
**JOINT SPECIAL SCHOOL BUILDING COMMITTEE
THURSDAY, JANUARY 10, 2008
NASHUA HIGH SCHOOL NORTH LECTURE HALL
7:00 PM**

A meeting of the Joint Special School Building Committee was held at Nashua High North on **Thursday, January 10, 2008**. Alderman Bolton called the meeting to order at **7:08 p.m.** Mr. Kelley read the prayer, and Alderman Flynn led the Pledge of Allegiance.

Present: Alderman Bolton, Alderman Cookson, Alderman Cox, Alderman Flynn, Alderman McCarthy, Alderman Tabacsko, Alderman Tamposi, Alderman Wilshire, Mr. Dowd, Mr. Haas, Mr. Hallowell, Mr. Kelley, Mrs. Kwan (left at 8:15), Mr. Mosher, Mr. Vaughan, Mrs. Ziehm

Also Present: Mr. Mealey, Mr. Smith, Alderman Teeboom

Also Present: Mr. Caulfield – Turner Systems, Mr. DuBois – Harvey Construction, *The Telegraph*, Channel 99 Videographer

Remarks by Chairman

Alderman Bolton

(microphone on and off)

Board of Education President, Mr. Vaughan has asked me to give a brief overview of this committee for the benefit of new members. It is essential a creature of state statute and provides for the building, renovation, etc. of school buildings. It provides that whenever construction or renovation is proposed, a committee be composed of equal members of the BOA and the BOE. Historically, we've done that with all 9 BOE members and some members of the BOA serve on the JSSBC. That's where the reason to have such a committee comes from. The committee builds on what the BOE feels it needs to be done for educational purposes with the amount of money that the BOA have authorized for that purpose. There may be more than one construction project going on at one time.

It appears to me that although it is listed on the agenda to come later, it seems as though we ought to do the organizational portion first. So if there are no objections I would propose we do that. The officers typically are the Chair, Vice-Chair and Clerk. I've had the pleasure and responsibility of serving as the Chair in past term. Mrs. Kwan has been the Vice-Chair and Mr. Kelley the Clerk. Those are the 3 officers that we elect.

ALDERMAN McCARTHY MOVED TO NOMINATE ALDERMAN BOLTON AS CHAIR OF THE JOINT SPECIAL SCHOOL BUILDING COMMITTEE.

ALDERMAN TABACSO MOVED TO CLOSE NOMINATIONS.

SO VOTED.

Voting on Motion:

ALDERMAN McCARTHY MOVED TO NOMINATE ALDERMAN BOLTON AS CHAIR OF THE JOINT SPECIAL SCHOOL BUILDING COMMITTEE.

SO VOTED.

ALDERMAN COOKSON MOVED TO NOMINATE MR. VAUGHAN AS VICE CHAIR OF THE JOINT SPECIAL SCHOOL BUILDING COMMITTEE.

ALDERMAN McCARTHY MOVED TO NOMINATE MRS. KWAN AS VICE CHAIR OF THE JOINT SPECIAL SCHOOL BUILDING COMMITTEE.

Mr. Vaughan

I request that my name be withdrawn.

Voting on Motion:

ALDERMAN McCARTHY MOVED TO NOMINATE MRS. KWAN AS VICE CHAIR OF THE JOINT SPECIAL SCHOOL BUILDING COMMITTEE.

SO VOTED.

ALDERMAN WILSHIRE MOVED TO NOMINATE MR. KELLEY AS CLERK OF THE JOINT SPECIAL SCHOOL BUILDING COMMITTEE.

SO VOTED.

Previous Meeting Minutes Approval

Alderman McCarthy moved to waive the reading of the minutes of the JSSBC Committee meeting held on **10/25/07**, accept them, place them and file and concur with the motions made at that meeting. **So voted.**

Remarks by Chairman

Alderman Bolton

Thank you all for returning the previous officers to the offices that they held. I will also reappoint Alderman McCarthy as the Chairman of the Construction Project Committee and Mr. Dowd as well as Alderman Tabacsko, Mr. Kelley and Mr. Hallowell as members of that committee. The Chair and Vice Chair will be ex officio members of the sub committee and can participate, vote and make up a quorum. But the absence of the Chair or Vice Chair will not defeat a quorum.

Committee Report – Construction Projects Committee

Alderman McCarthy moved to waive the reading of the minutes of the Construction Projects Committee meetings held on **10/15/07**, **10/25/07** and **12/10/07**, accept them and place them on file and that the JSSBC concur with the recommendations contained therein. **So voted.**

Items for Discussion and Approval – Selection of HVAC Alternative**Mr. Mealey**

The Construction Committee meeting on December 10th, recommended the geothermal option for this project. We have Steve Caulfield from Turner Systems and Carl DuBois from Harvey Construction to answer any questions, as well as Shawn Smith our Director of Plant Operations.

Alderman Bolton

Alderman McCarthy, are you saying we've approved this by having approved the minutes are is there more to discuss?

Alderman McCarthy

The recommendation from the committee is to approve having the firms provide us with a detailed estimate on geothermal as the primary choice. That by no means commits us to do that, but it is the direction we're heading in and when the committee looked at it, it was clearly the lowest option with the lowest cost of ownership in the long-term and the least upside of cost increase due to the fickleness of energy prices. I believe we have approved what we need to approve at this point, but certainly if committee members want to understand this better, we have members of the team to answer any questions.

Mr. Hallowell

Is the roof replacement included in the cost listed for all three options?

Mr. DuBois, Harvey Construction

I am the one responsible for putting together the numbers that you see in front of you. The roof replacement that's included in the number in front of you is the replacement where it is aged. We would replace the solar panels that were installed in 1990. The alternates that you see are the roofs are things with the roofs that have aged, but have nothing relevant to installing the geothermal system, but Mr. Smith wanted us to give you an alternate so you can make a determination.

Mr. Hallowell

Are the solar panels only needed if we do the geothermal?

Mr. DuBois

That's correct.

Mr. Hallowell

So the total number that we're calculating, the roof replacement is taken out for the other 2 options?

Mr. DuBois

Yes, with the other 2 options there is no roof replacement. And with geothermal the only replacement is the solar panels.

Mr. Hallowell

Do the numbers that I see for the 25-year life cycle include the cost of financing?

Mr. Caulfield, Turner Building Science

It includes financing, however those amounts were based on a 10-year payment period. I'm not sure if that's what you would end up with it. But the financing and interest costs are in all 3 options.

Alderman McCarthy

The interest in there is done more on a commercial amortization basis than the way the city does it. So it may in fact be actually higher than what it would cost.

Mr. Haas

What is the purpose of the solar panels?

Mr. Caulfield

The geothermal system works off the temperature of the water underground, which varies throughout the year. The solar system is to augment the water that's coming out of the ground and give you the optimum temperature for it to operate.

Mr. Haas

I thought that if the unit is scoped well with the right tonnage, you could rely on the geothermal all by itself.

Mr. Caulfield

You could, but the system would have to be much larger. More wells, etc. In the winter that temperature might go down to 45. It's a tradeoff and we've gone through several iterations with preliminary designs for optimizing that with the least number of wells and solar panels for the best situation. We could go without the solar, but you'd need a significant number of wells to do that or more boiler capacity as an additional heat source in the middle of winter.

Alderman Flynn

I couldn't find any way to tie in the numbers from the meeting last summer and these numbers. That spreadsheet spread numbers out for 25 years... is there such a cash-flow spreadsheet to understand what's happening here? Why have the numbers changed?

Mr. Caulfield

In the intervening months, we've gone through different designs and have reduced the number of wells and solar panels. So our total costs have changed for all options. We've had more significant costing done by Harvey Construction on all options to give better numbers for system installations. The graph was produced after several meetings and taking care of errors in the original spreadsheet.

Alderman Flynn

Is it possible to get the spreadsheet redone? I thought the spreadsheet made it a little clearer to me what the city's expenditures were for bonding and associated costs and savings for all options. There were 4 options and now there are 3. What option is missing?

Mr. Caulfield

That would be strictly heating and air conditioning and did not make sense. In the 25-year life cycle would be far more expensive than any other options and didn't really give you much benefit.

Alderman Flynn

Is the \$2.5 million dollars per school?

Mr. Caulfield

Yes, that's per school and strictly for the mechanical portion of the project.

Alderman Flynn

And the number grew from \$2.5 to \$5.9 million at Fairgrounds. That's for roofs, windows, etc? I thought we originally sat down because there was a genuine concern that we could have some boiler failure within these 3 schools. Somehow this seems to have grown from boilers to geothermal and even with those numbers, I'm trying to figure out the other ancillary and embellishing numbers we're supposed to cover under this project.

Alderman Bolton

I would caution against the word embellishments, because I don't think that term applies. My understanding is when you ask what is the cost of the geothermal equipment you get a fairly consistent answer. When you install it, the situation changes. You have to remove ceiling tiles, casework that's installed, etc. and then the question is what is the cost of what you have removed and/or replace it and does it make sense to reinstall 30-year old molding, ceiling panels, etc.? No matter what you did, you would run into these costs now or later. It's not embellishing, it's a question of replacing it now with the workers or some time after.

Mr. DuBois

That's correct. When you say geothermal, that's just the mechanical equipment. Beyond that we have to install that including excavation, demolition, drilling, replacements, cutting masonry for duct works, etc., etc. We wanted to make sure you have an all-inclusive price of what it's going to take.

Alderman Flynn

I was looking for something a little more itemized and clearer.

Mr. DuBois

We can provide you with a full breakdown.

Alderman Flynn

It doesn't seem like water bubblers would normally be something that would fall into this project, and I wonder what other things might seem unnecessary.

Mr. DuBois

You should have received a summary with the system and alternates that were requested by Mr. Smith. Those are maintenance items that are in need for consideration, but not necessarily to install the geothermal system. The page says "Construction Alternates". Those are deferred maintenance items to be considered for replacement.

Alderman Bolton

The essence of this is, if these are things that will have to be done in a relatively short time, is it cheaper once you have people in the building to do it all at one time. Those decisions haven't yet been made, but the prices have been.

Alderman McCarthy

The first thing we looked at is what's listed as first costs on this sheet here. My understanding of that estimate is, were we building the building from scratch and came to the point where we were about to install the mechanical systems, this was the cost of those various options in that environment. Then moving on to the next set of costs, which are the reality costs of a building with 50 year-old stuff in it, we have to get the building back to the condition of being able to have mechanical systems installed and then undo what we've done in terms of demolition. There are things like ceiling tiles that simply cannot be removed and replaced around the construction. They have to be replaced from scratch. These are those estimates. Above that, the costs on this sheet and the 2nd sheet of the larger handouts are items that we know ought to be taken care of at some point, and the cost of if we choose to do those while we are mobilized and have contractors on site and will be cheaper than if done as stand-alone projects... these are the costs that we would add into the overall estimates to do them at the same time.

Alderman Flynn

So these are additional roofing issues for \$500,000 for Fairgrounds?

Mr. DuBois

If you choose to do it. Obviously it makes no sense to add brand new solar panels on a 25-year old roof. So in the base number or the complete geothermal number, we would do a roof replacement in those area where the solar panels are being installed. We provided alternates to replace roofing in sections that are as old as 1990-1992.

Alderman Bolton

Any roofing less than 15 years old is not included in this.

Alderman Flynn

I'd like to see that. I'm surprised the numbers aren't more than they are spread out over 25 years.

Alderman Bolton

To the extent that there's more detail readily available, could that be provided to Alderman Flynn?

Mr. DuBois

Yes.

Mrs. Ziehm

I'd also like to request that information. One of my concerns all along has been that I don't feel we've ever had a true analysis of this project. In addition it concerns me that we don't have a strategic plan for all of our elementary schools...

Alderman Bolton

Mrs. Ziehm, I don't mean to interrupt, but you do understand that this committee doesn't get involved in doing things until the BOE basically says we need things. So if there's going to be a strategic plan to address each school year by year by year, that's really something for the BOE to put in place and bring before this committee. It is really not for this committee or for the Construction Projects Committee to deal with the long-range plan. We deal with specific projects that the BOE asks us to address.

Mrs. Ziehm

We have 12 schools from the 1950s and all of them are in a state of needing various capital improvements. So to put this money into three greatly concerns me. If you hit radon, lead or granite in at least one of those buildings how much does something like that cost?

Mr. DuBois

As far as hitting radon, these wells are going to be outside the building on the ground, so they're not going to generate a radon problem in the building. I'm not sure that outside levels if any would be a concern. As far as granite, I hope they hit granite as it's easier to drill through granite than water.

Mrs. Ziehm

So is there anything that you could hit that would cost us additional money that's not in the current costs?

Mr. DuBois

As your Construction Manager, we act as your agent to wisely spend your dollars. There is some engineering done and more that needs to be done. We carry a contingency that is carried with most construction management projects. So a lot of the unknowns that arise would be covered under a contingency line item. We have some money set aside for that and of course if it's not used, it goes back to the city.

Mrs. Ziehm

So that would be itemized in the more analytical paper we're going to get?

Mr. DuBois

I can provide you with a line item breakdown and you will see a line item for contingency. I'm trying to explain that there is a little money set aside for these unknowns because there are always unknowns that come up in a construction project. The use of the contingency will always be explained to the group. The final construction cost vs. the estimate... if it's less that money goes back to the city. If it's more at one point we will submit a guaranteed maximum price.

Mr. Mosher

Do we have energy records for the current systems that go back for a period of time? And what monitoring will be in place to measure what was being used and what is being used with geothermal? What happens if we have an extended period of snow or cloudy days?

Mr. Caulfield

As Carl indicated, that's why there is a storage tank underground as a buffer. We'll have capacity to take us through an extended period in the winter. It's thousands of gallons, though I don't know the exact number.

Mr. Mealey

I can respond to some of the earlier questions that have to do with energy use. We do have historical data for our energy use and will continue to monitor that. The analysis was done based on anticipated energy use of the different proposed systems, even if we replaced them in kind.

Alderman McCarthy

Going back to the plan for the other schools, which is basically the purpose of the 6-year Capitol Improvement Plan, which should have been submitted by the school administration for review during the capital improvement process now. The good news is, if we go back and look at our schools after a substantial period of substantial under maintenance, in the past 10-12 years 6 elementary all 3 middle schools and the high schools have had major renovations take place. So that after these 3 projects are done, the only schools that will remain untouched in recent history are Broad Street, Sunset and Mt. Pleasant and I would expect that whatever the maintenance needs are for those schools would be expressed in a capital improvement plan. But we're actually in a position where with a little more work, we can get caught up. I don't think we should underestimate what we have to do once we're in one of the buildings. We have an example at Elm Street, where we did that. We did a project that was funded for about half of what it was estimated to cost and we're now at about 250% of the budget was at this point because we've had to go back and do emergency repairs that were flagged to us 10 years ago and should have been fixed in the original costs. That has all cost us more than had we done them in the first place.

Mr. Hallowell

I notice that the schools will be done one at a time and each will be kept open while the work is done. I assume it would be more efficient if we didn't have the schools open and wouldn't have to worry about busses, traffic, students, etc. Would that cut the construction time and budget, or is it miniscule?

Mr. Caulfield

I wouldn't say it was miniscule. We've looked at completing one school per year. And there's an escalation on the 2nd and 3rd school. We've discussed swing space at Fairgrounds with the principal and are in 6 or 7 phases in consolidating students. I don't think there's actually the ability to close a school during the entire duration of a project. There is consideration of combining and doing 2 schools the second year.

Mr. Hallowell

Was there any reason for the order that the schools are being done? It looks like Fairgrounds has the most expensive operation. I might do them in the reverse order because it allows you to figure out whether you're on target for your money or not.

Mr. Caulfield

Part of the reason for doing Fairgrounds first is the condition of their original boiler.

Mr. Smith

Those are still the original boilers at Fairgrounds and probably the worst in the district. I'm holding my breath that they make it through the winter. Charlotte Avenue had one boiler replaced 10 years ago.

Alderman Flynn

Where are we in terms of urgency of this project? If we were to have this boiler at Fairgrounds fail over the short term, where do we stand in terms of contingency?

Mr. Smith

If the boiler were to fail tomorrow, we'd have to bring in a temporary boiler. We'd have to close the school for a number of days. We hope to get approval at the next Construction meeting to get a temporary boiler on wheels to use as needed. We'll have those numbers for you next month.

Alderman Flynn

I thought we had purchased those temporary boilers. So what would happen now?

Mr. Smith

We would have to rent one and we'd still have to close a school for a few days.

Alderman Flynn

Is a temporary boiler in the neighborhood of \$60-80,000?

Mr. Smith

Yes. When we get this boiler we want to size it so we can actually use it in the last school. Because even with the geothermal and the solar we still end up with a small gas fired boiler in each location. If you have those really cold, cloudy days and needed it you would also have that backup boiler.

Alderman Flynn

What were the dollars that we transferred for this hearing problem when we closed the high school project?

Alderman Bolton

It was certainly much less than is needed to complete the project.

Mr. Mealey

It's \$2.4 million. The information that has been requested will be provided to all members of the committee.

Alderman Flynn

When we spoke back in July, there was talk about air-conditioning the schools at the same time. Is option 3, where it says heating and cooling including all the layouts for air conditioning to all the schools if we were to assume this option?

Mr. Caulfield

Yes that would be an additional cost and you don't have to add cooling. But with geothermal uses the same equipment to offer the cooling option. That would be a very efficient way to cool, but you would have the option not to turn on the cooling option. Geothermal by definition does heating and cooling.

Alderman McCarthy

One of our major operating problems with maintenance in the schools has to do with moisture and mold, and air conditioning would dehumidify and decrease the yearly mold and moisture problems we encounter every year.

Mr. Smith

I want to point out too that 2 of these schools are used every single year for summer school. We always see students and staff running around and sweating.

Mrs. Ziehm

Is the \$30,000 cost for the system included in the price or separate?

Mr. Caulfield

It's included.

Mr. Hallowell

Have we looked into the possibility of federal grants for either the solar or geothermal portion of this project?

Mr. Mealey

We have been looking and haven't been successful yet. We do continue looking however. Another possibility is when we bring this forward to the state, if we combine the 3 projects it would be eligible for state aid as well as possibly qualifying for a green project.

Mr. DuBois

Are you (Alderman Flynn) looking for a draw down schedule on the bond over 25 years? Or are you looking on the life cycle cost over 25 years?

Alderman Flynn

I can show you what we had last time, which I found helpful.

Alderman Bolton

Maybe right after the meeting. You're not authorized to do more expensive work and you're certainly not expected to work at no expense just because one person asked a question. If an authorized committee asks for more work,

then please do it. But to the extent that the numbers that you present are backed up by further detail and someone would like to see the detail, please provide that. Then if someone thinks that more work is necessary and wants to bring it to the committee or sub committee for authorization, please do that and we can all discuss that.

Mr. DuBois

The numbers that you're going to see are going to be different than the numbers you've seen before because we've had additional estimating work done by Harvey Construction and are going to give you a breakdown of the entire project.

Alderman Bolton

Further refinements of the estimates.

Comments by Members of the Public

Alderman Teeboom

I don't have air conditioning in my house and am perfectly comfortable. This project started at \$5.4 million in the Capital Improvements. So I see an inflation of \$4.5 million that looks to me like \$23 million. This chart looks impressive until you look at the details. It's obviously a highly inflated chart. How is the \$23 million supposed to get financed? Certainly not by life cycle cost savings. Not if I look at this chart. So the question has to be asked if not by this committee, then by the Budget Committee where I'm able to ask questions... how is this life cycle going to be paid for? And I think that's what Alderman Flynn was aiming for. Harvey Construction did this estimate, initially at \$15 million. Turner had come up with \$5 million. Somehow an HVAC boiler system that costs about \$4 million turns into this giant reconstruction and renovation system costing \$23 million. Something is terribly wrong here. Either we're replacing a boiler HVAC system or a renovation of schools. You can't do both and call it an HVAC system. There was an attempt to automat the temperature control system 10-12 years ago. We approved that with a contingency. The investment cost was \$1 million. The life cycle savings projected over 20 years was such that the system would pay for itself. We made an agreement with the school department that the school department would pay for that system, actually pay the bond payments to the city to pay off the bond over a 20-year cycle. That's a good approach. I heard it worked, worked well and the taxpayers had no additional costs. There were estimates made by Turner, somehow Harvey got involved and the construction inflated to this \$23 million project. I'm astounded.

Comments by Committee Members

Mrs. Ziehm

In the School Board when a Board member attends a BOE committee meeting where he is not a member, he is allowed to ask questions, you just do not get a vote. I would not consider Mr. Teeboom a member of the public, but an Alderman. Do the Alderman consider that differently?

Alderman Bolton

In this case, he chose to sit in the audience and speak under Comments by the Public. There is not an opportunity there to cross-examine. If Alderman Teeboom chooses to attend a committee meeting where this is discussed in depth, I'm sure he will be given an opportunity.

Alderman Tabacsko moved to adjourn. **So voted at 8:25 p.m.**

Submitted by Jacki Waters