Meeting No. 14 – 07/22/2024



Project:	Lexington High School	Project No:			
Subject:	School Building Committee Meeting	Meeting Date:	07/22/24		
Location:	Hybrid (146 Maple Street & Zoom)	Time:	12:00 PM		
Distribution:	Attendees, Project File	Prepared By:		J.	Greco

Present	Name	Affiliation	Present	Name	Affiliation
✓	Kathleen Lenihan*	SBC Chair & SC Member	✓	Mike Burton	DWMP
✓	Michael Cronin*	SBC Vice-Chair & LPS Facilities	<b>√</b>	Christina Dell Angelo	DWMP
✓	Julie Hackett*	Superintendent		Jason Boone	DWMP
	Jim Malloy*	Town Manager	✓	Jacob Greco	DWMP
✓	Joe Pato*	Select Board Chair		Chris Schaffner	Green Engineer
✓	Mark Barrett*	Public Facilities Manager	✓	Lorraine Finnegan	SMMA
✓	Charles Favazzo Jr.*	PBC Co-Chair	<b>√</b>	Rosemary Park	SMMA
✓	Jonathan Himmel*	PBC Chair	<b>√</b>	Matt Rice	SMMA
<b>√</b>	Andrew Baker*	Interim Lexington High School Principal	<b>√</b>	Brian Black	SMMA
✓	Carolyn Kosnoff*	Finance Assistant Town Manager	<b>√</b>	Erin Presti <b>l</b> eo	SMMA
✓	Hsing Min Sha*	Community Representative		Anthony Jimenez	SMMA
✓	Kseniya Slavsky*	Community Representative	✓	Martine Dion	SMMA
√	Charles Lamb	Capital Expenditures Committee		Anoush Krafian	SMMA
<b>√</b>	Alan Levine	Appropriation Committee		Michael Dowhan	SMMA
✓	Dan Voss*	Sustainable Lexington Committee			
	Maureen Kavanaugh	Director of Planning and Assessment			

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	Andy Oldeman			
<b>√</b>	Kelly Axtell	Assistant Town Manager		

Item No.	Action Item	Requested by	Ball in Court
11.5	Invite PMC or AMF to 8/15 summit or an SBC meeting	J.Hackett	SMMA/Dore & Whittier
11.5	Follow up with the MSBA about getting the PSR on the April MSBA Board Meeting	H.M. Sha	Dore & Whittier
11.4	More information on the replacement and maintenance of the geothermal system	K.Slavsky	SMMA
11.5	Send out an updated MSBA PSR Schedule and SBC Presentation	Dore & Whittier	Dore & Whittier
11.5	Review the possibility of having an estimator tour the current LHS to gain a better understating of renovation requirements	J.Himmel	Dore & Whittier
11.5	Verify if any of the schemes requiring structured parking is due to the addition of the central office parking spaces	A.Levine	SMMA
11.5	Breakout and explain why the Addition/Renovation options are not significantly higher than New Construction	A.Levine	SMMA/Dore & Whittier
11.7	Add what sections of the Adjacency Diagram can be allocated for Community Use	J.Himmel	SMMA
11.7	Communications Working Group to review the 8/14 Community Meeting date	J.Hackett	Communication Working Group

Item No.		Description	Action
11.1	Call to Order & Intro: Called to order by Kathleen Lenihan at 12:06 pm	Record	
11.2	<ul> <li>Approval of July 8 - 2024, Meeting Minutes:</li> <li>A motion to approve the July 8, 2024, Meeting Minutes made by J.Pato and seconded by M.Cronin</li> <li>Discussion: K.Lenihan noted that in 11.6 there is a cutoff sentence.</li> </ul>	Record	

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	<ul> <li>Dore &amp; Whittier will remove the cut-off sentence if it is a technical error and resend them out</li> </ul>	
	Roll Call Vote: <b>A. Baker</b> – Yes , <b>M. Cronin</b> – Yes, <b>C. Favazzo</b> – Yes, <b>J. Hackett</b> – Yes, <b>J. Himmel</b> – Yes, <b>C. Kosnoff</b> – Yes, <b>J. Pato</b> – Yes, <b>K. Slavsky</b> – Yes, <b>H. Sha</b> – Yes, <b>K. Lenihan</b> – Yes, <b>D. Voss</b> - Absent, <b>J. Malloy</b> - Absent, <b>Mark Barrett</b> - Yes 11-0-0.	
11.3	Review MSBA Comments on PDP Submission	Record
	<ul> <li>M.Burton noted that they have not received the comments yet but did have a discussion with the MSBA. The MSBA noted the comments should be back this week, but the MSBA is backlogged across the board. They noted that they will push back on the numbers and the project team did walkthrough the comparisons and why the costs are so high. The project team also clarified confusion on field house/structed parking being included in each option.</li> <li>M.Burton noted once the comments are received, they will be reviewed and a separate meeting with the MSBA will be set up</li> <li>J.Himmel asked why the pushed back against the cost</li> <li>M.Burton noted they need to be informed on the details of the project and the systems of the building. Burton shared a lot of this information has already been Created and will be reorganized to share with the MSBA</li> <li>L.Finnegan noted that the MSBA is aware costs are rising and they are seeing elementary schools at \$1000/SF. They are pushing back across the board on many projects</li> </ul>	
11.4	Introduce Whole Building LCCA, pEUI, Solar PV Analysis, PSR IDP/LEED Scorecard Criteria	Record
	<ul> <li>L.Finnegan noted that this presentation was shared with the PBC last Thursday and great feedback was provided so this presentation is updated from the one sent out</li> <li>M.Dion noted that behind what is being presented is a lot of technical information that will be updated constantly</li> <li>M.Dion reviewed the Life Cycle Cost Analysis (LCCA), the EUI, and PV Assessment         <ul> <li>M.Dion shared the key take aways</li> </ul> </li> </ul>	
	• The upfront cost of the systems' options results in a 1-2-year payback with incentives assumed.	
	Based on the 1–2-year payback estimated, the project will continue to analyze and propose the use of a	

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GSHP (Ground Source Heat Pump) Heating and Cooling System.

- The Town might want to consider how the system is funded/bonded if the payback is 1-year.
- o M.Dion shared the definition of LCCA
  - Analysis methodology assessing the cost of a system over the life of it, including first cost, maintenance, replacement and operational energy costs. The LCCA is performed to inform the user to select the best system approach for the project long term
- M.Dion reviewed the Energy Use Intensity (EUI)
  - EUI is used to compare building energy use per square foot per year. The EUI metric is kBtu/SF/Yr., where all energy fuels are converted to kBtu.
- M.Dion reviewed the intent of the LCCA and what the Analysis included:
  - The intent of the Lexington High School Building LCCA analysis is as follows:
    - o 25 pEUI tracking
    - o HVAC Systems Options
    - Building only, Electric Vehicles are not included.
  - Analysis Includes:
    - 1 Addition/Renovation Design Option
    - o 1 New Construction Design Option
    - Each Design Option analyzed and compared an ASHP (Air Source Heat Pump) and a GSHP (Ground Source Heat Pump) System
  - Energy Costs are based on an average annual energy cost at this introductory PSR analysis phase. It does not include a peak load analysis at this time. A monthly peak load analysis will be conducted in collaboration with the SLC.
- M.Dion shared that a more granular energy cost will be developed as more detail in the design is created
- o M.Dion reviewed the results. Please see the below table
  - The goal of this is to compare the incentives received for both ground source heat pumps and air source heat pumps
  - M.Dion noted there is significant carbon reduction for both options roughly around 50%
- M.Dion shared the detailed result table showing all the different values, this can be found in the linked presentation on slide 11.

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- M.Dion noted that these costs are subjected to change and will be updated in each subsequent design phase
- M.Dion noted that for the Solar PV Assessments they included a third option to compare different roof areas. The parking is not yet defined so the current car park was used.
  - M.Dion noted that the goal is to be between 3 & 3.5 Mega Watts (MW). Although New Construction is currently below 3.0 MW the team is confident, they will be able to get it above.
- K.Slavsky noted that she wants to clarify that the options used for the LCCA are an indication of preference for the current options available
  - M.Dion noted that this is not about the design selection and the options used were the most representative of all the New Construction options
- H.M. Sha asked if without incentives Air-Source pays back in half the time of the Ground-Source
  - M.Dion noted that if only Mass Save is included that air source has a better payback period, but with Federal ground-source is better.
- H.M. Sha asked what the payback will be going forward, not just how fast the system will pay for itself.
  - M.Dion noted it is about \$12 Million dollars but varies between options. The B options noted that there is some existing so there are more savings
- A.Levine asked what the carbon reduction figure means?
  - M.Dion noted it looks at the annual energy usage and compares it to the baseline. It takes the energy use how many emissions it is drawing from the energy grid, and it is converted to a value per year
  - A.Levine noted he though the goal was that overtime the solar panels will create enough energy to overcome that used?
  - M.Dion noted that this carbon usage does not include PV yet so it can be compared to other buildings that do not have any PV. The PV will be added in. Dion noted currently that just by building a more efficient building Lexington is already 50% to the goal without PV.
- K.Slavsky asked if there is a way of improving the EUI to be safely under the 25 goal
  - M.Dion noted it is very early and they are working with box models that have no interiors or HVAC systems designed. Dion noted that currently the HVAC systems used in other projects are very good, but they are still being conservative till the system is designed.
- K.Slavsky asked if battery storage is assumed
  - M.Dion noted yes but these numbers do not include peak load and battery storage usage
- M.Dion noted that the project is using 30% of roof space being reserved for HVAC equipment but if ground source is chosen that number could reduce to 20%.

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0	A.Levine asked if this can be captured because it could be a
	good number to point out in favor of ground source

- A.Levine asked if the building and the structed parking is small where else would PV go
  - L.Finnegan noted that they could go on walkways and other areas. Finnegan noted each option has tradeoffs of building/site square footage.
  - M.Cronin noted there are other options for using PV before the fields would be used
- L.Finnegan noted that the LEED Scorecard was included in the presentation and will not be run through in detail, but the goal is still to track to platinum.
  - M.Dion noted that as the design continues to be developed, especially for the site section, the points can be updated.
- J.Hackett asked if the LEED is separate from the MSBA incentives
  - o M.Dion noted yes, it is separate
  - J.Hackett asked is it fair to say that everything associated with LEED and energy savings is expensive there is a lot of options for incentives and savings
  - o L.Finnegan noted yes.
- K.Slavsky would like to hear more about the maintenance and replacement costs for the geothermal system as some repairs could impact the fields or not.

## 11.5 **PSR Timeline and Schedule Review**

Record

- L.Finnegan noted this was presented at the last meeting but there were some updates to create more time.
  - The timeline included in the presentation is not correct and it will be sent out
- L.Finnegan noted the cost estimates were brought back to 10/14 to give the SBC a month to review them instead of the two weeks.
- J.Himmel believes that the instruments have been set for an all-new construction. Himmel has reviewed the space plans and found the quite telling, he has observed that the add/reno scheme is based on science and math and created a chart. Himmel looked at the academic core and understands that classrooms have to be properly sized.
- J.Himmel noted if you look at the end of the space summary there is a 1.5 grossing factor, but it is all assigned to the new construction and for the renovated space there is no grossing factor.
  - L.Finnegan noted that there was a typo on the space summary which has been fixed. The Gross Factor was based on surveys so that still remains correct
- I.Himmel asked if a chart as shown could be useful for the public

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- J.Himmel noted they are holding off till 10/14 to look at the costs but we
  are still currently looking at the previous PDP costs. Himmel noted the
  SBC owes it to themselves to look at the add/reno costs and how the
  adjacencies could be fit better to make sure a possibility was not
  missed. Himmel noted an example of less academic in the renovated
  location and more offices as they could fit better.
  - A.Baker noted that the adjacencies of the office and admin space are important and putting the key offices in the school in the existing space in a renovation scenario just because it fits good there is not ideal.
  - o B.Black shared that right now SMMA is looking at what spaces can fit in the renovation section of B.1, and it may change from what was previously shared. Black shared that they use the qualitative impact as a guide for the adjacencies and not just the numbers. Black noted that they are finding better options to use the renovated space horizontally but there are still many vertical challenges.
  - O J.Himmel noted he thinks it is important to make sure the central office program is updated with the correct pricing for being built as "classroom ready" if it is not already
  - J.Himmel stated something critical for the adjacency diagram would be to see which programs are "orphan programs" and could be located in the renovated space similar to "back of the house" in restaurants
- M.Burton shared that he does agree with the difference between the
  two estimators that is why averages were taken. They were both very
  close on the add/reno numbers. Burton shared B.2 as an example with
  PMC being at 466 million and AMF at 483 million, at this magnitude that
  is pretty close.
  - J.Himmel noted that the structure will also have to be updated for the new seismic code and not the original one and if the estimates will need to include that. Himmel proposed bringing the estimators through the building to give them a better understanding of what it would cost to renovate each system.
- J.Hackett asked J.Himmel to share why it is important to do this?
  - O J.Himmel noted that it could show B.1 is the same cost or even more expensive. It is important to show the voters that the SBC has exhausted all options and dove into all the detail.
- J.Pato noted that there is a public view that renovation should be cheaper and especially when the school has already been renovated but that is not always the case.
- L.Finnegan noted that SMMA can prepare a document to share what is actually required for renovation
- J.Himmel asked what the topics of the upcoming summit will be
  - J.Pato noted the summit is to review the field house/pool and if the town wants to save space for these items and the impact of them
  - A.Levine noted this is a critical time period for this project as once one option is selected it will be smoother sailing. The

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- biggest decision is if we are building on the fields or not and this summit should address what the decision-making process would be.
- J.Hackett noted that the communications working group has started mapping out a communication outreach plan that will be reviewed at the retreat next week
- J.Pato noted that this summit is to review earlier information that should help future decisions
- H.M. Sha noted that the current schedule is not a glide path for optimization and approval. Sha asked that if after the summit the desire is to save space for a pool and 72,000 field houses will this require an addition of time or is it as simple as just dedicating space? How ready is the project team?
  - L.Finnegan noted that Article 97 land is Article 97 land it does not matter what the summit shows. The available space shown at the last meeting, 6 acres, is what the site has to option. More stacking may be required. If the town wants all these options, the town will have to make sacrifices to fit it all. Finnegan noted they have pricing for all these options and even for 5 story buildings.
  - L.Finnegan noted that if the summit wants a field house and pool there will have to be another retreat to discuss what options and changes are on the table from the SBC.
- J.Himmel suggests that the costs associated with the central office were
  described to be included in the building. The central office has been
  talked about to be included in the classroom sections and how this
  space is really built as classrooms with an office label.
  - B.Black noted they will be designed as a classroom layout with office label and partitions.
  - J.Himmel is asking if they go to the summit with the central office value if it is being used correctly and would like it to be confirmed
- J.Hackett asked for someone on the project team to summarize
   J.Himmel's questions
  - L.Finnegan noted she heard to confirm the central office pricing is correct and the impact of the extra 100 spots associated with it.
  - L.Finnegan noted it is not unusual for the study phase to include looking at what else could be included in the building/ on the site
  - J.Hackett asked if the land available for use is dispersed across the site is going through this exercise worth it.
  - L.Finnegan noted it is all doable, but it is just about the impacts if you do undertake it
- A.Levine noted to expand on J.Himmel's point if the central office is decided to be included in the high school it is about if it changes the parking from at-grade to structed parking then that cost should be assigned to the central office
  - L.Finnegan noted SMMA will look into it

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	<ul> <li>J.Himmel noted he will be very against an add/reno if there is a new outstanding academic building, but the renovation section does not meet the same standard</li> <li>J.Himmel noted that the B.1 options adjacencies need to be reviewed more in-depth and have separation from the student street</li> <li>A.Levine noted in regard to building cost that the difference between B.1 and C.1d having a difference of only \$10 million with a whole extra year of construction makes Levine very uncomfortable and would like to see why these costs are different or what it is missing.         <ul> <li>J.Pato noted this would make more sense if they were building the same thing, but they are not</li> <li>The project team will work to break this out</li> <li>M.Burton noted that renovation tends to be more expansive which is often hard for the public to understand. He shared that working around something, like an existing building, is more time consuming and challenging than working with a clean slate. Burton noted that the team has to rely on these estimators, but the project team will look into it. Burton has personally reviewed these multiple times as has the team; they were also reconciled between the two estimators together.</li> <li>J.Hackett asked for an estimator to come to an SBC meeting so the committee can discuss with them</li> <li>M.Burton noted he will look into it</li> </ul> </li> </ul>		
11.6	<ul> <li>B.Pressman: Today you covered 3 of the 5 options and not the D.1 and if this shows a tilt of the view of the options and the other selectboard members must be brought in as this contradicts what they said two meetings ago. Everybody watched the exciting 200m at the Olympics and they ran around curves not a straight away</li> <li>D.McKenna: From a resident viewpoint she thinks there is so much work to get the residents on board and it will not happen it the allotted time. McKenna is concerned on the date selection as many members of the community are on vacation as it is the last week of the summer. She agrees that if all five plans are not compared it will show that there is a preference no matter what is says and the SBC should require all the options. McKenna still does not understand what options shown can have a 72,000sf field house</li> </ul>	Record	
11.7	Reflections/Action Items	Record	

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- K.Lenihan noted on the LEED scorecard a definition of what is a required space for C02 sensors
  - o M.Dion noted it is all occupied spaces and will be fixed
- K.Slavsky noted it is her understanding that the add/reno options are close due to the estimators understanding of the saving of current assets. Slavsky wanted to note that this project is using 2 of the 3 best estimators for the public projects in the state and there should not be questions raised as the legitimacy of the numbers. If there are questions it should be on the data provided not the numbers presented.
- A.Baker reflected that there are stakeholders in the community that see environmental impacts when preferring the add/reno options.
- H.M Sha noted from the very beginning there is a hierarchy of priorities and number one is to get the current school fixed. What Sha is hearing is that the question of delaying needs to be addressed, has the project team heard back from the MSBA about being added in the next board meeting?
  - o M.Burton said yes, the team is still waiting
- H.M Sha is noting that at the upcoming summit there is not enough information for the stakeholders and the outcome will probably be we don't know save room. Sha is willing to consider putting this project off for a year if that is what is required. If the vote does not pass, they will be in the same situation as if they delay the project now.
- J.Himmel noted that the upcoming summits should be reviewed and planned. Himmel noted that the SBC will be tasked with approving a design for educators when the SBC will never know the nuances of what is needed. Himmel thinks there should be visioning sessions where the educators "sign-off" on the design if their respective spaces.
  - o J.Hackett noted it is their (A.Baker) jobs to make sure that the staffs and educators desires are making it into the plans
  - L.Finnegan noted they took very detailed minutes at the programming meetings and verified them with the educators.
     She noted that there will be a whole new round of programming in Schematic Design
  - J.Himmel noted when reviewing those minutes, he saw the reference to community use and he has not seen a community use section. The adjacency should call out what sections could be community use areas.
- J.Hackett noted the need to delay should be resolved at the retreat and does not think the community will agree with the cost associated with the delay. Hackett noted that at the retreat they will have a new timeline for the Town of Lexington's requirements not the MSBA
- J.Hackett noted the 8/14 August community date will be reviewed by the communication working group.
- J.Hackett heard the comments from K.Slavsky about trusting the estimators but it can never hurt to build more trust in the numbers
- A.Levine is not in favor of the pool and field house being the main topics of the upcoming summit

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	<ul> <li>K.Slavsky noted that as a parent she wants to share that every month of delay for this project is another month that students receive and inadequate and overcrowded high school experience. If the project is delayed there must be a Plan B for if this project does not get approved or is delayed for a long period of time. Slavsky would like to understand what aspects of the school are in dire need of repair         <ul> <li>J.Hackett noted that the Master Planning Committee spent a year reviewing this for all public schools in Lexington</li> </ul> </li> </ul>		
11.8	Adjourn: Motion to adjourn at 2:15 was made by H.M. Sha and seconded by K.Slavsky  Roll Call Vote: A. Baker – Yes, M. Cronin – Yes, C. Favazzo – Absent, J. Hackett – Yes, J. Himmel – Yes, C. Kosnoff – Yes, J. Pato – Yes, K. Slavsky – Yes, H. Sha –	Record	
	Yes, <b>K. Lenihan</b> – Yes, <b>D. Voss</b> - Yes, <b>J. Malloy</b> - Absent, <b>Mark Barrett</b> - Yes 10-0-0.		

Sincerely,

DORE + WHITTIER

Jacob Greco

Assistant Project Manager

Cc: Attendees, File

The above is my summation of our meeting. If you have any additions and/or corrections, please contact me for incorporation into these minutes.