

AIA[®] Document C103[™] – 2015

Standard Form of Agreement Between Owner and Consultant without a Predefined Scope of Consultant's Services

AGREEMENT made as of the 14th day of September in the year Two Thousand Twenty
(In words, indicate day, month and year.)

BETWEEN the Owner:

Cedar Falls Community School District
1002 West First Street
Cedar Falls, IA 50613

and the Consultant:

System Works LLC
409 5th Street
West Des Moines, IA 50265

Consultant's discipline:

HVAC Commissioning

for the following Project:

Cedar Falls High School

The Owner and Consultant agree as follows.

ADDITIONS AND DELETIONS:

The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

This document does not contain a description of the Consultant's scope of Services. This document is intended to be used in conjunction with AIA Standard Form of Consultant's Services documents.

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ARTICLE 1 INITIAL INFORMATION

§ 1.1 This Agreement is based on the Initial Information set forth in this Article 1:

(State below Initial Information, such as details of the Project's site and program; identity of the Architect, Owner's contractors and other consultants, and Consultants' subconsultants; anticipated procurement method; and other information relevant to the Consultant's Services.)

See attached Proposal as Exhibit A from Consultant dated September 2020.

§ 1.2 Unless otherwise specifically defined in this Agreement, terms in this Agreement shall have the same meaning as those in AIA Document A201™–2007, General Conditions of the Contract for Construction.

§ 1.3 The Owner and Consultant may rely on the Initial Information. Both parties, however, recognize that the Initial Information may materially change and, in that event, the Owner and the Consultant shall appropriately adjust the schedule, the Consultant's services, and the Consultant's compensation.

ARTICLE 2 CONSULTANT'S RESPONSIBILITIES

§ 2.1 The Consultant shall provide the following professional services:

Per Exhibit A Consultant's Proposal and Scope of Services. If there is a conflict between the terms of the Proposal and this Agreement, this Agreement shall control.

§ 2.2 The Consultant shall perform its services consistent with the professional skill and care ordinarily provided by professionals in the same discipline practicing in the same or similar locality under the same or similar circumstances. The Consultant shall perform its services in an expeditious and economical manner consistent with the interests of the Owner and consistent with such professional skill and care and the orderly progress of the Project.

§ 2.3 The Consultant identifies the following representative who is authorized to act on behalf of the Consultant with respect to the Project.

Andrew Bennett

The Consultant shall have authority to act on behalf of the Owner only to the extent provided in this Agreement unless otherwise modified by written amendment.

§ 2.4 If required in the jurisdiction where the Project is located, the Consultant shall be licensed to perform the services described in this Agreement, or shall cause such services to be performed by appropriately licensed professionals.

§ 2.5 The Consultant shall coordinate its services with those services provided by the Owner and the Owner's other consultants. The Consultant may communicate with the Owner's other consultants for the purposes of performing its services on the Project. The Consultant shall keep the Owner reasonably informed of any such communications. The Consultant shall be entitled to rely on the accuracy and completeness of services and information furnished by the Owner and the Owner's other consultants. The Consultant shall provide prompt written notice to the Owner if the Consultant becomes aware of any error, omission, or inconsistency in such services or information.

§ 2.6 The Consultant shall keep the Owner reasonably informed of the progress of the Consultant's services.

§ 2.7 Insurance. The Consultant shall maintain the following insurance for one year after Final Acceptance of the Work as per Exhibit B - Consultant's Certificate of Insurance.

§ 2.7.1 Commercial General Liability with policy limits of not less than One Million Dollars (\$1,000,000) for each occurrence and Two Million Dollars (\$2,000,000) in the aggregate for bodily injury and property damage.

§ 2.7.2 Automobile Liability covering vehicles owned by the Consultant and non-owned vehicles used by the Consultant with policy limits of not less than One Million Dollars (\$1,000,000) per claim and One Million Dollars (\$1,000,000) in the aggregate for bodily injury and property damage along with any other statutorily required automobile coverage.

§ 2.7.3 The Consultant may achieve the required limits and coverage for Commercial General Liability and Automobile Liability through a combination of primary and excess liability insurance, provided such primary and excess insurance policies result in the same or greater coverage as those required under Sections 2.7.1 and 2.7.2.

§ 2.7.4 Workers' Compensation at statutory limits and Employers' Liability with a policy limit of not less than Five Hundred Thousand Dollars (\$500,000).

§ 2.7.5 Professional Liability covering the negligent acts, errors and omissions in the performance of professional services with policy limits of not less than One Million Dollars (\$1,000,000) per claim and Two Million Dollars (\$2,000,000) in the aggregate.

§ 2.7.6 The Owner shall be an additional insured on the Consultant's primary and excess insurance umbrella policies for Commercial General Liability and Automobile Liability. The additional insured coverage shall be primary and non-contributory to any of the Owner's insurance policies. The additional insured coverage shall apply to both ongoing operations and completed operations.

§ 2.7.7 All deductibles and premiums associated with the above coverages shall be the responsibility of the Consultant. The certificates will show the Owner as an additional insured on the Commercial General Liability and Automobile Liability policies. All Consultants engaged shall carry and maintain sufficient insurance that is appropriate to the project. The Consultants shall submit proof of such insurance, including copies of all policies and endorsements, to the Owner before submittal of the first invoice. The Consultant will provide written notice to the Owner at least thirty (30) days prior to any cancellation or nonrenewal of the policies for a period of two (2) years from the date of this Agreement. The Consultant shall present a certificate at the end of the Project with the final billing. Each certificate shall be prepared on the most current ACORD form approved by the Iowa Department of Insurance.

.1 Commercial Liability and Automobile Liability policies cited above should be endorsed as follows:

"The insurance company and the insured expressly agree and state that the purchase of this policy of insurance by the insured does not waive any of the defense of governmental immunity available to the insured under Iowa Code Section 670 as it now exists or may be amended from time to time. The company and the insured further agree that this policy of insurance shall cover only its claims and not subject to the defense of governmental immunity under Iowa Code Section 670."

.2 The Certificate of Insurance Commercial Liability and Automobile Liability policies should state:

"The insurance company and the insured expressly agree and state that granting additional insured status on this policy of insurance does not waive any of the defenses of governmental immunity available to the school district under Iowa Code Section 670 as it now exists or may be amended from time to time."

§ 2.8 Time. As soon as practicable after the date of this Agreement, the Consultant shall submit, for the Owner's approval, a schedule for the performance of the Consultant's Services, which shall be consistent with anticipated schedule of services provided in the Consultants proposal in Exhibit A. If relevant to the Consultant's Services, the schedule initially shall include anticipated dates for design phase milestones, commencement of construction, and for Substantial Completion of the Work as set forth in the Initial Information. The schedule shall include allowances for periods of time required for the Owner's review, for the performance of the Owner's consultants, and for approval of submissions by authorities having jurisdiction over the Project. Once approved by the Owner, time limits established by the schedule shall not, except for reasonable cause, be exceeded by the Consultant or Owner.

ARTICLE 3 ADDITIONAL SERVICES

§ 3.1 Additional Services may be provided after execution of this Agreement without invalidating the Agreement.

§ 3.2 The Consultant shall promptly notify the Owner upon recognizing the need to perform Additional Services. The Consultant, however, shall not proceed to provide such services until the Consultant receives the Owner's written authorization. Except for services due to the fault of the Consultant, any Additional Services provided in accordance with this Section 3.2 shall entitle the Consultant to compensation pursuant to Section 8.2.

ARTICLE 4 OWNER'S RESPONSIBILITIES

§ 4.1 Unless otherwise provided for under this Agreement, the Owner shall provide information in a timely manner regarding requirements for and limitations on the Project.

§ 4.2 The Owner identifies the following representative who is authorized to act on the Owner's behalf with respect to the Project.

Dr. Andy Pattee or designee as authorized by the Board of Directors.

§ 4.3 The Owner shall render decisions and approve the Consultant's submittals, if any, in a timely manner in order to avoid unreasonable delay in the orderly and sequential progress of the Consultant's services.

§ 4.4 The Owner shall coordinate the services of its other consultants with those services provided by the Consultant. The Owner shall provide the Consultant with a list of other consultants on the Project whose services relate to the Consultant's services. The Owner shall also, upon written request, furnish the Consultant with copies of the scope of services in contracts between the Owner and such other consultants. The Owner shall require that its other consultants maintain professional liability insurance as appropriate to the services provided.

§ 4.5 The Owner shall furnish the services of consultants other than those designated in this Agreement, or authorize the Consultant to furnish them as an Additional Service, when the Consultant demonstrates to the satisfaction of the Owner that they are reasonably required for the Consultant to be able to perform its services.

§ 4.6 The Owner shall provide prompt written notice to the Consultant if the Owner becomes aware of any fault or defect in the Project, including errors, omissions, or inconsistencies in the Consultant's Services. However, Owner shall not be responsible for or expected to conduct a detailed or thorough review or inspection of the Project or the Consultant's documents.

ARTICLE 5 COPYRIGHTS AND LICENSES

§ 5.1 The Owner acknowledges the Consultant's drawings, specifications, Commissioning reports/plans and other documents produced and provided under this Agreement, regardless of the media or format, are Instruments of Service. Nevertheless, the final Instruments of Service prepared and provided by Consultant under this Agreement shall become the property of the Owner upon completion of the services and termination of this Agreement, whether the Work for which they are made is executed or not, if payment in full of all monies then due to the Consultant prior to completion or termination have been made by the Owner. The Owner reserves the right to use the Instruments of Service developed for the Project in such a manner as the Owner may desire, subject to the provisions herein. The Consultant shall be permitted to retain copies, including reproducible copies or electronic data, of the Instruments of Service for the Project. The Owner's or its retained agent's or representative's modification and/or reuse of the Instruments of Service for the Project without written authorization of the Consultant will be at the Owner's and/or other retained entities sole risk and without liability or legal exposure to the Consultant. Unless otherwise provided in this Agreement, nothing contained herein shall be construed as in derogation of the Consultant's copyright rights.

ARTICLE 6 CLAIMS AND DISPUTES

§ 6.1 General

§ 6.1.1 The Owner and Consultant shall commence all claims and causes of action, whether in contract, tort, or otherwise, against the other arising out of or related to this Agreement in accordance with the requirements of the method of binding dispute resolution selected in this Agreement within the period specified by applicable law. The Owner and Consultant waive all claims and causes of action not commenced in accordance with this Section 6.1.1.

§ 6.1.2 To the extent damages are covered by property insurance, the Owner and Consultant waive all rights against each other and against the contractors, consultants, agents, and employees of the other for damages, except such rights as they may have to the proceeds of such insurance. The Owner or the Consultant, as appropriate, shall require of the contractors, consultants, agents, and employees of any of them, the same scope of waivers in favor of the other parties enumerated herein.

§ 6.1.3 Intentionally left blank.

§ 6.2 Mediation

§ 6.2.1 Any claim, dispute, or other matter in question arising out of or related to this Agreement shall be subject to non-binding mediation upon mutual agreement of the parties.

§ 6.2.2 The Owner and Consultant shall endeavor in good faith to resolve claims, disputes, and other matters in question between them by mutual agreement and may, by mutual agreement and in their discretion, submit same to non-binding mediation (mediation) which shall be in accordance with Iowa Code Chapter 679C. Requests for mediation shall be given in writing to the other party to this Agreement. If the Owner and Consultant are unable to mutually agree upon a mediator in writing within sixty (60) days of receiving the written request for mediation, either party may then institute legal or equitable proceedings. Mediation shall be voluntary only and shall not be a prerequisite to litigation or other means of dispute resolution.

§ 6.2.3 The parties shall share the mediator's fee and any filing fees equally. The non-binding mediation shall be held in the place where the Project is located, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

§ 6.2.4 If the parties do not resolve a dispute through non-binding mediation pursuant to this Section 6.2, the method of binding dispute resolution shall be through litigation in a court of competent jurisdiction.

§ 6.2.5 The Consultant or Owner, as appropriate, shall include a similar mediation provision in all its agreements with contractors and Consultants retained for the Project and shall require all contractors and consultants to also include a similar mediation provision in all agreements with their subcontractors and sub-consultants so retained for the Project, thereby providing for mediation as the primary method for dispute resolution between the parties to those agreements.

§ 6.3 Intentionally left blank.

ARTICLE 7 TERMINATION OR SUSPENSION

§ 7.1 If the Owner fails to make payments to the Consultant in accordance with this Agreement, such failure shall be considered substantial nonperformance and cause for termination or, at the Consultant's option, cause for suspension of performance of services under this Agreement, except that payment may be withheld from the Consultant for the Consultant's substantial noncompliance or nonperformance determined in accordance with the terms of this Agreement, without penalty to Owner for such withholding. If the Consultant elects to suspend services, the Consultant shall give seven (7) days' written notice to the Owner before suspending services. In the event of a suspension of services, the Consultant shall have no liability to the Owner for delay or damage caused the Owner because of such suspension of services. Before resuming services, the Consultant shall be paid all sums due prior to suspension and any expenses incurred in the interruption and resumption of the Consultant's services. The Consultant's fees for the remaining services and the time schedules shall be equitably adjusted.

§ 7.2 If the Owner suspends the Project or the Consultant's services, the Consultant shall be compensated for services performed prior to notice of such suspension. When the Project or the Consultant's services are resumed, the Consultant shall be compensated for reasonable and documented expenses incurred in the interruption and resumption of the Consultant's services. The Consultant's fees for the remaining services and the time schedules shall be equitably adjusted as mutually agreed upon by the parties.

§ 7.3 If the Owner suspends the Project or the Consultant's services for more than ninety (90) cumulative days for reasons other than the fault of the Consultant, the Consultant may terminate this Agreement by giving not less than seven (7) days' written notice.

§ 7.4 Either party may terminate this Agreement upon not less than seven (7) days' written notice should the other party fail substantially to perform in accordance with the terms of this Agreement through no fault of the party initiating the termination.

§ 7.5 The Owner may terminate this Agreement upon not less than seven (7) days' written notice to the Consultant for the Owner's convenience and without cause.

§ 7.6 In the event of termination not the fault of the Consultant, the Consultant shall be compensated for services performed prior to termination, together with Reimbursable Expenses then due.

§ 7.7 Upon mutual agreement of both parties, upon receipt and acceptance of not less than thirty (30) days written notice, the Agreement may be terminated on an agreed date before the end of the Agreement period without penalty to either party

§ 7.8 The Owner and Architect's rights set forth in this Article 7 are in addition to and without prejudice to their other rights and remedies provided by law.

§ 7.9 The termination of this Agreement shall not relieve either the Owner or the Architect of any obligation previously accrued. The following provisions of this Agreement, and any other provisions that by their terms so provide, shall specifically survive any such termination: Article 5, Article 6, Article 7 and Article 10.

ARTICLE 8 COMPENSATION

§ 8.1 The Owner shall compensate the Consultant for services described in Article 2 as follows:

Base Commissioning Fee	\$ 150,000.00
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- Base Commissioning Fee includes all other direct and reimbursable costs.

§ 8.2 The Owner shall compensate the Consultant for Additional Services, not otherwise outlined above in Section 8.1 or the Consultant's Proposal that may arise during the course of the Project, and are approved in advance by the Owner, as follows:

One Hundred Thirty Dollars (\$130) per hour.

§ 8.3 Unless otherwise agreed, payments for services shall be made monthly in proportion to services performed. Payments are due and payable upon presentation of the Consultant's invoice. Amounts unpaid thirty (30) days after the invoice date shall bear interest at the rate established by rule pursuant to Iowa Code Section 74A.2 or Iowa Code Section 573, whichever is less.

§ 8.4 The Owner shall not withhold amounts from the Consultant's compensation to impose a penalty or liquidated damages on the Consultant, or to offset sums requested by or paid to contractors for the cost of changes in the Work unless the Consultant agrees or has been found liable for the amounts in a binding dispute resolution proceeding.

§ 8.6 Reimbursable Expenses

§ 8.6.1 Records of services performed on the basis of hourly rates shall be available to the Owner at mutually convenient times.

ARTICLE 9 MISCELLANEOUS PROVISIONS

§ 9.1 This Agreement shall be governed by the laws of the State of Iowa. Any claim arising out of this Agreement shall be heard in the Iowa District Court for Black Hawk County.

§ 9.2 The Owner and Consultant, respectively, bind themselves, their agents, successors, assigns and legal representatives to this Agreement. Neither the Owner nor the Consultant shall assign this Agreement without the written consent of the other.

§ 9.3 If the Owner requests the Consultant to execute certificates, the proposed language of such certificates shall be submitted to the Consultant for review at least fourteen (14) days prior to the requested dates of execution. The Consultant shall not be required to execute certificates or consents that would require knowledge, services, or responsibilities beyond the scope of this Agreement.

§ 9.4 Nothing contained in this Agreement shall create a contractual relationship with or a cause of action in favor of a third party against either the Owner or Consultant.

§ 9.5 Unless otherwise required in this Agreement, the Consultant shall have no responsibility for the discovery, presence, handling, removal or disposal of, or exposure of persons to, hazardous materials or toxic substances in any form at the Project site.

§ 9.6 Confidential Information is information containing confidential or business proprietary information that is clearly marked as "confidential." If the Owner or Consultant transmits Confidential Information, the transmission of such Confidential Information constitutes a warranty to the party receiving such Confidential Information that the transmitting party is authorized to transmit the Confidential Information. If a party receives Confidential Information, the receiving party shall keep the Confidential Information strictly confidential and shall not disclose it to any other person or entity except as set forth in Section 9.6.1.

§ 9.6.1 A party receiving Confidential Information may disclose the Confidential Information as required by law or court order, including a subpoena or other form of compulsory legal process issued by a court or governmental entity. A party receiving Confidential Information may also disclose the Confidential Information to its employees, consultants, or contractors in order to perform services or work solely and exclusively for the Project, provided those employees, consultants, and contractors are subject to the restrictions on the disclosure and use of Confidential Information as set forth in this Agreement.

ARTICLE 10 SPECIAL TERMS AND CONDITIONS

Special terms and conditions that modify this Agreement are as follows:

1. Consultant and any subconsultants shall indemnify and hold Owner and its officers, employees and successors, harmless from and against all damages, losses, judgments and costs, including reasonable attorney's fees and expenses, to the extent they arise from Consultant's negligent acts, errors or omissions in the performance of its services. Consultant's liability arising from this Agreement shall be limited to One Million Dollars (\$1,000,000) or the amount of Consultant's available insurance coverage at the time of settlement or judgment, whichever is greater.
2. The Consultant (Company) shall not be owned, operated, or managed by a registered sex offender who has been convicted of a sex offense against a minor in accordance with Iowa Code 692A.113. In addition, the Consultant shall not permit an employee, subconsultant (Company) owned, operated, or managed by, or subconsultant's employee who is a registered sex offender convicted of a sex offense against a minor on real property of the Owner's schools in accordance with Iowa Code 692A.113. By execution of this Agreement, the Consultant further acknowledges and certifies services provided under this Contract comply with Iowa Code 692A.113.
3. If a lawsuit, action, or arbitration is instituted in connection with any controversy arising out of this Agreement or to interpret or enforce any rights under this Agreement, the prevailing party as adjudged by the court and/or arbitrator of competent jurisdiction, shall be entitled to recover from the non-prevailing party attorney fees, costs, expert witness fees, and litigation expenses incurred by the prevailing party, including those incurred on appeal, as adjudged by a court or arbitrator of competent jurisdiction.

ARTICLE 11 SCOPE OF THE AGREEMENT

§ 11.1 This Agreement represents the entire and integrated agreement between the Owner and the Consultant and supersedes all prior negotiations, representations, or agreements, either written or oral. This Agreement may be amended only by written instrument signed by both Owner and Consultant. In the event of a conflict between the terms and conditions of this C103™-2015, Standard Form Agreement between Owner and Consultant and an attached exhibit, the terms and conditions of the C103-2015, Standard Form Agreement between Owner and Consultant shall take precedence.

§ 11.2 This Agreement is comprised of the following documents listed below:

1. AIA Document C103™-2015, Standard Form of Agreement Between Owner and Consultant.
2. Scope of Services Exhibit(s) listed in section 2.1
3. Other documents:
Exhibit A Proposal from Consultant from September 2020
Exhibit B Certificate of Insurance

This Agreement entered into as of the day and year first written above.

OWNER (Signature)

Jeff Hassman, Board President
Cedar Falls Community School District

(Printed name and title)

CONSULTANT (Signature)

Andrew Bennett, PE, CCP
System Works LLC

(Printed name and title)

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Proposal

COMMISSIONING SERVICES PROPOSAL

Cedar Falls Community School District New High School



SystemWorks_{LLC}
Commissioning Sustainable Buildings

Scope of Work

SYSTEMS TO BE COMMISSIONED

Major/critical systems will be tested 100%, while a sample of like terminal equipment will be tested. More specific details are included in the RFP.

- Mechanical Systems
 - 100% of major equipment
 - 100% of control components
 - 25% of terminal units
- Hydronic Equipment
 - 100% of central plant equipment
 - 100% of hydronic equipment
 - 100% of control components
- Plumbing Systems
 - 100% of water heaters
 - 100% of domestic water booster system
- Electrical Systems
 - 100% Generator System
 - Loss of Power Integrated System Test
 - 25% Lighting/Daylighting Controls
- Building Automation System
 - 100% Check of major equipment
 - 25% sampling of terminal equipment, with summaries used to check the remaining 75%
 - 100% check of unique systems
 - 100% check of safety alarms
 - BAS Features: Sensors, actuators, graphic control screens, control set points, schedules and labels.
- Building Pressure Control Verification

DESIGN PHASE

- Owner's Project Requirements (OPR)
 - The CxA shall organize and assist the owner in developing and documenting an OPR for the project. This includes an OPR workshop with the design team, owner, and facilities staff to initially outline the OPR. Use ASHRAE Guide 0 for OPR inclusions and requirements for the OPR workshop.
- Basis of Design (BOD)
 - The CxA shall work with and review the design team BOD document to ensure that it meets the requirements established in the OPR. Provide review comments and recommendations to the design team.
- MEP Commissioning Plan
 - Develop a Cx Plan that encompasses the design phase, construction phase, and Occupancy/Operations phase. This plan shall be specific to the project and shall be submitted to the owner and design team for review and acceptance.
 - The Cx Plan shall include all commissioning activities specific to this project. Adhere to ASHRAE Guideline 0 recommendations for Plan inclusions.
 - Provide a Commissioning Requirements Specification to be included into the construction document specifications. This specification shall include a list of all individual trade contractor responsibilities for the Commissioning activities. Refer to ASHRAE Guideline 0 for items to be included.
 - The plan must include the following:
 - A sequence of operations for the building;
 - The building occupancy schedule;



- Equipment run-time schedules;
 - Setpoints for all HVAC equipment;
 - Set lighting levels throughout the building;
 - Minimum outside air requirements;
 - Any changes in schedules or setpoints for different seasons, days of the week, and times of day;
 - A systems narrative describing the mechanical and electrical systems and equipment;
 - A preventive maintenance plan for building equipment described in the systems narrative; and
 - A commissioning program that includes periodic commissioning requirements, ongoing commissioning tasks, and continuous tasks for critical facilities.
- Design Review
 - Review design drawings and specifications. Reviews shall occur at the 50%, 95% and 100% Construction Documents levels. The 95% review shall include a team review meeting that includes the owner, pertinent facilities staff, the design team, and the CxA. See ASHRAE Guideline 0 for “Statistically Based Quality Design Review” process. Review comments shall either be digitally overlaid on the design drawings or provided in list form, organized by sheet/section.
 - Prepare and provide Commissioning Specifications to A/E for inclusion in the construction documents.

CONSTRUCTION PHASE

Commissioning during the Construction Phase shall verify that the project achieves the objectives of the Owner’s Project Requirements, as expressed by the contract documents. The CxA shall complete the following tasks:

- Commissioning Kick-off Meeting
 - Conduct a Commissioning Kick-off Meeting with the General Contractor and subcontractors. Meeting shall discuss the commissioning scope, coordination and schedule. Prepare and distribute agenda and the subsequent meeting minutes to the design and construction teams.
- Review Construction Schedule.
 - Verify that the construction schedule has a logical system, equipment, and component startup schedule that can result in a successful testing and commissioning process. Advise the General Contractor as to when and how long each of the Commissioning phases will occur. The Commissioning Phases shall be included in the General Contractors Construction Schedule. Provide review comments to the design and construction teams.
- Submittal Reviews:
 - CxA shall review applicable submittals concurrent with the design team review. Review shall indicate how/if the submittals meet the contract documents. Applicable submittal reviews shall include the following as a minimum:
 - Controls (Control devices, DDC system, Control drawings, line drawings, etc.)
 - Major HVAC Plant equipment (Chillers, pumps, heat exchangers, geothermal wells, etc.)
 - HVAC Terminal Equipment (VAV boxes, fan coils, chilled beams, radiant floor, etc.).
 - O&M Manual Review: The CxA shall review the O&M manual packet provided by the contractors to ensure that all necessary information and instruction is included in the O&M manual packet.
- Prepare Functional Performance Test scripts for the commissioned equipment and systems.
 - Scripts shall be submitted to the design team for review within two weeks of the approved equipment, component or controls submittal.
 - Scripts shall be fully customized to this specific project. Use the project sequence of operation as a guide.
 - Scripts shall test all HVAC equipment control components and verify that they are following the operation as described in the sequence of operation.



- Develop project specific Construction Checklists
 - Checklists shall include the manufacturers start-up checklists.
 - Checklists shall be distributed to the construction team prior to the start of equipment installation.
- Site Visits
 - The Commissioning Agent shall perform not less than 15 site visits during construction. Visits shall commence at the start of the majority of Mechanical/HVAC, Electrical, and Plumbing rough-in. The CxA shall use their discretion when site visits are required.
 - Site Visits shall verify that installations match the construction documents.
 - Provide a site visit observation report with pictures of deficient items for each visit and update the issues log as required. Distribute the observation report to the Contractors, Owner and Design Team.
- On site Commissioning Meetings
 - Along with site visits, conduct on-site commissioning meetings with the construction team to discuss progress, coordination and issues resolution.
 - Meeting Frequency: Typically monthly, less early in construction and more often if issues need resolved. A call-in can suffice for monthly meetings when a site visit is not required.
- Issues Log
 - The Commissioning Agent shall maintain a detailed Issues Log that documents items that do not meet the Owners OPR or Construction Document requirements.
 - Issues Log shall be detailed and organized. See ASHRAE Guideline 0 for Issues Log Format.

ACCEPTANCE PHASE (PRIOR TO SUBSTANTIAL COMPLETION)

Commissioning during the Acceptance Phase shall demonstrate the performance of the equipment and systems installed during the Construction Phase meet the requirements of the Contract Documents. The acceptance phase shall occur prior to Substantial Completion. The CxA shall complete the following:

- Function Testing:
 - Conduct function testing based on the Function Performance Scripts developed in the Construction Phase.
 - Control functionality that does not match the sequence of operation shall be reported in the project issue log. The CxA shall assist in resolution of discrepancies.
 - Provide Functional Test Report that details what was tested, when it was tested, what functions were expected, what actually occurred, what issues arose, and the solutions that were devised. Update Issues Log accordingly. See ASHRAE Guideline 0 for additional items to be included in the Test Report.
- Test and Balance Review
 - The Commissioning Agent shall review the preliminary and final TAB report to verify all equipment has been included and that the equipment is performing as intended.
- Owner Training Review
 - Review the contractor's proposed owner training schedule and format. Review shall verify that all relevant MEP equipment is included in the proposed training sessions and that the format of the training will be adequate to teach the facility staff of all maintenance and operation requirements.
 - Building Automation System Training: The Commissioning Agent shall be present during the BAS training session and verify that all BAS system elements are clearly taught to the facility staff.
- Operation and Maintenance Manual Review
 - Review and verify that all MEP equipment is satisfactorily included in the owner's O&M manuals. Provide written comments if any equipment is omitted.



- Commissioning Documentation
 - Provide one electronic and one hard copy of the Commissioning Documentation to the contractor and the owner for inclusion into the O&M manuals.
 - Commissioning Documentation shall include: Functional Test Reports, as-commissioned set-points, final sequence of operation, final Issues log, etc.
 - Any project specific guidelines for operation that were discussed during function testing.

OCCUPANCY / OPERATIONS PHASE (POST SUBSTANTIAL COMPLETION)

Commissioning during the Occupancy / Operations Phase is intended to assist the facility operating staff in identifying any defects in the installed equipment or system operation. The CxA shall complete the following:

- Seasonal/deferred function testing
 - Conduct function testing that was unable to be performed during the acceptance phase (seasonal operation, mostly). Tests shall follow the same procedures described in the Acceptance Phase Function Test requirements.
- 10-month review/testing
 - Review equipment warranties with the owner (O&M staff) prior to warranty expiration. Review shall help identify if any equipment/systems need to exercise a warranty claim.
 - Verify that all owner training during the acceptance phase was sufficient in training O&M staff on all MEP system operations. If further training is required, provide a recommendation to the contractor, owner and design team on what system/procedures need to be included in an additional training session.
 - Update final Commissioning Report. Provide new electronic copies to the design team and owner for review.
- On-going Commissioning Plan
 - Establish an on-going commissioning process that includes planning, point monitoring, system testing, performance verification, corrective action response, ongoing measurement, and documentation to proactively address operating problems in the systems being commissioned. Develop an on-going commissioning plan that defines the following:
 - Roles and responsibilities
 - Measurement requirements (meters, points, data access, etc.)
 - The points to be tracked along with the frequency and duration for trend monitoring
 - The upper and lower limits of acceptable values for tracked points and metered values
 - The review process that will be used to evaluate performance
 - An action plan for identifying and correcting operational errors and deficiencies
 - Planning for repairs needed to maintain performance
 - The frequency of analyses in the first year shall be quarterly
 - The subsequent analysis cycle is every 24 months
- Apply the requirements below to all direct energy-consuming or energy-producing systems, including lighting, process loads, HVAC, domestic water heating, and renewable energy (where applicable.)
 - Update the systems manual with any modifications or new settings and give the reason for any modifications from the original design. Define methods for improving operations and maintenance.
 - Include quarterly reports during the first year of implementation and annual reports on the performance of building systems.



COMMISSIONING CLARIFICATIONS

- Design responsibility remains with the engineer of record
- SystemWorks will coordinate commissioning activities with the Construction Manager. SystemWorks will not be responsible for providing direction to subcontractors.
- SystemWorks has not included time to participate in weekly construction meetings
- SystemWorks has not included time for other trades (mechanical, controls, etc.)
- Reasonable time has been included for re-testing critical issues once they are stated complete. If issues fail a retest or back-check, any additional time required to verify corrections will be considered additional services.
- SystemWorks will require assistance from the control contractor's technician for access to the BAS, and assistance from the District to establish a remote connection



Fee Schedule

By and Between:

SystemWorks LLC
409 Fifth Street
West Des Moines, Iowa 50265

and

Project: Cedar Falls High School
Cedar Falls Community School District
1002 West First Street
Cedar Falls, IA 50613

We are pleased to provide the following fee for review and consideration. Our fee is comprehensive, and it reflects the services described within the RFP, this Scope of Work, and the equipment schematically shown on the DD plans dated 6/30/2020. SystemWorks will complete all facets of the commissioning process in house and will perform all work required for this project without the need of any subconsultants.

COMMISSIONING SERVICES

Cedar Falls Community School District	Expenses	Fee	Accepted
New High School (New Construction)	Included	\$ 150,000	Yes No

Additional Services: SystemWorks’ hourly rate is \$130.00/hour per person plus material and expenses for any work that is requested beyond the “Scope of Work” proposed.

Please contact us if you have any questions or concerns.

This proposal is effective through: September 30, 2020

SystemWorks LLC

Cedar Falls CSD

Andrew Bennett

Andrew Bennett, PE, CCP
515-975-0575 Office
Andrew.Bennett@systemworksllc.com

Approved By

Title

Date



