July 10, 2025

James Duke
Facilities & Capital Projects
Supervisor
Blount County Schools

RE: Blount County Schools – Heritage Middle Schools – Roof Consulting Services + Moisture Diagnostic Survey

Dear Mr. Duke,

We are pleased to submit our quotation to conduct Roof Consulting Services for Blount County Schools.

Moisture Diagnostic Surveys:

- Perform a Moisture Diagnostic Scan on the designated roof sections.
  - Moisture Diagnostic Scans provide a powerful tool in the process of identifying roof areas with moisture content. By evaluating the results, you can establish whether the water infiltration is localized or is widespread across an entire roof area.
  - Nuclear scanning counts hydrogen molecules by emitting neutrons, the higher the numbers will determine the amount of moisture in roof assembly.
  - Nuclear scans are required when more than one roof is present in the assembly as well as ballasted roof systems.
    - Reports containing all the findings, as well as the methods employed while completing the scan.
      - Confirm the condition of all roof areas by cross-referencing data with photographs.
    - Readings taken from a moisture meter are used to verify scan results.
    - Outlines of wet areas will be painted using highly visible marking paint.
    - Core cuts provide accurate information on the number of plies, type and thickness of insulation and coatings, and the type and condition of structural decking that supports the existing roof system. Core samples can be analyzed for asbestos content, water infiltration, and roof system integrity.
      - A representative number of core cut samples for each roofing section or more as needed.

- Determination of the condition of roofing system components

➢ Drawings of each roof area will indicate the location of each wet area.

- Detailed drawings will be provided.
- Perimeter details will be identified.
- Penetrations will be categorized by type and their locations will be marked.
- The existing roof system composition will be detailed.

Structural Evaluation: If Needed

1. Visit the site and access the building.
   a. Observations should be made from inside the building and on the roof. When access is not possible, use means necessary to make observations from the perimeter (i.e., ladder or lift).
   b. Follow OSHA recommendations for all work, safety devices, and working at heights.
   c. Use good judgment and be aware of site and weather conditions that could make work hazardous.
   d. Consultant shall provide means for working at heights unless otherwise agreed upon.
   e. Obtain all available documents regarding current roof structural systems including As-Built and Construction drawings.
2. Survey, thoroughly review, and document the supporting structure of each included roof area as follows:
   a. Make observations as to the existing condition of the building. Report immediately any conditions of concern. Any existing conditions which require assumptions on the part of the Consultant to perform the scope of work need to be discussed as early as possible.
   b. Take measurements for the purpose of confirming information on structural drawings and performing structural analysis.
   c. The scope for this project includes an analysis of the following:
      i. Existing Roof Panel
      ii. Roof Purlins
      iii. Roof Mainframe as necessary (dependent on project SOW and building type)
   d. This scope does not include an analysis of the following:
      i. Columns
      ii. Walls
      iii. Footings
3. Perform Structural Analysis of the components included in the scope according to current building code in the state, province, or municipality where the project is located. Analysis should include:
   a. Determine maximum allowable gravity load which may be added permanently to the roof.
   b. Determine maximum purlin midspan deflection under the maximum allowable gravity load for roofs under 1:12 slope.
   c. Check purlins against negative deflection for current code level wind loads.
4. Membrane Manufacturer will provide:

a. Weight of the proposed roofing replacement/recover materials.

5. Review of findings with Garland after the structural analysis is performed to discuss the results.
6. Signed and sealed report on Consultant's letterhead. This report should include the following information:
    a. If existing conditions of concern are found during the site visit, provide a brief written description of these concerns with relative pictures (see 2.a).
    b. A statement of the gravity load (psf) that can be added to the existing roof (see 3.a).
    c. Roof plan noting purlin section type, spacing, span, and any areas with deficiencies.
    d. Pictures of roof structure, especially any areas of damage or corrosion.
        i. Digital copy of all pictures taken during the site visit(s).
    e. Provide a written description of the following potential solutions based on the analysis results and review meeting(s) with Customer (see 5):
        i. When the roof is found to have additional capacity for the proposed retrofit roof system:
            - Purlin Reinforcement Retrofit (PRR) such as Top Hat or Roof Hugger
            - Low slope roof system such as modified bitumen or single ply.
        ii. When the roof is found to be deficient to carry the proposed additional weight, but structural modifications are considered:
            - Purlin Reinforcement Retrofit (PRR). Utilize Top Hat or Roof Hugger engineering reports to determine this.
            - Purlin Modifications (PMOD), provide summary scope of potential solutions that are available.
            - Mainframe Modifications (MFMOD), provide summary scope of the potential solutions that are available.
            - Tear off and replacement of the existing roof panels. Include requirements for purlin strapping or lateral bracing as required.
            - Provide a design services proposal for the above structural modifications.

Specifications and Project Management:

Phase I

- Meet with owner representative and facility director on site to determine working conditions, limitations, expectations, general concerns, and review financial parameters.
- Discuss client's goals and desires for sustainable building solutions.
- Discuss required permits from the City, County, State Governments.
- Discuss existing roof system evaluation procedure (ie. Asbestos Testing Requirements, R-Value Requirements, Structural Concerns)
- Review multiple roofing manufacturer guidelines and procedures.
- Establish a project specific roofing budget.
- Review payment performance bond requirements with representatives.
- Perform an inspection of the desired roof area and produce a report with data and photos.
- Review solution options with the owner and determine if the project will proceed.

Phase II

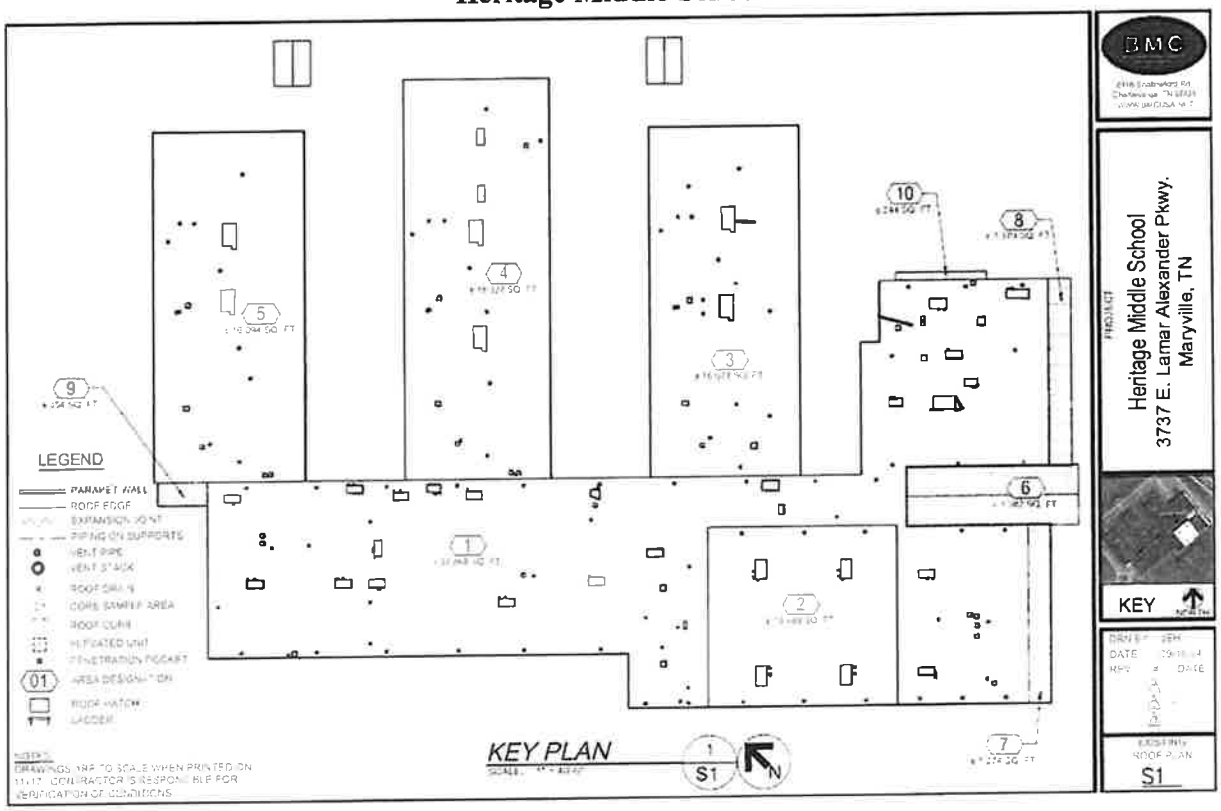
- Project Team will generate a detailed performance-based specification. **Architectural stamped plans and drawings complete with wind-uplift calculations, snow calculations, drainage calculations, and project specific details can be produced *upon request – cost not to exceed $5,000.00.*
- Present project specifications to the owner and make any necessary changes to the specifications.
- If the project is to progress, the necessary steps will be taken to proceed with a mandatory pre-bid.
- Pre-bid conference will be held on site to familiarize the contractors with facility and campus requirements. Here we will address any questions or concerns of the contractors.
- Issue any addenda if required.
- Review the contractor's bid results with the client and make recommendations.

Phase III

- Organize a pre-construction conference on site with owner representatives, awarded contractor, material manufacturer, and BMC Project Team.
- Provide an architectural schedule of values that will be submitted by the awarded contractor.
- Start project – BMC will perform site inspections and generate written progress reports complete with photos. (Weekly and a Final Inspections will be included. Additional Progress Inspections can be performed upon request.)
- Review any progress payment submitted by the contractor and approved if justified.
- Once the project is completed, the owner representatives, contractor, material manufacturer, and BMC Project Team will meet on site to determine if a project punch list is required.
- Oversee the completion of punch list requirements and provide a written report with photos.
- The contractor is required to furnish BMC with the specified manufacturer's warranty.

The following scope will be performed for the sum of:

Heritage Middle School



Option: Field Services and Roof Design and Specification:
Budgets:

Area	System	SQ. Ft.	Condition	Solution	Budget
Section #1	GS BUR	47,868	Poor	Layover	**1,436,040.00**
Section #3	GS BUR	16,077	Poor	Layover	**482,310.00**
Section #4	GS BUR	18,327	Poor	Layover	**549,810.00**
Section #5	GS BUR	16,094	Poor	Layover	**482,820.00**
		98,366			**$2,950,980.00**

Budgets based on a 30 Year Modified Bitumen Roof System

- Field Services, Structural Evaluation, and Design/Spec/Manage – Not to Exceed
  - ***$145,000.00***

Thank you again for the opportunity to assist you with your consulting services. Please call me directly with any questions you may have.

Sincerely,

Nicholas T. Losh
President

Building Management Consultants
Nick Losh

Phone (423) 309-2027
nick@bmcusa.net

Blount County, TN

JOURNAL INQUIRY

YEAR	PER	JOURNAL	SRC	EFF DATE	ENT DATE	JNL DESC	CLERK	ENTITY	AUTO-REV	STATUS	BUD YEAR	JNL TYPE
2026	01	657	BUA	07/11/2025	07/11/2025	141	Deena.Finley	1	N	Hist	2026	

LN	ORG / ACCOUNT	OBJECT	PROJ	REF1	REF2	REF3		LINE DESCRIPTION / ACCOUNT DESCRIPTION	DEBIT	CREDIT	OB
1	14100200	530400	00000	599			T	HMS Roof Design	145,000.00		
	141-72620-530400-00000-000-00000-0000-50-00000							Architects			
2	14100200	559900	00000	304			T	HMS Roof Design		145,000.00	
	141-72620-559900-00000-000-00000-0000-50-00000							Other Charges			
								** JOURNAL TOTAL	0.00	0.00	
								** GRAND TOTAL	0.00	0.00	

1 Journals printed

** END OF REPORT - Generated by Brittany Spence **