
**Indiana University
Agreement Between Owner
and Commissioning Consultant**

This AGREEMENT is made: (Date)

BETWEEN the Owner:

**The Trustees of Indiana University
1800 N. Range Road
Bloomington, IN 47408**

and the Commissioning Consultant:

for the following Project:
(project name & project number)
(insert or attach project description)

The Owner and Commissioning Consultant agree as follows:

ARTICLE 1 - SCOPE OF WORK

I. The Commissioning Agent shall arrange, coordinate, prepare, and conduct the following meetings as part of this contract:

- 1) Commissioning kickoff and Construction Document/Basis of Design (BOD) Document review with design representatives. These may involve more than 1 meeting.
- 2) Kickoff meeting with contractors and must include preliminary schedule information.
- 3) Meeting to present verification test procedures to the contractors for their review and comment (after all shop drawings and submittals have been approved).
- 4) Final test scheduling meeting with contractors (approximately 6-8 weeks prior to the end of construction).
- 5) Pre-test kickoff meeting (1 week before start of tests).
- 6) Post-test status and deficiency resolution meeting with contractors and designers, if required (immediately after first round of tests is complete).
- 7) Post-test status and deficiency resolution meeting with contractors and designers, if required (immediately after second round of tests is complete).
- 8) Final meeting to confirm final operating status of the building and to obtain "sign-off" from the Owner. Contractors and designers must be present.
- 9) Three (3) construction site visits during the first 5 meeting trips (these may be scheduled concurrently with the commissioning coordination meetings).
- 10) Meeting to review results of seasonal testing for all systems covered by the Commissioning Scope of Work.
- 11) Meeting to review results of 23-Month Warranty Review for all systems covered by the Commissioning Scope of Work.

II. Commissioning Plan and List of Systems to be Commissioned – to be prepared by Commissioning Agent and attached to this contract as Attachment A.

III. Preparation of Construction Documents Phase

Commissioning Agent shall perform the following responsibilities during the preparation of construction documents for this project:

- 1) Review Basis of Design Document format for conformance with ASHRAE Guideline 0-2005 Sec. 6 Design Phase. Review and comment on Basis of Design Document prepared and submitted by design professional.

- 2) Perform an initial design review at 50% Construction Document completion.
- 3) Develop a draft commissioning specification for all commissioned systems, including:
 - a) A description of the responsibilities of all parties included in the commissioning process.
 - b) Summary information of the commissioning process.
 - c) Preliminary reporting and documentation requirements, including formats, deficiency resolution, and startup requirements.
- 4) Perform a focused design review of the drawings and specifications when Construction Documents are approximately 90- 95% complete.
- 5) Develop a final commissioning specification, incorporating comments from the Owner and Designers, including:
 - a) A detailed description of the responsibilities of all parties included in the commissioning process.
 - b) Details of the commissioning process.
 - c) Reporting and documentation requirements, including formats, deficiency resolution, and testing requirements.
 - d) The verification testing process.
 - e) Specific verification test requirements, including testing conditions and acceptance criteria for each system or piece of equipment being commissioned, based on the BOD. These requirements will be refined and detailed only after approval of shop drawings during the construction phase.
- 6) Coordinate commissioning specification section requirements with the designers' general and technical specification sections for either a unified bid or multiple prime contracts.
- 7) Receive approval for commissioning specifications from the design team and include the commissioning specifications in the final construction specification.

IV. Construction Phase

Commissioning Agent shall perform the following responsibilities during the construction of this project:

- 1) Continue review of Basis of Design Document prepared by the Design Professionals.
- 2) Perform a focused design review of the Final Construction Documents (drawings and specifications and including temperature control drawings). The review will include the following:
 - (a) Facilitate commissioning by reviewing the items listed below, including but not

limited to:

- (i) Compliance with Basis of Design Document goals.
 - (ii) Commissioning facilitation; providing input regarding how to make the building easier to commission.
 - (iii) Operation and Maintenance (O&M); providing input as to how O&M can be made easier, e.g., accessibility and system control.
 - (iv) Clear and rigorous design documentation, including detailed and complete sequences of operation.
 - (v) Access for reading gauges, entering doors and panels, observing and replacing filters, coils, etc.
 - (vi) Required isolation valves, dampers, interlocks, piping, etc., to allow for manual overrides, simulating failures, seasons and other testing conditions.
 - (vii) Sufficient monitoring points in the energy management system (EMS), even beyond those necessary to control the systems, to facilitate performance verification and O&M.
 - (viii) Pressure and temperature plugs close to controlling sensors for verifying their calibration.
 - (ix) Pressure gauges, thermometers and flow meters in strategic areas to facilitate verifying system performance and ongoing O&M.
 - (x) Adequate balancing valves and dampers, flow metering, and control stations and control system functions to facilitate and verify reliable test and balance.
 - (xi) Specification of required startup and testing functions to be performed by manufacturer's field service personnel.
 - (xii) Complete O&M documentation requirements in the specifications.
 - (xiii) Complete training requirements in the specifications.
- 3) Coordinate commissioning work with the General Contractor, Mechanical Contractor, and/or their Subcontractors, Temperature Control Vendor, and the Indiana University Project Manager to ensure that commissioning activities are included in the master schedule.
 - 4) Perform site visits, as necessary, to observe component and system installations. Attend selected planning and job-site meetings to obtain information on construction progress. Issue reports of observations within 2 weeks of each visit with necessary documentation of deficiencies noted.
 - 5) As necessary, review construction meeting minutes and other construction phase documentation for revisions/substitutions relating to the commissioning process. Assist in resolving any discrepancies.
 - 6) Review General Contractor's and/or Subcontractors' submittals applicable to systems being commissioned for compliance with commissioning needs,

concurrent with the Design Engineers' reviews. Issue reports to the Owner identifying and documenting deficiencies with submittals.

- 7) Review additional construction phase documentation, e.g., Requests for Information (RFI's), Architect's Supplemental Information (ASI's), Construction Change Directives (CCD's), progress meeting minutes, other correspondence, etc., required to plan and perform commissioning tasks. Issue reports to the Owner where conflicts appear to jeopardize the successful completion of the commissioning activity.

V. Construction Acceptance Phase Responsibilities

Commissioning Agent shall perform the following responsibilities during the construction acceptance phase of this project:

- 1) Review and comment on any revisions to the Basis of Design Document prepared by the Design Engineers.
- 2) Review shop drawings and submittals related to the commissioning scope of work.
- 3) Coordinate and direct the commissioning activities in a logical, sequential, and efficient manner using standardized protocols and forms, centralized documentation, clear and regular communications and consultations with all necessary parties, frequently updated timelines and schedules, and technical expertise.
- 4) Plan and conduct commissioning planning meetings.
- 5) Prepare, distribute to the appropriate contractors, and review completed forms documenting and verifying system readiness for commissioning activity.
- 6) Review systems startup by reviewing startup reports or by direct site observation.
- 7) Review system verification test procedures developed by the mechanical contractor and issue corrected test procedures, as necessary.
- 8) Analyze duct leakage and piping pressure tests by reviewing completed reports, and/or by direct site observation. Document deficiencies for corrective action.
- 9) Analyze air and water systems balancing by spot testing, by reviewing completed reports, and/or by direct site observation. Review and analyze actual versus design airflows/water flows for terminal boxes and HVAC devices based on design documents and the contractor's test and balance reports. Document deficiencies for corrective action.
- 10) Analyze any verification test trend logs and monitoring data to verify performance. Document deficiencies for corrective action.
- 11) Direct, witness, and approve manual verification tests performed by the installing contractors, including the Mechanical Contractor, and/or their Subcontractors, and the Temperature Control Vendor. Coordinate retesting, as

necessary, until satisfactory performance is achieved.

- 12) Maintain a master deficiency and resolution log including all deficiencies noted by Owner. Maintain a separate testing record. Provide to the owner's project manager written progress reports and test results with recommended actions.
- 13) Coordinate, oversee, and approve the training of the owner's O&M staff, per the Basis of Design.
- 14) Compile and maintain organized and complete commissioning record books.
- 15) Review and approve the preparation of the O&M manuals concurrent with the Design Engineers' review.
- 16) Perform seasonal testing of the systems covered in the commissioning scope of work.
- 17) Perform a 23-month warranty review.
- 18) Submit a commissioning report to the owner.

VI. Documentation

Commissioning Agent shall prepare the following documentation as part of this project:

- 1) Commissioning Plan
- 2) Commissioning Specification
- 3) Verification test deficiency and resolution logs
- 4) Commissioning report

VII. Review and Verify Completion of the Operations & Maintenance Manuals

Commissioning Agent shall review and verify the completion of the following items that must be included in the Operation and Maintenance Manuals for this project:

- 1) Owners Project Requirements (Program Statement)
- 2) Basis of Design document
- 3) Variances from the Basis of Design document
- 4) Equipment
- 5) Data sheets
- 6) Preventive maintenance information
- 7) Repair information
- 8) Automatic Temperature Controls
- 9) Control system schematics
- 10) Sequences of operation

- 11) Commissioning Report
- 12) Commissioning plan
- 13) Manufacturer's test reports
- 14) Test results
- 15) System configuration
- 16) Setpoints

VIII. Coordinate Systems Training

Commissioning Agent shall coordinate and document all systems training to include the following:

- 1) Training by Contractors as specified in the construction documents
- 2) Training by the Independent Commissioning Agent
- 3) Basis of Design
- 4) System configuration
- 5) Control sequences
- 6) Special systems

ARTICLE 2 - TRANSFER OF COPYRIGHT

The Commissioning Consultant acknowledges and agrees that all documents or works prepared by, or hereafter to be prepared by, the Consultant, in whole or in part, in connection with the project, are intended to be the sole property of the Owner. The Consultant hereby expressly transfers to the Owner the exclusive right to any and all copyright interest in the documents.

ARTICLE 3 - TERMINATION, SUSPENSION OR ABANDONMENT

- 3.1 In the event of the Owner termination, suspension or abandonment of the project, the Commissioning Consultant shall be equitably compensated by the owner for services performed to the date of termination, suspension or abandonment.
- 3.2 Either the Consultant or the Owner may terminate this Agreement with or without cause after giving no less than seven (7) days written notice to the other party.
- 3.3 In the event of termination, suspension, abandonment or completion of the project, the Consultant shall deliver to the Owner within seven (7) days all Documents, whether complete or incomplete, not previously delivered to the Owner during the course of the project. The Owner, as the holder of the exclusive right to any and all copyright interest in

the Documents, as provided in Article 2, shall have the right to use and reuse any and all Documents for any purpose in connection with the project, including, but not limited to, its completion using entities other than the Consultant, at the Owner's sole discretion and at no additional cost to the Owner.

ARTICLE 4 - MISCELLANEOUS PROVISIONS

- 4.1 This agreement shall be governed by the law of the State of Indiana.
- 4.2 The Owner and Consultant respectively bind themselves, their partners, successors, assigns and legal representatives to this Agreement. Neither party to this Agreement shall assign the Contract in whole or in part without the advance written consent of the other.
- 4.3 The Consultant will not engage in, or tolerate by its employees, consultants, or agents, sexual harassment.
- 4.4 The Consultant, its agents, employees, or consultants shall not discriminate against any person regarding employment because of race, sex, religion.
- 4.5 Reimbursable Expenses
- a. Receipts and other relevant records must be furnished for all reimbursable costs. Credit card statements are not acceptable records.
 - b. When Consultant employees are away from the home office for twenty-four hours or more, meals will be reimbursed at the current University per diem rate.
 - c. Motel costs will be reimbursed at the single room rate. Telephone calls other than those related to University business, from motels will not be reimbursed.
 - d. Rental car costs are not reimbursable expenses unless approved in advance by the Owner. The use of Economy Class vehicles is recommended.
 - e. Airline travel costs are not reimbursable expenses unless approved in advance by the Owner. Approved airline travel arrangements shall be made through travel agents designated by the Owner. Consultants should travel "Coach Class" and should purchase tickets at least 14 days in advance of travel when possible.
 - f. There will be no reimbursement for travel including mileage, lodging, meals or parking within the state of Indiana.
 - g. Out of state vehicle travel will be reimbursed at the then-current University mileage rate.

- h. Expense of filing fees for securing approval from governing authorities will be reimbursed.
- i. The Owner does not reimburse for miscellaneous overhead expenses, including but not limited to telefax, incidental printing and copying, office supplies, computer discs, couriers, federal express, postage, mail services, and local and long distance telephone service charges. For other miscellaneous expenses, the Consultant may seek approval for reimbursement. Approved reimbursement of miscellaneous expenses will be at a rate of of 1.1 times the expense incurred by the Consultant.

Printing Costs

- All printing for pre-bid or Owner-required reviews (“review sets”), and renderings/presentations shall be produced and distributed by the approved Indiana University Centralized Printing Vendor (“Printing Vendor”). Any expenses associated with such drawing and specification printing shall be borne by Indiana University and shall not be a reimbursable item to the Owner. Consultants shall coordinate submission of either paper copies or electronic files of the review sets to the Printing Vendor along with instructions to the Printing Vendor for distribution of the review sets.
- All printing for project construction bid drawings, specifications, and addenda will be produced and distributed by the Printing Vendor. The Printing Vendor will also host an online web-based planroom that will list current and upcoming IU construction bid projects for information as well as bid set ordering. Consultants shall work with the Printing Vendor to coordinate the direct upload or mailing on construction document files/originals.
- Any expenses associated with reports or documentation above the standard incidental printing, approved by I.U. in advance, shall be borne by Indiana University and not as a reimbursable item to the Owner.

ARTICLE 5 - COMPENSATION AND PAYMENTS

5.1 FOR COMMISSIONING SERVICES and any other services defined in this Agreement as Commissioning Services, Basic Compensation shall be as follows: A fixed fee. Any additional fees for substantial changes of scope must be negotiated and an addendum added to this contract, or with prior agreement of the parties the fee may be established as “NOT TO EXCEED” amount.

FEE \$ _____

5.2 Reimbursable expenses anticipated by the Consultant. (List items and anticipated costs.)

5.3 Consultant services not covered by this Agreement include, among others, revisions due to changes in the scope, quality or budget.

ARTICLE 6

**INDIANA UNIVERSITY
MINIMUM INSURANCE REQUIREMENTS
FOR CONSTRUCTION, NON-CONSTRUCTION AND PROFESSIONAL DESIGN
CONTRACTS**

Obligations of Contractors and Consultants

Contractors and Consultants (whether corporation, sole proprietorship or partnership) shall procure and maintain during the term of the contract and until final acceptance of the completed work under the contract, insurance of the types of coverages and minimum limits as identified here and shall provide the Owner with Certificate(s) of Insurance evidencing these coverages prior to beginning work. With the exception of their "hold harmless" obligations, which are addressed separately below, Contractors and Consultants shall be referred to herein as "Contractor," irrespective of their area of expertise.

- ◆ It is the responsibility of the Contractor and Subcontractors to become familiar with Owner's insurance requirements and to ensure that they can meet these requirements prior to submitting a bid to perform the work. **Please provide this exhibit to your insurance agent so the correct certificate can be issued without delay.**
- ◆ No Contractor or Subcontractor of any tier shall be on the jobsite or proceed with work, and shall not be paid for any work performed, until proper certificate(s) of insurance have been submitted

to and approved by the Owner. All required insurance policies shall be written by a company(s) authorized to do business in Indiana. The Owner shall not be liable to any person for the failure of the Contractor or any Subcontractor to carry specified insurance.

- ◆ It is the responsibility of all Contractors to ensure that all of its Subcontractors also meet these insurance requirements.
- ◆ If any part of any coverage includes a deductible, self insurance, a captive insurance company or a fronting arrangement, the amount so covered must be disclosed on the certificate or in a separate letter from the Contractor. Owner reserves the right to approve of this coverage.
- ◆ NOTE: Contractor is required to meet the insurance specifications during the time of construction *and* during the warranty period, usually two years after the project is accepted by Owner.

CERTIFICATE HOLDER:
The Trustees of Indiana University
1800 N. Range Road
Bloomington, In. 47405-2206

Insurance Requirements

1. General Liability

- **Construction Contracts**

- Each occurrence: \$1 million
- General aggregate: \$2 million
- Products and Completed Operations: \$1 million
- The "COMMERCIAL GENERAL LIABILITY" box must be checked
- The "OCCUR" box must be checked
- Per Project box must be checked

- **Design/Consultant Contracts**

- Each occurrence: \$1 million
- General aggregate: \$2 million
- The "COMMERCIAL GENERAL LIABILITY" box must be checked
- The "OCCUR" box must be checked

2. Automobile Liability

- The box(es) that is/are checked must include a check in the box for Any Auto or All Owned, Hired and Non-Owned Autos
- Combined Single Limit coverage: \$1 million.
- If separate Bodily Injury and Property Damage limits are purchased, each must be \$1 million.

3. Excess/Umbrella

- Excess coverage *per se* is not required. However, any of the dollar amount requirements can be met by a combination of primary and excess coverage.
- Excess/umbrella coverage must be *per occurrence* coverage.

4. Professional Liability

Any type of design or consulting contract requires Professional Liability coverage of at least \$1 million.

Owner reserves the right to require increased limits of coverage if, in the opinion of the Owner, project is hazardous in nature or poses a higher than usual risk.

5. Worker's Compensation

The Contractor shall procure and maintain a Workers' Compensation policy to cover its obligation under the applicable laws of any state or federal government to its employees employed on the jobsite or elsewhere on this project, including its liability as an employer under common law (commonly known as Employer's Liability Coverage "B") with limits of not less than that listed below. Before commencing work, Contractor shall submit to the Owner a valid State Form 41321 (Certificate of Compliance – Worker's Compensation and Occupational Diseases) or a facsimile thereof at Owner's option. **If the Contractor has no employees** (i.e., a one-person shop) then a Certificate of Exception must be obtained from the State.

Worker's Compensation:

Employer's Liability:

Statutory

\$ 500,000 each accident or disease

\$ 500,000 policy limit

\$ 500,000 each employee

6. Builder's Risk Insurance

The Owner shall maintain during the course of construction Builder's Risk Insurance in an amount of not less than one hundred percent (100%) of the insurable value of the completed work, including materials, equipment, and supplies on the site and to become a part of the completed work, subject to a \$25,000 deductible. The Contractor shall bear responsibility for that deductible.

The insured shall be the Owner and the Contractor(s) as their respective interests may appear. The Contractor's loss, if any, is to be adjusted with and payable to the Contractor upon written request to the Owner. The Contractor shall be responsible for and shall insure, if required by the Owner, all materials, equipment, supplies not on the site and to become a part of the completed work, Contractor's equipment, tools, scaffolding, staging, towers, forms and temporary buildings, and other materials, equipment and supplies not intended to become a part of the completed work.

This provision shall not release the Contractor from its obligation to complete, according to plans and specifications, the work covered by the Contract and the Contractor and its Surety shall be obligated to the full performance of the Contractor's undertaking.

NOTE: Prompt notice of potential claims is required. In the advent of a n occurrence that might be covered by Builders Risk insurance, notice must be given to the University within one work day of the occurrence. Except for emergency repairs, no changes to damaged property will be made until an inspection is made.

Insurance Policy Endorsements

All insurance policies must provide the following endorsements to the policy and must be noted on the certificate(s):¹

1. Additional Insured Endorsement (CG2010 10 01 and CG2037) or equivalent form required on General Liability, Automobile Liability and Excess/Umbrella Liability policies naming the Owner and/or Other Parties as defined in Owner's Contract and including coverage for completed operations. Owner shall be identified as: "The Trustees of Indiana University, its officers, agents and employees." *If additional insured status is automatically granted by the insurance form "where required by written contract" then it is sufficient to note that on the certificate with a reference to the form number. This must include information about the Excess/Umbrella coverage, e.g., "Excess coverage is following form."*
2. Aggregate Per-Project Endorsement (CG2503) to the General Liability Policy indicating that the general aggregate applies separately to each project.
3. Waiver of Subrogation on General Liability, Automobile Liability, and Employer's Liability/Workers' Compensation Policies in favor of the Owner.
4. **All insurance policies shall be primary and non-contributing with respect to any insurance carried by the Owner, and shall contain a severability of interests clause in respect to liability, protecting each insured as though a separate policy had been issued to each.**

¹ An addendum to the COI can be used if additional space is needed.

- 5. All policies shall contain a covenant requiring (30) days written notice by the insurer to the Indiana University Office of Risk Management before cancellation, reduction or other modifications of coverage for any reason, *whenever possible*.**

Certificate Details

Description of Operations

The DOO must include the Indiana University project name and project number to which this coverage applies.

Insurance Companies

All insurance carriers selected by contractor must be rated “A-” or above in the most recent edition of the “A.M. Best’s Key Rating Guide.”

Hold Harmless Agreement

Contractor shall indemnify and save harmless the Owner from any and all losses, costs, damages, liability and expenses, including reasonable attorney fees (“Losses”), arising out of or in conjunction with claims or suits for damage to any property not included in the scope of work and/or injury to persons, including Contractor's employees and all Subcontractor's employees of any tier, including death, alleged or claimed to have been caused by or through the performance of the work or operations incidental to the work by the Contractor, its agents or employees, or by its Subcontractors of any tier, their agents or employees, whether through negligence or willful act; and Contractor shall, at the request of Owner, undertake to investigate and defend any and all such claims or suits against Owner.

Hold Harmless Agreement—Consultants

With regard to losses, costs, damages, liability and expenses, including reasonable attorney fees (“Losses”) that may be covered by Consultant’s professional liability insurance, Consultant shall indemnify and save harmless the Owner from any and all Losses arising out of or in conjunction with claims or suits for damage to any property not included in the scope of work and/or injury to persons, including Consultant’s employees and all employees of a Sub-Consultant, if any, of any tier, including death, caused by or through the performance of the work or operations incidental to the work by the Consultant, its agents or employees, or by its Sub-Consultants, if any, of any tier, their agents or employees, whether through negligence or willful act and Consultant.

With regard to losses, costs, damages, liability and expenses, including reasonable attorney fees (“Losses”) that may be covered by Consultant’s other liability insurance programs, Consultant shall indemnify and save harmless the Owner from any and all losses, costs, damages, liability and expenses, including reasonable attorney fees (“Losses”), arising out of or in conjunction with claims or suits for damage to any property not included in the scope of work and/or injury to persons, including Consultant’s employees and all employees of a Sub-

Consultant, if any, of any tier, including death, alleged or claimed to have been caused by or through the performance of the work or operations incidental to the work by the Consultant, its agents or employees, or by its Sub-Consultants, if any, of any tier, their agents or employees, whether through negligence or willful act and Consultant shall, at the request of Owner, undertake to investigate and defend any and all such claims or suits against Owner.

ARTICLE 7 - OTHER PROVISIONS

(Insert description of other services and modifications to the terms of this Agreement here or as an attachment.)

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

OWNER

COMMISSIONING CONSULTANT

(Signature)

(Signature)

Joy Stephens, Purchasing Agent
(Printed name, title and address)

(Printed name, title and address)

Capital Projects Business Office

1800 N. Range Road

Bloomington, IN 47408
