Phase

1. Commissioning Design Review

a. The CONSULTANT shall review the commissioned systems and assemblies in the design documents to evaluate compliance with the owner's project requirements. Suggestions made by our commissioning group are intended to assist the team and CLIENT. Any suggestions that result in design changes, if implemented, should only be implemented by the designer/architect of record. Before incorporating a suggestion, the project designer/architect of record should verify that the proposed change does not adversely affect other areas of the design In making reviews and recommendations as to design documentation or design matters.

(a) CONSULTANT shall not be responsible for providing nor will CONSULTANT have control over the Project design, design requirements, design criteria or the substance of contents of the design documents. By performing the reviews and making recommendations described herein.

(b) CONSULTANT shall not be deemed to be acting in a manner as to assume responsibility or liability, in whole or in part, for any aspect of the project design, design requirements, design criteria or the substance or contents of the design documents.

(c) CONSULTANT actions in making such reviews and recommendations as provided herein are to be advisory only to the CLIENT and to the Designer.

(d) CONSULTANT does not make any guarantee or warranty, express, implied, or otherwise, as to such services provided. The designer of record shall continue to take full professional responsibility for the construction documents and CONSULTANT review of such construction documents shall not modify or change the designer of record's responsibility for such documents nor make CONSULTANT responsible for the construction documents. CONSULTANT shall not become the designer of record for any portion of the project

b. The CONSULTANT will perform one Commissioning reviews of the CLIENT's 65% Construction Documents to verify the concepts utilized follow standard design practices and should function as intended by the Design Team. Consultant shall provide one backcheck Design review of the 95% Construction Documents to verify comments from the 65% Design Review have been addressed. Reviews will follow ASHRAE Standard 202 requirements.

c. Design Review Meetings

(a) The CONSULTANT will participate in design review meetings with CLIENT to review comments. Two (2) – 8 hour review meetings are estimated for this effort for discipline leads and project manager (5 people).

2. Owners Project Requirements (OPR) & Basis of Design (BOD)

a. Owners Project Requirement (OPR) Document:

(a) CONSULTANT shall use the Design Build RFP / Conceptual Design as the owner's project requirements. The OPR document shall detail the functional requirements of the project and expectations of how it will be used and operated.

(b) CONSULTANT shall participate in a One (1) day OPR charrette meeting to assist in formulating the OPR document. One (1) – 8 hour meeting is estimated for this effort for discipline leads and project manager (5 people).

b. Basis of Design (BOD):

(a) CONSULTANT shall review the CLIENT's BOD to verify alignment to the OPR.

3. Commissioning Specification

a. CONSULTANT shall create the commissioning specification sections to be incorporated into the Construction Documents.

4. Commissioning Plan

a. CONSULTANT shall create and update the commissioning plan based on ASHRAE 202 – 2018, as it applies to this scope of work. CONSULTANT will submit the plan for review and comment. CONSULTANT will provided one draft and one final design phase plan.

5. Commissioning Schedule

a. The CONSULTANT will prepare a Commissioning Activity schedule with activities and durations to support CLIENT's integration into the Overall Construction Schedule.

B. Construction

1. Commissioning Kickoff Meeting

a. CONSULTANT shall plan and conduct a commissioning Kickoff meeting. One (1) kickoff meeting is provided for this effort for discipline leads and project manager (5 people).

2. Meetings

a. CONSULTANT shall lead commissioning meetings and/or participate in CLIENT's coordination meetings prior to, during, and following testing activities. CLIENT will coordinate the time and agenda with owner/subcontractors coordination meetings. Meetings will be scheduled to align with Field / Site Observation trips or will be via teleconference if not on-site.

b. CONSULTANT has provided time for meetings (Not to exceed) forty (40), 1 – hour coordination meetings for discipline leads and project manager (5 people).

3. Commissioning Progress Reports

a. CONSULTANT shall provide to the CLIENT with written progress reports and test results with recommended actions.

b. CONSULTANT shall provide monthly and/or Weekly reports will be generated based on the field activities.

4. Commissioning Coordination / Schedule

a. CONSULTANT will assist the CLIENT and CLIENT's Design-Build Contractor (DBC) with the commissioning actives in a logical, sequential and efficient manner using consistent protocols, clear and regular communications and consultations with necessary parties, frequently updated timelines and schedules and technical expertise.

b. CONSULTANT will work with the CLIENT and CLIENT's DBC to verify that commissioning activities are incorporated into the DBC's master schedule.

5. Commissioning Plan Updates

a. CONSULTANT shall update Commissioning Plan for construction phase changes. This shall be limited to construction phase activities such as; Team List updates, equipment list, checklists, functional tests, etc.

6. Develop Construction Checklists

a. CONSULTANT will review DBC's standard checklists and recommend modifications to verify construction and startup activities are identified. CONSULTANT shall track completion of checklists.

b. DBC is responsible to complete the checklists prior to conducting functional testing.

c. CONSULTANT will review completed checklists.

7. Functional / Integrated Test Procedures

a. Before startup, the CONSULTANT shall gather and review current control sequences and interlocks and work with contractors and engineers until sufficient clarity has been obtained, in writing, to enable Functional Performance Test procedures to be fully developed.

b. CONSULTANT shall develop functional performance tests and integrated systems commissioning procedures/tests for the systems to be commissioned to document if the commissioned system has met the design intent.

8. Site Observations

a. General: CONSULTANT shall provide to the CLIENT written progress reports and test results with recommended actions

b. Building Envelope

(a) CONSULTANT shall witness the air and vapor barrier testing activities.

(b) CONSULTANT has provided 5 man-days for this effort.

c. Mechanical

(a) Startup

(i) CONSULTANT shall review startup procedure forms prior to startup.

(ii) CONSULTANT shall witness a sample of startups and completed manufacturer's startup requirement checklists.

1. Witness 20% of the HVAC piping test and flushing procedures based on length of piping and 20% of any ductwork testing and cleaning procedures based on length of ductwork.

(b) Construction Checklists

(i) CONSULTANT shall witness field verification of major equipment and a sampling percentage (10%) of terminal units to determine if the Checklists have been completed.

(c) CONSULTANT has provided thirty-five (35) man-days for this effort.

d. Electrical (Utility and Stand-by Power System Commissioning)

(a) CONSULTANT shall witness a sample of pre-functional activities identified in the design specifications. DBC Contractor is responsible for executing the specification required testing.

(b) CONSULTANT has provided 18 man-days for this effort.

e. Fire Protection / Life Safety Systems

(a) CONSULTANT shall witness specification testing activities.

(b) CONSULTANT has provided 10 man-days for this effort.

f. Security Electronics Commissioning

(a) CONSULTANT shall provide system start-up observations and random sampling (75%) of devices.

(b) CONSULTANT has provided 10 man-days for this effort.

g. Underground Storm Water and Sanitary Piping Inspection

(a) CONSULTANT will develop a checklist to track the DBC required testing and acceptance per the Design Documents. DBC is resonponsible for all testing and acceptance per the Design Documents.

(b) CONSULTANT has provided 2 man-days for this effort.

C. Acceptance

1. Meetings

a. CONSULTANT shall lead commissioning meetings and/or participate in DBC's coordination meetings. (Meetings covered under construction phase – Total meetings not to exceed 40)

b. CONSULTANT shall lead a functional performance test coordination meeting to establish the schedule and proposed processes for testing.

2. Review Test and Balance (TAB) Report

a. CONSULTANT shall review testing, adjusting and balancing (TAB) final report.

3. Functional / Integrated Testing

a. CONSULTANT shall finalize functional and integrated commissioning procedures/tests for the systems to be commissioned to document if the commissioned system has met the design intent.

(a) Provide CLIENT the testing procedures for commissioned systems and assemblies for review and approval by the DBC.

b. CONSULTANT shall observe the execution of the Functional / Integrated test's performed by the responsible subcontractors. Document test results and recommend system for acceptance.

(a) During observation of a functional test on a piece of equipment, CONSULTANT shall not be responsible for the equipment before, during and after the test. The equipment and the equipment's ability to perform all testing requirement remains the responsibility of the DBC.

4. Issues Log

a. CONSULTANT shall maintain a master log of deficiencies and their resolution and a master log of testing and retesting. Provide to the CLIENT written progress reports and test results with recommended actions.

b. Assist in coordinating the resolution of deficiencies identified during commissioning.

5. Operation & Maintenance Manuals (O&M)

a. CONSULTANT shall review O&M manuals, for the commissioned systems, submitted by the CLIENT for conformance with contract requirements prior to inclusion is the Systems Manual.

6. Owner Training

a. CONSULTANT shall review CLIENT's training plan, and witness training of the Owner's operating personnel.

7. Commissioning Report

a. CONSULTANT will provide a final commissioning report that compiles findings of the commissioning process in a comprehensive summary report. This summary report shall

also contain a master issue log with recommended actions and final resolution documentation for each finding/issue. During the commissioning process, this report and master issue log shall be considered a "living document" and shall be provided to the project team for each tracking of open action items until final resolution can be documented.

D. Post - Occupancy

1. Off/Post Season Testing

a. CONSULTANT will provide post-occupancy tests for peak Summer and/or Winter conditions. Testing will be coordinated with the CLIENT. CONSULTANT will follow up on deficiencies until resolved and provide the final testing documentation for the commissioning record and final Commissioning Report.

2. Commissioning Report

a. CONSULTANT will update the Commisissioning Report after Off/Post Season & Warranty efforts.

3. LEED Documentation

a. CONSULTANT shall assist CLIENT in developing reports and documents for LEED fundamental commissioning credits.

E. Warranty Phase

1. No Warranty Phase scope will be provided by the CONSULTANT.

**ASSUMPTIONS:**

A. The commissioning scope will generally follow the Scope of Work / Commissioning specifications provided in the RFP addendum revisions provide on 07/07/2023 (see Attachement A).

B. The schedule found in JE Dunn's Design-Build contract was used as the basis for this estimate (see Attachement B) which assumes a construction end date of April 2026. Escalation of 3% per year was applied based on this schedule.

C. The above systems were assumed to be included in the commissioning scope and the types and quantities have not been provided. Fee was developed based on past experience and building square footage in lieu of equipment quantities.

D. Commissioning services past the initial construction completion date, currently scheduled for April 2026, are excluded.

E. It was assumed that a sampling strategy would NOT be used as most of the commissioned equipment is critical in nature or difficult to maintain once the space is occupied. However, estimated reductions to the acceptance phase testing were provided based on assumptions on unknown equipment types and counts.

F. Systems/Zones will be available to be tested concurrently. Commissioning shall be allowed to progress without hesitation from one system to the next. Once testing is started on equipment or systems it is allowed to progress to completion without delay or restarting.

G. All commissioning activities provided by the CONSULTANT shall be performed before the JCDC is occupied.

H. The CONSULTANT does not guarantee they will find and document ALL deficiencies or issues with the construction or design. CONSULTANT will document deficiencies they discover, but it will be up to the CLIENT to determent if any documented deficiency will require rework, redesign or modification of means and methods.

I. The CONSULTANT may offer suggestions based on our opinions, as requested by the CLIENT, related to problems, non-conformance, or deficiencies, but ultimately that responsibility to resolve problems, non-conformance or deficiencies resides with the CLIENT, designer/architect of record, and Design-Build Contractor.

J. CONSULTANT shall assist with coordinating the commissioning activities with all members of the Project team including CLIENT and its DBC. CLIENT's DBC is responsible for scheduling and coordination of the activities.

K. CONSULTANT will staff the Project as necessary, to meet the agreed upon construction work dates; however, the CONSULTANT is not responsible for meeting the Project scheduled work dates when the contractors exceed or extend their deadlines for installation and start-up.

L. CONSULTANT shall not at any time supervise, direct, control, or have authority over any CLIENT's DBC's work, nor shall CONSULTANT have authority over or be responsible for the means, methods, techniques, sequences, or procedures of construction selected or used by any Designer, Constructor, or the safety precautions and programs incident thereto, for security or safety at the Project site, nor for any failure of a Designer or Constructor to comply with laws and regulations applicable to such Design-Builder or Constructor's furnishing and performing of its work.

**EXCLUSIONS AND CLARIFICATIONS:**

A. Meetings, site visits, design reviews beyond those listed above can be provided at additional cost.

B. The following services are not included in the fee but can be included at additional cost:

1. The installation/coordination of fault detection and diagnostics (data analytics) on the project as well as the use of such a system during functional testing.

2. Generation of preventative maintenance procedures.

C. The following systems are specifically excluded from CONSULTANT's scope of work:

1. Telecommunications.

D. The following tasks are excluded from the CONSULTANT's scope of work:

1. Operating Procedures Manual

2. LEED Enhanced commissioning services

E. Warranty Phase commissioning was not provided.

F. Review of Design Documents: In making reviews and recommendations as to design documentation or design matters CONSULTANT shall not be responsible for providing nor will CONSULTANT have control over the project design, design requirements, design criteria or the substance of contents of the design documents. By performing the reviews and making recommendations described herein, CONSULTANT shall not be deemed to be acting in a manner as to assume responsibility or liability, in whole or in part, for any aspect of the project design, design requirements, design criteria or the substance or contents of the design documents. CONSULTANT's actions in making such reviews and recommendations as provided herein are to be advisory only to the CLIENT and to the Designer of Record (DOR).

G. Equipment required for testing (load banks, digital recording meters, canned smoke, etc., air-vapor barrier test equipment) is provided by others.

H. CONSULTANT is not responsible for site safety plans or preparing method of procedures (MOPs) for work activities or testing.

**RESPONSIBILITIES OF CLIENT:**

It is our understanding CLIENT will provide the following:

A. Assistance by placing at CONSULTANT's disposal all available information pertinent to the Scope of Services on this Project, including previous reports and any other data relative thereto. CONSULTANT shall rely on information made available by CLIENT as accurate without independent verification.

B. CLIENT will provide access to all available contract documents, submittals, O&M manuals, cut sheets, maintenance and inspection reports and schedules, etc. of the facility upgrades (equipment/systems) in electronic and/or paper format for use on this project within one week of acceptance of the agreement.

C. CLIENT will provide building automation system (BAS) operational personnel, mechanical subcontractor, electrical subcontractor, fire alarm subcontractor, enclosure subcontractor, security subcontractor, and equipment vendor field service technicians during commissioning to operate equipment and systems for the purposes of functional testing and documenting operation of the equipment and systems.

D. CLIENT will provide access to project site and locations where equipment is installed for commissioning activities.

**COMPENSATION:**

A. Amount of Payment

   a. For the Base Scope of Services described herein, CLIENT shall pay CONSULTANT the lump sum amount of Seven Hundred Twenty-Five Thousand Two Hundred Thirteen Dollars ($ 725,213.00).

   b. For the Alternate #1 Scope of Services, CLIENT shall pay CONSULTANT the lump sum amount of Seven Hundred Six Thousand Nine Hundred Sixty-Two Dollars ($ 706,962.00).

c. For the Alternate #2 Scope of Services, CLIENT shall pay CONSULTANT the lump sum amount of Six Hundred Ninety-Two Thousand Seventy Seven Dollars ($ 692,077.00).

d. See bid form attached.

e. For additional, reduced, or changed scope of Services, the amount of payment shall be adjusted on mutually agreeable lump sum basis.

2. CONSULTANT's pricing is good for 60 days from the date of this letter proposal.

B. Statements:

1. Monthly statements will be submitted by CONSULTANT to CLIENT. Statements will be based on CONSULTANT's estimated percent of Services completed at the end of the preceding month.

**TERMS AND CONDITIONS:**

Per the RFP, the CLIENT and CONSULTANT will begin negotiations to reach mutually agreeable terms and conditions upon being selected.

We appreciate the opportunity to present this Proposal. If it is acceptable, please sign and return one copy for our file.

Sincerely,

David Stewart
Project Manager

Joel DeBoer
President

Enclosures:

Attachment A: Bid Fee Form

**ACCEPTED:**

JACKSON COUNTY, MISSOURI

By: _____

Title: Jackson County Executive

Date: 11.2.2023

APPROVED AS TO FORM

County Counselor

ATTEST: 12-19-2023

Clerk of the County Legislature

**123-22 - Commissioning Services, Jackson County, MO**

Request for Proposal for Professional Services Fee Proposal – Rev1

Fees: See attached Letter Agreement which outlines the scope of commissioning services utilized to develop the submitted fees. As described in our proposal, due to the critical nature of this facility, we recommend the base bid option of 100% sample rates. We have provided a reduced scope fee for the two alternate sampling rates requested. The reduced scope fee applies only to the construction and acceptance phase pricing.

**Base Bid-Rev1:**

Sampling Rate:

| Base Bid Unit Sample Rate | |
|---|---|
| No. of Units of same type, components and sequences | Sample Rate |
| 1-10 | 100% |
| 11-20 | 100% |
| 21-50 | 100% |
| 51-100 | 100% |
| >100 | 100% |

Fee:

| **Base Bid (100% Sampling)** | | | |
|---|---|---|---|
| **Task#** | **Task Description** | **Fee** | **Notes** |
| 1 | Design Phase Commissioning Services | $ 69,823 | |
| 2 | Construction Phase Commissioning Services | $ 336,631 | |
| 3 | Acceptance Phase Commissioning Services | $ 163,047 | |
| 4 | Post-Occupancy Phase Commissioning Services | $ 31,583 | |
| 5 | Utility and Standby Power System Commissioning | $ - | 1 |
| 6 | Underground Storm Water and Sanitary Piping Inspection | $ 7,528 | 2 |
| 7 | Security Electronic Commissioning Services | $ 84,111 | 3 |
| 8 | On-Site Commissioning Services | $ - | 1 |
| 9 | Prepare Owner Project Requirements | $ 29,971 | |
| 10 | Prepare and Maintain Fundamental Commissioning Documents | $ 2,519 | |
| **Total** | Seven Hundred Twenty-Five Thousand Two Hundred Thirteen Dollars | $ 725,213 | |
| **MBE / WBE / VBE Estimated Fee / %** | | $ 125,640 | 4 |
| | | 17% | |
| | | | |

| **Notes** | |
|---|---|
| 1 | Based on the descriptions of tasks within the main body of the RFP the pricing has been included with the standard services provided in task 1 - 4. |
| 2 | Line item includes tasks inlcuded in Section 5.7.7.1 through 5.7.7.3. Other commissioning tasks required by other sections in the RFP are included in tasks 1-4. |
| 3 | Line item includes tasks inlcuded in Section 5.7.8.1 through 5.7.8.9. Other commissioning tasks required by other sections in the RFP are included in tasks 1-4. |
| 4 | MBE/WBE/VBE is included in the total fee. |

**Alternate 1-Rev1:**

Sampling Rate:

| Alternate 1 Sample Rate | |
|---|---|
| No. of Units of same type, components and sequences | Sample Rate |
| 1-10 | 100% |
| 11-20 | 90% |
| 21-50 | 75% |
| 51-100 | 50% |
| >100 | 20% |

Fee

| **Alternate 1 Sample Rate** | | | |
|---|---|---|---|
| **Task#** | **Task Description** | **Fee** | **Notes** |
| 1 | Design Phase Commissioning Services | $ 69,823 | |
| 2 | Construction Phase Commissioning Services (base - 3%) | $ 326,532 | |
| 3 | Acceptance Phase Commissioning Services (base - 5%) | $ 154,895 | |
| 4 | Post-Occupancy Phase Commissioning Services | $ 31,583 | |
| 5 | Utility and Standby Power System Commissioning | $ - | 1 |
| 6 | Underground Storm Water and Sanitary Piping Inspection | $ 7,528 | 2 |
| 7 | Security Electronic Commissioning Services | $ 84,111 | 3 |
| 8 | On-Site Commissioning Services | $ - | 1 |
| 9 | Prepare Owner Project Requirements | $ 29,971 | |
| 10 | Prepare and Maintain Fundamental Commissioning Documents | $ 2,519 | |
| **Total** | Seven Hundred Six Thousand Nine Hundred Sixty-Two Dollars | $ 706,962 | |
| | | | |
| **MBE / WBE / VBE Estimated Fee / %** | | $ 122,478 | 4 |
| | | 17% | |

| **Notes** | |
|---|---|
| 1 | Based on the descriptions of tasks within the main body of the RFP the pricing has been included with the standard services provided in task 1 - 4. |
| 2 | Line item includes tasks inlcuded in Section 5.7.7.1 through 5.7.7.3. Other commissioning tasks required by other sections in the RFP are included in tasks 1-4. |
| 3 | Line item includes tasks inlcuded in Section 5.7.8.1 through 5.7.8.9. Other commissioning tasks required by other sections in the RFP are included in tasks 1-4. |
| 4 | MBE/WBE/VBE is included in the total fee. |

**Alternate 2-Rev1:**

Sampling Rate:

| Alternate 2 Sample Rate | |
|---|---|
| No. of Units of same type, components, and sequences | Sample Rate |
| 1-10 | 100% |
| 11-20 | 80% |
| 21-50 | 50% |
| 51-100 | 30% |
| >100 | 5% |

Fee:

| **Alternate 2 Sample Rate** | | | |
|---|---|---|---|
| **Task#** | **Task Description** | **Fee** | **Notes** |
| 1 | Design Phase Commissioning Services | $ 69,823 | |
| 2 | Construction Phase Commissioning Services (base - 5%) | $ 319,800 | |
| 3 | Acceptance Phase Commissioning Services (base - 10%) | $ 146,743 | |
| 4 | Post-Occupancy Phase Commissioning Services | $ 31,583 | |
| 5 | Utility and Standby Power System Commissioning | $ - | 1 |
| 6 | Underground Storm Water and Sanitary Piping Inspection | $ 7,528 | 2 |
| 7 | Security Electronic Commissioning Services | $ 84,111 | 3 |
| 8 | On-Site Commissioning Services | $ - | 1 |
| 9 | Prepare Owner Project Requirements | $ 29,971 | |
| 10 | Prepare and Maintain Fundamental Commissioning Documents | $ 2,519 | |
| **Total** | Six Hundred Ninety-Two Thousand Seventy-Seven Dollars | $ 692,077 | |
| | | | |
| **MBE / WBE / VBE Estimated Fee / %** | | $ 122,994 | 4 |
| | | 18% | |

| **Notes** | |
|---|---|
| 1 | Based on the descriptions of tasks within the main body of the RFP the pricing has been included with the standard services provided in task 1 - 4. |
| 2 | Line item includes tasks inlcuded in Section 5.7.7.1 through 5.7.7.3. Other commissioning tasks required by other sections in the RFP are included in tasks 1-4. |
| 3 | Line item includes tasks inlcuded in Section 5.7.8.1 through 5.7.8.9. Other commissioning tasks required by other sections in the RFP are included in tasks 1-4. |
| 4 | MBE/WBE/VBE is included in the total fee. |

BURNS McDONNELL

**TERMS AND CONDITIONS FOR COMMISSIONING SERVICES**

This AGREEMENT is made as of September 15, 2023, by and between Jackson County, Missouri (hereinafter called OWNER) and Burns & McDonnell Engineering Company, Inc., a Missouri Corporation specializing in commissioning services (hereinafter called COMMISSIONING AGENT).

OWNER requires professional engineering services in connection with the Whole Building Commissioning and Technical Review Services for the new Jackson County Detention Center (the Project). Therefore, OWNER and COMMISSIONING AGENT in consideration of their mutual covenants agree as follows:

COMMISSIONING AGENT shall serve as OWNER'S commissioning agent and shall give consultation and advice to OWNER during the performance of commissioning services.

1. OWNER's Designated Representative: Brian Gaddie
2. COMMISSIONING AGENT's Designated Representative: Joel DeBoer

**1. SCOPE OF SERVICES**

A. For the above-referenced Project, COMMISSIONING AGENT will perform Commissioning the services set forth in the Attached Letter Proposal, in accordance with these Terms and Conditions. COMMISSIONING AGENT has relied upon the information provided by OWNER in the preparation of the Proposal, and shall rely on the information provided by or through OWNER during the execution of this Project as complete and accurate without independent verification. COMMISSIONING AGENT as the OWNER's Commissioning Agent shall complete the Commissioning Services according to the Commissioning Schedule included in the Attached Letter Proposal. The Commissioning Services Schedule contains schedule commitments of OWNER as well as Construction contractor and/or other OWNER Consultants. If, through no fault of COMMISSIONING AGENT, the orderly and continuous progress of the Commissioning Services is impaired, or the Commissioning Services are delayed or suspended, then the Commissioning Services Schedule, and the rates and amounts of COMMISSIONING AGENT's compensation, shall be adjusted equitably.

B. OWNER shall be responsible for all requirements and instructions that it furnishes to COMMISSIONING AGENT pursuant to this Agreement, and for the accuracy and completeness of all programs, reports, data, and other information furnished by OWNER to COMMISSIONING AGENT pursuant to this Agreement. COMMISSIONING AGENT may use and rely upon such requirements, programs, instructions, reports, data, and information in performing or furnishing services under this Agreement, subject to any express limitations or reservations applicable to the furnished items.

C. Review of Design Documents: In making reviews and recommendations as to design documentation or design matters COMMISSIONING AGENT shall not be responsible for providing nor will COMMISSIONING AGENT have control over the Project design, design requirements, design criteria or the substance of contents of the design documents. By performing the reviews and making recommendations described herein, COMMISSIONING AGENT shall not be deemed to be acting in a manner so as to assume responsibility or liability, in whole or in part, for any aspect of the project design, design requirements, design criteria or the substance or contents of the design documents. COMMISSIONING AGENT's actions in making such reviews and recommendations as provided herein are to be advisory only to the OWNER and to the Designer. COMMISSIONING AGENT does not make any guarantee or warranty, express, implied, or otherwise, as to such services provided. The designer of record shall continue to take full professional responsibility for the construction documents and COMMISSIONING AGENT's review of such construction documents shall not modify or change the designer of record's responsibility for such documents nor make COMMISSIONING AGENT responsible for the construction documents. COMMISSIONING AGENT shall not become the designer of record for any portion of the project. OWNER hereby waives any and all claims against COMMISSIONING AGENT based on COMMISSIONING AGENT's good-faith performance of services under this Agreement, including but not limited to claims based on Burns & McDonnell's analysis, findings, recommendations, or report concerning the construction documents.

D. Functional testing of equipment: In leading a functional test on a piece of equipment, COMMISSIONING AGENT shall not be responsible for the equipment before, during or after the test. The equipment and the equipment's ability to perform all testing requirements remains the responsibility of the equipment's OWNER, designer, and contractor.

E. Site Safety: COMMISSIONING AGENT will follow the site safety protocols set forth by the OWNER or construction contractor. If COMMISSIONING AGENT staff employ additional safety protocols, this will not constitute COMMISSIONING AGENT taking on the liability of the site safety responsibilities.

**2. PAYMENTS TO COMMISSIONING AGENT**

A. Compensation will be as stated in the Attached Letter Proposal, Statements will be in COMMISSIONING AGENT's standard format and are payable upon receipt. Time is of the essence in payment of statements, and timely payment is a material part of the consideration of this Agreement. A late payment charge will be added to all amounts not paid within 30 days of statement date and shall be calculated at 1.5 percent per month from statement date. OWNER shall reimburse any costs incurred by COMMISSIONING AGENT in collecting any delinquent amount, including reasonable attorney's fees. If a portion of COMMISSIONING AGENT's statement is disputed, OWNER shall pay the undisputed portion by the due date. OWNER shall advise COMMISSIONING AGENT in writing of the basis for any disputed portion of any statement.

B. Taxes as may be imposed on professional consulting services by state or local authorities shall be in addition to the payment stated in the above-referenced Attached Letter Proposal.

**3. INSURANCE**

A. During the course of performance of its services, COMMISSIONING AGENT will maintain Worker's Compensation insurance with limits as required by statute, Employer's Liability insurance with limits of $1,000,000, and Commercial General Liability and Automobile Liability insurance each with combined single limits of $1,000,000.

B. Construction contractors shall be required to provide (or OWNER may provide) OWNER's Protective Liability Insurance naming OWNER as a Named Insured and COMMISSIONING AGENT as an Additional Insured or to endorse OWNER and COMMISSIONING AGENT using ISO form CG 20 10 11 85 endorsement or its equivalent as Additional Insureds on all construction contractor's liability insurance policies covering claims for personal injuries and property damage in at least the amounts required of COMMISSIONING AGENT in 3A above. Construction contractors shall be required to provide certificates evidencing such insurance to OWNER and COMMISSIONING AGENT. Contractor's compensation shall include the cost of such insurance including coverage for contractual and indemnification obligations herein.

C. OWNER and COMMISSIONING AGENT release each other and waive all rights of subrogation against each other and their officers, directors, agents, or employees for damage covered by property insurance during and after the completion of COMMISSIONING AGENT's services. A provision similar to this shall be incorporated into all construction contracts entered into by OWNER, and all construction contractors shall be required to provide waivers of subrogation in favor of OWNER and COMMISSIONING AGENT for damage covered by any construction contractor's property insurance.

**4. INDEMNIFICATION**

A. To the extent allowed by law, OWNER will require all construction contractors to indemnify, defend, and hold harmless OWNER and COMMISSIONING AGENT from any and all loss where loss is caused or alleged to be caused in whole or in part by the construction contractors, their employees, agents, subcontractors or suppliers.

B. The COMMISSIONING AGENT agrees to indemnify the OWNER, against damages to property, structures and utilities together with damages or personal injury, including accidental death, to the extent caused by COMMISSIONING AGENT's negligent acts or the negligent acts of the COMMISSIONING AGENT's sub-consultants or employees for whom the COMMISSIONING AGENT is legally responsible, in the performance of work under this Agreement.

~~B.~~C. COMMISSIONING AGENT shall not at any time supervise, direct, control, or have authority over any Constructor's work, nor shall COMMISSIONING AGENT have authority over or be responsible for the means, methods, techniques, sequences, or procedures of construction selected or used by any Design-Builder, Constructor, or the safety precautions and programs incident thereto, for security or safety at the Project site, nor for any failure of a Design-Builder or Constructor to comply with laws and regulations applicable to such Design-Builder or Constructor's furnishing and performing of its work. COMMISSIONING AGENT shall not be responsible for the acts or omissions of any Design-Builder or Constructor.

~~C.~~D. COMMISSIONING AGENT neither guarantees the performance of any Design-Builder or Constructor nor assumes responsibility for any Design-Builder or Constructor's failure to furnish and perform its work, or to complete its work on schedule.

~~D.~~E. COMMISSIONING AGENT shall not be responsible for any decision made regarding the administration of the Design-Build Contract, or any application, interpretation, clarification, or modification of the Design-Build Contract, other than those made by COMMISSIONING AGENT or its subconsultants.

**5. PROFESSIONAL RESPONSIBILITY– LIMITATION OF REMEDIES**

A. COMMISSIONING AGENT will exercise reasonable skill, care, and diligence in the performance of its services and will carry out its responsibilities in accordance with customarily accepted professional practices. If COMMISSIONING AGENT fails to meet the foregoing standard, COMMISSIONING AGENT will perform at its own cost, the commissioning service necessary to correct errors and omissions reported to COMMISSIONING AGENT in writing within one year from the completion of COMMISSIONING AGENT's services for the Project. No warranty, express or implied, is included in this Agreement or regarding any commissioning documentation, specification, or other work product or instrument of service.

B. In no event will COMMISSIONING AGENT be liable for any special, indirect, or consequential damages including, without limitation, damages or losses in the nature of increased Project costs, loss of revenue or profit, lost production, claims by customers of OWNER, and/or governmental fines or penalties.

C. COMMISSIONING AGENT's aggregate liability for all damages connected with its services for the Project not excluded by the preceding subparagraph, whether or not covered by COMMISSIONING AGENT's insurance, shall not exceed the total compensation actually received by COMMISSIONING AGENT under this Agreement.

D. These mutually negotiated obligations and remedies stated in this Paragraph 5, Professional Responsibility – Limitation of Remedies, are the sole and exclusive obligations of COMMISSIONING AGENT and remedies of OWNER, whether liability of COMMISSIONING AGENT is based on contract, warranty, strict liability, tort (including negligence), indemnity, or otherwise.

**6. PERIOD OF SERVICE AND SCHEDULE**

A. The provisions of this Agreement have been agreed to in anticipation of the orderly and continuous progress of the Project through completion of the services stated in the Proposal. COMMISSIONING AGENT's obligation to render services hereunder will extend for a period that may reasonably be required for the completion of said services. COMMISSIONING AGENT shall make reasonable efforts to comply with deliverable schedules (if any) and consistent with COMMISSIONING AGENT's professional responsibility. COMMISSIONING AGENT will shall not be liable for any loss or damage directly or indirectly from the Construction contractor's construction schedule. COMMISSIONING AGENT will be compensated for any delay in the commissioning schedule due to OWNER or Construction contractors' actions.

**7. COMPUTER PROGRAMS OR MODELS**

A. Any use, development, modification, or integration by COMMISSIONING AGENT of computer models or programs does not constitute ownership or a license to OWNER to use or modify such computer models or programs.

**8. ELECTRONIC MEDIA AND DATA TRANSMISSIONS**

A. Any electronic media (computer disks, tapes, etc.) or data transmissions furnished (including Project Web Sites or CAD file transmissions) are for OWNER information and convenience only. Such media or transmissions are not to be considered part of COMMISSIONING AGENT's instruments of service. COMMISSIONING AGENT, at its option, may remove all indication of its ownership and involvement from each electronic display.

B. COMMISSIONING AGENT shall not be liable for loss or damage directly or indirectly, arising out of OWNER's use of electronic media or data transmissions.

**9. COMMISSIONING DOCUMENTS**

A. All documents prepared by COMMISSIONING AGENT pursuant to this Agreement are instruments of service in respect of the Project specified herein. They are not intended or represented to be suitable for reuse by OWNER or others in extensions of the Project beyond that now contemplated or on any other Project. Any reuse, extension, or completion by OWNER or others without written verification, adaptation, and permission by COMMISSIONING AGENT for the specific purpose intended will be at OWNER's sole risk and without liability or legal exposure to COMMISSIONING AGENT.

B. In the event that COMMISSIONING AGENT is to reuse, copy or adapt all or portions of reports, plans, or specifications prepared by others, OWNER represents that OWNER either possesses or will obtain permission and necessary rights in copyright, patents, or other proprietary rights and will be responsible for any infringement claims by others. OWNER warrants the completeness, accuracy, and efficacy of the information, data, and design provided by or through OWNER (including prepared for OWNER by others), for which COMMISSIONING AGENT shall rely on to perform and complete its services.

**10. ESTIMATES, SCHEDULES, FORECASTS, AND PROJECTIONS**

C. Estimates, schedules, forecasts, and projections prepared by COMMISSIONING AGENT relating to loads, interest rates and other financial analysis parameters, construction costs and schedules, operation and maintenance costs, equipment characteristics and performance, and operating results are opinions based on COMMISSIONING AGENT's experience, qualifications, and judgment as a professional. Since COMMISSIONING AGENT has no control over weather, cost and availability of labor, cost and availability of material and equipment, cost of fuel or other utilities, labor productivity, construction contractor's procedures and methods, unavoidable delays, construction contractor's methods of determining prices, economic conditions, government regulations and laws (including the interpretation thereof), competitive bidding or market conditions, and other factors affecting such estimates or projections, COMMISSIONING AGENT does not guarantee that actual rates, costs, quantities, performance, schedules, etc., will not vary significantly from estimates and projections prepared by COMMISSIONING AGENT.

**11. POLLUTION**

In view of the uncertainty involved in investigating and recommending solutions to environmental problems and the abnormal degree of risk of claims imposed upon COMMISSIONING AGENT in performing such services, notwithstanding the responsibility of COMMISSIONING AGENT set forth in Paragraph 5A to the maximum extent allowed by law, OWNER agrees to release, defend, indemnify and hold harmless COMMISSIONING AGENT and its officers, directors, employees, agents, consultants and subcontractors from all liability, claims, demands, damages, losses, and expenses including, but not limited to, claims of OWNER and other persons and organizations, reasonable fees and expenses of attorneys and consultants, and court costs, except where there has been a final adjudication that the damages were caused by COMMISSIONING AGENT's willful disregard of its obligations under this Agreement. Such indemnification includes claims arising out of, or in any way relating to, the actual, alleged, or threatened dispersal, escape, or release of, or failure to detect or contain, chemicals, wastes, liquids, gases, or any other material, irritant, contaminant, or pollutant.

**12. ON-SITE SERVICES**

A. Project site visits by COMMISSIONING AGENT during investigation, observation, construction or equipment installation, or the furnishing of Project representatives shall not make COMMISSIONING AGENT responsible for construction means, methods, techniques, sequences, or procedures; for construction safety precautions or programs; or for any construction contractor(s') failure to perform its work in accordance with the contract documents.

B. OWNER shall disclose to COMMISSIONING AGENT the location and types of any known or suspected toxic, hazardous, or chemical materials or wastes existing on or near the premises upon which work is to be performed by COMMISSIONING AGENT's employees or

subcontractors. If any hazardous wastes not identified by OWNER are discovered after a Project is undertaken, OWNER and COMMISSIONING AGENT agree that the scope of services, schedule, and compensation may be adjusted accordingly. OWNER agrees to release COMMISSIONING AGENT from all damages related to any pre-existing pollutant, contaminant, toxic, or hazardous substance at the site.

**13. CHANGES**

OWNER shall have the right to make changes within the general scope of COMMISSIONING AGENT's services, with an appropriate change in compensation and schedule, upon execution of a mutually acceptable amendment or change order signed by authorized representatives of OWNER and COMMISSIONING AGENT.

**14. TERMINATION**

A. Services may be terminated by OWNER or COMMISSIONING AGENT by seven (7) days' written notice in the event of substantial failure to perform in accordance with the terms hereof by the other party through no fault of the terminating party. If so terminated, OWNER shall pay COMMISSIONING AGENT all amounts due COMMISSIONING AGENT for all services properly rendered and expenses incurred to the date of receipt of notice of termination, plus reasonable costs incurred by COMMISSIONING AGENT in terminating the services. In addition, OWNER may terminate the services for OWNER's convenience upon payment of twenty percent of the yet unearned and unpaid estimated, lump sum, or not-to-exceed fee, as applicable.

~~A.~~B. If the Agreement is terminated due to the COMMISSIONING AGENT failing to comply with its re-performance requirements in Paragraph 5, the COMMISSIONING AGENT will be responsible for the excess direct cost the OWNER sustains to correct the COMMISSIONING AGENT'S defective services, subject to the limitations set forth in Paragraph 5.

**15. DISPUTES, NEGOTIATIONS, MEDIATION**

A. If a dispute arises relating to the performance of the services to be provided and, should that dispute result in litigation, it is agreed that the substantially prevailing party (as determined in equity by the court) shall be entitled to recover all reasonable costs of litigation, including staff time, court costs, attorney's fees and other related expenses.

B. The parties shall participate in good faith negotiations to resolve any and all disputes. Should negotiations fail, the parties agree to submit to and participate in a third party-facilitated mediation as a condition precedent to resolution by litigation. Unless otherwise agreed to, mediation shall be conducted under the rules of the American Arbitration Association and shall be held in Missouri.

C. The parties agree that any dispute between them, including any action against an officer, director or employee of a party, arising out of or related to this Agreement, whether in contract or tort, not resolved through direct negotiation and mediation, shall be resolved by litigation in the state or federal courts located in Jackson County, Missouri, and each party expressly consents to jurisdiction therein. Any litigation to compel or enforce, or otherwise affect the mediation shall be in state or federal courts located in Jackson County, Missouri, and each party expressly consents to jurisdiction therein.

D. Causes of action between the parties shall accrue, and applicable statutes of limitation shall commence to run the date COMMISSIONING AGENT's services are substantially complete.

**16. WITNESS FEES**

A. COMMISSIONING AGENT's employees shall not be retained as expert witnesses, except by separate written agreement.

B. OWNER agrees to pay COMMISSIONING AGENT pursuant to COMMISSIONING AGENT's then current schedule of hourly labor billing rates for time spent by any employee of COMMISSIONING AGENT responding to any subpoena by any party in any dispute as an occurrence witness or to assemble and produce documents resulting from COMMISSIONING AGENT's services under this Agreement.

**17. CONTROLLING LAW**

This Agreement shall be subject to, interpreted and enforced according to the laws of the State of Missouri, without regard to any conflicts of law provisions.

**18. RIGHTS AND BENEFITS – NO ASSIGNMENT**

COMMISSIONING AGENT's services will be performed solely for the benefit of OWNER and not for the benefit of any other persons or entities. Neither OWNER nor COMMISSIONING AGENT shall assign or transfer interest in this Agreement without the written consent of the other.

**19. ENTIRE CONTRACT**

These Terms and Conditions and the Attached Letter Proposal, contain the entire agreement between COMMISSIONING AGENT and OWNER relative to COMMISSIONING AGENT's services for the Project herein. All previous or contemporaneous agreements, representations, promises, and conditions relating to COMMISSIONING AGENT's services for the Project are superseded. Since terms contained in purchase orders do not generally apply to professional services, in the event OWNER issues to COMMISSIONING AGENT a purchase order, no preprinted terms thereon shall become part of this Agreement. Said purchase order documents, whether or not signed by COMMISSIONING AGENT, shall be considered only as an internal document of OWNER to facilitate administrative requirements of OWNER's operations.

**20. SEVERABILITY**

Any unenforceable provision herein shall be amended to the extent necessary to make it enforceable; if not possible, it shall be deleted, and all other provisions shall remain in full force and affect.

**IN WITNESS WHEREOF,** the parties hereto have executed this Agreement, the Effective Date of which is indicated on page 1.

OWNER:

By: _____

Title: Jackson County Executive

Date Signed: 11.2.2023

Address for OWNER's receipt of notices:

OWNER'S COMMISSIONING AGENT: Burns & McDonnell Engineering Company, Inc.

By: _____

Title: - President

Date Signed: 11/7/2023

Address for OWNER'S COMMISSIONING AGENT'S receipt of notices:

R. 21432

## REVENUE CERTIFICATE

There is a balance otherwise unencumbered to the credit of the appropriation to which the expenditure is chargeable and there is a cash balance otherwise unencumbered in the treasury to the credit of the fund from which payment is to be made each sufficient to provide for the obligation of $725,213.00 is herein authorized.

11-2-2023
Date

Director of Finance and Purchasing
Account No. 013-1214-56080
PC 121423005 000 DM

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## 1.0 INTRODUCTION

1.1 Jackson County, Missouri is seeking proposals from qualified Commissioning Agents to provide **Whole Building Commissioning and Technical Review Services** in connection with the design and construction of a new Jackson County Detention Center (JCDC) utilizing a Design-Build delivery method.

1.2 This is **Jackson County, Missouri Request for Proposal No. 123-22;** Request for Proposal Deadline is 2:00 PM, CDT on April 25, 2023.

1.3 Submission of Proposals: Proposals must be submitted on-line through the Bonfire Portal at https://jacksongov.bonefirehub.com. Proposals submitted by any other method will not be accepted.

1.4 Term of Contract: This will be a single project accomplished in multiple phases: Design, construction, acceptance and post-occupancy.

1.5 Point of Contact: The Point of Contact for this Request for Proposal will be Barbara Casamento, Purchasing Administrator for Jackson County, Missouri.

1.6 Jackson County, located in western Missouri, is a full-service local government providing daily services to a population of nearly 800,000 residents across 18 incorporated municipalities including Kansas City and Independence, the County Seat. Within appropriate jurisdictions, the County provides road construction and maintenance, park facilities, tax assessment and collection, law enforcement, court services, prosecution of state statute violations, criminal detention, family support services, public healthcare and sewer services. Please refer to the Jackson County website for additional information, www.jacksongov.org .

1.7 The County Administrator and the Public Works Director, on behalf of Jackson County, Missouri (the Owner), are responsible for the Detention Center facility and the selection of the Project Team. The County Administrator, Public Works Director, and staff will be engaged in every aspect of this Project. The Owner has already identified a portion of the Project Team, which includes an Owner's Representative (OR).

1.8 The Owner's Representative, JCDC Partners, will act on behalf of the Owner and assist in the management of the Commissioning Agent and other consultants required for the project. Throughout all phases, the OR will be responsible for financial management and cost control of the County's budget.

1.9 The new Jackson County Detention Center will be located in Kansas City, Missouri on an approximately 107.25-acre site north of US Highway 40 immediately east of the Blue River. The County's goals for the new Detention Center include:

1.9.1 Resolution of the existing Detention Center failings

1.9.2 High-functioning, safe, and secure Detention Center facility

1.9.3 High-performance building

1.9.4 Future flexibility and expansion opportunities

1.9.5 Efficient closeout, turnover and occupancy

1.9.6 Exemplary Civic Architecture viewed as a community resource

1.9.7 An Instrument of Justice and Service, appropriate to the County and taxpayers

1.10 The new Detention Center facility program includes the following components: Lobby and visitation, administration, staff support, master control, intake/transfer/release, general housing, inmate programs, healthcare, support services, and courtrooms. Key requirements of the new Detention Center include:

1.10.1 Project budget $301,162.00

1.10.2 Building design to accommodate 1,000 beds with support facility space for expansion of 350 additional beds

1.11 The Project Site is owned by Jackson County, Missouri.

## 2.0 QUESTION PROCEDURE

2.1 All questions regarding this Request for Proposal shall be communicated electronically through the Bonfire Portal via the Opportunity Q & A within the Request for Proposal.

2.2 All questions must be received on the Bonfire Portal by 5:00 PM. CDT on April 18, 2023. All questions will be answered on the Opportunity Q & A or by Addenda within the Request for Proposal.

2.3 Bonfire will notify respondents of the Question Answers and Addenda if they have obtained the Request for Proposal documents through Bonfire.

2.4 Respondents and their agents (including subcontractors, associates, consultants or their agents) **may not contact any other County associates, staff or elected officials** regarding the matters covered by this Request for Proposal during the solicitation and evaluation of proposals.

2.5 Inappropriate contacts are grounds for **REJECTION** of your proposal.

## 3.0 AWARD REQUIREMENTS

3.1 All work performed on any resulting Contract will be performed in the Greater Kansas City, Missouri Area. If Respondent is not located in the Greater Kansas City Metropolitan Area, documentation must be submitted with proposal that details how Respondent will perform the work as detailed herein. Jackson County, Missouri reserves the right to determine if Respondent's plan to perform the work is acceptable.

3.2 Compliance with Chapter 6 of the Jackson County Code for Minority, Women and Veteran Business Enterprises utilization will be required on any resulting Contract. The Successful Respondent on Phase II of this Request for Proposal whereby the Whole Building Commissioning and Technical Review Services Contract will be awarded must make a good faith effort to meet the MBE and WBE goals set by Jackson County, Missouri. The Whole Building Commissioning Agent is encouraged to exceed the MBE and WBE goals.

3.2.1 The MBE/WBE/VBE Participation Affidavit, included with Purchasing Forms in Section 10.2 of this RFP, must be filled out, signed and notarized and submitted with your Response to this RFP.

3.2.2 Upon recommendation of award, the Successful Respondent will work with the Jackson County, Missouri Compliance Review Office to establish a Contractor Utilization Plan that will be an exhibit to the Contract and become contractual requirements upon Contract Award.

3.2.3 The Contractor's Utilization Plan must demonstrate that the Successful Respondent either will meet the MBE/WBE Goals on the Plan or fully document its Good Faith Effort to do so.

3.2.4 The Successful Respondent may voluntarily utilize a higher percentage of MBE's and WBE's than the goals set by Jackson County.

3.2.5 All respondents should be aware that Section 1056 of the County's Purchasing Code contains a purely voluntary goal for participation in the Contract to be awarded to Veteran-Owned Business Enterprises (VBEs). The Successful Respondent is encouraged to meet this VBE goal.

3.3 Compliance with Chapter 19: Compliance with Prevailing Hourly Rate of Wages is required on any resulting contract pursuant to Section 290.262 RSMo 1994 Division of Labor Standards, State of Missouri.

3.4 Certificate of Insurance: The Successful Respondent will be required to submit to the Purchasing Department a Certificate of Insurance meeting or exceeding the provisions of Exhibit A, in Purchasing Information Attachment of this Request for Proposal within

ten business days after receiving Notification of Award. The Certificate of Insurance must be received by the County prior to the commencement of any work on this Project. The main Contractor must provide the Certificate of Insurance.

3.5 A Performance and Payment Bond in the amount of 100% of the Contract Award must be submitted to the County's Purchasing Department within ten business days after Notification of Award. The Performance and Payment Bond must be in the form of a bond acceptable to the Jackson County, Missouri Purchasing Department executed by a Surety Company authorized to do business in the State of Missouri and listed on the Federal Register. The main Contractor must provide the Performance and Payment Bond.

3.6 Licenses and Permits: The Successful Respondent shall be, without expense to the County, responsible for obtaining any necessary licenses and permits. The Successful Respondent must provide, upon written request, evidence of any required Federal, State, Local and/or Occupational Licenses. The main Contractor must provide the any necessary licenses and permits.

3.7 W-9 Form: The Successful Respondent must provide a completed IRS W-9 Form prior to award of Contract. The main Contractor must provide the W-9 Form.

## 4.0 TERMINOLOGY AND DEFINITIONS

4.1 Whenever the following words and expressions appear in this Request for Proposal or any Amendments hereto, the definition or meaning described below shall apply:

4.1.1 Agency and/or Department mean(s) the statutory unit of County government in Jackson County, Missouri for which the equipment, supplies, and/or services are being purchased by the Department of Finance and Purchasing.

4.1.2 Amendment/Addendum means a written, official modification to a solicitation document or to a contract.

4.1.3 Attachment applies to all forms which are included with a solicitation document to incorporate any informational data or requirements related to the performance requirement.

4.1.4 Certified Firm a Certified Firm is one that has been accepted by the County as a certified MBE or WBE. The County accepts certifications from the following organizations:

4.1.4.1 City of Kansas City, Missouri

4.1.4.2 Kansas City Area Transportation Authority

4.1.4.3 Mountain Plains Supplier Diversity Council

4.1.4.4 State of Missouri

4.1.4.5 State of Kansas

4.1.5 Commercially Useful Function a Commercially Useful Function is performed by a Contractor or subcontractor when that entity has responsibility for the execution of a distinct element of the work of the Contract, which is carried out by actually performing, managing, and supervising the work involved, or fulfilling responsibilities as a Joint Venture partner.

4.1.6 Commissioning Agent (CxA) means a person, corporation, partnership, or other legal entity who is employed by or contracted by Jackson County to perform the services outlined in this Request for Proposal.

4.1.7 County Legislature means the legislative governing body of Jackson County, Missouri.

4.1.8 Contract means legal and binding agreement between two or more competent parties for the purchase of equipment, supplies and/or services.

4.1.9 Contractor means a person, firm or organization who is a successful respondent as a result of this Request for Proposal, is awarded by the County and enters into a contract.

4.1.10 County means Jackson County, Missouri.

4.1.11 Design Criteria Consultant means a person, corporation, partnership, or other entity duly licensed and authorized to practice architecture or professional engineering in the State of Missouri, who is employed by or contracted by Jackson County to assist in the development of project design criteria, Request for Proposals, evaluation of proposals, evaluation of proposals, the evaluation of the construction under a design-build contract to determine adherence to the design criteria, and any additional services requested by Jackson County to represent its interests in relation to a project.

4.1.12 Design Criteria Package means a performance-oriented program, scope, and/or specifications for the design-build project sufficient to permit a design-builder to prepare a response to Jackson County's Request for Proposal for a design-build project, which may include capacity, durability, standards, ingress and egress requirements, performance requirements, description of the site, surveys, soil and environmental information concerning the site, interior space requirements, material quality standards, design and construction schedules, site development requirements, provisions for utilities, storm water retention and disposal, parking requirements, applicable governmental code requirements, preliminary design for the project or portions thereof, and other criteria for the intended use of the project.

4.1.13 Design-Build means a project delivery method subject to a three-stage, qualifications based selection for which the design and construction services are furnished under one contract.

4.1.14 Design-Build Project means the design, construction, alteration, addition, remodeling, or improvement of any buildings or facilities under contract with Jackson County.

4.1.15 Design-Builder any individual, partnership, joint venture, or corporation subject toa qualification-based selection that offers to provide or provides design services and general contracting services through a design-build contract in which services within the scope of the practice of professional architecture or engineering are performed respectively by a licensed architect or licensed engineer and in which services within the scope of general contracting are performed by a general contractor or other legal entity that furnishes architecture or engineering services and construction services either directly or through subcontracts or joint ventures.

4.1.16 Design-Build Cost includes contractor fees, contractor overhead, bonds and insurance, design fees and expenses.

4.1.17 Design Professional Services means services that are performed by a licensed or authorized architect or professional engineer's employment or practice in accordance with Missouri Statute(s) 317.091 and 327.181.

4.1.18 Exhibit applies to forms which are included with a Request for Proposal for the respondent to complete and return with the electronic submission prior to the specified opening date and time.

4.1.19 May means that a certain feature, component, or action is permissible, but not required.

4.1.20 Minority Business Enterprise (MBE) a business, including a sole proprietorship, partnership, corporation, limited liability company, Joint Venture, or any other business or professional entity that is at least 51% owned by one or more Minority Individuals, performs a Commercially Useful Function and is a certified firm.

4.1.21 Must means that a certain feature, component, or action is a mandatory condition. Failure to provide or comply will result in a proposal being considered non-responsive and not evaluated any further.

4.1.22 Owner means Jackson County, Missouri.

4.1.23 Owner's Representative a person, corporation, partnership, or other legal entity duly licensed and authorized to practice architecture or professional engineering in the State of Missouri, who is employed by or contracted by Jackson County to assist in the overall development of project.

4.1.24 Purchase Administrator means the procurement staff member of the Department of Finance and Purchasing. The Contact Person as referenced herein in usually the Purchasing Administrator.

4.1.25 Respondent means the person, firm or organization that responds to a Request for Proposal by submitting a proposal with pricing to provide the equipment, supplies and/or services as required in the Request for Proposal.

4.1.26 Request for Proposal (RFP) means the document by which Jackson County solicits proposals for Commissioning Agent contract.

4.1.27 RFP Opening Date and Time and similar expressions mean the exact deadline required by the Request for Proposal for the electronic submission of the proposal by the Department of Finance and Purchasing.

4.1.28 Shall has the same meaning as the word must and is an obligation to the condition.

4.1.29 Should means that a certain feature, component and/or action is desirable but not mandatory.

4.1.30 Solicitation is a reference to the Request for Proposal procurement process.

4.1.31 Submittal is the Design-Build Team's response to the requirements within the solicitation.

4.1.32 Women-Owned Business Enterprise (WBE) a business, including sole proprietorship, partnership, corporation, limited liability company, Joint Venture, or other business or professional entity that is at least 51% owned by one or more Women, performs a Commercially Useful Function, and is a Certified Firm.

## 5.0 SCOPE OF SERVICES

5.1 JCDC Partners have created an Owner's Design Criteria Package (DCP) which are attached to this Request for Proposal, which supports project goals, timeline, standards, performance, function, and budget. The OR has prepared design criteria, performance specifications, and other project specific materials to guide the Commissioning Agent (CxA) relative to the functional, procedural, and performance requirements of the Owner. The successful Commissioning Agent will reference the final versions of the DCP for the execution of design and construction of the new Detention Center.

5.2 Whole Building Commissioning and Technical Review Services: The Commissioning Agent will focus upon verifying and documenting that all of the commissioned systems and assemblies are planned, designed, installed, tested, operated, and maintained to meet the Owner's Project Requirements.

5.3 The project is to provide EA Prerequisite Fundamental Commissioning and provide Enhanced Commissioning with Option 1 – Enhanced Systems Commissioning to attain v4.0 LEED Silver certification as defined by the Green Building Council.

5.4 The Scope of Services includes performing all services necessary in a highly collaborative environment with the Project Team and in alignment with Project Goals.

5.5 The CxA shall direct commissioning activities in the role of Commissioning Authority per the Scope of Services outlined within this Request for Proposal. A representative of the CxA will be assigned the role of Commissioning Manager for the duration of the project.

5.6 Equipment and Systems included in the work:

5.6.1 The CxA will provide technical support and guidance to the Owner through the Design and Construction Consultant (DCC), to the selected Architect and Builder, other Project Team Members for all mechanical, electrical, plumbing, life safety and other specialty systems, and for the air and vapor barrier systems included in the building envelope. Work shall include, but, not necessarily limited to:

5.6.1.1 Defining the performance requirements of the project

5.6.1.2 Commissioning the project through all phases of work to provide confirmation that the completed project complies with the Owner's design requirements, program documents, and construction documents.

5.6.1.3 Definition, coordination, and validation that the Designer and Builder teams provides adequate training and delivers documentation in a format to assure that the Owner's operations team can successfully operate the constructed facility at project turnover.

5.6.2 The Baseline Commissioning Sample Rate: All systems shall be 100% tested, verified, and documented in accordance with this RFP. No sampling will be allowed as part of this commissioning effort.

5.6.3 The Alternate Commissioning Sample Rate: 10% or 10 units, whichever is greater, of multiple units of the same type with the same components and sequences shall be tested. If 30% or more of the tested units do not pass, another 10% or 10 units, whichever is greater, shall be tested at the contractor's expense. Expenses include on-site time, travel time, mileage, air fare, per diem, hotel, car rental, review time, follow up documentation and related meetings.

5.6.4 The specific list of systems and components that will be commissioned under the work described herein will be defined as Design Criteria Package development proceeds through the Project. The list below is intended only to provide guidance regarding the Scope of Services envisioned under this RFP.

5.6.4.1 Building HVAC systems and associated controls:

a. Chilled water system
b. Air-handling units
c. Air distribution and terminal units
d. Fan coil units
e. Exhaust system including smoke evacuation
f. Building management system, energy management system, building automation systems

5.6.4.2 Building lighting control systems;

a. Interior and exteriors lighting controls

5.6.4.3 Plumbing systems
   a. Domestic hot water heaters (including Insta-Hot Water Heaters)
   b. Recirculation pumps

5.6.4.4 Electrical Systems
   a. Electrical utility equipment
   b. Electrical distribution equipment
   c. Generator

5.6.4.5 Fire Protection/Life Safety system(s)
   a. Integrated Systems Tests including but not limited to: Loss of Power Response and Fire Alarm Response

5.6.4.6 Building Envelope
   a. Air and vapor barrier systems including in the building envelope

5.7 Commissioning Services

5.7.1 Design Phase Commissioning Services:

5.7.1.1 Create the Owner's Project Requirements (OPR) and the Basis of Design (BoD)

5.7.1.2 Conduct Commissioning reviews of construction documents throughout the remainder of the design phases for consistency with Owner's requirements and the OPR and BoD documents. Back check final set of documents to confirm commissioning comments have been incorporated.

5.7.1.3 Develop commissioning specification sections to be incorporated into the set of construction documents.

5.7.1.4 Develop a project specific Commissioning Plan for use during construction.

5.7.2 Construction Phase Commissioning Services:

5.7.2.1 Plan and conduct a commissioning kick-off meeting to establish the purpose and proposed process for commissioning during the construction phase and to establish the individual roles and responsibilities of each member of the Commissioning Team.

5.7.2.2 Review construction-related submittals for compliance with commissioned. This review shall occur concurrently to the submittal review performed by the design team.

5.7.2.3 Develop project specific Pre-Functional Checklists for use by the installing contractors and commissioning agents during construction.

5.7.2.4 Develop project specific Functional Performance Test Plans for execution by the installing contractors and equipment vendors as directed by the commissioning agents to demonstrate functionality of the systems.

5.7.2.5 Pre-functional testing:

a. Attend selected job-site meetings and participate in pre-functional activities with the installing contractors. For critical or unique equipment, CxA will review 100% of the total number of units.
b. CxA will manage the completion of all pre-functional checklists utilizing a web-based commissioning software and will provide web login to the commissioning team to use during the construction phase of the project.

5.7.2.6 Factory Witness Testing- CxA will witness and document the completion of the factory acceptance testing for the following equipment:

a. Chillers
b. Boilers
c. Generators
d. Security Electronics

5.7.2.7 Review contractor's equipment checkout and start-up procedures and reports and building controls coordination and participate in a percentage of start-up activities and building controls checkout.

5.7.2.8 Organize and maintain an Issues Log during construction to track the resolution of deficiencies throughout the construction and acceptance phases. Update the log and provide periodic reports to the Commissioning Team.

5.7.3 Accepting Phase Commissioning Services:

5.7.3.1 Function Performance Testing:

a. Plan and conduct a functional performance test coordination meeting to establish the schedule and proposed processes for testing during the acceptance phase.
b. Coordinate and execute the systems functional performance tests with assistance by the equipment vendors or installing contractors. For critical or unique equipment, execute FPTs on 100% of the primary commissioned systems, 100% of the terminal conditioning systems, and a minimum of one of 10% of the lighting control devices (or minimum of one of each device type).

5.7.3.2 Verify accuracy of select testing and balancing performed by the TAB contractor.

a. CxA will witness or verify testing and balancing activities for 10% of the air and hydronic systems.
b. Review 100% of the testing and balancing documents completed by the TAB contractors.

5.7.3.3 Verify training of Owner's operating and maintenance personnel was completed.

5.7.4 Post-Occupancy Phase Commissioning Services:

5.7.4.1 Provide deferred testing due to seasonal conditions that could not be accomplished during construction period.

5.7.4.2 Issue a final commissioning report summarizing the work completed and which demonstrates compliance with the OPR and BoD documents. The report will include a summary of any deficiencies found and the resolution to these deficiencies.

5.7.4.3 Develop Systems Manual to provide Owner's operating and maintenance personnel key information to understand and optimally operate the commissioned systems.

5.7.4.4 Review building operation at 6 months after occupancy with facility staff. Develop plan for resolving outstanding commissioning-related issues and assist facility staff. Review building operations at the 12-month and 23-month periods with facility staff again in conjunction with the warranty period requirements.

5.7.5 Utility and Stand-by Power System Commissioning:

5.7.5.1 Conduct commissioning review of construction documents for consistency with design criteria, functionality, and maintainability. Provide comments to project team in interactive format. Back-check final set of documents to confirm commissioning comments have been incorporated.

5.7.5.2 Review submittals

5.7.5.3 Develop project specific Pre-Functional Checklists for use by installing contractors and commissioning agents. Assist contractors in resolving deficiencies.

5.7.5.4 Develop project specific Functional Performance Test Plans for execution by the installing vendors and contractors as directed by the commissioning agents to demonstrate functionality of the systems.

5.7.5.5 Factory Witness Testing – CxA will witness and document the completion of the factory acceptance testing for the following equipment:

a. Generators
b. Security Electronics
c. Fire Life Safety

5.7.5.6 Participate in pre-functional testing activities with the installing contractors.

5.7.5.7 Coordinate the Load Bank testing with installing contractor and load bank testing vendor.

5.7.5.8 Functional Performance Testing:

a. Review contractor's equipment checkout and start-up procedures and participate in start-up activities and third-party testing.
b. Plan and conduct a functional performance test coordination meeting to establish the schedule and proposed processes for testing during the acceptance phase.
c. Coordinate and witness the system functional performance tests executed by the equipment vendors or installing contractors. This does not include coordination and scheduling of third-party testing as specified in the construction documents.
d. Coordinate the testing procedure for a "Loss of main utility power simulation test" for each phase of the project and witness the execution of the test by the general contractor, installing sub-contractors, equipment vendors and local utilities.

5.7.6 Fire Protection/Life Safety System Commissioning and Integrated Testing:

5.7.6.1 Provide commissioning and integrated testing services for fire protection and life safety systems, including fire sprinklers, standpipes, fire pumps, fire alarm systems, voice evacuation systems, fire department communications, stairway pressurization systems, smoke exhaust system and elevator hoist way vents. Services include commissioning of individual life safety systems and integrated systems testing to ensure that systems interact properly to meet design criteria and life safety standards.

5.7.6.2 Conduct commissioning review of construction documents for consistency with design criteria, functionality, and maintainability. Provide comments to project team in interactive format. Back-check final set of documents to confirm commissioning comments have been incorporated.

5.7.6.3 Review life safety systems submittals.

5.7.6.4 Develop project specific Pre-Functional Checklists for use by the installing contractors and commissioning agents. Assist contractors in resolving deficiencies.

5.7.6.5 Develop project specific Functional Performance Test Plans for execution by the installing vendors and contractors as directed by the commissioning agents to demonstrate functionality of the systems.

5.7.6.6 Participate in pre-functional testing activities with the installing contractors.

5.7.6.7 Functional Testing:

a. Witness and document fire pump acceptance testing
b. Perform differential pressure and door opening force testing for stairway pressurization systems.
c. Perform voice evacuation intelligibility testing (STI method).

5.7.7 Underground Storm Water and Sanitary Piping Inspection:

5.7.7.1 Review the contract specifications and incorporate contractor testing requirements for underground piping inspection.

5.7.7.2 Coordinate and witness the execution of underground pipe inspection with the assistance of the installing contractor.

a. The installing contractor will supply the equipment and personnel to perform the pipe inspection and the direction of CxA.

5.7.7.3 CxA will document the completion of the testing and any damage or blockage to the piping and report it to the owner.

5.7.8 Security Electronics Commissioning Services:

5.7.8.1 Process scoping meetings with the Owner, DB-E and the DEC.

5.7.8.2 Review equipment and assembly documentation for the Detention Equipment and related products and service.

5.7.8.3 Start-up plan and document review.

5.7.8.4 System start-up inspections

5.7.8.5 Identify and provide independent random sampling of 20% of devices to ensure DEC Systems conformance.

5.7.8.6 O & M document review and verification

5.7.8.7 As-Built document review and verification

5.7.8.8 Operating personnel training verification

5.7.8.9 Prepare DEC commissioning report to be included with the master commissioning report. Address commissioning comments to Owner.

5.7.9 One Site Commissioning Services:

5.7.9.1 Construction Phase

a. One (1) on-site kickoff meeting led by the Commissioning Manager to identify the commissioning team's responsibilities during construction.

b. Individual(s) from CxA will be on site to participate in weekly construction progress meetings (up to 2 meetings per month) with total not to exceed forty unless additionally requested by owner.

c. Individual(s) from CxA will be on site to complete the pre-functional checkout, witness select start-up activities and interface with installing contractors. The first visit will occur after the start of MEP rough-in and the final visit will occur during equipment start-up for each phase of the project.

5.7.9.2 Acceptance Phase:

a. Individual(s) from CxA will be onsite to coordinate/execute functional performance and integrated system testing (FPT).

5.7.9.3 Post-Occupancy Phase:

a. Three (3) on site warranty review visits led by the Commissioning Manager. Each visit includes approximately 1 day onsite.

5.7.10 The following is a list of the anticipated written Work Products developed as part of the Commissioning Process:

5.7.10.1 Owner's Project Requirements (OPR) and Basis-of-Design (BoD)

5.7.10.2 Fundamental Commissioning

a. Commissioning specifications
b. Commissioning plan
c. Commissioning activity schedule
d. Pre-Functional Checklist (or each piece of commissioned equipment)
e. Functional Performance Test (for commissioned systems)
f. Minutes from commissioned related meetings
g. Issue/Deficiency Log and Resolution Record
h. Commissioning Final Report

5.7.10.3 Enhanced Commissioning

a. Design review and submittal review comments
b. Owner training documentation
c. Systems manual
d. 6, 12, and 23-month warranty review reports

5.8 General Requirements

5.8.1 Design Phase

5.8.1.1 Provide support for the Owner, through the DCC, in responding to questions and requests for clarifications.

5.8.1.2 In collaboration with the Owner, and the DCC, develop measurable performance criteria that will be used during the acceptance phase of the project to determine substantial completion and final acceptance of the project. Included in the DCP, assist the Project Team in defining the data requirements, naming conventions and data formats appropriate for integrating project component and system data into the Owner's Computer Aided Facilities Management (CAFM) System. Define the requirements for Preventative Maintenance program development.

5.8.1.3 Develop training and construction close-out deliverables requirements to specifically address training of the Owner's operation team and documentation requirements to insure that necessary operating information remain accessible to the Owner's operation team through the life of the building.

5.8.1.4 Provide technical evaluation of the impacts of recommended design modifications, value engineering, and budget impact.

5.8.1.5 Conduct a thorough commissioning review of each design submittal iteration and submitted criteria to establish systems are being designed in compliance with the DCP.

5.8.1.6 Support the Project Team in evaluating the overall Design/Build project schedule and prepare a duration schedule for all commissioning plan, procurement, and construction schedule.

5.8.1.7 Attend and participate in design review meetings.

5.8.1.8 Review all pertinent project shop drawings necessary to support the Commissioning Process and for compliance to the Construction Documents.

5.8.2 Commissioning

5.8.2.1 Assist the Owner and Design Team in developing operating strategies and sequences of operation that will enable the Facilities Operation Staff to operate the building systems to sustain the operational, energy and other systems parameters throughout the project life cycle.

5.8.2.2 During the course of construction, the CxA will visit the site to observe the progress of construction with respect to the systems being commissioned. The focus of the observations will be to verify that the systems being installed comply with the DCP and Construction Documents and can be successfully configured, operated, and maintained.

5.8.2.3 In coordination with the DCC the CxA will hold regular Commissioning Team Meetings to review the progress of the commissioning effort and reinforce individual responsibilities. The team will review schedule, construction sequence, and completed work.

5.8.2.4 The CxA shall review Operations and Maintenance Manuals submitted by contractors for general conformance with specifications, completeness, clarity and the Owner's requirements including:

a. Review Preventative Maintenance Schedules provided as part of the O&M Manuals for completeness.
b. Review Preventative Maintenance Stock Requirements to confirm that stock is complete and sufficient for normal operations.
c. Provide a record of the location and inventory Preventative Maintenance Stock delivered by the Builder in an electronic format as directed by the Owner.
d. Review of the O&M Manuals will include a review of system and component warranties to confirm conformance with contract requirements and adequate documentation of warranty contact information.

e. Review Preventative Maintenance Procedures for clarity, completeness, and application. Verify that procedures are provided in a format consistent with the Owner's CAFM System.

5.8.2.5 All test and balance work shall be conducted in accordance with the specified Procedural Standards for Testing, Adjusting and Balancing by either NEBB or AABC, Test and Balance (TAB) shall be the responsibility of the Design/Build Team.

5.8.2.6 The CxA shall oversee, facilitate, and validate the process of adjustment of the system operating parameters to achieve and demonstrate performance of commissioned systems in accordance with the DCP and the requirements of the Functional Performance and Integrated Systems Tests. The CxA shall have the responsibility to identify and facilitate resolution of performance issues that prevent compliance with the DCP and the contract documents.

5.8.2.7 The CxA shall work with the Design/Build Team, the DCC and the Owner to develop Systems Manuals. Manuals will contain system design, operations and sequence of operations information that describes the design intent, operational features and appropriate operational practices and appropriate operations practices necessary to sustain the system operation in accordance with the DCP and the Owner's overall objectives for the facility. Include a Systems Operating Plan, clear and concise documentation of a complete System Operating Plan, Sequences of Operations, Systems Monitoring Strategies, and Sample Annotated Trends from the initial occupancy period for the completed building and Systems Descriptions for the Building Operations Team. Include the Building Energy Model and tools appropriate to allow the Operations Team to monitor and evaluate building energy consumption against the modeled values. Provide an appropriate Measurement & Verification Plan for the building. Systems Manual will include sections for each major system included in the commissioning process.

5.8.2.8 The CxA shall observe contractors and vendor training for critical systems.

5.8.2.9 The CxA shall coordinate, review, and finalize system and component data in an electronic format suitable for uploading data to the Owner's CAFM system. Further, the CxA shall oversee and validate the upload of all CAFM data and Preventative Maintenance procedures in collaboration with the Owner's Operations Team.

5.8.2.10 The CxA will witness all training sessions to ensure that systems-level training for the Owner's operations personnel is appropriate and complete. Training by the Design/Build Team is to include:

a. Review of system design, capacity, and equipment selection
b. Review of the system operating sequences
c. Review of interconnection with other systems
d. Review of emergency operating procedures
e. Review of the Project System Manual and its use

5.8.2.11 The number, duration and scope of the Systems Training sessions shall be determined by the specific requirements of the project and determined in conjunction with the Designer and Builders.

5.8.2.12 The CxA shall compile a comprehensive commissioning report documenting all commissioning activities in accordance with the NEBB Procedural Standard or similar standard of equal rigor. The report shall include but not necessarily limited to the following:

a. Executive Summary
b. Commissioning Scope of Work
c. Test methods and results
d. Outstanding commissioning issues and recommended resolution strategies
e. Comprehensive Commissioning Issues Log, including resolved items and a description of their resolution.
f. Commissioning Plan
g. As Built Drawings in electronic form compatible with County systems.
h. Field Observation Reports, Status Reports and other field activity documentation.
i. Submittal and O&M Manual reviews
j. Training record
k. Completed Pre-Functional Checklists
l. Completed Functional Performance Test protocols and support documentation
m. System Manual, including electronic CAFM data, equipment naming conventions
n. Other support documentation developed as part of the execution project Commissioning Process.

5.8.2.13 The CxA shall make quarterly visits within the warranty period (separate from Deferred Seasonal Testing and Post Occupancy Inspection visits) to the project site to reinforce training, evaluate performance of the installed systems and provide technical support to the Operating Team to sustain the commissioned performance of the systems. The CxA shall assist the County in updating the System Operating Plan to reflect actual building occupancy characteristics and effective building operating strategies. These visits shall include

adjustments to operating parameters, timing sequences and other adjustments necessary to achieve stable and effective operation of the building systems. The visits shall also include verification of building failure response and return to normal sequences.

5.8.2.14 The CxA shall return to the project approximately 10 months after occupancy to review the building operation with the Facility Occupants and Operations Staff, and to discuss outstanding issues related to commissioning. Provide suggestions for improvements to systems operation including:

a. Measurements & Verification Issues
b. Re-Commissioning Tasks, and
c. Improvements in Preventative Maintenance or Operational Strategies

5.8.2.15 The CxA shall assist the Owner in evaluating warranty issues documents, and requests for service to remedy outstanding problems.

5.8.2.16 As part of the Post Occupancy Inspection, the CxA shall analyze the energy consumption records from the project site (both utility and system generated reports) and provide the team with an analysis of actual system energy performance versus predicted performance. To the extent possible, deficiencies in performance shall be analyzed to provide an understanding of the systems, components or operating strategies that may be operating outside predicted parameters.

5.8.2.17 The CxA shall amend Final Commissioning Report to document the Warranty Phase commissioning activities.

## 6.0 TENTATIVE TIMELINE

| Description | Tentative Date |
|---|---|
| Issue Request for Proposal | 3/23/23 |
| Question Deadline | 4/18/23 |
| Response Deadline | 4/25/23 |
| Interviews week of | 5/8/23 |
| Notice of Intent to Award | 5/22/23 |
| Owner Approval by | 5/30/23 |

## 7.0 EVALUATION AND INTERVIEW PROCESS

7.1 The submitted proposals will be evaluated by an Evaluation Committee composed of County personnel and/or other governmental agencies. Members of the Evaluation

Committee will independently review and rate each proposal based on the listed criteria.

7.2 The County's RFP process consists of an Evaluation Committee scoring all responsive proposals and interviews, where applicable. The scoring is determined by allocating points totaling 100, which are assigned to evaluation criteria scoring and categories below.

7.3 The interview process, where applicable, is to be as follows:

7.3.1 Respondent will be given 30 minutes to introduce their team, speak to their unique qualifications, project approach and management.

7.3.2 Respondent will engage in a 20 minute Question and Answer session.

7.4 The fee proposal will be required at the time of the interview. The fee proposal shall not be opened until all the technical/qualification evaluation of the interview is complete. The Evaluation Committee Chair will award maximum points to the lowest fee proposal and add the appropriate teams' total.

7.5 Following the interviews, the Evaluation Committee will select and recommend one (1) team to recommend for Award to provide the County will the services required within this RFP. The County staff will then endeavor to negotiate a contract with the recommended team. In the event that a mutually agreed upon contract cannot be negotiated with the recommended team, the staff will then enter into contract negotiations with the next highest rated team, and so on, until a mutually agreed upon contract can be negotiated.

7.6 Evaluation Criteria or weighing of criteria is used by the County as a tool to assist the County in selecting the lowest and best proposal for the County. Evaluation scores or ranks alone do not create a right or expectation to a contract with the County. Ultimately, the County may contract with any Respondent, regardless of rank or score.

7.7 Sample Scoring Guidelines

| | 30 Point Question | 20 Point Question | 10 Point Question |
|---|---|---|---|
| Outstanding | 25 – 30 | 17 – 20 | 9 - 10 |
| Exceeds Acceptable | 19 – 24 | 13 – 16 | 7 - 8 |
| Acceptable | 13 – 18 | 9 – 12 | 5 – 6 |
| Marginal | 0 – 12 | 0 – 8 | 0 - 4 |

7.8 Proposal Criteria:

7.8.1 Project Approach – 30 Points

Evaluate the firm's project approach and understanding of the Scope of Services required in this RFP as evidenced by its proposal.

7.8.2 Firm Personnel – 30 Points
Consider comparable experience and background of the specific personnel that shall be assigned to the County's project as outlined in the proposal. Also consider the specific involvement of those persons in projects noted in the proposal.

7.8.3 Quality of Similar Work – 20 Points
Consider the previous experience and references listed in the proposal. Is the firm experienced in providing services similar to that requested in the RFP?

7.8.4 Overall Responsiveness to the RFP – 10 Points
Consider whether all requested information was furnished by the firm in the format required by the RFP.

7.8.5 Applicable Resources – 10 Points
Evaluate the extend of applicable resources available to the firm to complete the County's project as listed in the proposal.

7.9 Interview Criteria, where applicable:

7.9.1 Project Approach – 30 Points
Does the proposed project approach expressed in the proposal/interview appear to be realistic and feasible? Has the firm demonstrated that they have a good understanding of the proposed type of project?

7.9.2 Key Personnel Members – 30 Points
Based on the proposal/interview consider the involvement and experience of key personnel that will be assigned to the proposed project. Evaluate their response to questions, knowledge demonstrated and involvement in discussion.

7.9.3 Firm Experience – 20 Points
Based on the proposal/interview evaluate the firm's experience with similar projects.

7.9.4 Personnel Utilization – 10 Points
Based on the proposal/interview and any contact with previous clients of firm, determine capability and demonstrated ability to meet schedules and deadlines.

7.9.5 Fee/Cost – 10 Points
Will only be required of finalists and is due at the time of the interview.

## 8.0 WHOLE BUILDING COMMISSIONING AND TECHNICAL REVIEW CONTRACT

8.1 Upon selection of the successful proposal, the County will negotiate with the Successful Respondent(s) on a Contract incorporating the General Terms and Conditions, Scope of Services, and any other provisions of the RFP, and acceptable to both parties. Should the parties, within a reasonable time frame, as determined by the County, fail to develop and execute a mutually agreeable Contract, and upon a three-business day notification to the selected Respondent, the County may reject the proposal and proceed to award the Contract to the next "best" Respondent.

8.2 Pursuant to Section 610.021 RSMo, proposals and related documents shall not be available for public review until a Contract has been awarded or all proposals have been rejected.

8.3 In no event will the following be considered confidential or exempt from the Missouri Sunshine Law:

- 8.3.1 Respondent's entire proposal;
- 8.3.2 Respondent's fees/pricing/estimates;
- 8.3.3 Respondent's proposed method of performance, including a schedule of events and/or deliverables;
- 8.3.4 Respondent's experience information, including customer lists or references;
- 8.3.5 Respondent's product specifications unless specifications disclose scientific and technological innovations in which the owner has a proprietary interest. Respondent shall submit a detailed explanation to support any claim of proprietary or technological innovation in product specifications.

## 9.0 PROPOSAL FORMAT

9.1 Proposals shall be submitted on-line through the Bonfire Portal at http://jacksongov.bonfirehub.com . Proposals shall be on Respondent's forms/letterhead and uploaded on Bonfire.

9.2 All submissions received in response to this RFP become the property of Jackson County, Missouri.

9.3 Confidential and Proprietary Information: Should the Respondent wish to submit confidential and proprietary information, it should be included with the submitted response clearly marked with the words **"Confidential and Proprietary Information".** The County will take all reasonable efforts to insure the confidentiality of the information is maintained. Such information will be returned to unsuccessful

Respondents following execution of the Contract with the Successful Respondent. Confidential and Proprietary Information submitted by the Successful Respondent will be returned upon completion or termination of the Contract. **Please see Item 8.3 under Section 8.0 regarding the Missouri Sunshine Law.**

9.4 To facilitate the evaluation of responses, proposals shall be organized in the following manner:

9.4.1 Cover Letter to include the following information:

9.4.1.1 Respondent's Name

9.4.1.2 Respondent's Address

9.4.1.3 Respondent's Telephone Number

9.4.1.4 Contact Person's Name

9.4.1.5 Contact Person's Title

9.4.1.6 Contact Person's Telephone Number

9.4.1.7 Contact Person's Email Address

9.4.2 Table of Contents: Provide a Table of Contents with sections and page numbers.

9.4.3 All forms contained in Attached Files, 10.2.

9.4.4 If Respondent is not located in the Greater Kansas City Metropolitan Area, documentation that details how Respondent will perform the work as detailed herein. Jackson County, Missouri reserves the right to determine if Respondent's plan to perform the work is acceptable.

9.4.5 Key Consultants/Associates: If Respondent intends to use outside (as opposed to in-house or permanently and formerly affiliated) consultants or associates, names and addresses of all such individuals or firms should be provided, as well as their particular areas of technical expertise, as it relates to the project. Existence of previous working relationships should be noted.

9.4.6 Resumes: Provide brief resume of Key Personnel, Specialists and individual Consultants who shall be assigned to the County's project. Care should be taken to limit resumes to only those personnel and specialists who will have major project responsibilities. Each resume must include:

9.4.6.1 Name of each key person and specialists and their title;

9.4.6.2 Email and Telephone Number;

9.4.6.3 The Project Assignment or Role which that person will be expected to fulfill in connection with this project;

9.4.6.4 The name of the firm or organization, if any, with whom that individual is presently associated;

9.4.6.5 Years of relevant experience with present firm and other firms;

9.4.6.6 The highest academic degree, such as two PhD's, list both, the year received and the particular technical/professional discipline which that individual will bring to the project;

9.4.6.7 If registered as an Architect, Engineer, Surveyor, etc. show only the field of registration and the year that such registration was first acquired. If registered in several states, do not list states;

9.4.6.8 A synopsis of experience, training, or other qualities, which reflect individual's potential contribution to this project. Include such data as: familiarity with Government or Agency procedures, similar type of work performed in the past, management abilities, familiarity with the geographic area, etc. please limit synopsis of experience to directly relevant information.

9.4.7 Illustrative Work: List up to six (6) projects which demonstrate competence to perform work similar to that likely to be required on this project. More recent projects are preferred. Prime consideration will be given to projects that illustrate respondent's capability for performing work similar to that being sought. Required information must include:

9.4.7.1 Name and location of project;

9.4.7.2 Completion data (actual when available, otherwise estimated);

9.4.7.3 Name and Address of the owner of that project;

9.4.7.4 Total construction cost of completed project (or where no construction was involved, the approximate cost of the respondent firm's work);

9.4.7.5 Percentage of the project for which the named firm was/is responsible;

9.4.7.6 Name and telephone number of individual to contact for reference, preferably the project owner's project manager (the name of the individual indicated and their information must be current);

9.4.7.7 A narrative description of the example project including quantifiable data whenever possible, e.g. square footage, site acreage, etc. (photographs and other relative supporting data may be attached to this form in support of this question;

9.4.7.8 Brief description of type and extent of services provided for each project;

9.4.7.9 Personnel who worked on the example project that will be assigned to the County's project (include each individual's role on the example project)

9.4.8 Project Approach and Understanding (limit to 5 pages): Concisely state the firm's understanding of the services required by the County. Provide a summary of the firm's proposed project approach, including any unique or challenging aspects of the approach, if applicable.

9.4.9 Additional Information and Resources (limit to 5 pages): Through narrative discussion, show reasons why the firm believes it is especially qualified to undertake the project. Information provided should include, but not limited to, such data as:

9.4.9.1 Specialized equipment available for this work;

9.4.9.2 Any awards or recognition received by the firm or individuals for similar work, special approaches or concepts developed by the firm relevant to this project, etc.

9.4.9.3 Respondents may say anything they wish in support of their qualifications. When appropriate, respondents may supplement their proposal with graphic material and photographs, which best demonstrate capabilities of the team proposed for this project.

9.4.10 Sample Contract/Agreement: For information purposes, provide a sample Contract/Agreement used for similar type engagements and/or projects.

9.4.11 Proposed Cost: Will only be required of finalists and is due at the time of the Interview. Failure to state all costs associated with the services being provided including disclosure of any anticipated travel, printing, or other miscellaneous costs may result in such fees not being honored or paid by the County. DO NOT SUBMIT WITH PROPOSAL.

9.5 Describe how any voluntary workforce utilization percentages will be achieved, tracked, and reported. Limit for four (4) pages.

9.6 Failure to provide this information, organized in this manner, shall be grounds for REJECTION of your proposal or a reduction in Evaluation Criteria scoring.

## 10.0 ATTACHMENTS

10.1 Attachment A: Purchasing Information, to be downloaded and read prior to submitting your proposal.

10.2 Attachment B: Purchasing Forms, to be downloaded, filled out, notarized and submitted with your proposal.

10.3 Attachment C: Jackson County Detention Center Program Summary

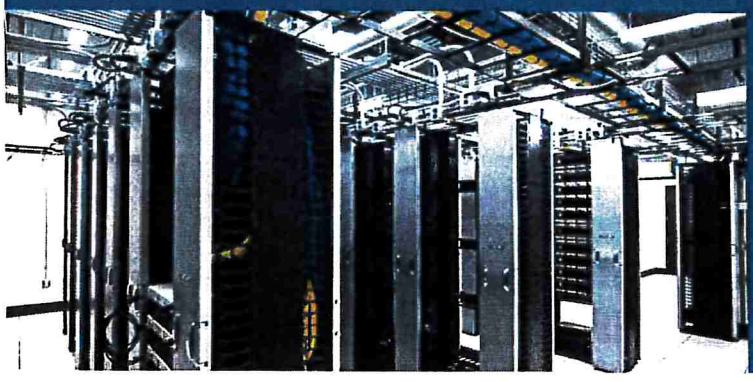
BURNS McDONNELL

PROPOSAL FOR

# WHOLE BUILDING COMMISSIONING AND TECHNICAL REVIEW SERVICES

SUBMITTED TO
**JACKSON COUNTY, MISSOURI**

JACKSON COUNTY, MISSOURI RFP NO. **123-22**
MAY 02, 2023



# 9.4.1 COVER LETTER

# 9.4.1. COVER LETTER

May 02, 2023
Barbara Casamento
Purchasing Administrator for Jackson County, Missouri

**RE: Whole Building Commissioning and Technical Review Services for New Jail**

Barbara Casamento and Members of the Selection Committee,

The new Jackson County Detention Center (JCDC) is in the schematic design and pre-construction phase. Jackson County, Missouri (Jackson County) needs a team with qualified commissioning agents to provide whole-building commissioning and technical review services. To support the best project outcome you need a local team with previous experience commissioning facilities with similar systems, spaces, and security standards as the new JCDC. ***Burns & McDonnell is that team.***

This phase of your project is an optimal time to engage a commissioning team that understands detention centers and their critically unique systems. Our team includes qualified commissioning professionals that understand that interconnected systems must function as intended from day one. We collaborate with you and the design team to set the project up for success from the start. Our experienced team has commissioned heating, ventilation, and air conditioning (HVAC)/mechanical, plumbing, and electrical systems and performed building envelope commissioning in the Kansas City area and worldwide. We can be on-site quickly to assist your project team and JE Dunn in documenting and confirming that your facility is maintainable and meets stakeholders' expectations.

Burns & McDonnell offers Jackson County the following values in providing commissioning services to you:

**CORRECTIONAL FACILITY EXPERIENCE** — Burns & McDonnell's experienced commissioning professionals have delivered commissioning services for correctional and detention center facilities across the U.S., including the Utah State Correctional Facility, Westville Correctional Facility, Guantanamo Bay, the Joint Regional Correctional Facility, and the United State Disciplinary Barracks. This experience has given our team an understanding of a large correctional facility's unique maintenance and operating requirements — requirements that are unlike other facilities such as Oleoresin Capsicum Gas systems and water management systems. We're confident that our team's experience and familiarity with these differences will bring valuable insights to our commissioning design reviews, site observations, and functional testing methods. ***This depth of experience provides us with an understanding and appreciation of the unique challenges of commissioning correctional facilities, allowing us to offer a streamlined approach to commissioning for Jackson County.***

**LOCAL TALENT FROM A COMPANY HEADQUARTERED 15 MILES FROM YOU** — Burns & McDonnell — headquartered in Kansas City, Missouri — has been an integral part of the Kansas City, Missouri and Jackson County community since our firm's inception in 1898. In our division in the Kansas City office, we have more than 1015 employee-owners that are ready, willing, and able to assist on this project. Our Kansas City commissioning team has 12 dedicated staff with proficiency in mechanical, security, electrical, and controls committed to working on this project. In addition to those in Kansas City, we also have more than 150 commissioning specialists that we can call upon at any time. ***With our headquarters being located in Jackson County, within 15 miles of the project site, our team can be onsite frequently and respond to issues within an hour.***

**PROJECT MANAGER WITH THE RIGHT QUALIFICATIONS** — As your commissioning project manager, Dave Stewart brings recent experience providing commissioning services for the Utah Correctional Facility as part of his 27 years of large program experience, including recent performance as an integral part of the United States Corps of Engineers (USACE) for our commissioning work on their billion-dollar program to build a new secure campus for the National Geospatial-Intelligence Agency (NGA) which received an excellent rating from our client. Dave has the right mix of correctional, medical, higher education, and large program commissioning experience for this program. ***Dave will bring lessons learned, years of experience, and leadership that will make the new JCDC a success.***

We appreciate your consideration of our commissioning services for the JCDC project. The Burns & McDonnell team looks forward to working with the Jackson County and JE Dunn teams to make your project successful. Should you have any questions, you can reach me, Dave Stewart, at 913-449-2033 or dastewart@burnsmcd.com.

Sincerely,

**Dave Stewart, PE, CxA, BCxP, LEED AP**
Project Manager

| | |
|---|---|
| **9.4.1.1 Respondent's Name:** | Burns & McDonnell Engineering Company, Inc. |
| **9.4.1.2 Respondent's Address:** | 9400 Ward Parkway, Kansas City, MO, 64114 |
| **9.4.1.3 Respondent's Telephone Number:** | 816-782-6269 |
| **9.4.1.4 Contact Person's Name:** | Dave Stewart PE, CxA, BCxP, LEED AP |
| **9.4.1.5 Contact Person's Title:** | Project Manager |
| **9.4.1.6 Contact Person's Telephone Number:** | 913-449-2033 |
| **9.4.1.7 Contact Person's Email Address:** | dastewart@burnsmcd.com |

# 9.4.2 TABLE OF CONTENTS

# 9.4.2 TABLE OF CONTENTS

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45 9.5 Voluntary Workforce Utilization

# 9.4.3 ALL FORMS CONTAINED IN ATTACHED FILES, 10.2

**9.4.3 ALL FORMS CONTAINED IN ATTACHED FILES, 10.2**

**AFFIDAVIT**

STATE OF Missouri )
) SS.
COUNTY OF Jackson )

David Meyers, AIA, PMP, CxA of the city of Kansas City
County of Jackson State of Missouri being duly sworn on her or his oath, deposes and says,

1. That I am the Commissioning Director (Title of Affiant) of Burns & McDonnell Engineering Company, Inc. (Name of Bidder) and have been authorized by said Bidder to make this Affidavit upon my best information and belief, after reasonable inquiry as to the representations herein.

2. No Officer, Agent or Employee of Jackson County, Missouri is financially interested directly or indirectly what Bidder is offering to sell to the County pursuant to this Invitation (though no representation is made regarding potential ownership of publicly traded stock of bidder).

3. If Bidder were awarded any contract, job, work or service for Jackson County, Missouri, no Officer, Agent or Employee of the County would be interested in or receive any benefit from the profit or emolument of such.

4. Either Bidder is duly listed and assessed on the tax rolls of Jackson County, Missouri and is not delinquent in the payment of any taxes due to the County or Bidder did not have on December 31, 2022, any property subject to taxation by the County and if bidder is duly listed and assessed on the tax rolls of Jackson County, Missouri, bidder agrees to permit an audit of its records, if requested by the Jackson County Director of Assessment, as they relate to the assessment of Business Personal Property.

5. Bidder has not participated in collusion or committed any act in restraint of trade, directly or indirectly, which bears upon anyone's response or lack of response to the Invitation.

6. Bidder certifies and warrants that Bidder or Bidder's firm/organization is not listed on the General Services Administration's Report of Debarred and/or Suspended Parties, or the State of Missouri and City of Kansas City, Missouri Debarment List.

7. Bidder certifies and affirms its enrollment and participation in a federal work authorization program with respect to the employees working in connection with the contracted services.

8. Bidder certifies and affirms that it does not knowingly employ any person who is an unauthorized alien in connection with the contracted services.

David Meyers, AIA, PMP, CxA (Name of Bidder)

By: _____ (Signature of Affiant)

Commissioning Director (Title of Affiant)

Subscribed and sworn to before me this 2 day of May 20 23

Linda R. Olvera _____

NOTARY PUBLIC in and for the County of Jackson (SEAL)

State of Missouri

My Commission Expires: 10/11/2024

Linda R. Olvera
Notary Public-Notary Seal
STATE OF MISSOURI
Commissioned for Jackson County
My Commission Expires: 10/11/2024
ID. #12403570

## ACKNOWLEDGMENT OF RECEIPT OF ADDENDA

The undersigned acknowledges receipt of Addenda through and including numbers 01 and 02 and that this Proposal is submitted in accordance with information, instructions, and stipulations set forth therein.

Signature of Respondent

May 02, 2023
Date

Burns & McDonnell Engineering Company, Inc.
Company Name

9400 Ward Parkway
Address

Kansas City, MO 64114
City, State, and Zip

816-782-6269
Phone

**EXHIBIT F**

RESPONDENT'S EXCEPTIONS
TO
SCOPE OF SERVICES
OF
JACKSON COUNTY, MISSOURI REQUEST FOR PROPOSAL NO. 123-22

Respondent's attention is directed to Paragraph 4 of the General Conditions of this Request for Proposal **READ THIS PARAGRAPH CAREFULLY.**

The following exceptions to the Scope of Services of Request for Proposal No. 123-22 are requested by the undersigned Respondent: (Use additional pages as necessary.)

| REFERENCE PARA # & PAGE # | EXCEPTION REQUESTED |
|---|---|
| 5.7.1.1 Page 10 | See additional page |
| 5.7.3.1 Page 11 | See additional page |
| 5.7.10 Page 15 | See additional page |
| 5.7.10.1 Page 15 | See additional page |
| 5.8.2.6 Page 17 | See additional page |
| 5.7.6 Page 13 | See additional page |
| 5.7.6.1 Page 13 | See additional page |
| 5.7.8.5 Page 14 | See additional page |
| 5.8.2.10 Page 10 | See additional page |
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| | |

Name of Firm: Burns & McDonnell Engineering Company, Inc.

Signature of Bidder:

**EXCEPTIONS**

**5.7.1.1** Create the Owner's Project Requirements (OPR) with the owner's help and input and review the Basis of Design (BoD) provided by the designer if record. Since we are not the designers, we can't create the BoD.

**5.7.3.1 Function Performance Testing:**

a. Plan and conduct a functional performance test coordination meeting with the General Contractor to establish the schedule and proposed processes for testing during the acceptance phase.

**5.7.10** The following is a list of the anticipated written Work Products developed as part of the Commissioning Process:

**5.7.10.1** Owner's Project Requirements (OPR) and Review of the Basis-of-Design (BoD)

**5.8.2.6** The CxA shall oversee, facilitate~~, and validate~~ the process of adjustment of the system operating parameters to achieve and demonstrate performance of commissioned systems in accordance with the DCP and the requirements of the Functional Performance and Integrated Systems Tests. The CxA shall have the responsibility to identify and facilitate resolution of performance issues that prevent compliance with the DCP and the contract documents.

**5.7.6 Fire Protection/Life Safety System Commissioning and Integrated Testing:**

**5.7.6.1** Provide commissioning and integrated testing services for fire protection and life safety systems, including fire sprinklers, standpipes, fire pumps, fire alarm systems, voice evacuation systems, fire department communications, stairway pressurization systems, smoke exhaust system and elevator hoist way vents. Services include commissioning of individual life safety systems and integrated systems testing to ~~ensure~~ document that systems interact properly to meet design criteria and life safety standards.

**5.7.8.5** Identify and provide independent random sampling of 20% of devices to ~~ensure~~ document DEC Systems conformance.

**5.8.2.10** The CxA will witness all training sessions to ~~ensure~~ document that systems-level training for the Owner's operations personnel is appropriate and complete. Training by the Design/Build Team is to include:

**OFFICE OF THE COUNTY AUDITOR**
**COMPLIANCE REVIEW OFFICE**
415 E 12TH STREET, 2ND FLOOR
KANSAS CITY, MISSOURI 64106

(816) 881-3302
FAX (816) 881-3340
COMPLIANCE@JACKSONGOV.ORG
WWW.JACKSONGOV.ORG/AUDITOR

# JACKSON COUNTY, MISSOURI
# MBE/WBE/VBE PARTICIPATION AFFIDAVIT

**ITB/RFP/RFQ Number:** 123-22

**ITB/RFP/RFQ Title:** Whole Building Commissioning and Technical Review Services

**Contracting Department:** Public Works Department

**Respondent:** Burns & McDonnell Engineering Company, Inc.

I, David Meyers, AIA, PMP, CxA, of lawful age and upon my oath state as follows:

1. This Affidavit is made for the purpose of complying with the provisions of the MBE/WBE/VBE submittal requirements on the above ITB/RFP/RFQ and the MBE/WBE/VBE Program and is given on behalf of the Respondent listed above.

**The goals set by Jackson County, Missouri are:**

9.5 **%MBE** _____ **%WBE** _____ **%VBE**

2. Bidder stipulates that it will utilize a minimum of the following percentages of MBE/WBE/VBE participation in the above bid:

10% **%MBE** _____ **%WBE** 2% **%VBE**

*****INTERNAL USE ONLY*****

CUP RECEIVED: _____ CUP APPROVED: _____

GFE RECEIVED: _____ GFE APPROVED: _____

CUP REVISED: _____ REVISION APPROVED: _____

APPROVED GOALS: ____ MBE ____ WBE ____ VBE ____ OTHER

RES/ORD: _____ AMT AWARDED: _____

NOTES:

*Harry S. Truman, Presiding Judge 1927-1934*

## ACKNOWLEDGMENT

Respondent acknowledges that it is responsible for considering the effect that any change order and/or amendments changing the total contract amount may have on its ability to meet or exceed the subcontractor participation goals.

**List of Intended Subcontractors:**
Respondent acknowledges that it is responsible for submitting a **List of Intended Subcontractors (LIS)** prior to receiving a contract award as a result of its response to the above ITB/RFP/RFQ. This affidavit in conjunction with the LIS constitutes the **Contractor's Utilization Plan (CUP)**, which sets out the Respondent's plan to utilize MBE and/or WBE and/or VBE prime and subcontractors on the awarded contract. **The CUP is contractually binding and any changes to either document must follow a modification process as described below.**

**Good Faith Effort:**
Respondent further acknowledges that it is responsible for submitting **a Good Faith Effort Form** if it will be unable to meet the participation goals. **A Good Faith Effort Form** documents the efforts a respondent puts forth to achieve the MBE and/or WBE and/or VBE goals on a project. **Simply stating that goals cannot be met is not considered sufficient.**

**Contractor Modification Form:**
If, at any point during the life of the awarded contract, the contractor needs to substitute an approved subcontractor a **Contractor Modification Form** must be submitted to the Compliance Review Office.

***Any Good Faith Effort or Contractor Modification Form must be approved by the Compliance Review Office.***

*****Contact the Compliance Review Office for assistance or to request forms.*****

***I hereby certify that I am authorized to make this Affidavit on behalf of the Respondent named below and who shall abide by the terms set forth herein. I acknowledge that the assigned values determined by this CUP shall be enforceable under the contract terms and conditions.***

**Respondent Primary Contact (Print) :** David Meyers, AIA, PMP, CxA

**Title:** Commissioning Director **Email:** dcmeyers@burnsmcd.com

**Date:** May 02, 2023 **Phone:** 314-210-2735

**Signature:** _____ **Date:** May 02, 2023

**NOTARIZED:**
**Subscribed and sworn to before me this** 02 **day of** May **, 20**23**.**

My Commission Expires: 10/11/2024

_____

Linda R. Olvera
Notary Public-Notary Seal
STATE OF MISSOURI
Commissioned for Jackson County
My Commission Expires: 10/11/2024
ID. #12403570

NOTARY PUBLIC

Attach Corporate Seal if applicable

*Harry S. Truman, Presiding Judge 1927-1934*

Jackson County Missouri

# Certificate of Compliance

In accordance with Jackson County Code Chapter(s) 6 and 10,
this Certificate of Compliance is hereby issued to:

Burns & McDonnell Engineering Co., Inc.
9400 Ward Pkwy
Kansas City, MO 64114-3319
2023 Certificate: 20230418VC432

Issued: 2023-04-18
Expires: 2023-12-31

The above named firm/agency has met the following requirements:

Is duly listed and assessed on the tax rolls of Jackson County, Missouri and is not delinquent in the payment of any taxes due to the County, or did not have on December 31st of the previous year any property subject to taxation by the County

Attests and agrees to Chapter 6 of the Jackson County Code which prohibits discriminatory employment practices and promotes equal employment opportunity by contractors doing business with Jackson County.

Chief Compliance Review Officer
Jackson County Missouri
816-881-3302
compliance@jackonsongov.org

# 9.4.4 GREATER KANSAS CITY METROPOLITAN AREA DOCUMENTATION

# 9.4.4 IF RESPONDENT IS NOT LOCATED IN THE GREATER KANSAS CITY METROPOLITAN AREA, DOCUMENTATION THAT DETAILS HOW RESPONDENT WILL PERFORM THE WORK AS DETAILED WITHIN

Since our company's founding in 1898, Burns & McDonnell has been headquartered in Jackson County, Kansas City, Missouri. Because of our more than 125 year residency within the Greater Kansas City Metropolitan Area, this section is not applicable to Burns & McDonnell.

*Burns & McDonnell World Headquarters located at 9400 Ward Parkway, Kansas City, MO 64114*

# 9.4.5
# KEY CONSULTANTS/ASSOCIATES

# 9.4.5 KEY CONSULTANTS/ASSOCIATES

**Name of Consultant:** Preferred Buildings Solutions LLC (a subsidiary of FSC, Inc.)
**Address of Consultant:** 8675 W. 96th Street, Overland Park, KS 66212

**Particular Areas of Technical Proficiency as it Relates to the Project:** Preferred Building Solutions, LLC (PBS) will provide the necessary commissioning services as outlined in the contract documents. PBS is well-versed in the necessary tasks that will be performed and will comply with all Project, State, and Federal safety requirements and regulations. Burns & McDonnell have previously worked together on the 1400 Baltimore, Kansas City, MO project, where Burns & McDonnell acted as the General Contractor and PBS provided commissioning services.

PBS was established in 2018 and is located in Overland Park, Kansas. We are certified as a Minority Business Enterprise (MBE) and a Woman Business Enterprise (WBE) firm in the state of Missouri.

PBS recognizes that every new or renovated building plan begins with a great design. Keeping abreast of the new technology, PBS is aware that more complex facilities are being built on tighter construction timelines, and the complicated systems they include must be integrated to operate efficiently. The FSC commissioning process offers a layer of protection for building owners and verifies the delivery of a high-quality product by verifying that the planning, design, construction, and operational processes are achieving at or above their goals. PBS' clients engage with them so they have peace of mind knowing each project will operate as intended and at its highest potential.

Since commissioning is a collaborative process for planning, delivery, verification, and managing risks to critical functions, PBS recommends starting the process early in the design phase to allow their commissioning personnel to become familiar with all the requirements and programming documents. PBS combines their knowledge and field proficiency in fire protection, life safety, and MEP systems to provide the owner with a building that is safe, operates efficiently, and meets all design requirements. Typical systems that PBS commissions include:

- UPS systems
- Building automation and controls
- Fire alarm
- Fire sprinkler
- Lighting controls
- Emergency power
- HVAC
- Central plants
- Chilled Water
- Heated water, steam, humidification
- Lightning Protection
- Stationary battery plants
- Engine generator plants
- Electrical SCADA/EPMS

**Name of Consultant:** RWPowell Architecture LLC
**Address of Consultant:** The Octagon Building - 2757 Plaza Way, Suite 101, Saint Charles, MO 63303

**Particular Areas of Technical Proficiency as it Relates to the Project:** Ronald W. Powell is a US Army Corps of Engineers military veteran. He served as a construction manager in Korea and a facilities engineer liaison at Fort Leonard Wood, Missouri. Ronald is a licensed architect and a LEED Green Associate. He has worked with Burns & McDonnell on the NGA project in St. Louis - a project where he provided building enclosure reviews and witnessed the window testing on the project.

**Name of Consultant:** Enviros
**Address of Consultant:** 220 Ramsey Street, Hastings, MN 55033

**Particular Areas of Technical Proficiency as it Relates to the Project:** Enviros is a VetBiz verified Service-Disabled Veteran-Owned Small Business [SDVOSB] specializing in building commissioning and comprehensive facility performance. Structured to provide both integrated and discipline-specific expertise, our Electrical Field Services team is comprised of Master Electricians and Certified Commercial Electrical Inspectors to ensure thorough and effective commissioning of electrical systems. Our Electrical Commissioning Specialists are credentialed to open panels in the field to support issue identification, troubleshooting, and resolution. The Enviros electrical team has extensive experience with mission critical and/or highly secure facilities including prisons, hospitals, data centers, and laboratory environments. Additionally, our team includes certified thermographers, professional engineers, and SKM specialists who can support arc flash hazard analysis and equipment labeling if required.

# 9.4.6 RESUMES

# 9.4.6 RESUMES

## ORGANIZATIONAL CHART

The following organizational chart illustrates the command structure that the Burns & McDonnell team will utilize throughout the duration of this project.

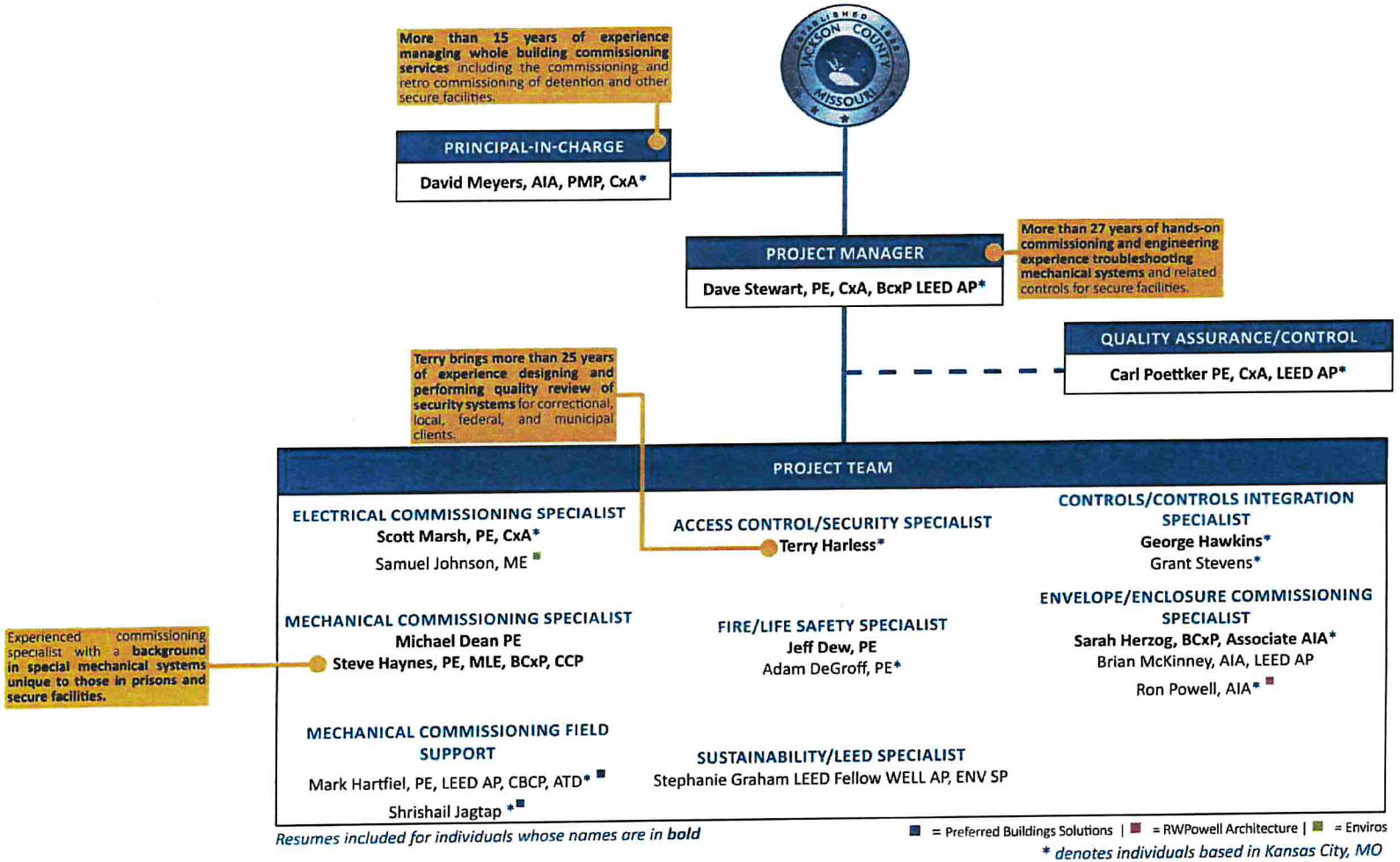



*Figure 1: Organizational chart*

| EXPERIENCE | Dave Stewart PE, CxA, BCxP, LEED AP | David Meyers AIA, PMP, CxA | Carl Poettker PE, CxA, LEED AP | Scott Marsh PE, CxA | Samuel Johnson, ME | Michael Dean, PE | Steve Haynes PE, MLE, BCxP, CCP | Clay Wiedner, CxA | Terry Harless | Jeff Dew PE | Adam DeGroff, PE | Mark Hartfiel, PE, LEED AP, CBCP, ATD | Shrishail Jagtap | George Hawkinson | Grant Stevens | Sarah Herzog BCxP, Associate AIA | Brian McKinney AIA, LEED AP | Ron Powel, AIA | Stephanie Graham LEED Fellow WELL AP, ENV SP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Correction/Detention Facilities | ◆ | ◆ | ◆ | ◆ | | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | | ◆ | ◆ | | | ◆ |
| Healthcare Facilities | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | | | | ◆ | ◆ | | | ◆ |
| Universities | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | | | ◆ | ◆ | ◆ | | ◆ | ◆ | ◆ | | ◆ |
| Court Rooms | ◆ | ◆ | ◆ | | | ◆ | | ◆ | | | | | | | | ◆ | ◆ | | ◆ |
| LEED V4 Commissioning Scope | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | | | | | | | ◆ | ◆ | | ◆ | ◆ |
| Whole Building Commissioning | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | | | ◆ | ◆ | ◆ | | ◆ | ◆ | | ◆ | |
| HVAC Systems | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | | | | ◆ | ◆ | ◆ | ◆ | | | | |
| Lighting Control Systems | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | | | | | | ◆ | ◆ | | | | |
| Plumbing Systems | ◆ | ◆ | ◆ | | | ◆ | ◆ | ◆ | | | | | | | ◆ | | | | |
| Electrical Systems | ◆ | ◆ | ◆ | ◆ | ◆ | | ◆ | ◆ | | | | | | | | | | | |
| Fire Protection Systems | ◆ | ◆ | ◆ | ◆ | ◆ | | | ◆ | | ◆ | ◆ | | | | | | | | |
| Building Enclosure | ◆ | ◆ | ◆ | | | | | | | | | | | | | ◆ | ◆ | ◆ | ◆ |
| Electronic Security Systems | ◆ | ◆ | ◆ | ◆ | ◆ | | | | ◆ | | ◆ | | | | | | | | |

***Figure 2:*** *The matrix above illustrates the experience of the members of the Burns & McDonnell team as it relates to this project.*

**Staffing Plan**

Burns & McDonnell understands the comprehensive nature of this project and the importance that Jackson County has placed on selecting a high-performance and responsive firm to integrate with the other team members seamlessly. We are committed to contributing to the project delivery team and utilizing diplomacy, collaboration, and communication at all stages of the design and construction process.

Since we have commissioning staff that specializes in secure facilities, healthcare, education, and courthouses around the country, we have developed a staffing plan to bring the right systems lead to the projects at the right time. Our project manager, Dave Stewart, is local to Kansas City and has experience leading whole building commissioning in correction, healthcare, and higher education, which is why he was chosen to be the project manager/ commissioning manager for this project. He is supported by local staff indicated in the organizational chart. He is supplemented by additional staff for activities that can be done remotely such as design review, submittal reviews and test writing. He will use local staff for all on-site activities.

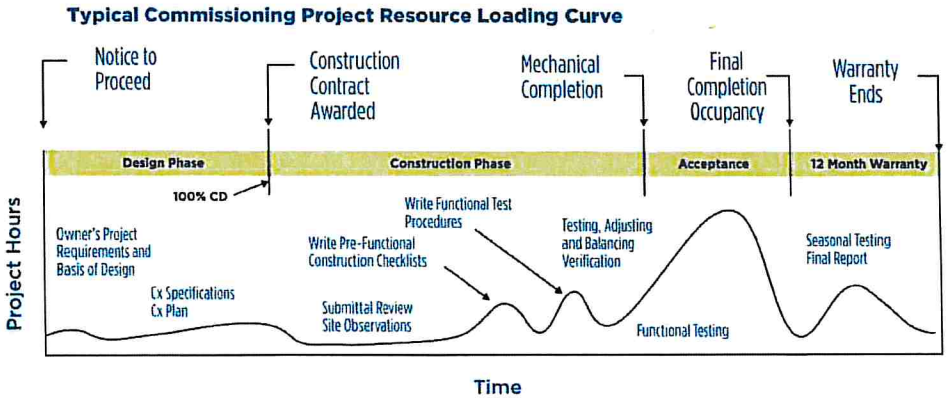
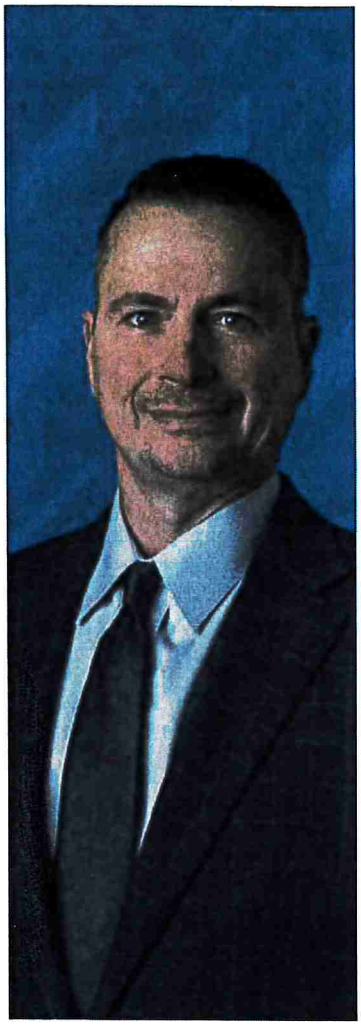



***Figure 3:*** *Commissioning Curve*

Each member of the proposed team is available and dedicated for the entire duration of the project. Our commissioning efforts typically include involvement across all project phases – design, construction, and closeout. By dedicating resources throughout the life of a project as a strong owner-advocate, our commissioning professionals contribute to the project's success and serve as a conduit of communication and problem-solving among all parties. The team's extensive experience complements your project with industry-leading best practices designed to reduce your costs and maximize your results.

The commissioning effort will be closely monitored using a forecasting tool based on Burns & McDonnell's commissioning curve (figure 3). The curve has been developed using data from past projects to estimate the labor required at different stages of the commissioning process. The curve allows our team to adequately commit staff to the project at the right times and calculate the workload for a given phase. This is how we can verify the proposed team members will be available to execute work when required, as illustrated in the curve below.



**9.4.6.1 Name:** Dave Stewart PE, CxA, BCxP, LEED AP
**Title:** Commissioning Project Manager
**9.4.6.3** Project Assignment/Role: Project Manager
**9.4.6.4 Firm Name:** Burns & McDonnell

**9.4.6.8 Synopsis of Experience:** Dave brings **more than 27 years of hands-on commissioning and engineering experience focusing on sustainability and energy-efficient operation of mechanical systems and related controls for large programs and campus-style facilities.** His commissioning experience includes leading total building commissioning teams for secure and mission-critical systems/facilities comprising over 14 million (M) square feet (SF) of total building space. **Dave's experience includes providing mechanical commissioning services for various Federal agencies such as the Department of Energy (DOE), the United States Army Corps of Engineers (USACE), the Naval Facilities Engineering Systems Command (NAVFAC) and the National Nuclear Security Administration (NNSA).** He is highly proficient at working with design and construction teams to review mechanical concepts and designs and develop commissioning requirements and plans. **Dave's experience also includes developing and organizing consistent test procedures, directing and validating tests, troubleshooting complex mechanical and control issues, helping teams develop solutions, and assisting with developing BIM-based systems operations and maintenance manuals for long-term and continuous commissioning.** Having lived and worked on various projects throughout the Kansas City area, Dave is very familiar with the geographical area.

**4.6.2 Email and Telephone umber**
dastewart@burnsmcd.com
913-449-2033

**4.6.6 Highest Academic Degree**
BS, Mechanical Engineering (1996)

**4.6.7 Registrations:**
Professional Engineer (2000)
Commissioning Agent (2014)
Building Commissioning Professional (2017)
LEED Accredited Professional (2004)

**4.6.5 Years of Relevant xperience with Present Firm and ther Firms:** 27

## SIMILAR TYPE OF WORK PERFORMED IN THE PAST

**West Campus | National Geospatial-Intelligence Agency**
*St. Louis, MO*
**Commissioning lead** for new $1.5 billion (B), design-build (DB), 1.9M SF, 98-acre mission-critical secure campus encompassing four separate buildings, central utility plant (CUP), parking structures, and emergency power. Burns & McDonnell was selected as the commissioning agent and provided commissioning services under an Indefinite Delivery Indefinite Quantity (IDIQ) contract. **Responsibilities included** developing whole building commissioning documents, including the Owner's Project Requirements (OPR), commissioning specification requirements, sample tests scripts and checklists, and commissioning plan included in the DB request for proposal (RFP).

**National Security Campus, DOE, NNSA | Honeywell**
*Kansas City, MO*
**Mechanical commissioning agent** for the $680M, 1.6M SF, multi-building LEED Gold secure campus including administrative offices, central utility plant to the entire campus with varying degrees of mission-critical redundancy configuration. **Responsibilities included** developing commissioning requirements for the POR; performing design review; developing functional and integrated testing criteria; coordinating commissioning; reviewing shop drawings and start-up plans; reviewing construction checklists and start-up plans; witnessing functional and integrated tests, performing troubleshooting and solution development; identified and tracked deficiencies, and developed commissioning reports.

**Fort Leavenworth Commissioning Projects | United States Army Corps of Engineers**
*Fort Leavenworth, KS*
**Mechanical Commissioning specialist** for the United States Army Corps of Engineers for multiple renovation projects at Fort Leavenworth, which included reviewing all commissioning documentation and witnessing field activities. **Projects include;** renovations of multiple historic buildings, US Army Command and General Staff College, **Joint Regional Correctional Facility (JRCF), and the United States Disciplinary Barracks (USDB).**

**Commissioning Services | University of Kansas Health System**
*Kansas City, KS*
**Commissioning project manager** for the commissioning of new construction and renovation during design, construction, and post-occupancy for DBB medical, acute inpatient, burn center, primary care, transplant center, imaging and radiation oncology facilities and a central energy plant, totaling 730,000 SF and $300M in construction on a medical campus. Responsibilities included managing the commissioning internal team, testing and balancing reviews, performing design and submittal reviews, participating in functional testing and reviewing O&M manuals and final commissioning reports.

**Utah State Correctional Facility | State of Utah**
*Salt Lake City, UT*
**Commissioning agent** for design-bid-build (DBB) $750M 31-building secure campus totaling 1.25M SF. This project included a 112,000 SF medical and mental health clinic, all site utilities, and support buildings that included a central utility plant, food service, administration, site and physical security systems, and emergency backup power. **Responsibilities included** OPR development and mechanical design reviews.

**9.4.6.1 Name:** David Meyers AIA, PMP, CxA
**Title:** Commissioning Director
**9.4.6.3** Principal-in-Charge
**9.4.6.4 Firm Name:** Burns & McDonnell

**9.4.6.8 Synopsis of Experience:** David is a **certified commissioning agent and program manager who has been responsible for the commissioning of more than $16B of construction in the last five years.** David specializes in leading complex programs comprised of diverse technical disciplines. **His experience encompasses overall program and project management, leading complex, integrated teams of HVAC, controls, electrical, fire, life safety, IT, security, envelope, and power commissioning specialists worldwide. David is proficient in overseeing multiple projects across widespread locations simultaneously, managing project and corporate budgets, and evaluating project risk to verify his clients are successful. As the commissioning director, David's work has made him familiar with the geographic area, having overseen many projects within the region.**

**4.6.2 Email and Telephone umber**
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314 210-2735

**4.6.6 Highest Academic Degree**
Master of Architecture (2000)

**4.6.7 Registrations:**
Registered Architect (2003)
NCARB Certified (2003)
Certified Building Commissioning Professional (2010)

**4.6.5 Years of Relevant xperience with Present Firm and ther Firms:** 26

## SIMILAR TYPE OF WORK PERFORMED IN THE PAST

**West Campus | National Geospatial-Intelligence Agency**
*St. Louis, MO*
**Program Manager** for new $1.5B, DB, 1.9M SF, 98-acre mission-critical secure campus encompassing four separate buildings, CUP, parking structures, and emergency power. Burns & McDonnell was selected as the commissioning agent and provided commissioning services under an IDIQ contract. The contract covered all commissioning activities for the duration of the project, supporting programming, planning, design, construction and including transition phases of the Next N2W campus. **Responsibilities included** leading the team that created a commissioning plan, specification development, and review of design-build (DB) request for proposal (RFP) documents, plans, specifications, and cost estimates. Specific tasks included building enclosure DB RFP design requirements and testing requirements.

**Utah State Correctional Facility | State of Utah**
Salt Lake City, UT
**Program manager** for DBB $750M 31-building secure campus totaling 1.25M SF. This project included a 112,000 SF medical and mental health clinic, all site utilities, and support buildings that included a central utility plant, food service, administration, site and physical security systems, and emergency backup power. **Responsibilities included** commissioning activities and the creation of the following documents for all 31 buildings: commissioning specification review; review of the preliminary commissioning schedule; review of the preliminary commissioning pre-functional checklists and functional performance tests; review of design documents at 60%, 90%, IFC, the submittal reviews, site visits, and functional testing of the buildings.

**Loudoun County Courthouse Multi-Phase Expansion and Renovation | Loudoun County, Department of Transportation and Capital Infrastructure**
*Leesburg, VA*
**Building enclosure specialist** for the new Loudoun County Courthouse expansion. This expansion is focused on the addition of a new 92,000 SF courthouse. Other works include a tunnel connection between the new and existing buildings and a new parking lot. **Responsibilities included** providing building envelope and overseeing quality control. Phase 1 & 2 underwent interior reconfiguration, including upgrades for systems that were integrated into the new phase 3 building, including security & access control, building automation control, life safety and other systems.

**Loudoun County Sheriff Station | Loudoun County, Department of Transportation and Capital Infrastructure**
*Ashburn, VA*
**Building envelope specialist** for the new 19,000 SF, $15M Sheriff's office substation. The Burns & McDonnell team provided whole building construction services for the Sheriff's station that included detention cells and multiple offices. **Responsibilities included** providing building envelope commissioning and overseeing the quality control of the project.

**9.4.6.1 Name:** Carl Poettker PE, CxA, LEED AP
**Title:** Commissioning Manager
**9.4.6.3** Quality Assurance/Quality Control
**9.4.6.4 Firm Name:** Burns & McDonnell

**9.4.6.8 Synopsis of Experience:** Carl has managed and executed comprehensive commissioning and retro-commissioning services for new construction and existing facilities in the higher education, mission-critical, data center, and healthcare industries. **He has interfaced with clients, design teams, vendors and trades while aiding in the design of MEP systems, and implemented solutions to adapt to field conditions and post-bid owner requests.** Carl's experience also includes the design of custom HVAC solutions for commercial and light industrial applications. **He has served as commissioning agent for more than 6M SF of completed new construction for mission-critical data centers, research, industrial manufacturing, healthcare, and higher education facilities.** He specializes in testing, adjusting and balancing verification of HVAC systems; troubleshooting complex problems and developing robust Integrated Systems Testing programs to verify all normal, emergency, recovery and power scenarios for whole buildings and campuses. **Having worked on projects throughout the region, Carl has a strong understanding of the geographical area.**


**4.6.2 Email and Telephone Number**
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615-482-1499


**4.6.6 Highest Academic Degree**
BS, Mechanical Engineering (2008)

**4.6.7 Registrations:**
Professional Engineer (YYYY)
Certified Commissioning Agent (YYYY)
LEED Accredited Professional (YYYY)

**4.6.5 Years of Relevant Experience with Present Firm and Other Firms:** 14

## SIMILAR TYPE OF WORK PERFORMED IN THE PAST

**West Campus | National Geospatial-Intelligence Agency**
*St. Louis, MO*
**Lead commissioning agent** for new $1.5B, DB, 1.9M SF, 98-acre mission-critical secure campus encompassing four separate buildings, CUP, parking structures, and emergency power. Burns & McDonnell was selected as the commissioning agent and provided commissioning services under an IDIQ contract. The contract covered all commissioning activities for the duration of the project, supporting programming, planning, design, construction and including transition phases of the Next N2W campus. **Responsibilities included** the commissioning of the HVAC, energy management and control, building enclosure, building enclosure layers (air, water, thermal, vapor), fire alarm, hydronic air and electrical systems.

**Chesterfield Village Research Campus, CV Expansion Greenhouse/Headhouse and Garage | Confidential Company**
*Chesterfield, MO*
**Project manager/lead mechanical commissioning agent** for the Chesterfield Valley Campus Expansion. The project encompasses $180M of new construction for 714,000 SF of mission-critical research, laboratory, administrative, maintenance and central utility facilities and a 1,780-space parking garage with 38 greenhouses. Major systems commissioned include three 400-ton chillers, three 750 GPM cooling towers, thirteen 20,000 CFM air handlers, 13.2kV electrical substations, 460V distribution, building enclosure and lighting controls (daylighting and occupancy sensors). **Key mechanical systems commissioned include** air handling units, energy recovery units, air to air heat exchangers, variable refrigerant systems, door curtain systems, fan coil units, blower coil units, variable flow lab supply and exhaust systems, high plume exhaust fans, chillers, fluid coolers, condensing boilers, pumps, steam to process hot water heat exchangers, hot water heaters, mixing valves, steam to hot water heat exchangers, domestic booster pumps, PH neutralization systems, fire alarm control panel, wet-pipe sprinkler systems, wet standpipe system, dry standpipe system, variable-frequency motor controllers, lighting control system, greenhouse growth control (ARGUS), HVAC temperature control system, sub-metering.

**Utah State Correctional Facility | Utah Division of Facility Construction and Management (DFCM)**
*Salt Lake City, UT*
**Quality control specialist** for DBB $750M 31-building secure campus totaling 1.25M SF. This project included a 112,000 SF medical and mental health clinic, all site utilities, and support buildings that included a central utility plant, food service, administration, site and physical security systems, and emergency backup power. **Responsibilities included** design reviews, involvement in the following commissioning activities and creation of the following documents for all 31 buildings: commissioning specification review; review of the preliminary commissioning schedule; review of the preliminary commissioning pre-functional checklists and functional performance tests; review of design documents at 60%, 90%, IFC, the submittal reviews, site visits, and functional testing of the buildings.

**Boeing Everett Campus 777x Commissioning Program | The Boeing Company**
*Everett, WA*
**Commissioning specialist** for this new $687M DBB total building commissioning for more than 1.8M SF of campus facilities, which met LEED Gold status and includes secure, mission critical, administrative, and campus spaces. For this $800,000 aviation facility, **Responsibilities included** directing functional testing and integrated systems test, coaching the construction team to resolution of issues in a timely manner, and coordination of controls systems for the program.

**9.4.6.1 Name:** Scott Marsh PE, CxA
**Title:** Associate Commissioning Engineer
**9.4.6.3** Electrical Commissioning Specialist
**9.4.6.4 Firm Name:** Burns & McDonnell

**9.4.6.8 Synopsis of Experience:** Scott is an electrical commissioning engineer with **more than 12 years of experience witnessing on-site electrical testing.** His experience includes work in secure, mission-critical facilities such as prisons, hospitals, outpatient care and clinical facilities, laboratories, data centers, utility operation centers, and commercial facilities. **He has experience with all aspects of the commissioning process, including commissioning plan development, construction document reviews, review of contractor submittals, development of pre-functional construction checklists and functional performance tests specific to each project, construction site observations, facilitation of system testing, owner training, and O&M manual review.** Scott specializes in troubleshooting and verification of electrical power distribution, lighting controls, and fire alarm systems. Scott has delivered critical electrical systems that include emergency power generators, automatic transfer switches (ATS), uninterruptible power supplies (UPS), paralleling switchgear, unit substations, as well as digital lighting controls and fire alarm systems. **Scott's work has made him extremely familiar with the geographic area, as demonstrated by the example projects listed below.**

## SIMILAR TYPE OF WORK PERFORMED IN THE PAST

**Commissioning Services | University of Kansas Health System**
***Kansas City, KS***
**Electrical commissioning engineer** for the commissioning of new construction and renovation during design, construction, and post-occupancy phases for DBB medical, acute inpatient, burn center, primary care, transplant center, imaging and radiation oncology facilities and a central energy plant, totaling 730,000 SF and $300M in construction on a medical campus. **Responsibilities included** performing all commissioning tasks associated with emergency power and life safety systems which consisted of a 6 diesel generator sets, closed transition automatic transfer switches, Class A fire alarm systems with voice evacuation, lighting controls, and smoke control pressurization systems.

**West Campus | National Geospatial-Intelligence Agency**
***St. Louis, MO***
**Electrical commissioning engineer** for new $1.5B, DB, 1.9M SF, 98-acre mission-critical secure campus encompassing four separate buildings, CUP, parking structures, and emergency power. Burns & McDonnell was selected as the commissioning agent and provided commissioning services under an IDIQ contract. The contract covered all commissioning activities for the duration of the project, supporting programming, planning, design, construction and including transition phases of the Next N2W campus. **Responsibilities included** performing design phase commissioning services for this DB project, including design, submittal, and shop drawing reviews. During the construction phase, Scott served as the Government's commissioning agent.

**Utah State Correctional Facility | State of Utah**
***Salt Lake City, UT***
**Electrical commissioning engineer** for DBB $1B 31-building secure campus totaling 1.25M SF. This project included a 112,000 SF medical and mental health clinic, all site utilities, and support buildings that included a CUP, food service, administration, site and physical security systems, and emergency power system. **Responsibilities included** the commissioning of building and site electrical systems for all buildings during the design and early construction stages of the project. Scott was involved in the following commissioning activities and the creation of the following documents for all 31 buildings: commissioning specification review; review of the commissioning schedule; review of the preliminary commissioning pre-functional checklists and functional performance tests; review of design documents at 60%, 90%, IFC; and performed construction submittal reviews.

**NNSA Sandia Headquarters Facility | NNSA**
***Albuquerque, NM***
**Electrical commissioning engineer** for the $112M, 324,000 GSF, three-story administration building adjacent to Kirtland Air Force Base in Albuquerque, New Mexico. The facility consists of the following space types: administrative, office, conference, secured spaces, fitness area, breakrooms, mechanical, electrical, communication, data rooms, storage, and warehouse areas. **Responsibilities included** reviewing construction drawings and specifications, equipment submittal review, site observations during construction, issue resolution, and development of commissioning documentation including construction checklists, functional testing plans, and integrated systems testing.

**4.6.2 Email and Telephone umber**
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**4.6.6 Highest Academic Degree**
BS, Electrical Engineering (2003)

**4.6.7 Registrations:**
Professional Engineer (2013)
Commissioning Agent (2019)

**4.6.5 Years of Relevant xperience with Present Firm and ther Firms:** 16

**9.4.6.1 Name:** Michael Dean PE
**Title:** Staff Commissioning Engineer
**9.4.6.3** Mechanical Commissioning Specialist
**9.4.6.4 Firm Name:** Burns & McDonnell

**9.4.6.8 Synopsis of Experience:** Michael has experience providing consulting services and technical support as a commissioning engineer. He leads and supports new construction and existing building commissioning projects. Throughout his career, Michael has completed projects for government, DOE, university, and high-rise residential clients.

**4.6.2 Email and Telephone umber**
mdean2@burnsmcd.com
708-408-4232

**4.6.6 Highest Academic Degree**
BS, Mechanical Engineering (1996)

**4.6.7 Registrations:**
Professional Engineer (2022)

**4.6.5 Years of Relevant xperience with Present Firm and ther Firms:** 4

## SIMILAR TYPE OF WORK PERFORMED IN THE PAST

**Utah State Correctional Facility | State of Utah**
*Salt Lake City, UT*
**Commissioning engineer** for DBB $1B 31-building secure campus totaling 1.25M SF. This project included a 112,000 SF medical and mental health clinic, all site utilities, and support buildings that included a CUP, food service, administration, site and physical security systems, and emergency backup power. **Responsibilities included** writing the pre-functional checklists and functional tests, providing field support for functional testing and providing facility grid support for all GMPS on the project.

**United States Federal Courthouse Controls Upgrade | GSA Region 5**
*Hammond, IN*
**Commissioning Engineer** for the complete building controls upgrade at the US Federal Courthouse in Hammond, IN to replace their existing controls system which was outdated and no longer supported by the manufacturer. The Courthouse is a five-story building that houses three District, two Magistrate and two US Bankruptcy courtrooms and related judicial offices and GSA offices. The project affected all of the building equipment connected to the Building Automation System including: chilled water system, heating hot water system, air handling systems, exhaust systems, smoke purge, terminal units (unit heaters, CV terminal units, FPBs), garage CO system, domestic hot water, building/tenant utility metering (Gas, Water, Power). Burns & McDonnell was contracted to provide both design and construction phase commissioning services for this project including: commissioning plan, commissioning specifications, design reviews at 75%, 95%, and 100%, construction site observations, submittal reviews, pre-functional checklists, functional tests, coordination meetings, functional testing, review of contractor closeout documents and a commissioning report.

**Westville Correctional Facility | Indiana Department of Administration's Public Works Division**
*Westville, IN*
**Mechanical and Plumbing Commissioning/Facility Grid and CMMS Specialist** for new 1.4M SF, 4,200-bed prison for the State of Indiana Department of Corrections and The new prison is located on approximately 260 acres of property and is replacing the original prison built in 1945.**Burns & McDonnell is contracted for** third-party building commissioning services through Kitchell CEM (the State of Indiana's Owners Representative) and is responsible for all aspects of the commissioning scope of work in the design, construction, and warranty phases.

**Midfield Satellite Concourse | Corgan/Gensler and Turner/PCL Joint Venture**
*Los Angeles International Airport (LAX), Los Angeles, CA*
**Training Coordinator** for the 800,000 SF $1.2B addition to LAX airport comprised of 12 new gates with 45,000 SF of concessions and 40,000 SF of airline club space. Systems being commissioned include the full range of terminal and airfield infrastructure, including: mechanical, electrical and plumbing (MEP); life safety and fire protection; special systems, such as Wi-Fi, PA, backbone and horizontal cabling; access control and alarm monitoring system (ACAMS) and video surveillance (VSS); vertical transportation and other conveyance systems; fueling systems. **Responsibilities included** directing an owners training program during the closeout process of the project. During the coordination process, the team accounted for the trainee and trainer's existing schedules, booked camera crews and classrooms, and ultimately notified and followed up with all parties involved. At the end of the project, over 300 training sessions took place that accommodated each airport work shift. Our standardized training program included 40+ trade partners, covering 60+ systems, for 100s of stakeholders.

**9.4.6.1 Name:** Steve Haynes PE, MLE, BCxP, CCP
**Title:** Senior Commissioning Engineer
**9.4.6.3** Mechanical Commissioning Specialist
**9.4.6.4 Firm Name:** Burns & McDonnell

**9.4.6.8 Synopsis of Experience:** Steve is a licensed professional engineer with experience in the design, commissioning, and management of a wide range of project types across a variety of industries. With his strong background in systems design, and focus on coordination and communication between disciplines, **Steve brings a unique perspective to the commissioning process that helps produce a thorough and complete commissioning project.** Throughout his engineering career, Steve's philosophy has been that the success of any project is rooted in well-coordinated, clearly detailed and thoroughly documented design documents and specifications and that robust lines of communication between owners, design professionals, commissioning team members and the contracting team is the best way to help identify, resolve and prevent 'gaps' that can cause significant and costly delays in project construction.

## SIMILAR TYPE OF WORK PERFORMED IN THE PAST

**Utah State Correctional Facility | State of Utah**
***Salt Lake City, UT***
**Commissioning manager** for DBB $750M 31-building secure campus totaling 1.25M SF. This project included a 112,000 SF medical and mental health clinic, all site utilities, and support buildings that included a central utility plant, food service, administration, site and physical security systems, and emergency backup power. **Responsibilities included** acting as the onsite point of contact for all commissioning entities, local and remote, and as the liaison between the commissioning team and the owner, architectural and contracting teams. Due to the unique delivery method for commissioning on this project, this role has been responsible to define, document, implement and manage the consistent delivery of the commissioning program across all commissioning firms and all campus facilities.

**Weber Valley Youth Detention Facility | Utah Division of Facilities Construction and Management (DFCM)***
***Ogden, UT***
**Commissioning agent, mechanical/Plumbing specialist** for the new youth treatment facility in Ogden, Utah. This youth correctional center serves as a multi-functional institution employing groundbreaking approaches to support troubled youth. This facility is 65,000 SF and includes five housing units with 24 secure beds. This secure facility includes sleeping quarters, day rooms, staff offices, security monitoring rooms, classroom spaces, holding rooms, gym facility, food preparation, dining, library, meeting room and treatment/therapy/interview rooms. **Systems commissioned include** VRF heat pump, packaged RTU, gas heat make-up air, kitchen and general exhaust (with smoke evacuation), split DX, fuel-fired boiler heating water with variable flow hydronic system, and multi-temperature fuel-fired domestic hot water.

**Emergency Operations Facility | City of Salt Lake City***
***Salt Lake City International Airport, Salt Lake City, UT***
**Commissioning agent/project manager** at the new 50K+ SF, airport emergency operations facility. The old FedEx building at the airport was gutted and renovated to house the new emergency operations facility in 2017. **Responsibilities included** managing all aspects of the commissioning process for this facility including creating the commissioning plan, design and submittal reviews. Steve also led the commissioning coordination meetings, created all commissioning documents, held functional test page turn meetings, administered commissioning checklists and functional tests, tracked issues, provided final report and systems manual and performed warranty walk and closeout meeting with building operator.

**denotes experience prior to joining Burns & McDonnell*

**4.6.2 Email and Telephone Number**
sjhaynes@burnsmcd.com
385-270-2708

**4.6.6 Highest Academic Degree**
BS, Mechanical Engineering (2004)

**4.6.7 Registrations:**
Professional Engineer (2013)
MLE (2016)
Building Commissioning Professional (2019)
Certified Commissioning Professional (2023)

**4.6.5 Years of Relevant Experience with Present Firm and Other Firms:** 19

**9.4.6.1 Name:** Terry Harless
**Title:** Senior Physical Security Specialist
**9.4.6.3** Security Specialist
**9.4.6.4 Firm Name:** Burns & McDonnell

**9.4.6.8 Synopsis of Experience:** Terry is a physical security specialist with more than 25 years of experience working with various clients designing, commissioning and reviewing their security systems. **He has extensive experience in analyzing, recommending, and designing electronic security systems, which include video surveillance, access control, PLC and touchscreen controls, duress alarm and intrusion detection systems.** Throughout his career, Terry has worked for various clients across multiple industries in support of their mission of improving or reviewing their security systems. **Industries he has worked for include corrections, federal, higher education, local government and many others. Terry's work has made him extremely familiar with the geographic area, as demonstrated by the example project listed below.**

## SIMILAR TYPE OF WORK PERFORMED IN THE PAST

**Jefferson City Correctional Center | City and County of Jefferson City**
*Jefferson City, MO*
**Lead security designer** for the $130M, 2,000-bed, campus-style state prison. The maximum-security prison included an ad-seg unit, inmate labor facility, a medical facility, along with several general population buildings. The facility required multiple touchscreen stations in central control with hierarchical control. Hard graphic control panels were in other locations for local control. **Responsibilities included** attending design meetings with the design team, factory testing at the security contractor's facility and coordinating the touch screen station and graphic control panel layouts with the owner. Additional responsibilities included designing the Fiber Optic Redundant Control Network, PLC and Touch Screen Control System, Video Surveillance System, Intercom and Paging Systems, Perimeter Detection System and Lethal Fencing System.

**Johnson County Security Assessment | Johnson County, Kansas**
*Olathe, KS*
**Physical security design lead** for the Johnson County Security Assessment. **Responsibilities included** managing the overall project execution for the electronic security design team, including leading the security design meetings and commissioning the system once the construction was complete. The project included designing video surveillance, access control, and intrusion detection systems. The project also included developing an integrated approach for the security systems. The established objectives for this security project were to develop a security strategy to deter, detect, deny and delay utilizing electronic security systems as well as CPTED principles.

**Henry County Jail and Sheriff's Office | Henry County**
*Clinton, MO*
**Lead security designer** responsible for the design and construction administration of the electronic security system for the Henry County Jail and Sheriff's Office in Clinton, Missouri. Terry attended initial design meetings, and coordination meetings and assisted the owner with the touchscreen layout. The facility included video surveillance, access control, intercom, and paging systems integrated and controlled by a PLC and touchscreen control system. Terry conducted the site observation visits and coordinated the construction issues with the security and hardware contractor.

**Southeast Correctional Center | Missouri Department of Corrections**
*Charleston, MO*
**Lead security designer** responsible for the video surveillance improvements at the Southeast Correctional Center Prison. There was a need to add an additional 150 fixed and pan/tilt/zoom cameras along with a centralized video recording system to handle a total of 350 cameras. The owner also requested a remote viewing workstation for live and recorded video with a video wall viewing all 350 cameras simultaneously. **Responsibilities included** the design of the Video Camera Placement, Video Wall, Video Surveillance Recording System and Video Workstation Furniture.

**4.6.2 Email and Telephone umber**
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816-548-1266

**4.6.6 Highest Academic Degree**
Architectural Technology (1991)

**4.6.7 Registrations:**
N/A

**4.6.5 Years of Relevant xperience with Present Firm and ther Firms:** 25

**9.4.6.1 Name:** Jeff Dew, PE
**Title:** Department Manager Fire Protection
**9.4.6.3** Fire/Life Safety Specialist
**9.4.6.4 Firm Name:** Burns & McDonnell

**9.4.6.8 Synopsis of Experience:** Jeff is a fire protection engineer who is **proficient in the design of fire alarm and fire suppression systems for mission-critical, aviation, commercial, and educational, clients.** Further, he is experienced in the analysis and design of construction pertaining to life safety. Despite fire protection being code-driven, Jeff participates in value engineering studies to provide additional information. **He has a broad range of experience in the fire protection industry ranging from time as a firefighter, contractor, and engineer.** His specialties include computational fluid dynamic modeling including egress analysis, flame spread rates, fire suppression system activation characteristics, as well as potential loss due to fires. **His specialties include computational fluid dynamic modeling, including egress analysis, flame spread rates, fire suppression system activation characteristics, as well as potential loss due to fires. Jeff's work has made him extremely familiar with the geographic area, as demonstrated by the example project listed below.**

## SIMILAR TYPE OF WORK PERFORMED IN THE PAST

**Commissioning Services | University of Kansas Health System**
*Kansas City, KS*
**Fire protection engineer** for the commissioning of new construction and renovation during design, construction, and post-occupancy for DBB medical, acute inpatient, burn center, primary care, transplant center, imaging and radiation oncology facilities and a central energy plant, totaling 730,000 SF and $300M in construction on a medical campus. **Responsibilities included** the design of installation level fire alarm drawings in accordance with NFPA 72, NFPA 101, and NFPA 99, comprised of smoke detection, voice evacuation, fire alarm notification, smoke control system, firefighter phone network and design of the automatic fire sprinkler system and life safety review.

**Chesterfield Village Research Campus, CV Expansion Greenhouse/Headhouse and Garage | Confidential Company**
*Chesterfield, MO*
**Lead fire protection engineer** for the Chesterfield Valley Campus Expansion. The project encompasses $180M of new construction for 714,000 SF of mission-critical research, laboratory, administrative, maintenance and central utility facilities and a 1,780-space parking garage with 38 greenhouses. **Responsibilities included** the performance-based design of all fire protection systems in a 6-acre agricultural facility. The design included providing fire suppression by means of an overhead sprinkler system, the design of a fire pump system, with enclosure, to meet the required demand flows, and the design of a water source capable of providing the required water flow for the minimum required duration storing 100% of the required fire suppression water onsite. The design also detailed the development of alternative means and methods to provide adequate fire protection in areas where commonplace fire sprinkler systems could not be installed. Fire alarm systems included a full coverage occupant notification system.

**Pantex Flame Detection System Replacement and High-Pressure Fire Loop Lead in Replacement | Consolidated Nuclear Security (CNS), LLC**
*Amarillo, TX*
**Lead fire protection engineer** for development of concept design, followed by a full design package for the design of a new flame detection deluge releasing system to replace the existing UV flame and heat detection-based system in 21 production bays as well as the replacement of the existing high-pressure fire loop ductile iron lead-in and mainline piping. The new flame detection system utilizes infrared-based detection replacing existing ultraviolet detectors. The lead-in replacement piping will implement High-Density Polyethylene (HDPE) piping to replace the existing ductile iron pipe. **Responsibilities included** the detailed design of the removal of an existing flame and heat detection system and providing a new flame detection and releasing system. Further responsible for the detailed design to modify the existing fire suppression system risers. The design included the removal of existing components and replacing them with new ones.

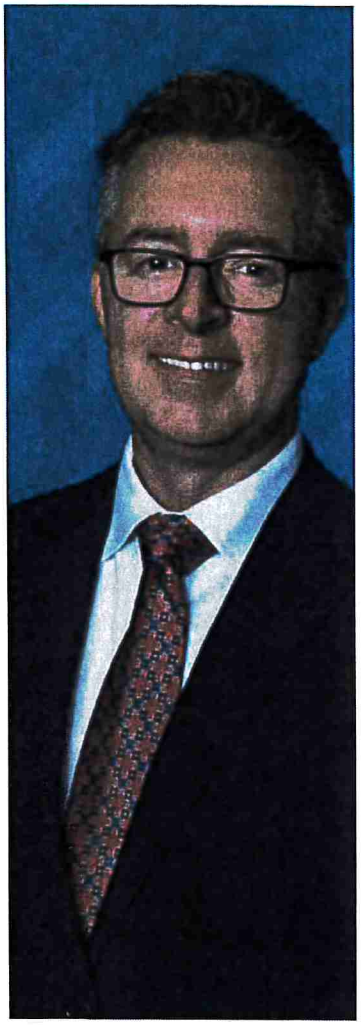
**Cooling and Heating Asset Management Program (CHAMP) | National Nuclear Security Administration**
*CA, NM, NV, SC, TN, and TX*
**Lead fire protection engineer** for integrated DB services for HVAC systems at eight national DOE laboratory sites, with a total program value of $75M. **Responsibilities included** quality control for renovating the existing fire alarm system for monitoring of air handling units and direct shutdown integration. The design included installation-level drawings indicating specific terminal points, circuiting, and device wiring.

**4.6.2 Email and Telephone umber**
jjdew@burnsmcd.com
952-377-8732

**4.6.6 Highest Academic Degree**
MS, Fire Protection Engineering (2014)

**4.6.7 Registrations:**
Professional Engineer (2017)
NICET – Fire Alarm Systems (2020)

**4.6.5 Years of Relevant xperience with Present Firm and ther Firms:** 16



**9.4.6.1 Name:** George Hawkinson
**Title:** Commissioning Manager
**9.4.6.3** Controls/Controls Integration Specialist
**9.4.6.4 Firm Name:** Burns & McDonnell

**9.4.6.8 Synopsis of Experience:** George brings 23 years of experience in the design, development, programming, testing, system integration, start-up/commissioning and deployment of building automation systems. George's experience also included industrial automation, energy management, and distributed big-data architectural solutions.

**4.6.2 Email and Telephone Number**
gthawkinson@burnsmcd.com
913-638-2775

**4.6.6 Highest Academic Degree**
BS, Accounting and Economics (1998)

**4.6.7 Registrations:**
Honeywell XL5000 Certified (1998)
Allen Bradly ControlLogix Certified (2002)
Tridium Niagara R2 Certified (2001)
TAC Vista Certified (2004)
Alerton Envision/Visual Logic Certified (2005)
Tridium Niagara AX Certified (2005)
Tridium Niagara N4 Certified (2016)

**4.6.5 Years of Relevant Experience with Present Firm and Other Firms:** 23

## SIMILAR TYPE OF WORK PERFORMED IN THE PAST

**Utah State Correctional Facility | State of Utah**
***Salt Lake City, UT***
**Controls specialist** for DBB $1B 31-building secure campus totaling 1.25M SF. This project included a 112,000 SF medical and mental health clinic, all site utilities, and support buildings that included a central utility plant, food service, administration, site and physical security systems, and emergency backup power.

**Campus Headquarters Renovation Commissioning | Ameren Missouri**
***St. Louis, MO***
**Controls specialist** for the evaluation of the construction quality for the renovation project with an emphasis on mechanical, electrical, plumbing, and controls systems. Renovation areas for the project included all three buildings as well as the connecting atrium. The Burns & McDonnell commissioning team was specifically requested by the owner to include Building Automation System (BAS) support for the owner to assist with the selection of contractors, development/revision of owner project standards, and provide relevant experience for the owner in determining the architecture and equipment specific details for the campus and subsequent remote facilities. **Responsibilities included** providing consultation services for Ameren's facility, digital, and cybersecurity divisions to successfully deploy the Tridium Niagara N4 supervisor environment. George also assisted with the onboarding requirements of the Tridium Niagara N4 platform provided by Siemens and the integration of the HVAC, lighting, and utility systems. In addition, George worked with Ameren's facility team to develop their Smart Campus Roadmap, which included developing the workflows necessary for onboarding the generated asset captured by the Niagara N4 environment and pushing this data into a facility energy and operational analytic environment, work-order management system, and geospatial environment.

**Mechanical Plant Renovation | Steris Corporation**
***Chattanooga, TN and Durham, NC sites***
**Project Manager and Control Specialist** for the delivery of a new Plant Control system. **Responsibilities included** engineering, procuring, and commissioning the new Plant control system to provide the client the visibility and command and control requiring integration of Modbus TCP, Modbus RTU, BACnet IP, BACnet RTU and OPC UA communicating equipment, and coordinating with the client's IT and cybersecurity teams to add the new Plant Control System onto their corporate network.

**ASM State Farm Stadium Controls Upgrade | ASM Global**
***Glendale, AZ***
**Technical lead** for the delivery of a high-performance stadium that supports ASM Global and the Arizona Cardinals' mission of providing a safe, healthy, sustainable, and memorable guest experience. **Responsibilities included** upgrading the stadium's HVAC and lighting systems, aggregating these systems under one, unified, open enterprise solution, and placing ASM Global in a proactive position to address energy conservation, mitigate equipment failures, enhance occupant comfort, and streamline operation and maintenance procedures, and coordinating with the client's, the NFL, and Homeland security IT and cybersecurity teams. The disparate control systems were integrated into Tridium's Niagara N4 platform via BACnet IP and MS/TP, Lonworks, and Modbus TCP

**Confidential Project | Confidential Client**
***Confidential location***
**Technical lead** for the development of an Energy Management Information System (EMIS) and Automated Fault Detection & Diagnostics (AFDD) proof-of-concept (POC) for a 1.5M SF DOE federal campus in the Midwest. A year's worth of Johnson Controls building automation and control system (Metasys) data was analyzed offsite using Burns & McDonnell's AFDD environment. In addition, as-built documentation, O&M manuals, shop drawings, and control sequences were verified during site visits and walkthroughs by Burns & McDonnell commissioning specialist. **Responsibilities included** managing a team of software developers and data scientists to develop KPIs and fault detection and diagnostic analytic rules utilizing SkyFoundry's SkySpark Platform to leverage the equipment energy and performance data to deliver valuable insights into resource utilization and identify operational issues, faults, and opportunities to improve energy efficiency and operational savings.

**9.4.6.1 Name:** Sarah Herzog BCxP, Associate AIA
**Title:** Staff Architect
**9.4.6.3** Envelope/Enclosure Commissioning Specialist
**9.4.6.4 Firm Name:** Burns & McDonnell

**9.4.6.8 Synopsis of Experience:** Sarah is an experienced building enclosure consulting and commissioning staff member who has **worked on more than 20 enclosure projects in the last two years.** Her degree in historic preservation helps her understand the complexity of air and water drive in existing building. **She has experience with commissioning, designing, assessing, and troubleshooting building enclosure systems as well as first-hand experience working with ASHRAE, NIBS, ASTM, and LEED guidelines for building enclosure commissioning.** Sarah has experience with enclosure diagnostic tools such as WUFI and THERM, and is familiar with ASTM 2813, ASHRAE standards 15, 55, 62 and 90.1. **Through Sarah's extensive experience, she has gained familiarity with geographic area, as demonstrated by the projects presented below.**

## SIMILAR TYPE OF WORK PERFORMED IN THE PAST

**West Campus | National Geospatial-Intelligence Agency**
***St. Louis, MO***
**Building enclosure specialist** for new $1.5B, DB, 1.9M SF, 98-acre mission-critical secure campus encompassing four separate buildings, CUP, parking structures, and emergency power. Burns & McDonnell was selected as the commissioning agent and provided commissioning services under an IDIQ contract. The contract covered all commissioning activities for the duration of the project, supporting programming, planning, design, construction and including transition phases of the Next N2W campus. **Responsibilities included** commissioning plan and specification development along with the review of the design-build (DB) request (RFP) for proposal documents, plans, specifications, and cost estimates. Specific tasks included building enclosure DB RFP design requirements and testing requirements.

**Children's Hospital and Birthing Center | University of Missouri**
***Columbia, MO***
**Building enclosure specialist** for new $232M, 323,400 SF inpatient, multi-specialty hospital addition on the University of Missouri's Columbia Campus. **Responsibilities included** performing a design review and a hygrothermal analysis of the building envelope.

**Barracks Renovation | USACE Kansas City District**
***Fort Leonard Wood, MO***
**Building enclosure specialist** for full design repair and modernization of four barracks (41,600 SF each), a 1,900 SF addition to each building, and construction phase services under a single task order. **Responsibilities included** reviewing the OPR and BOD as well as the project's design and specifications to provide recommendations and caution for discrepancies among the documents for the renovation and modernization of the barracks building.

**Loudoun County Courthouse Multi-Phase Expansion and Renovation | Loudoun County, Department of Transportation and Capital Infrastructure**
***Leesburg, VA***
**Building enclosure specialist** for the new Loudoun County Courthouse expansion. This expansion is focused on the addition of a new 92,000 SF courthouse. Other works include a tunnel connection between the new and existing buildings and a new parking lot. **Responsibilities included** participating in design reviews and review conferences to discuss potential issues with the design and specifications of enclosure components and assemblies. Sarah participated in design reviews and review conferences to discuss potential issues with the design and specifications of enclosure components and assemblies. In addition, Sarah provided submittal reviews and observations of construction progress and witnessed enclosure testing. She participated in design reviews and review conferences to discuss potential issues with the design and specifications of enclosure components and assemblies.

**Lawrence Livermore National Laboratory New Emergency Operation Center (EOC) | NNSA**
***Livermore, CA***
**Building enclosure specialist** for the new 20,500 SF secure EOC facility that consolidates critical emergency management operations and includes monitoring alarms, emergency response organization dispatching, program management and technical support. **Responsibilities included** participating in design reviews and review conferences during which potential issues with the design and specifications of enclosure components and assemblies were discussed.

**4.6.2 Email and Telephone umber**
sherzog@burnsmcd.com
571-842-1723

**4.6.6 Highest Academic Degree**
BS, History (2008)

**4.6.7 Registrations:**
Building Commissioning Professional (YYYY)
Certified Building Commissioning Professional (YYYY)

**4.6.5 Years of Relevant xperience with Present Firm and ther Firms:** 14

# 9.4.7 ILLUSTRATIVE WORK

# 9.4.7 ILLUSTRATIVE WORK

***The following projects demonstrate the Burns & McDonnell team's competence to perform work similar to what will likely be required on this project.***

| PROJECT NAME | Detention Center | Court Room | Medical Facility | Cells/Beds | Lobby/Visitation | Administration | High Performance/LEED | Secure Facility | Greenfield Site with Site Utilities | Whole Building Commissioning |
|---|---|---|---|---|---|---|---|---|---|---|
| Commissioning Services for Utah State Correctional Facility | ◆ | | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Westville Correctional Facility | ◆ | | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Loudoun County Courthouse | ◆ | ◆ | | ◆ | ◆ | ◆ | ◆ | ◆ | | ◆ |
| Loudoun County Sheriff's Station | ◆ | | | ◆ | ◆ | ◆ | ◆ | ◆ | | ◆ |
| National Geospatial-Intelligence Agency (NGA) Campus Commissioning | | | | | | ◆ | ◆ | ◆ | ◆ | ◆ |
| University of Kansas Commissioning Program | | | ◆ | | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |

***Figure 3:*** *The matrix above illustrates the relevance of each project as it relates to this project.*

9.4.7.1 NAME AND LOCATION OF THE PROJECT

## #1. COMMISSIONING SERVICES FOR UTAH STATE CORRECTIONAL FACILITY

*Salt Lake City, UT*

### PROJECT STATISTICS

**9.4.7.2 COMPLETION DATA**

- Project Completion: 2022

**9.4.7.3 NAME AND ADDRESS OF THE OWNER OF THAT PROJECT**

- Client Name: Utah Division of Facilities Construction and Management (DFCM)
- Client Address: 4315 South 2700 West, Floor 3, Taylorsville, UT 84129

**9.4.7.4 TOTAL CONSTRUCTION COST OF COMPLETED PROJECT**

- Total Construction Cost of Completed Project: $1B

**9.4.7.5 PERCENTAGE OF THE PROJECT BURNS & MCDONNELL WAS RESPONSIBLE**

- Percentage Responsible: Oversaw 100% of the commissioning scope

**9.4.7.6 NAME AND TELEPHONE NUMBER OF CLIENT CONTACT**

- Name of Client Contact: Mike Ambre, Assistant Director – Utah DFCM
- Client Contact Phone Number: 801-209-9104

**9.4.7.7 Narrative Description of the Example Project**

DBB $1B 31-building campus totaling 1.25M SF. This project five general population buildings, all site utilities, and support buildings that include a central utility plant, food service, administration, site and physical security systems, and emergency backup power.

### 9.4.7.8 Brief Description of Type and Extent of Services Provided for Project

As the prime firm, Burns & McDonnell acted as the State of Utah's commissioning agent on a $1B 1.25M SF campus program that included creating a new site infrastructure for 31 buildings. The Burns & McDonnell team managed the commissioning process throughout the life of the project. This included coordinating the activities for the building enclosure and security commissioning agents.

The new facility is a full-service correctional facility with all housing, medical, education, vocational, food and laundry services and utilities on-site. The facility is equipped with secure state-provided network services which enable remote hearing and consultation services, minimizing travel and transport costs.

Offenders are housed in various buildings, segregated by security level and gender. The campus includes:

- Two maximum security standalone facilities, one for men and the other for women.
- Five general population buildings, four for men and one for women.
- Three specialty holding facilities provide medical/mental health, receiving/ orientation and sex offender treatment services.
- Seven secure inmate service buildings that provide men and women dining and food service, laundry, and vocational and educational training.

Due to the complexity of this project and the highly demanding construction schedule, the State of Utah hired Burns & McDonnell to develop, implement, and lead the commissioning program that included four local commissioning firms and a contractor-provided dedicated commissioning coordinator contributing to the campus-wide commissioning effort. Our team was comprised of subject matter specialists covering every discipline and provided OPR guidance, design document and submittal reviews, commissioning specifications, and complete commissioning program development. This included a commissioning team guidance manual, all commissioning checklists and functional test documents and full MEP equipment database development. This also includes an on-site, full-time representative who manages all commissioning-related programming guidance, facilitates, and maintains cloud-based collaborative platforms and supports the local commissioning testing firms from the executive team level. Our efforts at the new corrections campus have provided a more thorough and consistent delivery of commissioning efforts campus-wide.

The Burns & McDonnell team also acted directly as the lead commissioning agent for campus-wide systems integration and emergency power functions, including the final, campus-wide loss-of-power and SCADA load shed testing and verification effort. With the advent of a modern CMMS the digital tracking of all equipment at the new prison site has become an urgent concern for the facilities staff who will be maintaining the site for years to come. Burns & McDonnell took a lead role in guiding the development and implementation of a consistent equipment tagging program that allowed for easy tracking of all MEP equipment and systems, greatly improving the maintainability of all systems. This tagging convention was developed in direct collaboration with the Utah Department of Corrections (UDC) and was highly informed from our efforts performing inventory assessments at a variety of other UDC facilities across the state. We coordinated with all involved MEP design firms to confirm the implementation of the convention throughout all design documents, commissioning documents, MEP equipment databases and equipment labeling. Our team compiled all of these coordination efforts into the owner-maintained CMMS system for equipment maintenance at the conclusion of the commissioning effort.

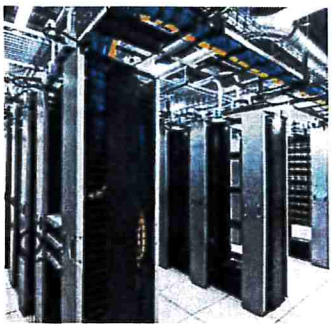
Our team provided a fault detection and diagnostics system across all campus buildings and multi-year monitoring of system performance and utility usage to help achieve state-mandated efficiency requirements as well as to support facility staff efforts to operate and maintain these MEP systems.

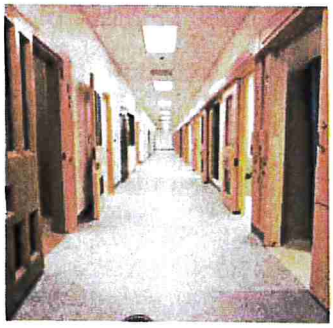
The Burns & McDonnell team provided full commissioning services for the following systems throughout the facility.

**Plumbing:** (Domestic water, Domestic Hot Water, General Service Air System, Medical Air Systems, Medical Vacuum Systems, Dental Air Systems, Dental Evacuation and Vacuum System)

**HVAC:** (Noise and Vibration Control, Direct Digital Control System, Condenser Water, Steam/ Heating Hot Water System, Air Handling System, Ventilation/ Exhaust, Energy Recovery, Terminal Units, Decentralized Unitary HVAC, Humidity Control, Hydronic Distribution, Facility Fuel Oil System, Facility Fuel Gas, Smoke Evacuation System)

**Electrical System:** (Medium-Voltage Electrical Distribution System, Grounding & Bonding System, Electrical Power Monitoring System, Electrical System Protective Device Study, Secondary Unit Substation, Low-Voltage Distribution System, Emergence Power Generation System, Lighting & Lighting Control System, Cathodic Protection System, Lighting Protection System)





9.4.7.1 NAME AND LOCATION OF THE PROJECT

## #2. WESTVILLE CORRECTIONAL FACILITY

*Westville, IN*

### PROJECT STATISTICS

**9.4.7.2 COMPLETION DATA**

- Project Completion: Est. 2026

**9.4.7.3 NAME AND ADDRESS OF THE OWNER OF THAT PROJECT**

- Client Name: Indiana Department of Administration's Public Works Division
- Client Address: 1707 East Highland, Phoenix, AZ 85016

**9.4.7.4 TOTAL CONSTRUCTION COST OF COMPLETED PROJECT**

- Total Construction Cost of Completed Project: Est. 1.2B

**9.4.7.5 PERCENTAGE OF THE PROJECT BURNS & MCDONNELL WAS RESPONSIBLE**

- Percentage Responsible: 100% of the Commissioning Scope

**9.4.7.6 NAME AND TELEPHONE NUMBER OF CLIENT CONTACT**

- Name of Client Contact: Andrew Znika
- Client Contact Phone Number: 602-212-3560

### 9.4.7.7 Narrative Description of the Example Project

New 1.4M SF, 4,200-bed prison for the State of Indiana Department of Corrections and The new prison is located on approximately 260 acres of property and is replacing the original prison built in 1945. The site will include a new CUP, a Power Plant, 12 general population two-tier housing units containing 236 beds each, an intake/addiction recovery services (ARS) outpatient/special needs acclimation program (SNAP) unit, two gymnasium/recreational buildings, a 58-bed protective custody and restrictive housing unit, approximately 208 mental health and addiction recovery beds, receiving/release, an administration complex, laundry, a full-service cook/serve kitchen, two Industry buildings (one new and one renovated), one vocational training building (existing), and the offender services building (OSB). Outside the fence, there will be support buildings that include a 400-bed minimum security eorm with a cook/serve kitchen, a maintenance/motor pool building and a warehouse/business office. Three existing buildings outside the fence are being renovated. These three buildings are a mail room, a dorm gym/rec, and a staff training/fitness building.

### 9.4.7.8 Brief Description of Type and Extent of Services Provided for Project

Burns & McDonnell is providing design, construction, and warranty phase commissioning services for the new Westville Correctional Facility.

Burns & McDonnell is contracted for third-party building commissioning services through Kitchell CEM (the State of Indiana's Owners Representative) and is responsible for all aspects of the commissioning scope of work in the design, construction, and warranty phases. Below is a summary of the commissioning scope of work:

*Design Support Phase (Design Development and Construction Documentation)*

- Develop the draft commissioning plan and commissioning specifications
- Design reviews at the 50% design development and the 50% construction documentation stages.
- Attend review and page turn meetings with the project team
- Participate in value engineering workshops

*Construction Phase*

- Finalize the commissioning plan
- Fulltime site support to coordinate and execute commissioning activities
- Host weekly commissioning meetings and attend weekly OAC meetings and contractor coordination meetings
- Review major equipment submittals
- Perform regular site visits to review equipment installation
- Witness air and waterside pressure testing
- Develop and track construction checklists utilizing Facility Grid, our cloud-based commissioning software
- Develop functional tests for all commissioned systems. Schedule and execute functional testing
- Witness major equipment startup and field testing
- Assist the contractor in coordinating turnover activities: training, warranties, O&M manuals, and extra stock

*Warranty Phase*

- Develop a final commissioning report and systems manual.
- Perform seasonal testing

*Systems Commissioned*

- Building Envelope
- Mechanical/HVAC
- Electrical
- Plumbing
- Controls – DDC/SCADA
- Fire Alarm

9.4.7.1 NAME AND LOCATION OF THE PROJECT

## #3. LOUDOUN COUNTY COURTHOUSE

*Leesburg, VA*

### PROJECT STATISTICS

**9.4.7.2 COMPLETION DATA**

- Project Completion: 2019

**9.4.7.3 NAME AND ADDRESS OF THE OWNER OF THAT PROJECT**

- Client Name: Loudoun County, Department of Transportation and Capital Infrastructure
- Client Address: 211 Gibson Street, NW, Suite 123, MSC#64 Leesburg, VA 20176

**9.4.7.4 TOTAL CONSTRUCTION COST OF COMPLETED PROJECT**

- Total Construction Cost of Completed Project: $53M

**9.4.7.5 PERCENTAGE OF THE PROJECT BURNS & MCDONNELL WAS RESPONSIBLE**

- Percentage Responsible: 100% of the Commissioning Scope

**9.4.7.6 NAME AND TELEPHONE NUMBER OF CLIENT CONTACT**

- Name of Client Contact: John Campbell
- Client Contact Phone Number: 703-771-5783

**9.4.7.7 Narrative Description of the Example Project**

Burns & McDonnell provided whole-building commissioning services for the phased construction and renovation of the Loudoun County Courthouse complex. The Loudoun County Courthouse III expansion was a comprehensive masterplan for the court's campus in encompassing 92,000 SF of new construction with an additional 58,700 SF of renovation of existing space and parking garage.This project will acquired LEED v4 Silver Certification.

**9.4.7.8 Brief Description of Type and Extent of Services Provided for Project**

Burns & McDonnell was contracted, as part of an IDIQ agreement with five task orders, to provide LEED Enhanced Commissioning services for the multiphase renovation and addition to the historic 1894 Loudoun County Courthouse. This expansion was designed to complement the architectural vernacular of the historic district of Leesburg, Virginia, while providing a modern facility that can accommodate a large number of public visitors. The courtrooms are environmentally sensitive areas so that interior millwork can be kept at a consistent temperature and humidity level. Additionally, the existing courthouse renovation will occur while maintaining normal operations.

This project is the third of four potential phases for restoring and expanding a historic courthouse that serves Loudoun County. Phases one and two were initially conceived to include the interior renovation and reconfiguration of the 170,000 SF existing courthouse complex. Loudoun County's master plans included a phase three, which involves designing and constructing a new 92,000 SF courthouse expansion facility that features a separate parking garage and public works storage area. This $87M project represents a significant multi-year endeavor for Loudoun County and results from lengthy planning and forward-thinking vision.

This court house had 21 holding cells divided between the ground level and second level. Special separate elevators take people in the ground floor holding cells to the second floor holding cells adjacent to the second floor courtrooms.

Burns & McDonnell has partnered with Loudoun County from the concept period of this multi-phased project effort. Developing these project sites and their tie-ins to the existing courthouse campus presented challenges that our discipline-specific engineering teams have addressed with Loudoun County. Our commissioning team provided discipline-specific reviews for mechanical, electrical, controls, plumbing, fire protection, architecture, and enclosure-related concerns during the project's planning and design phase. To address programming and budgetary needs, Loudoun County amended the project's phasing so that the scope of services for phases one and two will be addressed following the completion of phase 3. Our commissioning providers have remained flexible to our client's changing needs during this process.

The construction of Loudoun County's phase three project began in 2017. The Burns & McDonnell team completed the new parking structure and public works storage area commissioning in 2019. The full completion of the courthouse expansion is scheduled to conclude in the first quarter of 2023. Burns & McDonnell is provided enhanced commissioning services that include building enclosure commissioning which satisfies LEED V4 requirements.

***Systems commissioned for all phases of this project are inclusive of the following:***

- Heating, ventilating, air conditioning and refrigeration (HVAC&R) systems and associated controls:
  - Air handling units
  - Chilled water system
  - Heating water system
  - Variable volume air systems
  - Exhaust systems
  - Unitary cooling and heating systems
  - DDC graphics and trending Plumbing
- Plumbing
  - Domestic hot water generation
  - Domestic hot water distribution
  - Sump pumps
  - Plumbing fixtures
- Electrical
  - Switchgear
  - Panelboards
  - Transformers
  - Lighting controls
  - Daylighting controls
  - Emergency power
  - Security systems

- Life Safety
  - Fire protection systems
- Enclosure
  - ASTM E1186 – Air leakage testing for envelopes
  - ASTM E783 – Air leakage testing for opaque walls and windows
  - ASTM C794 / C1193 – Joint sealant testing
  - ASTM E488 – Concrete anchor strength testing
  - ASTM E779 / E1827 – Whole building pressure testing
  - ASTM D4787 – Foundation wall waterproofing
  - ASTM C1153 – Infrared scanning
  - ASTM E1105 – Enclosure water penetration
  - AAMA 501.2 – Storefront glazing system water leakage
  - ASTM D4541 – Adhesive coating strength testing
  - ASTM C1060 – Infrared inspection of building envelope cavities
  - Roof electric field vector mapping

9.4.7.1 NAME AND LOCATION OF THE PROJECT

## #4. LOUDOUN COUNTY SHERIFF'S STATION

*Leesburg, VA*

### PROJECT STATISTICS

**9.4.7.2 COMPLETION DATA**

- Project Completion: 2018

**9.4.7.3 NAME AND ADDRESS OF THE OWNER OF THAT PROJECT**

- Client Name: Loudoun County, Virginia Department of Transportation and Capital Infrastructure
- Client Address: 211 Gibson Street, NW, Suite 123, MSC #64, Leesburg, VA 20176

**9.4.7.4 TOTAL CONSTRUCTION COST OF COMPLETED PROJECT**

- Total Construction Cost of Completed Project: : $7.9M

**9.4.7.5 PERCENTAGE OF THE PROJECT BURNS & MCDONNELL WAS RESPONSIBLE**

- Percentage Responsible: 100% of the Commissioning Scope

**9.4.7.6 NAME AND TELEPHONE NUMBER OF CLIENT CONTACT**

- Name of Client Contact: John Campbell
- Client Contact Phone Number: 703-771-5783

**9.4.7.7 Narrative Description of the Example Project**

Burns & McDonnell provided whole building commissioning services for the 20,000 SF prestigious One Loudoun development, a crowning achievement for Loudoun County and its law enforcement agencies. The Ashburn Station will include detention cells, multiple sheriff's offices, detention cells and serves the second largest population of all the station areas in the County. Anticipating LEED Silver Certification, the Ashburn Sheriff Station utilizes water sourced heat pumps in conjunction with a geothermal well field, an energy recovery wheel to precondition outdoor air, and tankless water heaters.

**9.4.7.8 Brief Description of Type and Extent of Services Provided for Project**

During the design development phase, Burns & McDonnell developed and distributed the design phase commissioning plan after soliciting input from all the County stakeholders. Our team was responsible for reviewing the OPR against the basis of design and provide a review of the design at the 35% and 95% design phases. We also developed a commissioning milestone schedule for the contractor to use to incorporate our commissioning activities into the construction schedule. We participated in design review meetings that were conducted in an in-person, page turn format with the design team and the Owner.

In the construction phase Burns & McDonnell reviewed the construction submittals and shop drawings for each system commissioned. All submittals and comments were tracked in a document management system to closure. From the approved construction submittals, we developed construction checklists and functional tests. Our team witnessed startup of the first piece of each type of equipment to verify that the contractor's startup procedures were being followed. During startup, it was discovered that the contractor had not completed the system installation or flushed the hydronic system correctly. Our recommendation to the owner was for the contractor to correct these issues before continuing with the startup process. The issues were corrected and startup continued. We are currently waiting for testing, adjusting and balancing (TAB) to be complete before moving to our TAB backcheck and functional testing. Once functional testing occurs, we will witness the training sessions to verify that the owner's O&M staff have been trained properly, and attend a 10-month warranty review meeting.

The sheriff's station has two holding rooms. One key takeaway is to verify that the holding rooms have a remote cable-operated volume damper to balance the space with no access doors in the ceiling.

**Systems commissioned included the following.**

- Mechanical Systems:
  - HVAC systems
    - Rooftop Air Handling Units
    - Energy Recovery Unit
    - Sally Port and Service Exhaust Fans
    - Sally Port and Service Bay Infrared Heater
    - Geothermal Water Pumps
    - Heat Pump Units
    - Hydronic Unit Heaters
    - Hydronic Cabinet Heaters
  - Plumbing systems
    - Domestic hot water generators
    - Domestic Hot Water Recirculation Pumps
    - Thermostatic Mixing Valves (main).
- Electrical Systems:
  - Lighting systems
    - Emergency Lighting and Lighting Control System.
  - Integrated Controls
    - Building Automation System (BAS), Sub-metering System, and Power Monitoring System.
- Building Envelope / Other:
  - HVAC Testing & Balancing review and sampling
  - Building Enclosure

9.4.7.1 NAME AND LOCATION OF THE PROJECT

## #5. NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY (NGA) CAMPUS COMMISSIONING

*St. Louis, MO*

### PROJECT STATISTICS

**9.4.7.2 COMPLETION DATA**

- Project Completion: 2023

**9.4.7.3 NAME AND ADDRESS OF THE OWNER OF THAT PROJECT**

- Client Name: US Army Corps of Engineers - Kansas City District
- Client Address: 601 E 12th St, Kansas City, MO 64106

**9.4.7.4 TOTAL CONSTRUCTION COST OF COMPLETED PROJECT**

- Total Construction Cost of Completed Project: $1.5B

**9.4.7.5 PERCENTAGE OF THE PROJECT BURNS & MCDONNELL WAS RESPONSIBLE**

- Percentage Responsible: 100% of the Commissioning Scope

**9.4.7.6 NAME AND TELEPHONE NUMBER OF CLIENT CONTACT**

- Name of Client Contact: Kris Huber, Contracting Officer
- Client Contact Phone Number: 816-389-3766

**9.4.7.7 Narrative Description of the Example Project**

USACE Kansas City is the Contracting Agency for the approximately 99-acre campus housing 712,000 SF of facilities for the NGA. The campus includes office space, a CUP, parking garages, a visitor's center, an inspection facility and control access points. Burns & McDonnell used ASTM E 2813-12 standard, the NIBS Guideline 3-2012 and ASHRAE Guideline 0-2013, along with documents such as the enclosure design guide for federal office buildings, thermal integrity and airtightness to help develop the building commissioning program and scope of this projects.

**9.4.7.8 Brief Description of Type and Extent of Services Provided for Project**

Burns & McDonnell was selected as the government's commissioning agent and provided services under an IDIQ contract for commissioning services. The contract covers all commissioning activities for the duration of the project, supporting programming, planning, design, construction and including transition phases of the Next NGA West (N2W) campus.

We have been an integral part of the project team since the beginning of the project, participating in design discussions, identifying applicable codes, developing the OPR and determining system requirements and testing protocols. Our commissioning services focus on setting the project up for success from the start to successfully achieve code compliance, operational goals, and LEED goals.

To date Burns & McDonnell has been awarded seven task orders since project inception. Completion of these task orders have been completed using a diverse, multi-faceted team. Acting as the commissioning agent for the design and later as the commissioning agent for the government we have worked with our small business and minority partners to deliver top-notch commissioning services to our client on a secure installation. Many of the elements inside the NGA's secure installation campus are mirrored inside a correctional facility, including remote inspection facilities, canine services, physical security, active vehicle barriers, a mail processing facility, and a CUP.

***Systems commissioned for all phases of this project are inclusive of the following:***

- Building Exterior Closure Foundations
- Exterior enclosure, Roofing
- Fire Suppression Fire Sprinkler Systems)
- Plumbing, Domestic Hot Water
- HVAC Direct Digital Control System
- Chilled Water System
- Ventilation/Exhaust
- Humidity Control
- Hydronic Distribution
- Facility Fuel Oil System
- Smoke Evacuation System,
- Chillers, Cooling Towers, Heat Exchanger
- Electrical System
- Medium-Voltage Electrical Distribution System
- Grounding & Bonding System
- Electrical Power Monitoring System
- Electrical System Protective Device Study
- Secondary Unit Substation
- Low-Voltage Distribution System
- Emergency Power Generation System
- Lighting and Lighting Control Systems
- Lightening Protection System
- Integrated System Tests
- Loss of Power Response
- Fire Alarm Response

9.4.7.1 NAME AND LOCATION OF THE PROJECT

## #6. UNIVERSITY OF KANSAS HEALTH SYSTEM COMMISSIONING PROGRAM

*Kansas City, KS*

### PROJECT STATISTICS

**9.4.7.2 COMPLETION DATA**
- Project Completion: 2019

**9.4.7.3 NAME AND ADDRESS OF THE OWNER OF THAT PROJECT**
- Client Name: University of Kansas Health System
- Client Address: 3901 Rainbow Boulevard, Kansas City, KS 66160

**9.4.7.4 TOTAL CONSTRUCTION COST OF COMPLETED PROJECT**
- Total Construction Cost of Completed Project: $300M

**9.4.7.5 PERCENTAGE OF THE PROJECT BURNS & MCDONNELL WAS RESPONSIBLE**
- Percentage Responsible: 100% of the Commissioning Scope

**9.4.7.6 NAME AND TELEPHONE NUMBER OF CLIENT CONTACT**
- Name of Client Contact: William Bailey
- Client Contact Phone Number: 913-208-3558

**9.4.7.7 Narrative Description of the Example Project**

Burns & McDonnell provided commissioning services through multiple contracts with the University of Kansas Health System for the new construction and renovation of 25 projects comprising 730,000 SF. The University of Kansas medical campus accommodates a large number of daily visitors with an average of 400,000 estimated annual visitors. These projects were completed in a phased manner while maintaining medical operations during the renovations. Environmentally sensitive spaces commissioned include surgery centers, a new transplant center, imaging and radiation oncology facilities, laboratory renovations, and a CUP.

**9.4.7.8 Brief Description of Type and Extent of Services Provided for Project**

Burns & McDonnell has served as commissioning agent for site-specific new construction and renovation throughout design, construction, and post-occupancy for site-specific design-bid-build projects at the Heart Hospital, the Medical Office Building, and the original Bell Hospital facility on the University of Kansas Hospital health campus.

As the prime commissioning agent, Burns & McDonnell has provided commissioning services for the past eight years through an on-call contract to provide commissioning services for The University of Kansas Health campus.

*Examples of our completed projects over that span of time include the following:*

***Medical Campus:*** Burns & McDonnell completed commissioning projects on this campus in 2019. Because of our extensive knowledge of the campus systems, we are frequently called to resolve issues related to commissioning. For example, when there were problems with the domestic hot water at the newly opened 39 Rainbow facility, Burns & McDonnell went to the site and discovered the hot water mixing valve had been mis-adjusted by a maintenance worker. After returning the valve to its original position and testing the system, domestic hot water service was restored.

***Inpatient Bed Tower:*** The first project we commissioned for the hospital in 2012 was the three story inpatient bed tower vertical expansion in the existing Heart Hospital, on floors seven through nine.

***Central Energy Plant:*** The first of two energy plant upgrades occurred in conjunction with the Heart Hospital vertical expansion. A 2,000-ton chiller and cooling tower, chilled and condenser water pumps, and a 2mW emergency generator were included in the first plant expansion.

***Associated Utilities and Site Work:*** The steam and chilled water service provided by the central energy plant appears adequate for any future growth of the Bell/Heart/Medical Office Building (MOB) complex. Vertical expansion of the MOB is a possibility for the future. Additional site utility work around the hospital is rare.

***Phased Commissioning for Multiple Facility Construction and Occupancy:*** Nearly every renovation project for the hospital has involved multiple phases which required phased commissioning to allow for phased occupancy. Phased commissioning is accomplished by dividing unit renovations into two phases so that the temporary loss of beds is minimized.

*Systems commissioned included the following:*
- Medical equipment
- Fire Suppression systems
- Plumbing systems
- HVAC systems
- Electrical systems
- Integrated system tests

THE UNIVERSITY OF KANSAS HEALTH SYSTEM

# 9.4.8 PROJECT APPROACH AND UNDERSTANDING

# 9.4.8 PROJECT APPROACH AND UNDERSTANDING

Jackson County will achieve high performing functional systems on schedule by using our integrated project approach to whole building commissioning. This project is critical to our community. Due to it's critical function, the facility needs to function as intended from the start. The future JCDC is a large facility comprised of smaller mission-focused facilities that support the overall mission of the detention center.

We understand that your facility will have specialized spaces and functions that serve specific tasks, and we propose to tailor our commissioning plan around testing those systems and equipment thoroughly by replicating real-world conditions, failure modes, and failure conditions. We take this approach so that once the JCDC is occupied, all the known issues have been quantified, resolved, or identified.

Our proven approach to commissioning secure facilities is a hands-on, integrated approach. It unites all stakeholders into the commissioning process, from the design/project management team all the way to the people that are going to staff, operate, and maintain the facility. We have commissioning agents around the country that have commissioned secure facilities, just like this. We are going to use the knowledge Burns & McDonnell has garnered from those projects, while utilizing our local commissioning and engineering team to be sensitive to cost, melding the Burns and McDonnell experience with the local team.

At its core, we execute commissioning as a mix of proactive tasks (identifying potential problems in the field before they become actual problems) and verification that the facility operates as designed (the equipment and systems work together in unity and the owner got what they paid for). We do this by walking the job site and reviewing installations early and often, coupled with testing equipment starting at the component level, and building to sub-systems, integrated systems, and ultimately as a facility.

## OVERVIEW OF OUR APPROACH

### Program Inception

The first step is to meet with all the stakeholders to understand their requirements for the project to lay the groundwork for the OPR and BOD (Basis of Design) effort. We will meet with the project management and design build teams to understand how we best integrate our roles with theirs.

Because we know the challenges of clearly defining the demarcation of the data/IT/Building Automation System(s) we start the conversation with the County early, as it pertains to management of its IT infrastructure. We have seen projects wait until equipment has been installed to start these conversations, and the projects get delayed, or cobbled together until a permanent, well-planned solution can be implemented. Since this project is a detention facility, the integration of control systems is crucial, but so are the fire alarm, smoke evacuation, security, water management, and power management systems. These will all need to be connected to provide a safe and secure environment for the inmates and the correctional staff. It is important to clearly identify in the design.

### Design Phase

During this phase, we will focus on Division 1 General Requirements that will be included in the DB package, for commissioning and such performance details as deliverables such as submittals and schedules by the DB team. We advocate for the inclusion of a Contractor's Commissioning Manager (CCxM) in the Division 1 Commissioning requirements to manage the commissioning process for the DB team.

The Division 1 review also includes streamlining and standardizing contents of various documents within the standard specifications with those required, such as systems manuals, O&M's, training materials, commissioning report and current facility requirements so they are consistent within the various specification sections. The details that are finalized here provide the basis for the commissioning plan as customized for the project.

1. Using knowledge gained from our detention, healthcare and courthouse projects, we will utilize our experienced staff from around the county to review construction documents, submit comments, and backcheck comments. The review of the commissioned systems and assemblies in the design documents to evaluate compliance with the owner's project requirements. Suggestions made by our commissioning group are intended to assist the team and Owner. Any suggestions which result in design changes, if implemented, should only be implemented by the design engineer of record (EOR). Before incorporating a suggestion, the project design EOR should verify that the proposed change does not adversely affect other areas of the design.
2. Review and comment on the basis of design (BoD) against the OPR. The review shall evaluate the following:
   - Design and design assumptions in agreement with the OPR
   - Requirements for updating of the BoD
   - Requirements for sustainable design goals and certification when required
   - Consideration of design alternatives at each phase
   - Requirements that systems, assemblies, and equipment be located and installed to be commissionable and maintainable
   - Opportunities for improved performance

The Burns & McDonnell team will develop a commissioning plan. This plan will outline the actives needed to meet the commissioning requirements, a task responsibility matrix, a meeting and communication plan, and actives/ tasks in the schedule that we will want to monitor or be apart of.

Over the last several years, we have developed methods to bring the standard commissioning requirements in line with the DB methodology on large projects with the alignment of responsibilities, tasks, and documentation. This includes a systems integration approach to the following:

- **Security systems:** Electronic integrated security systems technology such as CCTV and card readers.
- **Information technology (IT):** Networked systems infrastructure associated with data collection, storage and distribution for such applications as building automation, power monitoring and paging systems.
- **Fire/life safety:** In addition to detectors, pull stations and notification equipment, we focus on system overlays with sprinkler and evacuation zones with associated egress doors and smoke management/control equipment and control responses.
- **Emergency power:** This includes generators and associated paralleling switchgear control and fuel systems as well as UPS ride-through equipment.
- **Vertical conveyance:** Elevator/escalator control and monitoring including telecom interfaces.

We have refined tools and techniques to achieve the specific commissioning objectives for the project to fulfill commissioning requirements and verify and document that the following occurs:

- Equipment is installed and started per manufacturer's recommendations and to industry accepted minimum standards.
- Equipment and systems receive complete operational checkout by the installing contractors.
- Equipment and systems perform in compliance with the OPRs.
- Operations and maintenance materials are complete.
- Facility operations personnel are adequately trained on the operation and maintenance of building equipment.

Our familiarity and dexterity with Facility Grid, our enterprise-wide commissioning management tool, provides an accessible, centralized platform for all commissioning related documentation. This includes a straightforward management process for notification tracking by responsible parties to confirm readiness of checklists and functional tests for all commissioned assets to be completed prior to witnessing by the commissioning agent and address items carried in the application's Issue Log module.

We also can effectively price, manage and modify our approach in real time by assigning Subject Matter Personnel (SMP) based on system type, as detailed in our organizational chart. These system-specific representatives include our diverse business partners and thus facilitates the ability to track and document that diverse business enterprise contracting goals are clearly defined and delivered.

The systems-based approach also allows us to tailor the commissioning of each system type, depending on team composition, staff augmentation needs, and requirements imposed by various agencies and associated authorities having jurisdiction (AHJ).

## CONSTRUCTION PHASE APPROACH

Our first task during the construction phase is to conduct a project commissioning kickoff meeting with the contractors and Owner to introduce the commissioning process and coordinate our services with the construction effort. This meeting is essential to initiate a productive relationship among the commissioning team while discussing roles, responsibilities, and the overall hands-on approach to commissioning.

During this meeting we will work to establish pathways for facilitating submittal reviews to meet the enhanced commissioning credit requirements, typically through a routing workflow in the document management system. If a submittal log is not available that describes all those to be reviewed by the commissioning agent, a typical approach is to provide the contractor with a list of specification sections to be reviewed by the commissioning agent SMPs. We then appoint a single point of contact on our commissioning agent team who routes the various submittals to the correct parties and follows up on timely delivery of the reviews.

Once equipment and delegated design submittals are reviewed and complete, we develop pre-functional checklists to document that asset installation and start-up activities are complete. The commissioning documentation formally begins, and pre-functional checklists are administered through Facility Grid. We will use our commissioning program to monitor all pre functional checklists.

We will also attend the factory witness testing of the boilers, generators, chillers, and security electronics. Before we go to the site for the testing, we will review and comment on the factory testing plans.

Functional test procedures are written once all equipment that involves a sequence of operations has been identified and control submittals are finalized. Draft test procedures are reviewed by all interested parties in a series of page-turn workshops where agreement is reached on any accommodations needed to the formal design documents or submittals and confirming RFIs are sometimes issued to document such changes. Our cloud-based commissioning software, Facility Grid, provides a pre-verification test (PVT) version of the functional tests that the trade partners execute prior to notification for witnessing of the test by the commissioning agent. This allows them to document deviations or issues that need resolution. Once in full alignment, completion of PVTs, along with review of final testing, adjusting, and balancing reports, is used as the milestone to schedule witnessing of the functional tests.

Meetings of the commissioning team are held for site coordination, reporting on construction and commissioning progress and resolution of any identified issues or deficiencies. The venue for addressing these items can be flexible over the course of construction to avoid adding meetings and getting the commissioning agent team better integrated with the trade delivery. We often begin by participating in Owner, contractor and subcontractor coordination meetings and transitioning to commissioning-specific meetings as installation gets further along. We coordinate and participate with the mechanical and electrical design engineers' punch list activities to encourage dialogue and resolution of issues in the field. We also meet regularly with the Owners representatives responsible for managing and administering our commissioning contract to be sure we are meeting expectations and being proactive with addressing any items of concern.

Construction and commissioning schedule reviews by the commissioning agent occur throughout the construction phase to provide feedback on the level of granularity being provided and to best integrate the commissioning process in a complementary fashion. It is important that look ahead schedules provided by project superintendents in OAC meetings include commissioning milestones, dates and durations. We often advocate for the bottom-up information from the installation staff on a system basis to be proofed and reconciled with the top-down dates and durations that come from upper management team members responsible for contractual milestones such as substantial completion, area turnovers and initiation of warranties. We are experienced in participating in pull planning exercises that work backward from area turnover dates to identify and manage system-based activities that need to be accomplished to get the areas ready for occupancy.

### ACCEPTANCE PHASE

The Burns & McDonnell commissioning team will perform a detailed analysis of each system to identify all possible operating, maintenance and failure scenarios, system interdependencies and any single point of failure. This analysis is used to develop the overall testing and verification strategy and to prioritize the critical issues for all systems.

Burns & McDonnell includes multiple levels of on-site testing with our local team to verify the systems are properly challenged, risk of downtime is minimized, capacity is achieved, and energy performance is optimized. Functional Performance Testing (FPT) is conducted to validate that each individual system is operating properly. Integrated systems testing (IST) is then conducted to validate the interdependency of each system (HVAC controls, emergency power, UPS, life safety, security) during various events designed to simulated unplanned events as well as maintenance and power scenarios and redundancy configurations.

The commissioning agent will engage early with the TAB contractor to develop a strong team relationship. Our team will review TAB submittals and witness verification of a minimum of 10% of air and hydronic balancing readings.

The goal of commissioning is to make sure the building systems function properly for years to come once completed. The way to make this happen is to adequately train and prepare the O&M staff to take over the building. Our commissioning team begins to engage the O&M staff at the beginning of design and continues through the warranty phase. Engaging the staff early in the project allows training to be accrued over a longer period rather than a two-hour class. Also, it allows our team to comment on the training specification to make sure the O&M staff trains with the right equipment vendor and meets the needs of Jackson County.

Burns & McDonnell utilizes a proven method of training for the O&M staff. This approach to training integrates all aspects of the facility's commissioned systems, and provides classroom and field experience for a robust, well rounded training product deliverable including:

- Inviting Owner's staff to participate and/or witness Commissioning activities including Functional Testing
- Directing and reviewing training syllabus developed by vendor.
- Walking facility systems with Owner's O&M staff
- Maintaining the training documents in a central location during the training and turnover period

### POST OCCUPANCY PHASE

This phase includes completing deferred and seasonal testing that may be required to verify performance of the HVAC system and controls and other building systems with seasonal operating characteristics, and other building systems with a seasonal operating schedule, such as irrigation, automated natural ventilation, etc. For the enhanced commissioning scope of work, we also update the systems manual, current facility requirements and on-going commissioning plan as part of the pre-warranty expiration period after occupancy.

The final commissioning report documenting the commissioning effort and a systems manual intended to serve as a consolidated resource for the operations staff to optimally run the building. The systems manual is also intended to document baseline operating conditions and includes all information required for successful recommissioning of the systems.

### DEFERRED TESTING AND WARRANTY REVIEW

During the occupancy and operations phase and at 10 months into the warranty period, the team will coordinate resolution of any outstanding issues, conduct seasonal or deferred testing that could not be performed during initial commissioning, work with O&M staff to resolve any final issues and provide an addendum to the final commissioning record.

### PROJECT CLOSEOUT PLAN

The goal of our construction effort is delivery of problem-free buildings. We will deliver a complete and fully operational project, the knowledge to use and maintain it, and the confidence that we are available to help resolve issues should they occur. Closeout services will include:

- **Commissioning:** Build, install and activate building systems according to design requirements and owner's operational needs.
- **As-built documents and operations-and-maintenance manuals:** Assemble operation and maintenance instructions for facilities staff and provide as-built information documenting actual installed conditions
- **Owner/End User training**: Provide on-site training for staff and management related to building operation.
- **Final Closeout:** Address punch-list items and satisfy contractual ties (lien releases, pay apps, etc.) to vendors and sub-contractors.
- **Completion Management**: Provide call-back service to help resolve issues.
- **Final verification of Operational Status:** We typically have a 12-month warranty period after completion of our projects and provide at minimum, an 11-month walk-through to address any issues prior to the end of the warranty period.

# 9.4.9 ADDITIONAL INFORMATION AND RESOURCES

# 9.4.9 ADDITIONAL INFORMATION AND RESOURCES

## BURNS & MCDONNELL UNDERSTANDS COMMISSIONING SECURE FACILITIES

Burns & McDonnell has commissioned new construction projects with similar complexity to the JCDC. We have commissioned correctional facilities, sheriff stations, courthouses, higher education campuses, classified command and control centers, and secure government facilities — for over 50 years. This experience, combined with our team's ability to work collaboratively with Jackson County and JE Dunn provides confidence that all systems in the JCDC will function properly and can be easily maintained. Our local team has a proven track record providing solutions that will help solve almost any issue that arises during the design and construction of this project.

Burns & McDonnell is a Certified Commissioning Firm (CCF) by the Building Commissioning Association (BCA). Individually our firm holds every relevant commissioning certification in the industry. Our team holds individual commissioning certifications from various organizations, as well as licensed engineers and architects as part of the group.

Burns & McDonnell is among the most robust commissioning practices in the nation with 150 commissioning agents that specialize in controls, mechanical, electrical, plumbing, fire protection, physical security, force protection, site utilities and envelope commissioning.

Burns & McDonnell's National Commissioning Practice applies numerous commissioning guidelines (e.g., ASHRAE, LEED, BCA, etc.) coupled with real world best practices, learned from commissioning secure facilities all around the world. We understand that one size/type does not fit all and will verify that our technical approach for your project matches the needs, technology, complexity, and budget for Jackson County while providing world class service right in the Jackson County's backyard.

| | |
|---|---|
| ✔ | Professional Engineer (PE) or Registered Architect (RA) |
| ✔ | ACG Certified Commissioning Authority (CxA) |
| ✔ | AEE Certified Building Commissioning Professional (CBCP) |
| ✔ | Building Commissioning Professional (BCA) /Certified Commissioning Professional (CCP) |
| ✔ | NEBB Building Systems Commissioning Certified Professional (BSC CP) |
| ✔ | ASHREAE Building Commissioning Professional (BCxP) |
| ✔ | UW Madison Qualified Commissioning Process Provider (QCxP) |
| ✔ | UW Madison Building Commissioning Process Provider (BECxP) |
| ✔ | AEE Certified Energy Manager (CEM) |
| ✔ | ASHRAE Building Energy Assessment Professional (BEAP) |
| ✔ | LEED Accredited Professional (LEED AP) |

***Figure 4:** Professional license/certifications*

Our principal-in-charge, David Meyers, serves as the American Institute of Architects representative for the area of commissioning. He represents the AIA on a national level with the National Institute Building Sciences (NIBS) Total Building Commissioning Program and ASHRAE's Committee for Standard 202: Commissioning Process for Buildings and Systems. He will bring firsthand knowledge of the different commissioning standards to this contract. By using the most applicable standards and best practices gained from working in correctional facilities/jails around the county, we can accommodate all of Jackson County's commissioning needs.

## UNDERSTANDING WHOLE BUILDING COMMISSIONING

As a certified commissioning firm Burns & McDonnell is a full-service commissioning firm with engineers and specialists that can commission all systems in a building. Jackson County will have access to all the resources needed to fill any gap that may arise during the design and construction of the new Detention Facility. Our Kansas City office has in-house mechanical, electrical, building envelope, fire protection and life safety and controls commissioning engineers and specialists to support your project. Our professionals have experience in functional testing and troubleshooting, operation and maintenance procedures, and building design and construction. No matter what the need for this building program, the Burns & McDonnell team has industry leaders to handle it.

All projects featured in section 9.4.7 Illustrative Work included whole building commissioning. For example, Burns & McDonnell provided whole building commissioning services for Loudoun County and its law enforcement agencies. The 20,000 SF Sheriff Station Ashburn Station includes detention cells, multiple sheriff's offices, and serves the second largest population of all the station areas in the County. The Ashburn Sheriff Station was also a leader in the field when it came to energy efficiency as it the project utilizes water-sourced heat pumps in conjunction with a geothermal well field, an energy recovery wheel to precondition outdoor air, and tankless water heaters.

### Demonstrated Correctional Facility and Secure Space Experience

Jackson County will benefit from our team's understanding of the diverse jail/correctional facility systems from our work on detention center facilities across the U.S. at every level of government: County, State, and Federal. This experience includes the Utah State Correctional Facility, Westville Correctional Facility, Guantanamo Bay, and The United States Penitentiary. Burns & McDonnell's work has supported those who keep the facilities secure. Our firm has supported this effort as architects, engineers, construction managers, owner's advocates, and commissioning agents. The members of our team understand the importance of verifying that each system operates correctly for facilities like the JCDC and will bring that experience and lessons learned from previous projects to this one.

The personnel proposed to work on this project have technical experience on similar projects. For easy reference, the following is a list of projects this commissioning team has participated in that are judicial, juvenile, or criminal justice-centered projects.

- New campus and facilities for Utah State Correctional Facility Commissioning - Utah Division of Facility Construction and Management

- Customized Asset Management for Correctional facilities - Utah Division of Facility Construction and Management
- Maple Street Correctional Center Commissioning – San Mateo County Sheriff's office
- Loudoun County Courthouse Commissioning – Loudoun County, VA
- Leesburg Sheriff's Station Commissioning – Loudoun County, VA
- Ashburn Sheriff's Station Commissioning – Loudoun County, VA
- Bourbon County Law Enforcement Center – Bourbon County, KS
- Western Illinois Correctional Center – IL Dept. of Corrections
- Menard Correctional Facility - IL Dept. of Corrections
- Illinois Youth Center – City of Harrisburg, IL
- United States Federal Courthouse Hammond IN - GSA

**VESTED INTEREST IN PROJECT SUCCESS - WE LIVE HERE**

Jackson County will benefit from the long history and proven track record we have had working for clients throughout the county. We have had active contracts within Jackson County for more than 125 years. It is important to not just our team but to our employee-owners that Jackson County receives top service and quality on this project. Nearly half of the employees in our Kansas City World Headquarters reside in Jackson County.

**9.4.9.1 Specialized Equipment Available for this Work**

**WEB-BASED COMMISSIONING SOFTWARE**

Burns & McDonnell uses custom, secure, enterprise workflow technology with mobile applications to bring greater value to our clients and keep the projects on schedule. This software is key when allowing all stakeholders to keep to a tight schedule.

**Facility Grid Commissioning Software:** Burns & McDonnell is highly-proficient with this industry-standard tool to compile commissioning documents and maintain the issues log, meeting minutes and commissioning reports. This tool supports our goal to be 100% paper free.

**VALUE-ADDED SERVICES**

Every facility is unique and requires customized attention to meet its specific needs. Through our extensive commissioning experience, we have developed a proven process for efficient execution using creative tools and approaches. This process allows us to efficiently define and prioritize work on multiple improvement projects simultaneously. Developing the background information necessary to select the optimal strategy results in a phasing and funding road map to guide the execution.

**Ongoing Monitoring and System Optimization:** To give the operations and maintenance staff a longer runway when taking over a new facility, we have a cloud-based building system fault detection software. This helps staff get acclimated with a new building and the analytic platform helps to optimize and prioritize maintenance events in a new facility. As part of our base scope of services and training, we work with facility staff and help them learn to optimize building energy use, schedule preventive maintenance, improve the comfort of occupants, and recognize potential problems before they interrupt inmate and staff needs, but we have found that the ongoing monitoring and system optimization is a force multiplier for new or understaffed operations and maintenance teams.

***9.4.9.2 Any awards or recognition received by the firm or individuals for similar work, special approaches or concepts developed by the firm relevant to this project, etc***

Burns & McDonnell has been ranked as one of the largest commissioning providers in the country for over 10 years by the construction specification magazine.

**Specialized Services:** Burns & McDonnell brings specialized services, including MEP and building automation expertise, central plant and building enclosure knowledge, computerized maintenance management software (CMMS) experience, physical and cybersecurity consulting, network/data/communications expertise, and hands-on knowledge of design, startup, commissioning and maintenance of complex building systems. Our team has the professional resources to address the needs of all system types that will require attention on this project.

**PROJECT COMMUNICATION PLAN**

When managing large programs where stakeholders work in separate locations or different time zones, an organized, written communication plan is critical for success. One of the first steps on our commissioning programs is to establish a communication plan, which includes:

- Establishing meeting dates and times
- Emailing protocols for international programs
- Establishing a reporting schedule
- Documenting and communicating points of contact
- Establishing the escalation chain
- Determining commissioning reports: Daily, Monthly and Final Establish and Maintain Communication

There are a number of techniques we use to establish and maintain communication and integrate commissioning efforts into the design and construction process over the course of the project. These include the following:

- **Systems-Based Scheduling:** Identifying the systems needed to support delivery of critical-path areas such as IT rooms and secured spaces enhances sub-contractor management and collaboration. The commissioning milestones identified for completion of each system can be applied to all systems as other areas are scheduled during pull-planning exercises, helping to establish dates and durations for critical path elements.
- **Issue Log Development and Tracking:** Beginning with Schematic phase items requiring decisions and follow up, we manage the process through our commissioning cloud tool and regular meeting agendas. The log provides an ongoing management tool and records document to identify gaps and focus resources.
- **BIM-generated Equipment Lists with CMMS Inputs:** This exercise bridges data transfer to inform construction checklists and add content value for export to operations staff use. Finalization of labeling nomenclature details and capture of serial numbers and IR tags streamlines sometimes redundant tasks and helps USCF staff organize Preventive Maintenance schedules by system.
- **Commissioning Requirements Matrix:** We organize all inspection, testing and commissioning requirements by specification section so that we can track delivery of these during commissioning meetings, avoiding holes and end-of-project scrambles. This document is included in the commissioning plan and managed during construction phase meetings to verify installation phase tasks and documents are completed on schedule.
- **Digital Documentation Platform Integration:** Part of standardizing the approach to the various projects will be specifying and/or adapting to the various project control software platforms used by various entities, from owner teams to subcontractors. We will need to determine the best fit—whether Jackson County prefers to drive a standard approach or adapt to those the project teams prefer. We can adapt our commissioning cloud software in the various environments, such as Procore, Prolog, VEO and many others.

- **The Blending of QA/QC Processes:** Increasingly we are asked to add Quality Assurance elements to our scope and/or to modify project specifications to better streamline tasks and deliverables such as installation phase QA/QC; Special Inspections and Testing; and TAB. There are several approaches depending on the size and rigor of a specific project.
- **Commissioning Communication Center:** On one wall in a construction trailer, we hang what we call the Commissioning Communication Center, which is comprised of a large three-week start-up and testing look-ahead; a 36x42 one-line diagram of the electrical systems, mechanical system, and PLC control diagram; as well as a list of equipment with turn-over dates for each phase. This helps the sub-contractors interact with the all the different commissioning teams. Each building and each team will have their place on a wall of the trailer.

## RISK IDENTIFICATION AND MITIGATION PLAN

The most common project risks, which we have addressed below, include those associated with safety, budget, schedule, and quality. Here's how we propose to mitigate them.

- **Implementing the Project Safely:** We tie safety into all onsite activities:
  - Burns & McDonnell maintains specific safety performance requirements for our employee-owners (TRIR, DART, EMR).
  - In conjunction with the DBI Contractor, Burns & McDonnell develops a site-specific safety and health program establishing the minimum requirements based upon safety hazards. We work with safety officials to monitor and manage compliance through onsite training, supervision, documentation requirements, etc.
  - We will review Jackson County / JE Dunn safety standards and requirements and advise on recommended improvements from each project team to demonstrate their commitment to and compliance with a safe working environment.
  - Before functional performance testing, we perform a job task analysis that outlines potential dangers while performing the functional testing.
- **Inaccurate Estimates for the Commissioning Delivery:** Inaccurate cost projections can have major implications for how commissioning is implemented on a project. Too low of an estimate will result in inadequate resources during early-stage efforts and/or deficiencies in testing, follow through, and documentation. This will create a major budget constraint during construction, requiring clients to spend extra contingency they have not accounted for. The Burns & McDonnell method has been proven effective at Penn State and other major energy programs. Our method involves several steps to mitigate the risk:
  - Accurate specification of services needed. We will provide a full scope of services for each type of project to be included in solicitations and RFPs so that bidding entities can accurately predict the level of resources and effort required.
  - Discussion with prospective project teams during the Value-Based Selection process to ensure their understanding of the needed commitment.
  - Review of plans and approaches to confirm that delivery will be adequate and timely.
- **Scheduling of Commissioning Tasks:** Planning and coordination are required to adequately integrate Commissioning activities:
  - Communication is a key mitigation strategy. Communication begins by the contractor developing and implementing a visible, updated schedule that includes key commission-related milestones such as establishment of permanent power, controls system completion, testing, and balancing activities.
  - Systems-based planning utilizes pull-planning techniques to work backward in time from needed completion dates of area-specific turnover requirements to identify the system readiness needed to accommodate the move-in. We advocate for owner occupancy as part of our schedule reviews.
  - We evaluate dates and durations proposed by commissioning critical path subcontractors and advise Owner's Construction Managers of risks we note. We also advise on monitoring and course correction strategies as things evolve.
- **Quality Assurance and Long-Term Performance Monitoring.** The following techniques increase the quality of the project delivery:
  - We weave Quality Assurance elements into the project documents, including detailed expectations regarding Contractor Quality Control methods that we can monitor effectively during delivery.
  - We utilize extensive checklists to standardize review of design documents. The checklists contain updates from lessons learned on various projects, including such elements as the following:
  - Accurate/adequate definitions of control zones and subsequent layout of the control of all zones.
  - Adequate acoustic evaluation of equipment, location, and mounting
  - We take advantage of functional testing and pre-warranty expiration performance periods to make sure that the operations of the systems persist once dynamic testing is complete.
  - We are timely enough with these activities to make sure the owner is covered under contract requirements before warranty obligations are fulfilled and we can expeditiously pursue any needed remedies with the team while they are still actively engaged on the project.

### Proven Track Record

Large projects require good communication and an integrated team to be successful. Jackson County will benefit from our team's proven track record assisting JE Dunn complete multiple complex projects in the Kansas City area. We have existing relationships with their subcontractors and understand how they operate their job sites. This will make the whole building commissioning process run smoother.

## UNDERSTANDING HOW TO OPERATE A FACILITY FOR FUNCTIONALLY AND MAINTAINABILITY

Jackson County will benefit from Burns & McDonnell's in-house O&M preventive maintenance specialists to this contract. Our experienced O&M staff maintains our World Headquarters campus and has held maintenance contracts for KCI's CUPs. Our understanding of how buildings are maintained has educated our commissioning staff on how design decisions affect the long-term energy use of buildings.

The first thing we will do is determine how the project will be maintained. If a system is not installed in a way that can be easily maintained, the building O&M costs may triple the construction cost over time. As a result, we approach each project proactively by integrating ourselves early with project teams and the O&M staff. This proactive approach allows us to work as your partner, to help team members be successful, to help verify systems work properly, and to help the O&M staff obtain the information and training necessary to keep buildings operating as expected after commissioning is complete.

# 9.4.10
# SAMPLE CONTRACT AGREEMENT

# 9.4.10 SAMPLE CONTRACT AGREEMENT

We have included a sample contract/agreement used for similar types of engagements and/or projects.

BURNS McDONNELL

## TERMS AND CONDITIONS FOR COMMISSIONING SERVICES

This AGREEMENT is made as of , 20 , by and between (hereinafter called OWNER) and Burns & McDonnell Engineering Company, Inc., a Missouri Corporation specializing in commissioning services (hereinafter called COMMISSIONING AGENT).

OWNER requires professional engineering services in connection with the (the Project). Therefore, OWNER and COMMISSIONING AGENT in consideration of their mutual covenants agree as follows:

COMMISSIONING AGENT shall serve as OWNER'S commissioning agent and shall give consultation and advice to OWNER during the performance of commissioning services.

1. OWNER's Designated Representative: [ ]
2. COMMISSIONING AGENT's Designated Representative: [ ]

### 1. SCOPE OF SERVICES

A. For the above-referenced Project, COMMISSIONING AGENT will perform Commissioning the services set forth in the Attached Letter Proposal, in accordance with these Terms and Conditions. COMMISSIONING AGENT has relied upon the information provided by OWNER in the preparation of the Proposal, and shall rely on the information provided by or through OWNER during the execution of this Project as complete and accurate without independent verification. COMMISSIONING AGENT as the OWNER's Commissioning Agent shall complete the Commissioning Services according to the Commissioning Schedule included in the Attached Letter Proposal. The Commissioning Services Schedule contains schedule commitments of OWNER as well as Construction contractor and/or other OWNER Consultants. If, through no fault of COMMISSIONING AGENT, the orderly and continuous progress of the Commissioning Services is impaired, or the Commissioning Services are delayed or suspended, then the Commissioning Services Schedule, and the rates and amounts of COMMISSIONING AGENT's compensation, shall be adjusted equitably.

B. OWNER shall be responsible for all requirements and instructions that it furnishes to COMMISSIONING AGENT pursuant to this Agreement, and for the accuracy and completeness of all programs, reports, data, and other information furnished by OWNER to COMMISSIONING AGENT pursuant to this Agreement. COMMISSIONING AGENT may use and rely upon such requirements, programs, instructions, reports, data, and information in performing or furnishing services under this Agreement, subject to any express limitations or reservations applicable to the furnished items.

C. Review of Design Documents: In making reviews and recommendations as to design documentation or design matters COMMISSIONING AGENT shall not be responsible for providing nor will COMMISSIONING AGENT have control over the Project design, design requirements, design criteria or the substance of contents of the design documents. By performing the reviews and making recommendations described herein, COMMISSIONING AGENT shall not be deemed to be acting in a manner so as to assume responsibility or liability, in whole or in part, for any aspect of the project design, design requirements, design criteria or the substance or contents of the design documents. COMMISSIONING AGENT's actions in making such reviews and recommendations as provided herein are to be advisory only to the OWNER and to the Designer. COMMISSIONING AGENT does not make any guarantee or warranty, express, implied, or otherwise, as to such services provided. The designer of record shall continue to take full professional responsibility for the construction documents and COMMISSIONING AGENT's review of such construction documents shall not modify or change the designer of record's responsibility for such documents nor make COMMISSIONING AGENT responsible for the construction documents. COMMISSIONING AGENT shall not become the designer of record for any portion of the project. OWNER hereby waives any and all claims against COMMISSIONING AGENT based on COMMISSIONING AGENT's good-faith performance of services under this Agreement, including but not limited to claims based on Burns & McDonnell's analysis, findings, recommendations, or report concerning the construction documents.

D. Functional testing of equipment: In leading a functional test on a piece of equipment, COMMISSIONING AGENT shall not be responsible for the equipment before, during or after the test. The equipment and the equipment's ability to perform all testing requirements remains the responsibility of the equipment's OWNER, designer, and contractor.

E. Site Safety: COMMISSIONING AGENT will follow the site safety protocols set forth by the OWNER or construction contractor. If COMMISSIONING AGENT staff employ additional safety protocols, this will not constitute COMMISSIONING AGENT taking on the liability of the site safety responsibilities.

### 2. PAYMENTS TO COMMISSIONING AGENT

A. Compensation will be as stated in the Attached Letter Proposal, Statements will be in COMMISSIONING AGENT's standard format and are payable upon receipt. Time is of the essence in payment of statements, and timely payment is a material part of the consideration of this Agreement. A late payment charge will be added to all amounts not paid within 30 days of statement date and shall be calculated at 1.5 percent per month from statement date. OWNER shall reimburse any costs incurred by COMMISSIONING AGENT in collecting any delinquent amount, including reasonable attorney's fees. If a portion of COMMISSIONING AGENT's statement is disputed, OWNER shall pay the undisputed portion by the due date. OWNER shall advise COMMISSIONING AGENT in writing of the basis for any disputed portion of any statement.

B. Taxes as may be imposed on professional consulting services by state or local authorities shall be in addition to the payment stated in the above-referenced Attached Letter Proposal.

### 3. INSURANCE

A. During the course of performance of its services, COMMISSIONING AGENT will maintain Worker's Compensation insurance with limits as required by statute, Employer's Liability insurance with limits of $1,000,000, and Commercial General Liability and Automobile Liability insurance each with combined single limits of $1,000,000.

B. Construction contractors shall be required to provide (or OWNER may provide) OWNER's Protective Liability Insurance naming OWNER as a Named Insured and COMMISSIONING AGENT as an Additional Insured or to endorse OWNER and COMMISSIONING AGENT using ISO form CG 20 10 11 85 endorsement or its equivalent as Additional Insureds on all construction contractor's liability insurance policies covering claims for personal injuries and property damage in at least the amounts required of COMMISSIONING AGENT in 3A above. Construction contractors shall be required to provide certificates evidencing such insurance to OWNER and COMMISSIONING AGENT. Contractor's compensation shall include the cost of such insurance including coverage for contractual and indemnification obligations herein.

C. OWNER and COMMISSIONING AGENT release each other and waive all rights of subrogation against each other and their officers, directors, agents, or employees for damage covered by property insurance during and after the completion of COMMISSIONING AGENT's services. A provision similar to this shall be incorporated into all construction contracts entered into by OWNER, and all construction contractors shall be required to provide waivers of subrogation in favor of OWNER and COMMISSIONING AGENT for damage covered by any construction contractor's property insurance.

### 4. INDEMNIFICATION

A. To the extent allowed by law, OWNER will require all construction contractors to indemnify, defend, and hold harmless OWNER and COMMISSIONING AGENT from any and all loss where loss is caused or alleged to be caused in whole or in part by the construction contractors, their employees, agents, subcontractors or suppliers.

B. COMMISSIONING AGENT shall not at any time supervise, direct, control, or have authority over any Constructor's work, nor shall COMMISSIONING AGENT have authority over or be responsible for the means, methods, techniques, sequences, or procedures of construction selected or used by any Design-Builder, Constructor, or the safety precautions and programs incident thereto, for security or safety at the Project site, nor for any failure of a Design-Builder or Constructor to comply with laws and regulations applicable to such Design-Builder or Constructor's furnishing and performing of its work. COMMISSIONING AGENT shall not be responsible for the acts or omissions of any Design-Builder or Constructor.

C. COMMISSIONING AGENT neither guarantees the performance of any Design-Builder or Constructor nor assumes responsibility for any Design-Builder or Constructor's failure to furnish and perform its work, or to complete its work on schedule.

D. COMMISSIONING AGENT shall not be responsible for any decision made regarding the administration of the Design-Build Contract, or any application, interpretation, clarification, or modification of the Design-Build Contract, other than those made by COMMISSIONING AGENT or its subconsultants.

**5. PROFESSIONAL RESPONSIBILITY– LIMITATION OF REMEDIES**

A. COMMISSIONING AGENT will exercise reasonable skill, care, and diligence in the performance of its services and will carry out its responsibilities in accordance with customarily accepted professional practices. If COMMISSIONING AGENT fails to meet the foregoing standard, COMMISSIONING AGENT will perform at its own cost, the commissioning service necessary to correct errors and omissions reported to COMMISSIONING AGENT in writing within one year from the completion of COMMISSIONING AGENT's services for the Project. No warranty, express or implied, is included in this Agreement or regarding any commissioning documentation, specification, or other work product or instrument of service.

B. In no event will COMMISSIONING AGENT be liable for any special, indirect, or consequential damages including, without limitation, damages or losses in the nature of increased Project costs, loss of revenue or profit, lost production, claims by customers of OWNER, and/or governmental fines or penalties.

C. COMMISSIONING AGENT's aggregate liability for all damages connected with its services for the Project not excluded by the preceding subparagraph, whether or not covered by COMMISSIONING AGENT's insurance, shall not exceed the total compensation actually received by COMMISSIONING AGENT under this Agreement.

D. These mutually negotiated obligations and remedies stated in this Paragraph 5, Professional Responsibility – Limitation of Remedies, are the sole and exclusive obligations of COMMISSIONING AGENT and remedies of OWNER, whether liability of COMMISSIONING AGENT is based on contract, warranty, strict liability, tort (including negligence), indemnity, or otherwise.

**6. PERIOD OF SERVICE AND SCHEDULE**

The provisions of this Agreement have been agreed to in anticipation of the orderly and continuous progress of the Project through completion of the services stated in the Proposal. COMMISSIONING AGENT's obligation to render services hereunder will extend for a period that may reasonably be required for the completion of said services. COMMISSIONING AGENT shall make reasonable efforts to comply with deliverable schedules (if any) and consistent with COMMISSIONING AGENT's professional responsibility. COMMISSIONING AGENT will shall not be liable for any loss or damage directly or indirectly from the Construction contractor's construction schedule. COMMISSIONING AGENT will be compensated for any delay in the commissioning schedule due to OWNER or Construction contractors' actions.

**7. COMPUTER PROGRAMS OR MODELS**

Any use, development, modification, or integration by COMMISSIONING AGENT of computer models or programs does not constitute ownership or a license to OWNER to use or modify such computer models or programs.

**8. ELECTRONIC MEDIA AND DATA TRANSMISSIONS**

A. Any electronic media (computer disks, tapes, etc.) or data transmissions furnished (including Project Web Sites or CAD file transmissions) are for OWNER information and convenience only. Such media or transmissions are not to be considered part of COMMISSIONING AGENT's instruments of service. COMMISSIONING AGENT, at its option, may remove all indication of its ownership and involvement from each electronic display.

B. COMMISSIONING AGENT shall not be liable for loss or damage directly or indirectly, arising out of OWNER's use of electronic media or data transmissions.

**9. COMMISSIONING DOCUMENTS**

A. All documents prepared by COMMISSIONING AGENT pursuant to this Agreement are instruments of service in respect of the Project specified herein. They are not intended or represented to be suitable for reuse by OWNER or others in extensions of the Project beyond that now contemplated or on any other Project. Any reuse, extension, or completion by OWNER or others without written verification, adaptation, and permission by COMMISSIONING AGENT for the specific purpose intended will be at OWNER's sole risk and without liability or legal exposure to COMMISSIONING AGENT.

B. In the event that COMMISSIONING AGENT is to reuse, copy or adapt all or portions of reports, plans, or specifications prepared by others, OWNER represents that OWNER either possesses or will obtain permission and necessary rights in copyright, patents, or other proprietary rights and will be responsible for any infringement claims by others. OWNER warrants the completeness, accuracy, and efficacy of the information, data, and design provided by or through OWNER (including prepared for OWNER by others), for which COMMISSIONING AGENT shall rely on to perform and complete its services.

**10. ESTIMATES, SCHEDULES, FORECASTS, AND PROJECTIONS**

Estimates, schedules, forecasts, and projections prepared by COMMISSIONING AGENT relating to loads, interest rates and other financial analysis parameters, construction costs and schedules, operation and maintenance costs, equipment characteristics and performance, and operating results are opinions based on COMMISSIONING AGENT's experience, qualifications, and judgment as a professional. Since COMMISSIONING AGENT has no control over weather, cost and availability of labor, cost and availability of material and equipment, cost of fuel or other utilities, labor productivity, construction contractor's procedures and methods, unavoidable delays, construction contractor's methods of determining prices, economic conditions, government regulations and laws (including the interpretation thereof), competitive bidding or market conditions, and other factors affecting such estimates or projections, COMMISSIONING AGENT does not guarantee that actual rates, costs, quantities, performance, schedules, etc., will not vary significantly from estimates and projections prepared by COMMISSIONING AGENT.

**11. POLLUTION**

In view of the uncertainty involved in investigating and recommending solutions to environmental problems and the abnormal degree of risk of claims imposed upon COMMISSIONING AGENT in performing such services, notwithstanding the responsibility of COMMISSIONING AGENT set forth in Paragraph 5A to the maximum extent allowed by law, OWNER agrees to release, defend, indemnify and hold harmless COMMISSIONING AGENT and its officers, directors, employees, agents, consultants and subcontractors from all liability, claims, demands, damages, losses, and expenses including, but not limited to, claims of OWNER and other persons and organizations, reasonable fees and expenses of attorneys and consultants, and court costs, except where there has been a final adjudication that the damages were caused by COMMISSIONING AGENT's willful disregard of its obligations under this Agreement. Such indemnification includes claims arising out of, or in any way relating to, the actual, alleged, or threatened dispersal, escape, or release of, or failure to detect or contain, chemicals, wastes, liquids, gases, or any other material, irritant, contaminant, or pollutant.

**12. ON-SITE SERVICES**

A. Project site visits by COMMISSIONING AGENT during investigation, observation, construction or equipment installation, or the furnishing of Project representatives shall not make COMMISSIONING AGENT responsible for construction means, methods, techniques, sequences, or procedures; for construction safety precautions or programs; or for any construction contractor(s') failure to perform its work in accordance with the contract documents.

B. OWNER shall disclose to COMMISSIONING AGENT the location and types of any known or suspected toxic, hazardous, or chemical materials or wastes existing on or near the premises upon which work is to be performed by COMMISSIONING AGENT's employees or subcontractors. If any hazardous wastes not identified by OWNER are discovered after a Project is undertaken, OWNER and

COMMISSIONING AGENT agree that the scope of services, schedule, and compensation may be adjusted accordingly. OWNER agrees to release COMMISSIONING AGENT from all damages related to any pre-existing pollutant, contaminant, toxic, or hazardous substance at the site.

**13. CHANGES**

OWNER shall have the right to make changes within the general scope of COMMISSIONING AGENT's services, with an appropriate change in compensation and schedule, upon execution of a mutually acceptable amendment or change order signed by authorized representatives of OWNER and COMMISSIONING AGENT.

**14. TERMINATION**

Services may be terminated by OWNER or COMMISSIONING AGENT by seven (7) days' written notice in the event of substantial failure to perform in accordance with the terms hereof by the other party through no fault of the terminating party. If so terminated, OWNER shall pay COMMISSIONING AGENT all amounts due COMMISSIONING AGENT for all services properly rendered and expenses incurred to the date of receipt of notice of termination, plus reasonable costs incurred by COMMISSIONING AGENT in terminating the services. In addition, OWNER may terminate the services for OWNER's convenience upon payment of twenty percent of the yet unearned and unpaid estimated, lump sum, or not-to-exceed fee, as applicable.

**15. DISPUTES, NEGOTIATIONS, MEDIATION**

A. If a dispute arises relating to the performance of the services to be provided and, should that dispute result in litigation, it is agreed that the substantially prevailing party (as determined in equity by the court) shall be entitled to recover all reasonable costs of litigation, including staff time, court costs, attorney's fees and other related expenses.

B. The parties shall participate in good faith negotiations to resolve any and all disputes. Should negotiations fail, the parties agree to submit to and participate in a third party-facilitated mediation as a condition precedent to resolution by litigation. Unless otherwise agreed to, mediation shall be conducted under the rules of the American Arbitration Association and shall be held in Missouri

C. The parties agree that any dispute between them, including any action against an officer, director or employee of a party, arising out of or related to this Agreement, whether in contract or tort, not resolved through direct negotiation and mediation, shall be resolved by litigation in the state or federal courts located in Jackson County, Missouri, and each party expressly consents to jurisdiction therein. Any litigation to compel or enforce, or otherwise affect the mediation shall be in state or federal courts located in Jackson County, Missouri, and each party expressly consents to jurisdiction therein.

D. Causes of action between the parties shall accrue, and applicable statutes of limitation shall commence to run the date COMMISSIONING AGENT's services are substantially complete.

**16. WITNESS FEES**

A. COMMISSIONING AGENT's employees shall not be retained as expert witnesses, except by separate written agreement.

B. OWNER agrees to pay COMMISSIONING AGENT pursuant to COMMISSIONING AGENT's then current schedule of hourly labor billing rates for time spent by any employee of COMMISSIONING AGENT responding to any subpoena by any party in any dispute as an occurrence witness or to assemble and produce documents resulting from COMMISSIONING AGENT's services under this Agreement.

**17. CONTROLLING LAW**

This Agreement shall be subject to, interpreted and enforced according to the laws of the State of Missouri, without regard to any conflicts of law provisions.

**18. RIGHTS AND BENEFITS – NO ASSIGNMENT**

COMMISSIONING AGENT's services will be performed solely for the benefit of OWNER and not for the benefit of any other persons or entities. Neither OWNER nor COMMISSIONING AGENT shall assign or transfer interest in this Agreement without the written consent of the other.

**19. ENTIRE CONTRACT**

These Terms and Conditions and the Attached Letter Proposal, contain the entire agreement between COMMISSIONING AGENT and OWNER relative to COMMISSIONING AGENT's services for the Project herein. All previous or contemporaneous agreements, representations, promises, and conditions relating to COMMISSIONING AGENT's services for the Project are superseded. Since terms contained in purchase orders do not generally apply to professional services, in the event OWNER issues to COMMISSIONING AGENT a purchase order, no preprinted terms thereon shall become part of this Agreement. Said purchase order documents, whether or not signed by COMMISSIONING AGENT, shall be considered only as an internal document of OWNER to facilitate administrative requirements of OWNER's operations.

**20. SEVERABILITY**

Any unenforceable provision herein shall be amended to the extent necessary to make it enforceable; if not possible, it shall be deleted, and all other provisions shall remain in full force and affect.

**IN WITNESS WHEREOF,** the parties hereto have executed this Agreement, the Effective Date of which is indicated on page 1.

OWNER:

By: _____

Title: _____

Date Signed: _____

Address for OWNER's receipt of notices:

_____

_____

_____

_____

OWNER'S COMMISSIONING AGENT: Burns & McDonnell Engineering Company, Inc.

By: _____

Title: _____

Date Signed: _____

Address for OWNER'S COMMISSIONING AGENT'S receipt of notices:

_____

_____

_____

_____

# 9.4.11
# PROPOSED COST

# 9.4.11 PROPOSED COST

Should Burns & McDonnell be selected as a finalists for this opportunity, we will provide a proposed cost for this project that will include all costs associated with the services being provided, including disclosure of any anticipated travel, printing, or other miscellaneous costs.

# 9.5 VOLUNTARY WORKFORCE UTILIZATION

# 9.5 VOLUNTARY WORKFORCE UTILIZATION

Burns & McDonnell is a leader in the engineering and construction community for diversity. We have demonstrated through our corporate affirmative action policy, hiring practices, and inclusive work environment that we recognize the importance and the value of creating a diverse, high-performing workforce that reflects the communities we serve. We do this by enacting policies that eliminate barriers to equal opportunity. These policies and attitudes extend to our trade partners and subcontractors. So much in fact, that in the past 10 years, we have invested over $2B with small and diverse companies on our design and construction projects.

### How will we achieve the MBE/WBE/VBE goals?

We have included an MBE/WBE and a VBE partner within our work plan to perform on-site activities. We will exceed the 9.5% with their planned participation in the commission task assigned to them. These tasks may include attending the factory witness testing and participating in the pre-functional testing activities. Before turning in the price for the commissioning work David Stewart will build a work plan for the project. This work plan indicates who will be assigned to each task required to deliver a commissioned facility. Our MBE/WBE partner will be part of this process. Once awarded the contract, we will reach out to them to get them under contract to perform the agreed upon tasks.

### How will we track our goal?

Tammy Martin is our Business Diversity Program Director for Burns & McDonnell. She will work with our team to manage and achieve our M/WBE goals and lead our supplier diversity outreach activities. She will also help M/WBE firms register and become designated sub-consultants to Burns & McDonnell. David Meyers, our principal in charge, and David Stewart, our project manager, will work with Tammy to verify that we are exceeding our goal for this project. We will meet with her quarterly to verify that our plan is being met.

### How will we report our MBE/WBE/VBE hours?

If we are awarded, we will work with the Jackson County, Missouri Compliance Review Office to establish a Contractor Utilization Plan. Part of this plan will indicate how Jackson County would like us to report the MBE/WBE/VBE hours on this project. We track these hours internally and report them to our clients differently.

BURNS McDONNELL

CREATE AMAZING.

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Kansas City, MO. 64114
burnsmcd.com