

CLEVELAND PUBLIC LIBRARY

Finance Committee

April 16, 2024

RESOLUTION AUTHORIZING AGREEMENT WITH TEC, INC. ENGINEERING & DESIGN FOR CRITERIA ARCHITECT SERVICES FOR THE MAIN LIBRARY AND LOUIS STOKES WING FIRE ALARM SYSTEM REPLACEMENT PROJECT

WHEREAS, On February 15, 2024, the Board of Trustees of the Cleveland Public Library accepted the recommendation of the Library's selection committee for Tec Inc. Engineering & Design ("Tec Inc.") to provide criteria architect services for the Main Library and Louis Stokes Wing Fire Alarm System Replacement Project (the "Project"); and

WHEREAS, The Board of Trustees authorized the Executive Director, CEO or his designee to enter into negotiations for an agreement with Tec Inc. in accordance with the requirements of Ohio Revised Code 153.69 and to submit the agreement to this Board for final approval upon completion of the negotiations; and

WHEREAS, After discussions between the Library and Tec Inc. regarding the technical scope and proposed fee for the Project, Tec Inc. has proposed to complete the work on a phased fixed fee basis for a total of \$333,000 in base services, an allowance of \$37,600 for additional services, and an allowance for reimbursable expenses of \$2,000 for a grand total of \$372,600; and

WHEREAS, The Library's Property Management staff notes that the fee includes laser scanning and 3-D modeling of the Main and LSW complex, which accounts for nearly 50% of the fee and which services were included in the original Request for Qualifications and contemplation of the Project scope. While this would not typically be included in a criteria design scope, the age and format of the Library's current as-built drawings necessitates these services in order for the design to proceed; and

WHEREAS, This Board finds the fee for the criteria architect services for the Fire Alarm System Replacement Project to be fair and reasonable; now therefore be it

RESOLVED, That the Board authorizes the Executive Director, CEO or his designee to execute an agreement with Tec Inc. Engineering & Design, in an amount

EXHIBIT 2

not-to-exceed \$372,600 for the criteria architect services for the Fire Alarm System Replacement Project upon such terms and conditions as are approved by the Library's Director of Legal Affairs, and such other documents as are necessary or appropriate to effectuate the Agreement in accordance with this Resolution, with the expenditure of \$372,600 being charged to the Building and Repair fund account 40190105-55300-22901 (Construction/Improvements).



electrical | mechanical | lighting design | technology design

March 25, 2024 – *Rev2*

Mr. Eric Herman
Capital Projects Manager
Cleveland Public Library
525 Superior Avenue
Cleveland, Ohio

Re: Project #714595
Cleveland Public Main Library and LSW – Fire Alarm System Upgrade
Design-Build Criteria Document Engineering Services Proposal

Dear Eric:

Thank you for the opportunity to submit the following engineering services proposal for the fire alarm upgrade at the Cleveland Main Library and LSW located at 325 and 525 Superior Avenue in Cleveland, Ohio.

PROJECT OVERVIEW

The Cleveland Public Main Library consists of the historic Main Library Building built in 1925 and renovated in 1999 and the Louis Stokes Wing completed in 1997. The two buildings are connected by a sub-terranean tunnel below the Eastman Reading Garden. The two buildings are located on Superior Avenue between East 3rd Street and East 6th Street and the total square footage of the buildings is approximately 511,440 sq feet.

The engineering proposal is for Professional engineering and design services to provide criteria architecture and engineering services for the upgrading and replacement of the existing fire alarm system at the Main Library Building and Louis Stokes Wing LSW.

SCOPE OF SERVICES

LASER SCANNING AND 3D BUILDING INFORMATION MODEL (BIM)

The entire library will be laser scanned to create an electronic 3D Building Information Model (BIM) in Autodesk Revit format. The laser scanning will include an initial site visit to gather existing information and identify conditions.

The following visible elements will be included in the 3D Revit model created from the point cloud data:

1. Architectural Base Model showing the Walls, Floors, Columns, Beams, Ceilings, Roofs, Doors, Windows, Skylights, Stairs, Ramps, Railings
2. Fire Alarm Systems

Once the BIM 3D model has been completed, our office will identify and place the existing fire alarm devices into the 3D Revit model. This will be used by the criteria design building fire alarm contractor as the scope of the fire alarm demolition.

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FIRE ALARM ENGINEERING SERVICES

Engineering for the fire alarm includes identifying the latest code requirements for all areas of the building based on the use group of the building, the type of occupancy, the square foot area, the number of floors and the mechanical systems within the library.

Based on the selection of fire alarm system, we will show the code required number and type of fire alarm devices. Because the Library is a high-rise building, the fire alarm notification devices must be able to provide intelligible voice command evacuation instead of traditional horns or bells. Amplifiers and speakers will be used for this purpose and the number of fire alarm speakers will be laid out per the latest code requirements and shown on the 3D modeling software for the design-build contractor to use in the development of their criteria pricing and layout.

There is an identified problem with the current location of the main fire alarm control panel in the security office. The criteria documents will show the new fire alarm panel at a new more-protected location in the library with a remote fire alarm annunciator panel in the security office.

The elevator fire alarm interface including emergency recall, and ADA areas of rescue will be identified. To comply with the latest code requirements, the extent of upgrades to elevator controllers, elevator recall, elevator phones, and ADA area of rescue stations will be determined and included in the criteria design-build documents.

An emergency response wireless radio system is now required in all high-rise buildings. This allows fire department and emergency personnel to communicate using a wireless radio system with repeater antennas. The extent of components needed for code compliance will be determined and included in the criteria design-build documents.

There are known issues with the existing smoke duct detectors and interface with the mechanical building control system. A manual reset must be performed upon alarm. We will identify the number of duct smoke detectors and include interface requirements between the fire alarm control panel and mechanical building control system, so they integrate. The required programming and interface cards will be determined and included in the criteria design-build documents.

Although the existing security access control system will not be replaced, it must interface with the new fire alarm control panel. We will identify the interface requirements between the proposed fire alarm control panel and the security panel, so they integrate properly. The required programming and interface cards will be determined and included in the criteria design-build documents.

ARCHITECTURAL SERVICES

Architectural Services include creating criteria specifications outlining the requirement of the Design-Build partner during the upgrade of the fire alarm system. The specific specification sections to be prepared by the architect for this project will include:

Division 00 - Procurement And Contracting Requirements

00 25 13 Prebid Meetings - Sets date, time, place, and terms for Prebid meetings.

00 26 00 Procurement Substitution Procedures - Substitution procedures during bidding.

00 52 13 Form of Agreement - Standard Form of Agreement Between Owner and Contractor,
AIA Document A101-2017

00 54 32 Digital/Electronic Data Protocol Exhibit - Digital Data Licensing Agreement, AIA Document C106-2022
00 72 00 General Conditions - References AIA Document A201-2017 "General Conditions of the Contract for Construction."
00 72 53 General Conditions – Design/Build (Single-Prime Contract)
00 73 43 Wage Rate Requirements
00 73 46 Wage Determination Schedule

Division 01 - General Requirements

01 10 00 Summary - Project Information: Owner, Project Address, BDP Office, Construction Manager, Consultants, Use of Web-Based Project Management Software.
Work Covered by Contract Documents: Summary of the Work, Project Delivery Method (type of contract), Phased Construction.
Contractor's Use of Site and Premises: Limits on Use, Condition of Existing Building and Grounds, Coordination with Occupants.
Work Restrictions: On-Site Work Hours, Utility Shutdown Restrictions, On-Site Workday Restrictions, Employee Identification and Screening (Owner-provided)
Construction Dates and Milestones
Provisions for cash allowances including lump-sum, unit cost, contingency, and testing and inspecting allowances.
01 22 00 Unit Prices - Provisions for unit prices.
01 23 00 Alternates - Provisions for change-of-scope and cost-comparison type alternates.
01 25 00 Substitution Procedures - Procedural requirements for requests for substitutions during construction.
01 26 00 Contract Modification Procedures - Procedural requirements for changes to the Contract.
01 29 00 Payment Procedures - Administrative requirements for Contractor's Applications for Payment.
01 31 00 Project Management and Coordination - Administrative requirements for project meetings; preconstruction, preinstallation, and project closeout conferences; RFIs; and project Web sites.
01 32 00 Construction Progress Documentation - Contractor's Construction Schedule including Gantt charts and CPM schedules; Contractor's reports.
01 32 33 Photographic Documentation - Construction photographs, video recordings, and web-based photographic documentation.
01 33 00 Submittal Procedures - Procedures for Action and Informational Submittals including Delegated-Design Submittals and Submittals Schedule.
01 35 16 Alteration Project Procedures - General protection and work procedures for remodeling, renovation, repair, and maintenance work.
01 40 00 Quality Requirements - Quality-assurance and -control requirements, special tests and inspections, and Contractor's quality-control plan.
01 42 00 References - Common definitions and terms; and acronyms and trade names of associations, government agencies, and other entities referenced in specification Sections.
01 45 33 Code-Required Special Inspections and Procedures
01 50 00 Temporary Facilities and Controls - Temporary utilities and facilities for construction support, security, and protection.
01 60 00 Product Requirements - Administrative and procedural requirements for product, material, and equipment selection and handling; warranties; and comparable products.
01 73 00 Execution - General requirements for product installation, cutting and patching, protection, field engineering, and progress cleaning.
01 77 00 Closeout Procedures - Contract closeout including Substantial Completion and Final Completion procedures, warranties, and final cleaning.

01 78 23 Operation and Maintenance Data - Emergency, operation, and maintenance manuals for products and equipment.

01 78 39 Project Record Documents - Record Drawings, Specifications, and Product Data.

01 79 00 Demonstration and Training - Administrative and procedural requirements for instructing Owner's personnel in operation and maintenance.

Division 02 - Existing Conditions

02 41 19 Selective Demolition - Demolition of selected portions of existing buildings, structures, and associated site improvements.

DELIVERABLES

BIM SCANNING AND CONCEPTUAL DESIGN PHASE

1. Conduct the initial project design kickoff meeting with our team and your office to introduce the team and review the strategy of the project including the scheduling and coordination.
2. Ongoing attendance at virtual or in-person coordination, review, and design meetings during this phase.
3. Field work and 3D scanning existing conditions documentation will take place during this phase to develop the modeling software and incorporate the fire alarm devices.
4. Conduct subsequent owner design meetings to review and discuss code required engineering requirements and objectives. Our goal is to have a resolution of the various fire alarm system selections determined after this discussion.
5. Deliverables of this phase include turning over both point cloud scans and a clean working 3D BIM Revit model of the library showing walls, floors, ceilings, stairs, and doors. We have included delivering final PDF floor plans of both buildings and the street level plan to the library after the BIM Revit model has been assembled.

FIRE ALARM DOCUMENTATION PHASE

1. Develop and document existing fire alarm device locations.
2. Meeting and discussion with the City of Cleveland Building and Fire Departments to discuss wireless radio system and other city related code requirements.
3. Document the existing fire walls and smoke barriers separations.
4. Document the existing building HVAC duct detectors, locations and existing building management HVAC and security system.
5. Document the existing elevator controls and recall.
6. Determine wall finishes relative to removed fire alarm device location and identify any areas needing special patching or repair.
7. Deliverables include the 3D Revit model updated with the existing fire alarm device locations and showing the existing fire walls.

CRITERIA DESIGN PHASE

1. Update the 3D Revit Model to show the new fire alarm devices with spacing and locations in accordance with the latest code requirements.
2. Layout the wireless radio system, ADA areas of rescue, elevator recall, and other city related code requirements.
3. Selection of interface cards for the mechanical and security system interface with the new fire alarm panel.

4. Create specific criteria specifications including information from the project architect to create documents calling out the replacement and repair of items disturbed during selective demolition.
5. Develop an anticipated project construction schedule including the phases as well as an estimate of expected construction duration.
6. Develop documents to allow for a budgetary level cost estimate to be completed before the Design-build RFP hits the street. This will be used for the advertised estimate of the project. We will also work with the estimator to reconcile costs and answer questions.
7. Determine the most economical or efficient approach based on our experience to phase the project to minimize interruption of the fire alarm system coverage. These techniques will be reviewed and discussed with CPL prior to assembling the final criteria documents.
8. Prepare a final Criteria Package containing the bridging drawings and specifications for submission to a design build team. The Criteria Package will include the 3D Revit bridging drawings, specifications and other requirements needed to accurately prepare a design-build fee for the project.
9. Attendance at the design-build meeting to present and assist the owner with selection of a qualified design-build partner.

BASIC SERVICES

The basic services include the following phases: BIM Scanning and Conceptual Design Phase, Fire Alarm Documentation Phase, and Criteria Design Phase.

Reimbursable expenses include the following items:

1. Building department permit and review fees.
2. Special delivery service fees.
3. Expense of additional insurance coverage or limits including professional liability insurance more than \$5,000,000.00 per claim; \$5,000,000.00 aggregate.

ADDITIONAL SERVICES

The following general items are not included in the basic services in this fee proposal and, if requested and mutually agreed upon in writing, will be performed as additional services requiring additional compensation (see “Compensation” section).

1. Our services are limited to the preparation of a conceptual design package for a design build contractor. It is assumed that the design builder will prepare the necessary stamped fire alarm construction drawings, permit drawings, and additional details necessary for the proper installation of the fire alarm system and devices.
2. QA/QC services to review the constructability of the design-builder drawings to confirm that the work done lines up with the scope indicated in the bridging documents has been included as a separate service noted in the compensation section.
3. Services to provide construction oversight and owner's representation during the construction period to note any discrepancies between the initial design intent and construction has been included as a separate service noted in the compensation section.
4. Additional design work not included under the scope described herein, or redesigned work required because of substantial changes made to the documents by our office as specifically requested by your office after substantial completion of design, not due to errors or omissions on our part, are considered additional services.
5. Not included in our fee are re-design costs associated with mechanical or electrical supply chain related issues.

6. Additional design work required for the preparation of alternates as required by your office, whether accepted or not.
7. Additional design work to review or modify documents as part of a value engineering effort after substantial completion of the design effort or after the bidding process has been completed are considered additional services.
8. Additional Construction Administration services to attend construction meetings or provide the design build contractor direction beyond the scope of services listed are considered an additional service.

COMPENSATION

For the purposes of this project, we propose to work on a phased fixed fee basis. Our fee, based on the conditions and scope, is \$333,000. This fixed fee is broken down by phase as follows:

1) BIM Scanning and Conceptual Design Phase:	\$153,000
2) Fire Alarm Documentation Phase:	\$35,000
3) Criteria Design Phase:	\$145,000

Additional Services:

- 1) Design-Build QA/QC Document Review: Add \$5,600
- 2) Construction Oversight and Owner's Representation: Add \$32,000

Reimbursable Expenses: *Expenses incurred by our office including costs associated with printing, travel, and lodging: \$2,000*

Please advise us if special billing formats or reference numbers are required. Our fees and rates are based on the timely receipt of payment for our services performed.

We reserve the right to renegotiate fees if the project is suspended and later resumed.

Thank you for the opportunity to present this proposal. If the proposal meets with your approval, please sign, and return the original proposal, retaining the copy for your files. Should any item in the proposal require clarification, please contact us.

Respectfully submitted,
Tec Inc. Engineering & Design



Timothy Pool, P.E.
Principal

Accepted

Company name

Authorized signature

Printed name & title

Date