

SparhawkGroup

Engineered Building Performance

Deb Alden
RSU 10
Via email

August 11, 2023

SUBJECT: Mountain Valley Community School – Commissioning Scope and Fee Letter revised 8-11-23

Ms. Alden:

Sparhawk Group is pleased to submit this scope and fee proposal for Mountain Valley Community School. We have developed the below scope of work in accordance with the provided RSU 10 MVCS Cx Scope of Services dated 6-21-23.

SCOPE OF WORK

DESIGN DOCUMENT REVIEW

Sparhawk Group will review a 100% construction document set to provide peer review of the building systems. A design review report will be issued, and Sparhawk Group will attend a design review meeting to discuss the results, with an emphasis on operational and energy efficiency. Concurrently, Building Performance Advisors will review the Building Envelope as part of their BECx work. This design review meeting will occur any time after the design review is submitted. We will also ensure that commissioning requirements are included in the construction documents.

REVIEW OF SHOP DRAWINGS AND SUBMITTALS

Sparhawk Group will provide peer review and comments for the submittals listed below as part of the Cx scope. Building Performance Advisors will review the Building Envelope submittals as part of their BECx work. Comments will be submitted to the design team and tracked in the commissioning plan. Ideally, Sparhawk Group is notified when submittals are provided to the A/E and can review concurrently.

COMMISSIONING PLAN

A commissioning plan will be developed that will include a list of systems to be commissioned, the depth of testing required, roles and responsibilities of team members, commissioning communication protocols, and the overall definition and scope of commissioning for the project. This commissioning plan will serve as the road map for services and will be updated during construction to reflect project conditions. Building Envelope Commissioning will be integrated into the commissioning plan.

TEAM MEETINGS AND SITE VISITS

Sparhawk Group may attend project meetings during the design and construction phases of the project. Additionally, Sparhawk Group will hold a commissioning kick-off meeting which will be directed at reviewing the commissioning plan and discussing schedule and process.

During construction, Sparhawk Group will perform irregular site visits to assure that equipment is being installed as designed, reviewed, and approved by the project team. Construction milestones that trigger site visits include after rough-in has been completed, during major mechanical equipment placement, and start-up.

After each site visit, a site visit summary report will be generated outlining findings and recommendations. If items of concern are found that are time critical, immediate dialogue will take place with the design and construction teams to assure prompt resolution of any issues identified.

BUILDING ENVELOPE COMMISSIONING

Sparhawk Group has partnered with Building Performance Advisors (BPA), to perform BECx work. BPA will review design documents, submittals, hold a building envelope pre-installation conference to review the practical aspect of installation, conduct 6 site visits to review the ongoing installation, observe air and water tests (we recommend envelope testing be owned by the GC) and submit to Sparhawk Group information to include in the Final Commissioning Report.

PRE-FUNCTIONAL CHECKLISTS AND FUNCTIONAL TEST SHEETS

Sparhawk Group will develop and submit pre-functional checklists to be completed prior to equipment start-up and functional testing. The pre-functional checklists ensure equipment is properly installed and ready for start-up and functional testing.

Sparhawk Group will also develop functional test procedures to be completed once equipment is operational. These test procedures will be developed specifically for the equipment on this project and will accurately reflect the equipment and operational procedures that have been specified. These will be developed after an approved Automatic Temperature Control (ATC) submittal is received.

COMMISSIONING AND DOCUMENTING SYSTEMS

Based on the provided commissioning scope of work, we have developed a fee based on commissioning the following equipment:

- **Mechanical Systems:**
 - Hot Water Heating Systems
 - Chilled Water Cooling Systems
 - Central air systems
 - Exhaust Systems
 - Kitchen hoods and interlocked make-up air
 - Ductless heat pumps
 - Automatic Temperature Controls
 - Energy management systems
- **Plumbing**
 - Domestic HW Systems
 - Domestic HW Recirculation
 - Thermostatic Mixing Devices
 - Pumping Systems
 - Booster Pump
 - Elevator Sump Pump
 - Emergency Safety Stations
- **Electrical**
 - Lighting Controls
 - Emergency Generator
 - Emergency Lighting
 - Owner metering systems
 - Access Control
 - Lock-down System
- **Building Envelope**
 - Review of Mock-up
 - Air Infiltration and Water Barrier Systems
 - Window System Installations and Flashings

- Fenestration Field Testing Observation (we recommend testing be owned by GC for logistical reasons)
- Thermal imaging
- Roof Systems

FINAL COMMISSIONING REPORT

Sparhawk Group will compile a Final Commissioning Report detailing commissioning efforts, any remaining open items, and all commissioning documentation. This report will serve as a record of commissioning efforts, challenges identified and mitigated during the construction process, and will serve as a reference for building operators throughout the building's lifecycle.

REVIEW OF OPERATION AND MAINTENANCE (O&M) DOCUMENTATION

Sparhawk Group will review the Operation and Maintenance manuals for content completeness. The manual will be coordinated among the various construction team members and will conform to the standards laid out in the specifications.

TRAINING PLAN REVIEW AND SUPPORT

Sparhawk Group will review and support training efforts. The commissioning agent will attend and document that training has been completed. The proposed training requirements will be covered in the Commissioning Plan.

POST-OCCUPANCY REVIEW

Sparhawk Group will perform a 10-month post-occupancy review. The purpose of this visit is to conduct any seasonally deferred testing and to address any outstanding issues or concerns that the owner may have with the building operations or commissioned equipment prior to warranty expiration. After the visit, the Commissioning Report will be amended as needed.

DELIVERABLES AND REPORTS

Sparhawk Group will provide the following deliverables and reports:

- Design Review Report (80% and 100%)
- Commissioning Plan, including:
 - Outline of Commissioning Process and Scope
 - List of Systems to be Commissioned
 - Depth of Testing Required
 - Commissioning Roles and Responsibilities
 - Commissioning Communication Protocols
- Site Observation Reports
 - Kickoff Meeting
 - MEP Commissioning
 - Building Envelope Commissioning
 - Startup Observations
 - Training Observations
- Corrective Action List containing issues to be resolved prior to project acceptance
- Final Commissioning Report, including:
 - Project Summary
 - Commissioning Plan
 - Pre-Functional Checklists
 - Functional Test Sheets
 - Corrective Action List
- 10 Month Post-Occupancy Review Notes

SCHEDULE

Sparhawk Group understands that a design review is needed in the near term, and we are prepared to begin work on that upon proposal acceptance. Once the report is complete, the CxA will meet with the design team to review the comments.

COMPENSATION

Sparhawk Group's compensation for the base scope of work will be:

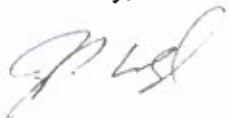
\$178,282

All subcontractor, travel, and incidental fees are included. Exclusions from the RSU 10 MVCS Cx Scope of Services 6-21-23: The 80% Design Review was removed and the fee adjusted.


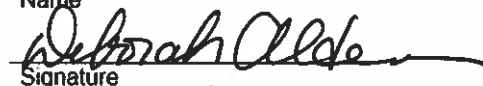
Design Phase	\$41,234
MEP Design Reviews & Cx Plan	
Building Envelope Design Review	
Construction Phase	\$121,136
Submittal Review	
Site Visits/Construction Checkout	
Functional Performance Testing	
Testing and Balancing Review	
Warranty & Operations Phase	\$15,912
O&M Documentation Review	
Final Cx Report	
Post-Occupancy Visit	
Training Review and Support	
Total Project Cost	\$178,282

Please do not hesitate to reach out to me with any questions. We look forward to working with you.

Sincerely,


Sparhawk Group
by: Joe Lloyd, P.E., CxA
Its Vice President

Seen and Agreed to:


Name

Signature
8/14/23
Date