



Town of Oxford

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SPECIAL MEETING

Board of Selectmen

Tuesday, December 14, 2021

Oxford Town Hall – 4:00 PM

The First Selectman called the Special Meeting to order at PM and the Pledge of Allegiance was recited.

Present: First Selectman George Temple, Selectman Arnold Jensen, Selectman Dave McKane, Secretary to the First Selectman Kelly Weymer.

Also present: Great Oak Middle School Evaluation Improvement Committee Members: Chairman Herman Schuler and Carl Bouchard. Air Temp Mechanical Services Inc Representatives: Jason Daigle, Rodney Ragucci, Peter Mossa, Shawn Hixon. Peter Nelson. Principal Heath Hendershot was in the audience.

- 1. To review and discuss, with possible action, the heating, ventilation and fire suppression systems at Great Oak Middle School.**

Discussion:

First Selectman George Temple explained that with regards to this matter, the finances have not been determined yet. The Board of Education is entitled to COVID money and we are looking into that.

Mr. Herman Schuler passed out the letter from the Great Oak Middle School Evaluation & Improvement Committee (GOMSEI) dated 12/14/21 and reviewed it with the group. GOMSEI engaged the services of Air Temp Mechanical Services, Inc. (Air Temp) to fully engineer and install a highly efficient VRF Heating, air conditioning and ASHRAE 62.1 compliant heat recovery ventilation system that will replace the obsolete resistance heating and ventilation system at Great Oak Middle School (GOMS) that has become difficult to maintain and really expensive to operate. The electrical cost for that building is approximately \$180,000.00 a year. To bring the GOMS into compliance with current building codes, GOMSEI requested that Air Temp engage subcontractors to install new acoustical tiles and ceiling grids, install new insulation to bring the building up to R-49 standards and to design and install a new fire suppression system to be compliant with current fire codes. There are currently no sprinklers in the building. These additional items would complete the renovation of the ceiling space and attic spaces as presented as Valued Engineered Additions to the project. Air Temp is currently

preparing a response to an Eversource RFP Electric Heat Pump Modernization Initiative that should award this project with \$500,000.00 in energy efficient rebates. Mr. Schuler explained that there is a high probability that we will be awarded this rebate from Eversource. The schedule of responses to this RFP is what drives the urgency to the approval process. All RFP responses need to be submitted by January 14, 2022, which Air Temp is on track with, and awards will be given on February 18, 2022. The VRF installation work, for just the heat and air conditions, must be complete by August 31, 2022 or we lose 8.33% per month, each month, against the award that we are given.

Mr. Schuler further explained that Air Temp has developed a project description, a detail system design, a Statement of Work, an RFP application response, pricing and is offering a Construction Manager at Risk Contract to complete the work as described. Mr. Schuler pointed out that some are looking at unit ventilator system to be installed as replacements to the heaters that are in the classrooms. This was not recommended by Tecton Architects who helped put this project together as they are unreliable and they do not do the ventilation according to the ASHRAE standard and they do not deliver the kind of savings that this project will deliver.

He further pointed out that there was a very big concern over disturbing the school year by invading the school with all this construction work. There are seven individual systems that can be installed in consecutive summers without disturbing the school year at all. The entire system runs against a new building management system which effectively controls how this system operates; it turns the compressors on and off, turns the cassettes in the ceiling on and off. This can be done over a three-summer construction period then we would then have the highest quality heating and cooling system we could put in the building including a ventilation system to replace the existing system.

Mr. Rodney Ragucci, Air Temp's Director of Construction, gave a brief overview of the project. He explained that the project started out as a replacement of a failing heating and cooling system, but after inspecting it they decided how to approach the project that would not only be energy efficient but also meet the goals in mind. One of the first things was to bring the system into compliance with the Fresh Air Requirements as it relates to COVID-19 and ASHRAE standards. He explained that all classrooms, rooms, buildings require a certain amount of airflow per person; which this and most schools do not comply with. There are governmental guidelines in meeting these requirements and standards. Air Temp wanted to install the best system to replace these new ventilators and in talking with facility staff they found the biggest problem was part availability, working on a unit if a unit was down the entire classroom was out of heat, the noise of the units as well as the lack of fresh air the unit was providing. Air Temp decided on a Variable Refrigerant Flow (VRF) system. This is a ductless system that with an indoor unit in the ceiling and an outdoor unit that provides the heating and cooling; both are whisper quiet. This system is more energy efficient, which is helpful towards the cost for utilities which will increase in January. Energy cost was important when deciding on the correct system. Mr. Ragucci explained that at this point in a project the cost of services would have been approximately \$100,000 in engineering and design work and meeting attendance, but Air Temp has charge noting to the town or Board of Education in order to help facilitate the project in moving forward. Air Temp has done all the research, completed all necessary inspections and the project is ready to go; they can begin work in two weeks. Mr. Ragucci explained that the energy incentives for this project have been applied for on this project. Every year Eversource has on-going programs to help municipalities, commercial and industrial buildings to be more energy efficient. The RFP for this Electric Heat Pump is another one of those program incentives to help raise the level of efficiency for those with high demand electrical use so that their usage goes down.

Air Temp applied for an incentive based upon the overall project and the energy calculations as shown under their EPIC report. These energy savings are calculated by a third party to CL&P. All of these numbers are reviewed and approved by CL&P. The submission for this RFP application is January 14, 2022. CL&P will then decide which projects they will allot the money to. We do not know what that is going to be at this point.

First Selectman Temple asked what the funding sources were and Mr. Ragucci explained that the funding sources would be through three different Federal programs. Mr. Ragucci stated that the town's Grant Writer would most likely know the programs, but there are some outlined in their Project Overview. First Selectman stated that the programs are not specific to just this project. Mr. Ragucci stated that none are specific to this or any project. He explained that if Connecticut gets \$80 Million, then the Governor decides which school district gets what allotment of money from that \$80 Million and then from there that money is determined within the town. The money is based upon your application. Mr. Jason Daigle, Air Temp's VRF Division Manager, explained that this project is through Eversource so we would know in February if approved. First Selectman Temple pointed out that the awarding of our application is not guaranteed. Mr. Schuler stated that only if we decide to go in this direction then we would need to commit with the Grant Writer and whoever we can get to find out what funding we could apply for. It was stated that right now there is a lot of money out there from different sources. First Selectman further pointed out that there are a lot of people looking to receive that money. Mr. Schuler explained that there are a lot of strings attached to that money too.

Mr. Ragucci explained that this project would provide fresh air to the entire building. Currently the system in place does not allow for fresh air or monitoring within the building. The new building automation system will give the facilities staff first-hand account of what each room is doing, what fresh air is happening within the building, the energy usage from the system, if there are alarms or the system goes into failure there would be remote notifications sent to your cell phone.

Mr. Ragucci explained the fire suppression system which would be a wet sprinkler system throughout the entire building; there are none now. Air Temp would remove and repair the existing unit ventilator which would include patching and painting. All of the existing ceiling tiles in grid would be replaced. This system is a care-free system with a 5-year maintenance agreement, with 2 years right up front plus an additional 3 years. The service contract is 100% covered for parts and labor warranty for this system.

Mr. Ragucci further explained that Air Temp will upgrade the roof insulation by bringing it up to an R-49 value utilizing spray foam and batted insulation. It was pointed out that there currently is batted insulation in the original wing but it is only an R-8 regular wall batted insulation. As that area of the school has fire insulation on the roof, they cannot spray foam there but they will increase that batted insulation to an R-49. This will help keep utility costs down long term.

Mr. Ragucci stated that Air Temp will replace existing hot water heaters, which are approximately 10 – 15 years old, to a hybrid heat pump which is 40% - 60% more energy efficient in producing domestic hot water. Selectman Arnold Jensen asked what the existing water heaters were and was informed they are basic electric resistance water heaters. A hybrid heat pump uses the same kind of technology as in a VRF and there is a condenser. Mr. Shawn Hixson, Air Temp Mechanical Engineer, explained that the hybrid model is a small heat pump on top of a water heater that takes the room air and uses it to heat the water and it has an emergency backup. It could go to electric if there was an issue. It is hybrid because it can do

both. It is very efficient to use the hybrid heat pump technology to do that. Mr. Ragucci stated that currently there is no energy recovery at all in the building.

First Selectman Temple asked what the bottom line was. The pricing outlined on page 34 was reviewed. Mr. Daigle explained Eversource's RFP and that we are able to request the VRF systems and all the upgrades as the more money we put into the RFP application, the more money we get back. The RFP totals \$2 Million then we are looking to get \$500,000.00 - \$600,000.00 back.

Mr. Schuler stated that on page 2 of his letter is a structured financial breakdown. The way it is structured is the components that are eligible for the RFP account to \$2 Million are called ECM's. Mr. Daigle explained that the ECM's have changed but the numbers are the same and the end result is the same.

The total project which includes ceiling, insulation, ceiling grid and the fire sprinkler system is \$5,261,000.00 before any rebate or any federal funding money. \$5.261 Million equates to a debt service of \$314,000.00 a year at the current volume rate which will go up. This would be for twenty years at 1.75%. Then if we get a rebate of \$523,000.00, we end up with \$4.7 Million project which is \$283,000 a year debt service. If choose not to do any of the Valued Engineered Items, which are the ceilings, insulation and fire sprinklers, then you get down to \$3.6 Million which is a \$218,000.00 debt service. If we get the rebate against the original project then that goes down to \$187,000.00 debt service. Mr. Schuler recommends that the Board of Selectmen approve the \$5.2 Million for funding purposes and then get the Board of Finance to agree. To go through a lot of effort to find Federal funding if we might be able to use the furtherment for the costs and we would need to make a decision about the \$500,000.00. If we don't want to do this during the school year then we should probably let the \$500,000.00 go and stage the project in three consecutive summers and finish it that way.

Mr. Carl Bouchard of the GOMSEI Committee stated that work could be done from February to June with very little disruption to the classrooms. Page 22 of Air Temps proposal shows the scheduling for work to be done. Mr. Bouchard explained that some work could be done during school by moving students from a pod for 4-5 weeks, do the necessary work above the ceiling that they have to, then move to another pod. It is basically 5 pods for 20 weeks. Mr. Peter Mossa, Air Temp's Senior Project Manager, explained that there are five phases for this project and the fifth phase would be done during the summer months when the bulk of the work would be done. But in order to complete the project by August, it will require that some of the work be done during the school year. Mr. Daigle stated that they could completely isolate the areas that are being worked on so as not to bother the rest of the school.

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First Selectman Temple asked if there was any consideration given to asbestos or any other harmful chemicals. It was stated that is no asbestos in the ceiling nor was there other harmful chemicals found. Mr. Mossa continued to state that each phase would be completely contained. He explained that it was important to Air Temp to have a Project Team on site at all times and hopes that the Board of Education would have someone on their end as well.

Great Oak Middle School Principal Heath Hendershot was in the audience. He has some knowledge of this project plan. He believes that Air Temp can move the pods around, which will take work from the Custodial staff, but it is possible. Mr. Hendershot feels that the 3rd and 4th grades can easily be relocated into same space sizes. Public opinion is that the staff is very

willing to go through the logistics of making this happen. Mr. Mossa pointed out that there will be lots of time spent making sure the move is accurate and keeping the student's safety in mind. Selectman Dave McKane asked if all costs with moving these classrooms around was included in the project cost. Mr. Ragucci explained they call these types of items Cleanliness Items and when Air Temp has completed their job, they will ensure that everything is ready, school polished, finished, professionally cleaned ready to go. The facilities of moving in and out, the logistics of that, they do not have money for that but are willing to help out if need to. But having in-house staff help move stuff around is doable.

Selectman McKane stated that Air Temp explained that this could be done over 3 consecutive summers. He asked if that meter would start with the warranty when the entire project was complete or when the phases are completed. Mr. Daigle stated that, if you move per pod, the warranty for that particular system from the manufacturer would start as soon as that system is done. Selectman McKane asked if the Board of Education were aware of the possible classroom disruptions and how they felt about that. Mr. Daigle stated that the Board of Education was part of the last meeting and they are concerned about moving the students. On the positive side they are happy with the fact that they would be getting the fresh air requirements to meet COVID demands.

First Selectman Temple asked what the bottom line on this project that we are bringing to the residents. Mr. Schuler stated that it is a \$5.261 Million dollar project that would be reduced by \$500,000.00 from Eversource with the possibility of more of a reduction through Federal fundings and grants. If the whole thing was bonded it would be \$314,000.00 per year debt service for twenty years.

Selectman Arnold Jensen asked if the current heat and cooling are all electrical. Mr. Peter Nelson, Great Oak Middle School Custodian, stated that there is no cooling. Right now, there is electric resistance heating in the small units that sit in the room that essentially do not have any ventilation or reclaiming. Mr. Daigle explained that each classroom will have a cassette-style unit that are recessed up in the ceiling. They blow in 4-way directions. Along with those there will be 2 motion sensors in each corner that senses body temperatures. If it detects a student is sitting below it, it will not deflect air onto that student. It also senses for motion. If no one is on the room it will go back to a setback temperature so it will not run in an occupied temperature. So, if running it at a 70-degree occupied temperature, and it senses no motion, then it will drop back to the unoccupied temperature. These work off of a refrigerant, it has electricity going to it but it pulls less than a kilowatt. You can set it and forget it. Depending on the temperature of the room, it can go back and forth so the heat load would be different in each classroom.

Mr. Hixson explained that the ventilation requirement guideline is CFM per person. The standards for classrooms that they are meeting to bring in the right amount of air per child in that classroom. Right now, we do not have that. They are introducing the outside air directly to the classrooms in each one. There is a separate unit that will be in the attic that's a heat recovery unit because it needs to take the exhaust air, reclaim the energy of the exhaust air (whether it is heating or cooling), preheat or precool the air, and then it is temperate it from there and supply 70-degree to 72-degree every classroom. All that exhaust air is going out, it's not getting recycled. There will be a grill in each classroom that the tempered ventilation air is being delivered to each classroom. Currently some unit ventilators have dampers to the outside but most are not working, some stuck open and some are completely closed. It was pointed out that the ASHRAE standards now are requiring 100% of outdoor air and positivity and that is what Air Temp is proposing.

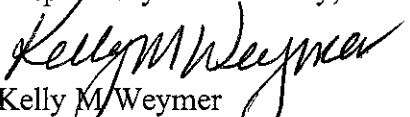
First Selectman Temple asked about the proposed fire suppression system. Mr. Bouchard pointed out that there are three items that could be eliminated, however he does not recommend that. First is the sprinkler system, which is a little over \$500,000.00. The second is the insulation, which would then create more heat loss. This is around \$700,000.00. Third is they could leave the existing ceilings; removing them would cost around \$350,000.00. However, Mr. Ragucci pointed out that they would be removing almost the entire existing ceiling anyways to do their work. Selectman McKane pointed out that two potential paybacks would be the fire heat system and the insurance savings. Mr. Bouchard mentioned that the three items are also safety concerns.


Selectman Jensen went back to the classroom sensor units. The sensors tell where heat is needed in each classroom and will be located in each corner of the classroom indoor unit. So, each classroom has two of them up in the ceiling. The hallways are different as they are unable to recess them in the ceilings in those areas. So that style of system will stay the same in those areas. Mr. Ragucci pointed out that this system is smaller than the current system and it is all ADA compliant. This technology has been around for a while. Air Temp specializes in this and they see a lot of people and businesses switching to this type of system. They are found in offices and schools where each area is different. Traditionally most systems are water-based with pipes. The VRF system is quickly replacing those systems; it is actually referred to as the "Chiller Killer". Mr. Daigle stated that part of the utility program is to have people switch from fuels and high use of that energy to this system. This system will have great savings with a one-year payback. Mr. Daigle states that conservatively the first-year cost is savings is approximately \$87,000.00 and that is only going to increase; this was calculated by a conservative 3% but it could be higher than that.

First Selectman Temple asked if there were any more questions. There were none. The meeting adjourned at 4:53 PM.

Filed subject to approval

Respectfully submitted by,


Kelly M. Weymer
Secretary to the First Selectman

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TOWN OF OXFORD, CT

TOWN CLERK
Shirley A. Clark