



2025 School Building Committee Meeting Minutes

Monday, July 20, 2026 – 7:00 PM

Location: Remote via Zoom

Committee Attendees:	Angela Thedinga, Chair	2025 Hingham School Building Committee
	Jim Cahill, Vice Chair	2025 Hingham School Building Committee
	Tom Donnelly	2025 Hingham School Building Committee
	Charlie Hayes	2025 Hingham School Building Committee
	Shane Nolan	2025 Hingham School Building Committee
	Brian Mulkerrin	2025 Hingham School Building Committee
	Jen Benham	2025 Hingham School Building Committee
Central Office/Town:	Aisha Oppong	Executive Director, Hingham Public Schools
	Matthew Meehan	Facilities Director, Hingham Public Schools
	Patricia Burke	Sustainability Coordinator, Town of Hingham
	Kathryn Roberts	Superintendent of Schools
	Katherine Dugan	Assistant Town Administrator for Finance, Town of Hingham
	Julie Strehle	Select Board Liaison
Design/OPM Team:	Steven Pohl	Advisory Committee
	Tom Ellis	Jones Lang LaSalle Americas (JLL) / OPM
	Brendan Bovard	Jones Lang LaSalle Americas (JLL) / OPM
	Kevin Riordon	Dietz & Company – Architects / Designer
	Mike Trzcinski	Hesnor Engineering / MEPFP Engineering
	Josh Doolittle	B2Q Energy Consultant
Guests:	Sara Ross	Co-Founder, Undaunted K-12
	Jacob Goldman	Energy Tax Savers

Call to Order

The meeting was called to order by the Chair at 7:01 PM. A quorum was present. The meeting Chair made the following statement:

“This meeting is being held remotely as an alternative means of public access pursuant to Chapter 2 of the Acts of 2025 and all other applicable laws temporarily amending certain provisions of the Open Meeting Law. You are hereby advised that this meeting and all communications during this meeting may be recorded by the Town of Hingham in accordance with the Open Meeting Law. If any participant wishes to record this meeting, please notify the chair at the start of the meeting in accordance with M.G.L. c. 30A, § 20(f) so that the chair may inform all other participants of said recording.”

Chair confirmed committee attendees with roll call attendance:

- Jen Benham – Present
- Jim Cahill – Present
- Tom Donnelly – Present
- Charlie Hayes – Present
- Shane Nolan – Present
- Brian Mulkerrin – Absent (joined later, approx. 8:00 PM)
- Angela Thedinga – Present

1. **Approval of Prior Meeting Minutes**

June 23, 2026 Meeting Minutes

Discussion: Minutes from the June 23, 2026 meeting had been posted to the pre-read folder rather than the standard minutes folder. The Chair confirmed with Tom Donnelly, Shane Nolan, and Charlie Hayes that they had reviewed the minutes and were comfortable voting. No comments were raised.

Decision: Committee APPROVED the June 23, 2026 meeting minutes via roll call vote:

Motion: Jim Cahill

Second: Charlie Hayes

Roll Call Vote: Jen Benham – Yes; Jim Cahill – Yes; Tom Donnelly – Yes; Charlie Hayes – Yes; Shane Nolan – Yes; Angela Thedinga – Abstain. Motion Passed.

2. **Approve Invoice(s)**

Dietz Invoice #8 - \$1,287.50

Discussion: The Dietz #8 invoice, previously shown at the end of the prior meeting with a correction subsequently made, was presented for approval. No questions or comments were raised.

Decision: Committee APPROVED Dietz Invoice #8 via roll call vote:

Motion: Shane Nolan

Second: Jim Cahill

Roll Call Vote: Jen Benham – Yes; Jim Cahill – Yes; Tom Donnelly – Yes; Charlie Hayes – Yes; Shane Nolan – Yes; Angela Thedinga – Yes. Unanimously approved.

3. **Hingham High School MSBA Roof and HVAC Project Updates and Actions**

At the Chair's request, item 3(c) (IRA Direct Pay) was addressed first, followed by items 3(a)/(b) (LCCA/Energy Model) and 3(d) (heat pump vote).

a/b. Updated Life Cycle Cost Analysis (LCCA) and Energy Model Update

Kevin Riordon (Dietz & Company) and Tom Ellis (JLL) presented an updated LCCA, including a version excluding the IRA tax credit for comparison, per the Committee's request at the prior meeting. Cost estimates for Options 4 and 5 (like-for-like boiler replacement) were received immediately before the meeting and had not yet been reconciled for an apples-to-apples comparison with Options 1–3; that work is ongoing.

Electrical and Structural Cost Additions:

- Option 1 (ground source): estimated added electrical service cost of approximately \$1.7 million (existing 3,000A/1,500 KVA, 480V service and switchgear require upgrading; per Mike Trzcinski, existing feeder capacity may already support 3,000A, but the switchgear itself does not).
- Options 2/3 (air source): require a larger, approximately 4,000A electrical service; estimated total electrical/structural added cost of approximately \$3.8 million for Option 3 (a delta of roughly \$2.1 million above Option 1's electrical cost).
- Structural roof-reinforcement costs are higher for Option 3 due to two large rooftop chiller units (approximately 26,000 lbs each) versus a single, lighter unit for Option 1 (approximately 28,000 lbs); this structural delta is estimated at approximately \$1.66 million, bringing Option 3's combined electrical/structural delta above Option 1 to approximately \$3.76 million.
- Kevin Riordon noted the estimator had priced Options 1 and 3 in detail based on prior direction and will need to revisit Option 2; Brian Mulkerrin and Mike Trzcinski noted the transformer sizing shown may not reflect standard utility increments and should be confirmed with the utility once a system is selected.

Tax Credit / Cost Comparison:

- Based on information from Jacob Goldman's presentation, the eligible credit percentage may be higher than previously modeled (an effective ~34% rather than ~25.5%, i.e., a 40% base rate rather than 30%), and electrical equipment, installation, design, and OPM fees may also be creditable. Dietz will update the LCCA to reflect this, which is expected to improve Option 1/2's net cost position relative to the figures presented.
- Approximate figures reviewed: Option 1 net present value (with IRA credit as previously modeled) of approximately \$16.5 million; gross HVAC-only project cost before incentives/MSBA reimbursement of approximately \$42 million; after incentives, approximately \$27 million net for Option 1 versus approximately \$18 million net for Option 3 — a differential of roughly \$14–15 million in up-front funding need between the two options.

Geothermal Well-Field Balance: Mike Trzcinski and Josh Doolittle reported that Salas O'Brien's initial analysis recommends adding a 30-ton air-cooled chiller to Options 1/2 to help rebalance ground temperature over the life of the system (preliminary estimate of approximately 2°F of drift by year 27 without it). The chiller would operate opportunistically to recharge the well field and is expected to maintain balance over its approximately 25-year service life. This is a different function from Option 2's VRF-based hybrid approach, which the Committee has previously deprioritized on maintenance-cost grounds.

Maintenance Perspective: Matthew Meehan reported that with a lean, 6-person district maintenance staff, ground-source (geothermal) systems require significantly less specialized, vendor-dependent maintenance than air-source systems, which involve more compressors, motors, and controls typically requiring outside contractors. He cited the high school's current 27-year-old chiller (two of three compressors failed, requiring a \$60,000+ capital replacement) as an example of air-based system failure cost, versus an approximate \$8,000 ground-source pump replacement. Aisha Oppong noted that operating two different HVAC technologies across the district (geothermal at Foster and a different technology at the high school) would require the district to maintain two sets of technical skills/vendor relationships, versus a single technology platform if geothermal is selected district-wide.

Acoustics: Mike Trzcinski and Kevin Riordon noted that manufacturer sound data provided to date covers only interior, duct-borne noise, not exterior compressor/condenser noise; Option 3's rooftop compressor units are expected to be louder than Option 1's. Neighborhood sound-impact data is not yet available and will need to be obtained from manufacturers.

Financing / Tax Impact: Angela Thedinga, with input from Katherine Dugan and Aisha Oppong, shared a rule of thumb that each \$10 million in project funding equates to approximately \$100 per year in additional property tax for a home assessed at Hingham's average value (approximately \$1.3 million); the approximately \$14–15 million cost differential between Options 1 and 3 was estimated to translate to roughly \$150 per year in additional tax burden if Option 1 is selected. The town will need to seek town-meeting authorization for the full, non-incentivized HVAC project cost (approximately \$42 million, exclusive of roof/MAAB scope), with actual borrowing reduced over time as MSBA reimbursements and, if realized, IRA credits are received. Aisha Oppong confirmed the town's practice (based on the Foster project) is to borrow based on actual near-term cash-flow needs rather than the full authorized amount, with MSBA reimbursements received on a rolling basis (approximately quarterly for Foster).

The Committee's deliberation on Options 1 versus 3 weighed short-term tax and disruption impacts (favoring Option 3) against long-term reliability, lower equipment-replacement frequency, and reduced vendor dependency (favoring Option 1).

c. IRA Direct Pay Eligibility and Requirements, Tax Consultation, Risks, and Insurance

Patricia Burke introduced two guest presenters invited to address Committee questions raised at the prior meeting regarding the federal IRA direct-pay tax credit for the geothermal system: Sara Ross (Co-Founder, Undaunted K-12) and Jacob Goldman (Energy Tax Savers).

Sara Ross – Key Points:

- The One Big Beautiful Bill Act (July 2025) did not reduce or shorten the availability of the direct-pay geothermal tax credit, and did not add restrictions comparable to those now affecting solar and energy storage projects.
- The direct-pay credit is treated as mandatory government spending (similar to an IRS refund obligation) and is not subject to annual appropriation.
- Two compliance areas apply to this project that did not apply to the smaller, earlier Foster project: domestic content and prevailing wage/apprenticeship requirements.
- Districts including Seattle Public Schools and a Texas district have successfully navigated domestic-content compliance on similar projects.

Jacob Goldman – Key Points:

- Domestic content becomes a requirement (not a bonus) because the project's cooling capacity exceeds 284 tons.
- Requirement is a 40% average domestic content by equipment/material purchase price (not labor), measured from the well field to interior diffusers.
- IRS guidance technically calls for manufacturer cost data, which is difficult to obtain; Energy Tax Savers instead applies an alternate purchase-price calculation, targeting 45–50% domestic content to provide a cushion above the 40% threshold.
- A simplified Treasury "Safe Harbor" domestic-content table is anticipated, potentially by year-end, but is not guaranteed.
- Estimated IRS audit rate for this credit is expected to be lower than the general 1–2% rate due to a pre-filing review step; the firm has completed several hundred similar projects with no audits to date. Clients may also choose to escrow a portion (e.g., 10%) of the credit pending the audit window.
- Under Massachusetts open-specification procurement (M.G.L. c. 30B), domestic-content compliance can be pursued by specifying required domestic-content percentages for major equipment/material categories (e.g., 100% for piping, ductwork, and borefield materials; approximately 55–65% for air handlers/heat pumps) while keeping the overall procurement open.

Financing / Insurance Discussion:

- Katherine Dugan raised the tax-exempt bond financing "haircut": for ground-source projects financed with more than 15% tax-exempt bonds, the direct-pay credit is reduced by 15% of the credit amount (e.g., a 30% credit becomes an effective 25.5%; a 40% credit becomes 34%). This haircut was already factored into the Foster credit and the current ~\$11 million estimate for this project.
- Patricia Burke reported preliminary information on an insurance product (more common for large-scale solar, increasingly offered for geothermal) that would insure the direct-pay payment against denial or IRS claw back. Estimated one-time premium of approximately 4–5% of the anticipated direct-pay amount (e.g., roughly \$550,000 on an \$11 million credit), with coverage for 7–10 years in the event of an audit. Tax consultants also remain engaged with a project for 7–10 years to represent the town in any IRS inquiry. Patricia is continuing to gather information on this and other risk-mitigation options (e.g., bridge loans) and will report back.

Q1: How can the town require domestic content under Massachusetts' open-specification procurement rules without triggering bid protests? (Shane Nolan)

A1: Domestic-content percentages can be written into performance specifications for major equipment/material categories without naming specific manufacturers; Jacob Goldman noted his firm typically works directly with the engineer/architect to draft compliant specifications, and suggested the Agawam, MA project (also pursuing this credit under similar procurement rules) as a reference. Katherine Dugan recommended a clarifying call with town procurement counsel to determine how to incorporate the requirement into the RFP/evaluation criteria under M.G.L. c. 30B.

d. Vote on Selected Heat Pump Option

The Chair confirmed with the Committee that members felt they had sufficient information to proceed to a decision.

Decision (Option 2 Eliminated): Following discussion, the Committee voted to eliminate Option 2 (hybrid ground/air source) from further consideration, via roll call vote:

Motion: Jen Benham

Second: [not distinctly captured]

Roll Call Vote: Jen Benham – Yes; Jim Cahill – Yes; Tom Donnelly – Yes; Charlie Hayes – Yes; Brian Mulkerrin – Yes; Shane Nolan – Yes; Angela Thedinga – Yes. Unanimously approved; Option 2 eliminated.

The Committee then deliberated Option 1 (100% ground-source geothermal) versus Option 3 (air source). Points raised included: comparable ground-source pricing experience at the Foster School, where geothermal came in \$500,000–\$700,000 less than air source (Jim Cahill); higher long-term reliability and lower district-maintenance burden for ground source (Matthew Meehan); higher up-front cost and well-field installation/schedule disruption risk for ground source (Jen Benham, Shane Nolan, Brian Mulkerrin); and the availability of tax-credit insurance and continued consultant support as risk mitigants for the IRA credit assumption (Angela Thedinga). Several members (Tom Donnelly, Brian Mulkerrin) noted that regardless of which option is selected, the town-meeting funding request will be a significant number and a challenging sell to voters.

Decision (Option 1 Selected): The Committee voted to select Option 1 (100% ground-source geothermal) as the heat pump system to advance into schematic design, via roll call vote:

Motion: Charlie Hayes

Second: Tom Donnelly

Roll Call Vote: Jen Benham – No; Jim Cahill – Yes; Tom Donnelly – Yes; Charlie Hayes – Yes; Shane Nolan – No; Brian Mulkerrin – Yes; Angela Thedinga – Yes. Motion passed, 5–2.

4. Committee Communications and Warrant Timing Updates

Angela Thedinga reported that she, Jen Benham, and town staff (Katherine Dugan, Kathryn Roberts, and Town Counsel Tom Mayo) met with the Select Board's liaison to discuss the potential need to adjust Special Town Meeting/warrant timing depending on the outcome of the Plymouth River Elementary structural assessment (expected August 11). The Select Board is also considering decoupling the project from the state election ballot in favor of a local ballot/election for additional scheduling flexibility. Julie Strehle (Select Board Liaison) reported the Select Board would discuss the proposed warrant articles the following night but may not set a Special Town Meeting date or ballot question at that meeting, pending guidance from the Attorney General's office on whether a ballot question can be withdrawn after submission.

5. 48-Hour Items

None presented.

6. Next Meeting Date(s)

August 11, 2026 – Plymouth River Elementary and South Elementary schematic design cost estimates, including structural reinforcement options for Plymouth River, to confirm alignment with the August 27 MSBA submission for those projects; Options 4/5 (like-for-like) cost estimates for the high school, if available.

August 18, 2026 – Follow-up decision meeting on Plymouth River/South Elementary, if needed.

The Committee requested that materials be posted to the pre-read folder no later than August 7, 2026, and that the design team pre-review new cost information with JLL in advance of presenting it to the Committee.

7. **Adjourn**

Decision: After discussion of agenda items, the Committee adjourned the meeting at approximately 10:56 PM

Motion: Shane Nolan

Second: Brian Mulkerrin

Roll Call Vote: Jen Benham – Yes; Jim Cahill – Yes; Tom Donnelly – Yes; Charlie Hayes – Yes; Shane Nolan – Yes; Brian Mulkerrin – Yes; Angela Thedinga – Yes. Unanimously approved.

Recorded by Jones Lang LaSalle Americas, Inc. / Hingham High School ARP OPM
Committee approved minutes during the August 11, 2026 meeting.