

<b>DALE STREET ELEMENTARY SCHOOL – MEDFIELD, MA</b>	<b>MEETING MINUTES</b>
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<b>DALE STREET SUSTAINABILITY SUB-COMMITTEE</b>	<b>February 24, 2021</b>
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Location:	ONLINE – ZOOM CONFERENCE CALL
Time:	4:30 PM

**Attendees:**

<b>Name</b>	<b>Association</b>	<b>Present</b>
<i>Alec Stevens</i>	Medfield Energy Committee	Y
<i>Megan Sullivan</i>	Community Member	Y
<i>Tom Erb</i>	SBC member/PBC	Y
<i>Walter Kincaid</i>	SBC member/PBC	Y
<i>Amy Colleran</i>	Director of Facilities – Town of Medfield/Medfield Energy Committee	N
<i>Jason Uzzell</i>	Parent Representative	Y
Michael Quinlan	Chair, Medfield School Building Committee/PBC	Y
Lynn Stapleton	LeftField Project Management	Y
Gina Gomes-Cruz	LeftField Project Management	Y
Tim Baker	LeftField Project Management	Y
Adam Keane	LeftField Project Management	N
Laurence Spang	Arrowstreet Architect	Y
Tina T. Soo Hoo	Arrowstreet Architect	Y
Emily Grandstaff-Rice	Arrowstreet Architect	N
Kate Bubriski	Arrowstreet Architect	Y
Vamshi Gooje	Thornton Tomasetti	Y
Sunny Du	Thornton Tomasetti	Y
Keith Lane	Garcia, Galuska & DeSousa	Y
Dom Puniello	Garcia, Galuska & DeSousa	Y
Matt DiSalvo	Garcia, Galuska & DeSousa	Y

***Bold/Italics = Sustainability Sub-Committee Members***

Megan Sullivan called the meeting to order at 4:33 PM. A quorum was in attendance.

It was also stated that the virtual meeting was being recorded and was in accordance with the Governor’s Executive Order issued on March 12, 2020 which suspends certain provisions of the Open Meeting Law.

I. Administrative Action

1. Megan Sullivan tabled approval of 02/11/21 meeting minute draft until the next meeting.

II. Energy Modeling

2. Arrowstreet, Garcia, Galuska & DeSousa (GGD), and Thornton Tomasetti (TT) presented the initial mechanical system modeling reports. GGD began by explaining the different design options that they recommend for consideration to be included in the design for the new Elementary School Project.
  - a. **Mechanical System Option #1:** Air-Source Heat Pump Chiller with Gas-Fired Condensing Boiler Plant serving Displacement Ventilation Systems with Supplemental Passive Chilled Beam Air-Conditioning Units.
  - b. **Mechanical System Option #2:** Air-Cooled Heat Pump Chiller with Electric Boiler Plant serving Displacement Ventilation Systems with Supplemental Passive Chilled Beam Air-Conditioning Units
  - c. **Mechanical System Option #3:** Geothermal Ground-Source Heat Pump Chiller Plant serving Displacement Ventilation Systems with Supplemental Passive Chilled Beam Air-Conditioning Units
  - d. **Mechanical System Option #4:** Variable Air Volume Variable Refrigerant Flow (VRF) Unit Systems
3. Thornton Tomasetti (TT) presented their energy analysis for the new Elementary School Project. The project is assessing a low Energy Use Intensity target of 25 Kbtu/sf-year. TT's energy analysis outlined energy performance of four different HVAC options described in the MEP narrative (GGD). Although all systems are high performance systems, Mechanical System Option #3: Geothermal Heat Pump system outperforms all options in EUI (estimated 24.0 Kbtu/sf-yr), annual energy cost and CO2 emissions. Option 4: VRF system performance follows the geothermal system with an estimated EUI of 28.4 Kbtu/sf-yr. Option 1 and Option 2 are least performing of all the options with marginal difference in EUI between them. The Design team and the Town of Medfield will further examine the feasibility of these systems in the detailed Life Cycle Cost Analysis. Arrowstreet stated that Option #1 would serve as the baseline.
4. GGD presented the engineering economic analysis. Option #3 is the only option with life cycle savings within the 50-year life span of the building.
5. TT will be evaluating further design options to improve sustainability. Those options will not improve the sustainability greatly and the decision to include additional options would be based on option costs.
6. A joint meeting with the SBC and the BoS will be tentatively set for the end of March.

III. Energy Community Forum

1. Arrowstreet reviewed an updated draft of the 2/25 forum presentation for committee members to review and comment. The update presentation draft incorporated comments from committee members during the 2/11 meeting and via email in the interim. Megan Sullivan will act as the moderator. Megan Sullivan reached out to Eoin about the addition of break out rooms and it is not possible in the Zoom webinar format. Arrowstreet will update the presentation with the final comments it received. Kate Bubriski will be speaking on behalf of the Design Team and Kim Cullinane and Bill Slack will be speaking on behalf of Eversource at the public forum.

IV. Geo-thermal test well & Solar permitting

2. Mike Quinlan spoke with the Director of the Water Department and clarified the design and function to well. The Director stated that there is no formal review process, but that the project team should review with the Director ahead of the drilling, and that would need to meet all relevant state and local regulations and that the drillers would need to have the relevant certifications. Arrowstreet confirmed that the design is compliant with glycol regulations. Scheduling of the test well will be scheduled after a decision is made by the SBC and BoS on whether to pursue geo-thermal.
3. Leftfield stated that we may need to amend the proposed Archaeological Survey to include the well field. Arrowstreet will send Leftfield the approximate size of the well field to get a pricing proposal on the additional area of land under investigation. The proposal only currently includes land that is being disturbed by construction of the new school. Leftfield will issue a map marking the locations of the test well and possible future well field for review. The well field will contain approximately 40 wells. This is a very preliminary estimation. **(OPEN from 02/21/21 meeting)**

V. Adjournment

4. The following motion to adjourn and vote were made:

**MOTION:** Tom Erb moved, seconded by Walt Kincaid, that the Dale Street School Sustainability Sub-Committee vote to adjourn the meeting at 5:48 PM.

*Discussion: None*

**VOTE:** The Dale Street School Building Committee voted unanimously to adjourn the meeting at 5:04 PM.

**Roll call was taken:**

**Alec Stevens – In favor**

**Tom Erb – In favor**

**Walt Kincaid – in favor**

**Megan Sullivan – in favor**

**Next Meeting: March 4, 2021 at 5:08 PM**

VI. Meeting Materials

The following materials were presented:

- **Garcia, Galuska & DeSousa (GGD):** Engineering Economic Analysis for Dale Street Elementary School
- **Thornton Tomasetti (TT):** Medfield-Dale Street School –ZNE HVAC Study
- **Garcia, Galuska & DeSousa (GGD):** Dale Street Elementary School - Mechanical System Payback Summary (50 Year Study Period)
- **Arrowstreet:** Community Energy Forum DRAFT Presentation