

WESTWOOD ELEMENTARY SCHOOLS BUILDING PROJECT COMMITTEE  
Westwood, Massachusetts

**SUSTAINABILITY SUBCOMMITTEE MEETING MINUTES**

April 23, 2020

**Attendance and Call to Order**

The meeting, held remotely<sup>1</sup>, was called to order 8:00am by Chair Maya Plotkin. Also present on the videoconference were: Ken Aries, Brian Bayer, John Cummings, Nancy Hyde, Lemma Jn-baptiste, and Anthony Mullin. Ex-officio members Julie Gervais and Tom Philbin were also present. John Cianciarulo recorded the minutes.

Also present, as participants, were: Don Walter, Principal and Compass Project Management, the Owners Project Manager; Chin Lin, Project Manager, Compass Project Management; Erik Ruoff of The Green Engineer; Kimberly Cullinane of Eversource; and Rob Fitzgerald, Project Manager, Dore and Whittier, the project's architect.

Mrs. Plotkin recognized the live stream of the meeting which was provided for real-time, public access to the activities of the Sustainability Subcommittee. Members of the public were able to view a live stream of the meeting via the Internet at [www.westwood.k12.ma.us/live](http://www.westwood.k12.ma.us/live).

**Subcommittee Chair's Report**

Mrs. Plotkin welcomed everyone to the first subcommittee meeting. She asked participants to introduce themselves.

She then provided an update on the project and process to-date. The Preliminary Design Program has been submitted to the Massachusetts School Building Authority (MSBA). This includes the education plan and the short-list of options. The Evaluation Criteria Subcommittee recently presented the final evaluation criteria which has been accepted by the MSBA. A community forum will be held on Thursday, April 30, 2020 via Zoom to present redistricting and consolidation. Westwood Media Center will be moderating.

Mrs. Plotkin asked Mrs. Hyde to discuss the Town's Comprehensive Plan which is used to guide the Town in future planning. A draft of the sustainability component of the plan was distributed to the members of this subcommittee. Drafting the Plan has been an eighteen month process. All components, including sustainability, have been reviewed in meetings with the Planning Board. The Town Planner is in the process of finalizing the updated Plan to be written in a single voice to present the material. A draft has been forwarded to the Subcommittee so that it can be used to inform the group.

In addition, a Warrant article (non-binding resolution) to have all new municipal buildings – including school buildings -- be built to a net-zero energy standard is being sponsored by the Select Board and the Westwood Environment Action Committee to be put before Town Meeting. It has gone through the Finance and Warrant Commission process for review. This particular article did not receive support to as many did not believe it was the appropriate method for a non-binding resolution approval. Town Meeting is scheduled for June 8, but, due to the pandemic, that date is tentative.

**Discussion Items**

Mrs. Plotkin recognized Mr. Fitzgerald and Mr. Ruoff, who presented on sustainability.

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<sup>1</sup> Remote meeting held in accordance with Executive Order of Massachusetts Governor, March 12, 2020 (Attached)

## Focus

1. Show what is being done and where the project is headed.
2. Determine whether the Subcommittee is in agreement on approach and options being studied.
3. Obtain feedback on priorities of sustainability features.

## Identified Goals and Direction

In early January, a handout was drafted which outlined potential goals on sustainability:

1. Passive House Design Standard as goal
2. Orientation of building
3. Orientation of roof, eliminating penetrations to maximize PV
4. Minimize thermal bridging between exterior wall and inside to passive house standard
5. Super Insulation – Closed cell foam topped off with open cell foam to achieve R60 roof and R43 walls
6. Slab design insulated from building
7. Triple pane argon filled windows
8. Daylighting
9. HQ Air exchange system
10. Ground source heat pump heating
11. Integration of existing on-site solar into project

During the January 30, 2020 Sustainability Charette, four major goals were identified:

1. Views and access to the outdoors
  2. Net Zero Energy
  3. Promoting wellness and active design
  4. Renewable energy
- 
1. Provide a Sustainably Designed Building that achieves a minimum of:
    - a. 20% beyond current Energy Code
    - b. LEED Certification and receive 2% points from MSBA funding
  2. Explore the capital cost and return on investment of achieving:
    - a. Net Zero Energy (NZE or ZNE)
  3. Leverage assistance from Eversource/Thornton Tomasetti:
    - a. Explore energy efficiency measures to achieve a goal of EUI of 25
  4. Reduce embodied carbon footprint by exploring the use of Engineered Cross Laminated Timber (CLT) vs. Steel Frame
    - a. Carbon management is important:
      - Operational Carbon is released through fossil fuels
      - Embodied Carbon is the amount of carbon used to create a material
  5. Explore the use of rainwater capture for reuse: irrigation/greywater. The less potable water used means water is conserved

Net Zero Energy: To achieve this, target areas include:

- Exterior envelope
- Heating: Natural gas vs. air/water heat pump vs. Geothermal
- Electricity Reductions: Daylighting opportunities, submetering, controls
- Renewable Energy: PV panes and battery storage on-site

Energy Use Intensity (EUI): Energy consumed per square foot/year

Benchmarks of low energy use intensity schools in the region were shared. A target EUI is 25.

### Assumptions

Baseline project:

- Green Schools Program: Achieve LEED-S v4 “Certified” and exceed Massachusetts Energy base code by 10%.
- Additional 2% reimbursement: Achieve above, but exceed Massachusetts Energy base code by 20%.

Study in Progress

- Baseline: Natural gas heating system
- Tier-1: Fossil fuel free: Use centralized air/ water heat pump
- Tier-2: Fossil fuel free: Use Geothermal heating system
- Alternate Structural Frame Analysis: Use timber frame construction in lieu of steel frame (carbon)
- Goal: Determine the best approach for return on investment over the life of the building.
- Determine how rainwater harvesting should be considered

### Order of Priorities

Define order of priorities for recommendation to the School Building Committee:

- High efficiency natural gas heating vs. fossil fuel free (heat pump)
  - Air/ water heat pump vs. ground source (Geothermal)
- Net Zero Energy (NZE): Annual operating savings as low as possible vs. achieving NZE
- Embodied carbon reduction: Timber framing vs. steel
- Reduction in water use for irrigation/ greywater: Municipal/ potable water vs. rain-water cistern

Following the presentation, the Subcommittee initiated discussion on:

1. What decisions need to be made during the current phase and which can be made during schematic design?
  - a. Items that have potential impact on the construction budget being carried into the schematic design phase
2. What information is needed to make decisions?
  - a. What level of return on investment is worthwhile pursuing (i.e., number of years’ threshold for payback)?
  - b. How does the Town’s Comprehensive Sustainability Plan shape/ guide the School Building Committee’s discussion?
  - c. Are there sustainability features that should be considered even if the return on investment does not meet the identified threshold?

The Subcommittee agreed that more information on options relative to cost-benefit analysis is important for consideration. They requested an additional meeting within the next two weeks to discuss further.

### New Business

There was no new business.

**Adjournment**

**Mrs. Hyde motioned to adjourn. Mr. Aries seconded.**

Mrs. Plotkin	Aye
Mr. Aries	Aye
Mr. Bayer	Aye
Mr. Cummings	Aye
Mrs. Hyde	Aye
Mrs. Jn-baptiste	Aye
Mr. Mullin	Aye

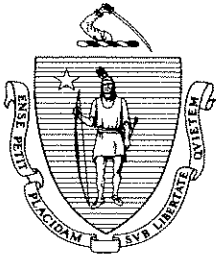
**Vote: 7-0-0.**

**Result: Approved**

The meeting adjourned at 9:03am.

**List of Documents and Exhibits Used at Meeting**

- Slideshow presentation by Dore and Whittier
- Draft of Sustainability Portion of Town's Updated Comprehensive Plan



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**CHARLES D. BAKER**  
GOVERNOR

**KARYN E. POLITO**  
LIEUTENANT GOVERNOR

**ORDER SUSPENDING CERTAIN PROVISIONS  
OF THE OPEN MEETING LAW, G. L. c. 30A, § 20**

**WHEREAS**, on March 10, 2020, I, Charles D. Baker, Governor of the Commonwealth of Massachusetts, acting pursuant to the powers provided by Chapter 639 of the Acts of 1950 and Section 2A of Chapter 17 of the General Laws, declared that there now exists in the Commonwealth of Massachusetts a state of emergency due to the outbreak of the 2019 novel Coronavirus (“COVID-19”); and

**WHEREAS**, many important functions of State and Local Government are executed by “public bodies,” as that term is defined in G. L. c. 30A, § 18, in meetings that are open to the public, consistent with the requirements of law and sound public policy and in order to ensure active public engagement with, contribution to, and oversight of the functions of government; and

**WHEREAS**, both the Federal Centers for Disease Control and Prevention (“CDC”) and the Massachusetts Department of Public Health (“DPH”) have advised residents to take extra measures to put distance between themselves and other people to further reduce the risk of being exposed to COVID-19. Additionally, the CDC and DPH have advised high-risk individuals, including people over the age of 60, anyone with underlying health conditions or a weakened immune system, and pregnant women, to avoid large gatherings.

**WHEREAS**, sections 7, 8, and 8A of Chapter 639 of the Acts of 1950 authorize the Governor, during the effective period of a declared emergency, to exercise authority over public assemblages as necessary to protect the health and safety of persons; and

**WHEREAS**, low-cost telephone, social media, and other internet-based technologies are currently available that will permit the convening of a public body through virtual means and allow real-time public access to the activities of the public body; and

**WHEREAS** section 20 of chapter 30A and implementing regulations issued by the Attorney General currently authorize remote participation by members of a public body, subject to certain limitations;

**NOW THEREFORE**, I hereby order the following:

(1) A public body, as defined in section 18 of chapter 30A of the General Laws, is hereby relieved from the requirement of section 20 of chapter 30A that it conduct its meetings in a public place that is open and physically accessible to the public, provided that the public body makes provision to ensure public access to the deliberations of the public body for interested members of the public through adequate, alternative means.

Adequate, alternative means of public access shall mean measures that provide transparency and permit timely and effective public access to the deliberations of the public body. Such means may include, without limitation, providing public access through telephone, internet, or satellite enabled audio or video conferencing or any other technology that enables the public to clearly follow the proceedings of the public body while those activities are occurring. Where allowance for active, real-time participation by members of the public is a specific requirement of a general or special law or regulation, or a local ordinance or by-law, pursuant to which the proceeding is conducted, any alternative means of public access must provide for such participation.

A municipal public body that for reasons of economic hardship and despite best efforts is unable to provide alternative means of public access that will enable the public to follow the proceedings of the municipal public body as those activities are occurring in real time may instead post on its municipal website a full and complete transcript, recording, or other comprehensive record of the proceedings as soon as practicable upon conclusion of the proceedings. This paragraph shall not apply to proceedings that are conducted pursuant to a general or special law or regulation, or a local ordinance or by-law, that requires allowance for active participation by members of the public.

A public body must offer its selected alternative means of access to its proceedings without subscription, toll, or similar charge to the public.

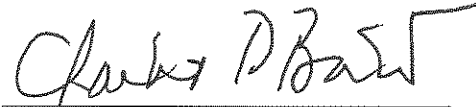
(2) Public bodies are hereby authorized to allow remote participation by all members in any meeting of the public body. The requirement that a quorum of the body and the chair be physically present at a specified meeting location, as provided in G. L. c. 30A, § 20(d) and in 940 CMR 29.10(4)(b), is hereby suspended.

(3) A public body that elects to conduct its proceedings under the relief provided in sections (1) or (2) above shall ensure that any party entitled or required to appear before it shall be able to do so through remote means, as if the party were a member of the public body and participating remotely as provided in section (2).

(4) All other provisions of sections 18 to 25 of chapter 30A and the Attorney General's implementing regulations shall otherwise remain unchanged and fully applicable to the activities of public bodies.

This Order is effective immediately and shall remain in effect until rescinded or until the State of Emergency is terminated, whichever happens first.

Given in Boston at 6:40 PM this 12th day of  
March, two thousand and twenty.

A handwritten signature in cursive script, reading "Charles D. Baker". The signature is written in black ink and is positioned above a horizontal line.

CHARLES D. BAKER  
GOVERNOR  
Commonwealth of Massachusetts