

Request for Proposals For

Commissioning Agent Services For the

Cambridge Redevelopment Authority



99-93 Bishop Allen Dr. Cambridge, MA 02139

September 25, 2020

Proposals Due: October 9, 2020 at 2:00 p.m.

Cambridge Redevelopment Authority

Request for Proposal for Commissioning Services For the

99-93 Bishop Allen Dr. Renovation

NOTICE OF REQUEST FOR PROPOSALS

The Cambridge Redevelopment Authority (CRA) requests proposals from firms experienced in providing full commissioning services for the Renovated 99-93 Bishop Allen Drive Project (the "Project").

Printed and electronic proposals are due to Tim MacKay on Friday October 9, 2020 by 2:00 pm at the following address:

Tim MacKay, AIA
Senior Project Manager
Timothy.MacKay@stvinc.com
STV|DPM
One Gateway
Center Newton MA 02458

Each Respondent shall submit:

- 1) In a sealed package, three (3) hard copies of the proposal.
- 2) One (1) electronic copy in PDF format. Included in the electronic submission must be one version of the proposal that is less than 5MB.

Packages shall be clearly labeled "Cambridge Redevelopment Authority – 99-93 Bishop Allen Drive Renovation Project" and shall clearly identify the Respondent's name and business address, and the name and telephone number of the contact person.

This document (RFP) and all associated addenda will be included as an attachment to the contract between the Owner (CRA) and the selected firm. This RFP includes CRA's sample form of consultant agreement.

Please review this agreement and advise with your response any terms or conditions that are not acceptable Scopes of work contained within this document or are in addition to those listed specifically in the contract.

ADDITIONAL INFORMATION

Prospective respondents shall not communicate with CRA or any of their representatives, with exception to The STV/DPM Owners Project Manager (OPM), at any time during the RFP process except through written questions submitted prior to the deadline set forth herein. All questions must be submitted via email to:

Tim MacKay, AIA
Senior Project Manager
timothy.mackay@stvinc.com

The deadline for receipt of emailed questions is **12:00 p.m. on October 2 2020.** An addendum will be issued in response to questions received.

Project Schedule:

- 100% DD's issue date September 18, 2020
- 100% CD's due on October 30, 2020
- Construction: January 18, 2020 through August 31, 2021
- Owner Move-in July September 2021

Construction is scheduled to be complete by August 2021. CRA expects to have the building fully occupied and in use no later than September 2021.

ADDITIONAL INFORMATION

PROJECT OVERVIEW and PROJECT TEAM

Project Description

The Cambridge Redevelopment Authority recently purchased the property at 99-93 Bishop Allen Dr, Cambridge MA. This property was built in 1855 as four elegant row houses. In 1965, the property was purchased by Cambridge Community Services (today called Enroot), renovated, and converted into nonprofit office space. The property includes nearly 20,000 gross sf of brick and beam four-story structure, with the lowest floor partially below grade. The Building's last renovation was in 1965.

In 2020, CRA staff, the design team from Silverman Trykowski Associates and the Owners project Manager STV/DPM are working with tenants to identify the most appropriate renovation plans.

In coming months, the CRA will initiate construction for a renovation project that will:

- Replace the HVAC (heating, ventilation, air conditioning) systems
- New electrical service, security and tel./data systems
- Enhance life safety
- Improve accessibility and ADA compliance

- Improve the historic façade; new dormer cladding, windows throughout, masonry restoration and a new main entrance
- Install solar panels, including related roof modification and replacement
- Maximize the use of space for social missions
- Improve the quality of the working environment

Design Development Documents have been completed by Silverman Trykowski Associates, Inc. on September 18, 2020. Construction is currently scheduled to commence in January 2021. The desired completion date is August 2021.

Hard construction cost is estimated at approximately \$6 million dollars, including both buildings, selective demolition/abatement, utilities, storm water, and site improvements, MEP systems, façade and interior renovations.

Client Description

The Cambridge Redevelopment Authority is committed to implementing imaginative, creative initiatives to achieve social equity and a balanced economic ecosystem. We work in the public trust to bring a human dimension to development improving the quality of life for residents, businesses, employees, and visitors. Their goal is to balance economic vibrancy, housing, and open space to create sustainable communities through new and revitalized development. They are an independent, agile public authority bringing a unique set of redevelopment tools to work in close partnership with the City of Cambridge and other organizations.

A. Core Team Members

<u>Cambridge Redevelopment Authority</u>

Tom Evans, Executive Director Erica Schwarz, Community Project Manager

TSNE MissionWorks

Faisal Abid, Property Manager

Silverman Trykowski Associates, Inc.

David J. Silverman, AIA, Principal Felice Silverman, FIIDA, Principal

MEP Engineers – AEI Engineers

STVIDPM

Bob Labrecque, Project Director Tim MacKay, Senior Project Manager

General Contractor – TBD

General Scope of Services

In general, it shall be the responsibility of the commissioning agent (CA) to ensure that each of the following is achieved for the Project:

All building systems designed for renovation will meet the end users' needs and can be maintained in accordance with the design intent. A List of Systems to be Commissioned is included in the 100% Design Development Set inclusive of HVAC, Electrical, Life Safety and Plumbing. The DD Set can be downloaded from: https://sta-design.sharefile.com/d-s5f3110e65af4f049

- The construction documents shall accurately reflect the design intent for all building systems and are will be issued for public bidding under Chapter 149 for General Contractor and filed subcontractors to bid and construct of the project.
- The building systems are properly constructed and function individually and together in accordance with the design intent, established performance standards, and CRA's operational needs.
- At Project Completion, adequate documentation is to be provided to CRA. All appropriate training manuals must be completed at Project Completion.

The scope of work includes:

Design Phase

- 1. Assemble commissioning team and coordinate a commissioning scoping meeting with appropriate parties and identify responsibilities.
- 2. Attend monthly (minimum) project meetings with the Owners Project Manager and Design Team.
- 3. Develop Commissioning specifications and a construction phase commissioning plan.
- 4. Develop commissioning specifications ("Cx Specifications") for all commissioned equipment, for inclusion in the construction documents. Cx Specifications shall be coordinated for format and content with the construction specifications and shall, at a minimum, define the commissioning requirements for Plumbing, HVAC and Electrical technical specifications and for each system and piece of equipment identified in this RFP as subject, but not limited, to commissioning. Coordinate this with the architect and engineers and integrate the commissioning specifications into the overall project specification package. The commissioning specification will describe project team responsibilities; details of the commissioning process; reporting and documentation requirements, including formats; alerts to coordination issues, deficiency resolution; construction checklist and startup requirements and test plans; the functional testing process; specific functional test requirements, including testing conditions and acceptance criteria for each piece of equipment being commissioned.
- 5. Coordinate a controls integration meeting where the mechanical engineers, OPM, CRA, TSNE (Building Manager) controls and mechanical subcontractors and their equipment reps, and the CA discuss integration issues between equipment, systems and

- disciplines to confirm that integration issues and responsibilities are clearly described in the specifications.
- 6. Attend subcontractor pre-bid meetings to answer commissioning related questions. Develop and update the commissioning plan as necessary.
- 7. Coordinate the commissioning work during the balance of design.
- 8. Perform focused and thorough reviews of the design, drawings and specifications. Commissioning design reviews shall be conducted at:
 - 100% Design Development Documents
 - 75% Construction Documents
 - Includes a "Page Turn" with the Design Team with Written report to follow.
- 9. Confirm completeness and adherence to the original design intent, performance standards, and regulatory requirements to any early packages received. Review cost estimates prepared by the Design Team and/or independent estimator and advise STV/DPM in writing on the level of completeness of the estimates during the design phase. Expect that the cost estimates will be prepared at:
 - 100% Design Development Documents
- 10. Review construction documents to assume their completeness and coordination among the various disciplines. Review critical engineering calculations and advise STV/DPM of any discrepancies found in the calculations and on any failure to meet design intent or performance standards. Work with the Design Team to make necessary corrections.
- 11. Assist in identifying training requirements and responsibilities for development of the training plan and participation by the CA team members in the training process. The training program shall assure that the building operation personnel of CRA and TSNE receive adequate training for the proper operation of the new systems in the facility. Define required O&M, as-built and commissioning deliverables and deliverable turnover procedures, with references to the construction specifications as appropriate, to ensure that CRA/TSNE receives all necessary documentation from the GC by substantial completion.

The commissioning plan and specifications shall meet the requirements of ASHRAE Guideline 0-2005 *The Commissioning Process*, Guideline 1.1-2007 *HVAC&R Technical Requirements for the Commissioning Process*, and any other current ASHRAE Guidelines.

All commissioning plan and specification reviews should include back-checks of previous design documents and narratives to ensure comments have been addressed.

Bidding Phase

1. Attend and participate in the pre-bid meetings for subcontractors by providing an overview of the commissioning process, explaining its value and importance to the Project, and the requirements of the Cx Specifications and the Cx plan, and answering questions regarding commissioning which may be raised.

- 2. Assist in responding to RFI's relating to commissioning, which are received during the Bidding Phase.
- 3. Assist in the evaluation of key sub-trade for conformance with commissioning requirements.

Construction Phase

- 1. Coordinate and direct the commissioning activities using consistent protocols and forms, centralized documentation, clear and regular communications and consultations with the project team.
- 2. Coordinate the commissioning work with the subcontractor and construction manager, to ensure that commissioning activities are being incorporated into the master schedule.
- 3. Revise the construction phase commissioning plan developed during design, including scope and schedule.
- 4. Attend Project construction meetings as frequently as stated in the scope of work, to advise the Project team on critical path milestone dates that impact commissioning issues and commissioning status and advise STV/DPM on such issues. Review construction meeting minutes and prepare revisions/substitutions relating to the commissioning process as necessary. Assist in resolving any discrepancies.
- 5. Perform site visits, as necessary, to observe component and system installations during construction, testing (including test and balancing), and start-up operations.
- 6. Request and review additional information required to perform commissioning tasks, including O&M materials, Test and Balancing reports, contractor start-up and checkout procedures. Before startup, gather and review the current control sequences and interlocks and work with contractors and design engineers to write detailed testing procedures.
- 7. Review requests for information and change orders for impact on commissioning and owner's objectives.
- 8. Review submittals and coordination drawings to confirm that trades are meeting contract document requirements and developing coordination drawings consistent with contract requirements. Provide timely comments to incorporate into the design team's submittal review comments.
- 9. Write and distribute construction checklists for commissioned equipment.
- 10. Develop a start-up and initial systems checkout plan with contractors for selected equipment.
- 11. Write the functional performance test procedures for equipment and systems. This will include manual functional testing, energy management control system trending and include stand-alone data logger monitoring.
- 12. Coordinate, witness, and document functional performance tests. Coordinate retesting as

necessary until satisfactory performance is achieved. The functional testing shall include operating the system and components through each of the written sequences of operation, and other significant modes and sequences, including startup, shutdown, unoccupied mode, manual mode, staging, miscellaneous alarms, power failure, security alarm when impacted and interlocks with other systems or equipment. Sensors and actuators shall be calibrated during construction check listing by the installing contractors, and spot- checked by the CA during functional testing. Analyze functional performance trend logs and monitoring data to verify performance.

- a. Tests on respective HVAC equipment shall be executed, during both the heating and cooling season. However, some overwriting of control values to simulate conditions shall be allowed. Functional testing shall be done using conventional manual methods, control system trend logs, and read-outs or stand-alone data loggers, to provide a high level of confidence in proper system function, as deemed appropriate by the commissioning provider and the Owner.
- 13. Maintain an issues log and a separate record of functional testing. Report all issues as they occur directly to the Owner's Project Manager. Provide copies to the OPM, GC, and the Designer, along with written progress reports and test results with recommended actions. Review equipment warranties to ensure that the Owner's responsibilities are clearly defined.
- 14. Compile a Commissioning Report, which shall include:
 - a. A brief summary report that includes a list of participants and roles, brief building description, overview of commissioning and testing scope, and a general description of testing and verification methods. For each piece of commissioned equipment, the report should contain the disposition of the commissioning provider regarding the adequacy of the equipment, documentation and training meeting the contract documents in the following areas:
 - i. Equipment meeting the equipment specifications,
 - ii. Equipment installation,
 - iii. Functional performance and efficiency,
 - iv. Equipment documentation, and
 - v. Operator training.
 - b. All outstanding non-compliance items shall be specifically listed. Recommendations for improvement to equipment or operations, future actions, commissioning process changes, etc. shall also be listed. Each non-compliance issue shall be referenced to the specific functional test, inspection, trend log, etc. where the deficiency is documented.
 - c. Also included in the Commissioning Record shall be the issues log, commissioning plan, progress reports, submittal and O&M manual reviews, training record, test schedules, construction checklists, start-up reports,

functional tests, and trend log analysis.

- 15. Review GC and trade contractor submittals (<u>within seven 7 calendar days</u>) applicable to systems being commissioned, concurrently with review by the Design Team to obtain equipment and system information and ensure compliance with the commissioning needs and requirements. Advise STV, the GC, and the designer of any deficiencies noted that may impact the commissioning or intended system performance. Review Designer submittal documentation and comments. Assist in resolving any discrepancies.
- 16. Compile a Systems Manual that consists of the following: Owner's Project Requirements (by owner); Design Narrative and Basis of Design (architect and engineer); Performance Metrics; control drawings, sequences of control (by contractor); and a table of all set points and implications when changing them, schedules, instructions for operation of each piece of equipment for emergencies, seasonal adjustment, startup and shutdown, instructions for energy savings operations and descriptions of the energy savings strategies in the facility, recommendations for recommissioning frequency by equipment type, energy tracking recommendations, and recommended standard trend logs with a brief description of what to look for in them.

Commissioning Phase

- 1. Update and revise the Cx plan and related documentation, as necessary during the commissioning process.
- Verify pre-functional checklist execution by site observation and spot checks.
 Review completed pre-functional checklists and approve systems as ready for functional performance testing.
- 3. Check the installing contractors' field calibration of sensors and actuators during functional testing. Observer Testing and Balancing including providing review and comments on TAB reports.
- 4. Working with equipment with vendors and appropriate subcontractors, witness and approve functional performance tests for each sub-system and system as established by the Cx plan. Services shall include:
 - a. Witness and approve tests on HVAC equipment during both the heating and cooling seasons.
 - b. Analyze functional performance trend logs and monitoring data to verify performance.
 - c. Maintain a master deficiency and resolution log and a separate testing record. Provide periodic (monthly at a minimum, more often if necessary) written progress reports to the Designer, CM, and OPM, which include test results with recommended actions. Coordinate resolution of any deficiencies with the CM and the CM's subcontractors. Witness and document repeat testing, as necessary to verify that all deficiencies are corrected.

- d. Witness all tests of commissioned equipment and systems which CRA/TSNE may contract for or which may be performed by manufacturer's personnel over which the CA may not have direct control. Document and include the test data and reports of such tests in the commissioning record. Submit commissioning record documentation to the CM for inclusion in the O&M manuals.
- 5. Participate in the training of the CRA/TSNE's building operations and maintenance staff in accordance with the requirements of the approved Training Plan. Verify and document, to STV/DPM, that training has been satisfactorily completed.
- 6. Compile and maintain a commissioning record and building systems book(s).
- 7. Review completed as-built drawings and records, including operation and maintenance manuals prepared by equipment manufacturers, fabricators or installers for inclusion in CRA/TSNE's O&M manuals.
- 8. Provide the necessary personnel to prepare documentation and perform testing.

Closeout Phase

- 1. Provide a Final Commissioning Report. At a minimum, the report shall include an executive summary, list of participants and the role of each participant, brief building description, overview of commissioning and testing scope, and a general description of testing and verification methods. For each piece of commissioned equipment, the report shall contain the opinion of the CA regarding the adequacy of the equipment, documentation and training, while satisfying the requirements of the contract documents in each of the following areas:
 - a. Equipment/system specifications and design intent
 - b. Equipment/system installation
 - c. System functional performance and efficiency
 - d. Equipment/system O&M and record documentation
 - e. Operator training
 - 2. All outstanding non-compliance items shall be specifically listed. Recommendations for improvement to equipment or operations, future actions, commissioning process changes, and other appropriate matters shall also be listed. Each non-compliance issue shall be referenced to the specific functional test, inspection, trend log, and other records where the deficiency is documented. The functional performance and efficiency section for each piece of equipment shall include a brief description of the verification method used (manual testing, BAS trend logs, data loggers, or other as appropriate) and the CA's observations and conclusions from the testing.
- 3. The Final Commissioning Report shall include appendices with all acquired sequence documentation, logs, meeting minutes, progress reports, deficiency lists, site visit reports, findings, unresolved issues, communications, and all other relevant information.

- Pre- functional checklists and functional performance tests and monitoring data and analyses shall be provided in a separate labeled binder.
- 4. The CX will validate all installed equipment by the contractor by verifying/filling in the information on the attached spreadsheet.

Post-Commissioning/Warranty Period

- 1. Witness and approve required seasonal or deferred testing and deficiency corrections and provide the final testing documentation for the Final Commissioning Report.
- 2. Review and approve the final testing documentation for the commissioning record and O&M manuals.
- 3. Return to the site at 10 months into the 12-month warranty period and review, with facility staff, the current building operation and the condition of outstanding issues related to the original and seasonal commissioning. Also interview facility staff and identify problems or concerns they have with operating the building as originally intended. Make suggestions for improvements and for recording these changes in the O&M manuals. Identify areas that may come under warranty or under the original construction contract. Assist facility staff in developing reports and documents and requests for services to remedy outstanding problems.

Deliverables

- A. Commissioning Specification
- B. Pre-functional inspection checklists
- C. Functional performance test plan
- D. Systems functional testing acceptance test reports
- E. Draft commissioning report upon occupancy
- F. Seasonal testing report
- G. Final commissioning report
- H. Comments on Construction Design Documents
- I. Comments on relevant shop drawing submittals
- J. Systems manual
- K. End of Warranty review

II. Form of Contract

The selected firm will be issued a Contract Agreement from CRA, See sample agreement in Exhibit B.

III. Desired Qualifications

1. Firm and individual lead team members should have substantial experience acting as the Commissioning Agent for at least three (3) projects over 20,000 sf. of similar building

- type, size, and complexity.
- 2. Certified Commissioning Professional standing by the Building Commissioning Association (BCA).
- 3. Massachusetts registration and licensing in all applicable disciplines, including but not limited to mechanical, electrical, and plumbing engineering.
- 4. Applicable engineer registration is desired.
- 5. Experienced in writing commissioning specifications.
- 6. Extensive experience in the startup, operation, and troubleshooting of all systems to be commissioned on the Project, including HVAC systems, test and balance of both air and water systems, building envelop, building automation and energy management control systems and lighting control systems.
- 7. Knowledgeable and experienced building operations, maintenance, and O&M training.
- 8. Experience in use of alternative and "green" energy sources.
- 9. Knowledgeable in test and balance of both air and water systems.
- 10. Experienced in energy-efficient equipment design and control strategy optimization.
- 11. Direct experience in monitoring and analyzing system operation using energy management control system trending and stand-alone data logging equipment.
- 12. Minority and/or Women owned business enterprises are encouraged to apply. The CRA adheres to the City of Cambridge's commitment to contracting and subcontracting with Minority owned and Women owned Businesses.
- 13. The CA will be an independent contractor and may not be an employee, consultant, or subcontractor of the GC, the Designer, or any member of the Design Team.

IV. Submission Requirements

These items must be met in order to be considered for this project. The submission shall include all of the following. Each item should be tabbed within the applicant's submission. Items can be combined:

- 1. Brief description of the firm's background including:
 - a. Provide a cover letter that confirms the Principal in Charge.
 - b. How many years has the organization been in business performing CA services?
 - c. Is the firm a minority or women owned business?
 - d. List justification and trade categories in which the proposing organization is legally qualified to do business and indicate registration or license numbers, where applicable.
 - e. State the total dollar value of the work (construction value) performed by the Respondent as a CA during the current year and the prior five (5) years:

Year	Total Value of Work
2015:	\$
2016:	\$
2017:	\$
2018:	\$
2019:	\$
2020:	\$

- Description of the firm's experience with particular attention to identifying projects of similar services, as well as comparable building type, size, scope, and complexity.
 Provide a list of these projects that have been substantially complete within the past five
 - (5) years, which includes project description, estimated/actual construction schedule, and names, telephone numbers, and other contact information for reference person(s), and other supporting material as needed. This information should be provided for at least three (3) projects of similar type and scale for which commissioning services were provided.
- 3. Identification of the Project team members with specific information on key Project personnel, including resumes documenting academic and professional experiments and achievements, number of years of experience dealing with similar projects and technologies and tenure with the firm, professional references, and position descriptions. Additionally, provide a list and brief description (including total cost, duration/timeframe) of all projects that each team member is working on that will be occurring concurrently with this project.
- 4. Provide a Project team organization chart showing communication among all

team members.

- 5. A synopsis of the firm's approach to the Project, including:
 - a. Team organization,
 - b. Proposed scheduling,
 - c. How the Responding firm will manage the independent engineering and commissioning agent services expertly and efficiently,
 - d. The firm's approach to integrating the commissioning into the normal design and construction process in order to minimize potential time delays,
 - e. What the responding firm will do to foster teamwork and cooperation from contractors and the Design Team and what it will do to minimize adversarial relationships,
 - f. How the responding firm intends to determine the appropriate level of commissioning effort for the various systems and equipment.
- a) A complete list of the services that the team will be providing for independent engineering and the commissioning process to be followed, which are both required to be described in the response. Provide a description of the team's project approach for all of the activities listed in the scope description; identify any possible technical challenges and proposed solutions.
- 6. A sample commissioning plan developed by your firm for a similar project.
- 7. Identify any firms or individuals not part of your firm that will be collaborating on this Project. For each firm, provide a detailed description of their role in the independent engineering or commissioning services to be provided for the Project and a complete resume and description of the length and substance of their experience as it relates to those services and the Project.
- 8. Information regarding the related disciplines, including but not limited to mechanical, electrical, plumbing, and fire protection that will participate in the Project, whether these disciplines will be provided by your firm's personnel, or will be outsourced.
- 9. List and provide description of building projects that the firm currently has under contract as a CA, regardless of when or whether the work has commenced, including specifically: the name and location of each project, type of work provided, estimated or actual start date, estimated end date, whether or not the project is on schedule, contract price, percentage of work that is not yet complete, the dollar-value of the work that is not yet complete, the number of years or months remaining on the contract, and the annualized value of the incomplete work.
- 10. Evidence of the firm's stability, by providing detailed financial information that can be used to evaluate and ascertain the firm's ability to provide the required services for the duration of the Contract. Please not that each copy of the proposal must contain this information.
- 11. Documentation of insurance including: (I) professional liability insurance of not less than

\$3,000,000; (ii) comprehensive general liability ("CGL") insurance of not less than \$1,000,000; automobile liability insurance of not less than \$1,000,000; (iv) statutory workers' compensation insurance coverage; (v) employer's liability insurance of not less

than \$1,000,000; and (vi) umbrella or excess liability insurance of not less than \$5,000,000 covering over the CGL, automobile liability and employer's liability coverage's; and all of such coverage's shall be provided on the terms set forth in the Consultant Agreement.

- 12. Three (3) references of persons who are familiar with the commissioning work of your firm.
- 13. Fee proposal for the above scope of work. Proposal will include billing rates for all key personnel contemplated to be assigned to the project along with the anticipated level of effort (hours) for the various phases and tasks. Proposal to be on respondent's letter head signed by a company principal.

RFP List of Exhibits:

Exhibit A – Basis of Design Documents: https://sta-design.sharefile.com/d-s5f3110e65af4f049

Exhibit B – Sample Contract Agreement

Exhibit C - Owner Project Manager

EXHIBIT C

	The Cambridge Redevelopment Authority has appointed STV DPM to obsother responsibilities as the Owner and STV DPM agree in writing.		
a)	a) Cooperate with STV DPM in every way.		
b)	b) Provide full access to all parts of the Project and the Work to STV DP hours.	M at all times during normal working	
c)	Provide advance notice and invite STV DPM to all project meetings and subcontractor meetings concerning project.		
but bel	losses, costs or expenses, including attorney's fees and court costs, arising to but not limited to, the exercise of any agency on behalf of CLIENT, under behalf of CLIENT, personal injury, death and property damage, related to party claims.	akings and approvals authorized on	
Un in o pro	party claims. Until the Contractor has been given written notice to the contrary, STV DP in connection with the project. STV DPM shall attend regularly scheduled project meetings of which it has been given adequate notice. Any action by Owner. The Owner may, by written notice pursuant to the provisions of the representative to act on its behalf.	project meetings as well as all special / STV DPM shall be binding upon the	
гер	representative to act on its benam.		
Ac	Accepted by:		
N	Name Date		
	Company		