



**THE SBRSD ROOF/BOILER PROJECT AT MT. EVERETT/UNDERMOUNTAIN SCHOOL**

*WITH GRANT ASSISTANCE FROM*

**THE MASSACHUSETTS SCHOOL BUILDING AUTHORITY (MSBA)**

**AND**

**DEPARTMENT OF ENERGY RESOURCES (DOER)**

(revised 1.26.15)

January 15, 2015

To the taxpayers of the Southern Berkshire Regional School District:

I am writing today to share details with you regarding the district's roof and boiler project at the Sheffield campus.

As you may know, the Mount Everett/Undermountain Regional Schools were renovated/constructed in 1992, approximately 23 years ago. Certain structural and mechanical aspects of the building, specifically the roof and boilers, have long exceeded their expected useful lives and are in need of replacement. Last year, the Southern Berkshire Regional School District (SBRSD) applied for a grant from the highly competitive Massachusetts School Building Authority (MSBA) Accelerated Repair Program for financial assistance in replacing the roof and boilers. On January 14, 2015, the MSBA unanimously approved a grant for the SBRSD roof and boiler replacement project at a funding rate of 39.21%. In an effort to reduce fuel costs, oil dependency, and emissions, SBRSD also applied for an alternative energy grant with the Department of Energy Resources (DOER) through its SAPHIRE Program. The district was awarded an additional \$360,000 to help fund the purchase of biomass boilers fueled by wood pellets.

The SBRSD Roof/Boiler Project consists of replacing the insulation and membrane of the 190,000 square foot roof, and installing two biomass boilers and one oil boiler. Feasibility studies have been completed, and I hope that invitations to bid will go out in April so that the construction can begin in May, 2015 in order to be completed over the summer months while the children are not in school.

This project requires approval from the five towns in our district in order to move forward. The attached packet of information has been compiled to help district voters better understand the scope and details of the project prior to town meetings that will determine the project's approval. Please know that the district is making every effort to contain the costs of the project without compromising the quality so that these renovations will last for many years to come.

Both the roof and boilers are on borrowed time. Replacing them is a necessity, and I believe that we should complete this project now, while significant financial assistance is being offered from the MSBA and DOER. If we wait, the cost of making these repairs will only increase, and we will lose the \$3 million in grant assistance that we have worked hard to secure. It is important that all five towns approve the project so that we can properly maintain this facility for future generations, and continue our ongoing efforts to educate the young people in our five towns.

Sincerely,

A handwritten signature in black ink, appearing to read "David Hastings". The signature is written in a cursive, flowing style.

David Hastings  
Superintendent of School

## PROJECT PARTNERS

**Southern Berkshire Regional School District (SBRSD)** - SBRSD is a regional school district representing the southern Berkshire towns of Alford, Egremont, New Marlborough, Monterey, and Sheffield.

<b>Superintendent:</b>	Dave Hastings	
<b>Business Manager:</b>	Bruce C. Turner	
<b>School Committee Members:</b>	Carl Stewart, Chair	Alford
	Charles B. Flynn	Egremont
	Jennifer Sahn	Egremont
	Maria Rundle	Monterey
	Francoise Lartigue	New Marlborough
	Kristen Sparhawk	New Marlborough
	Arthur J. Batacchi, Jr.	Sheffield
	H. Dennis Sears	Sheffield
	E. Bonnie Silvers, Vice Chair	Sheffield
	Vito Valentini	Sheffield
<b>Project Managers:</b>	Tom Kondel, Senior Project Manager for NETCO	
<b>Architects:</b>	Dietz & Co. Architects, Inc.	
<b>Engineers:</b>	RDK Engineers	

*(Project Managers, Architects and Engineers have been assigned and approved by MSBA)*

**Massachusetts School Building Authority (MSBA)** - The Massachusetts School Building Authority (“MSBA”) was created in 2004 to help fund capital improvement projects in the Commonwealth’s public schools. MSBA identifies and supports fiscally responsible and educationally appropriate projects that create safe, sound, and sustainable learning environments. Its Accelerated Repair Program focuses on the preservation of existing assets by assisting with energy-efficient and cost-saving upgrades to windows, roofs, and boilers that will result in direct operational savings for school districts.

**Department of Energy Resources (DOER)** - The Massachusetts Department of Energy Resources (DOER) has launched the SAPHIRE program (“Schools and Public Housing Integrating Renewables and Efficiency”) in collaboration with the Department of Housing and Community Development (DHCD) and the Massachusetts School Buildings Authority (MSBA) to promote renewable thermal heating and cooling upgrades in public schools and state public housing across the Commonwealth. These projects will strive to combine renewable thermal heating upgrades with energy efficiency improvements — such as insulation, air sealing, and lighting upgrades — to achieve deeper energy savings and provide cost savings to schools and low-income housing development. The DOER hired BEAM Engineering to conduct the biomass feasibility study for SBRSD.

## SBRSD ROOF

### Why Does the Roof Need to Be Replaced?

- Test cuts into the roof membrane and insulation revealed that the insulation is wet. There have been leaks into the building on rainy days requiring buckets to be placed in certain areas. Skylights are also leaking and need replacement.
- The 190,000 square foot roof is 23 years old and 13 years past its warranty.
- Multiple engineering studies recommend replacing the roof at this time (to review the Roof Replacement Study/Schematic Design by Dietz & Co. Architects please visit [www.SBRSD.org](http://www.SBRSD.org)).



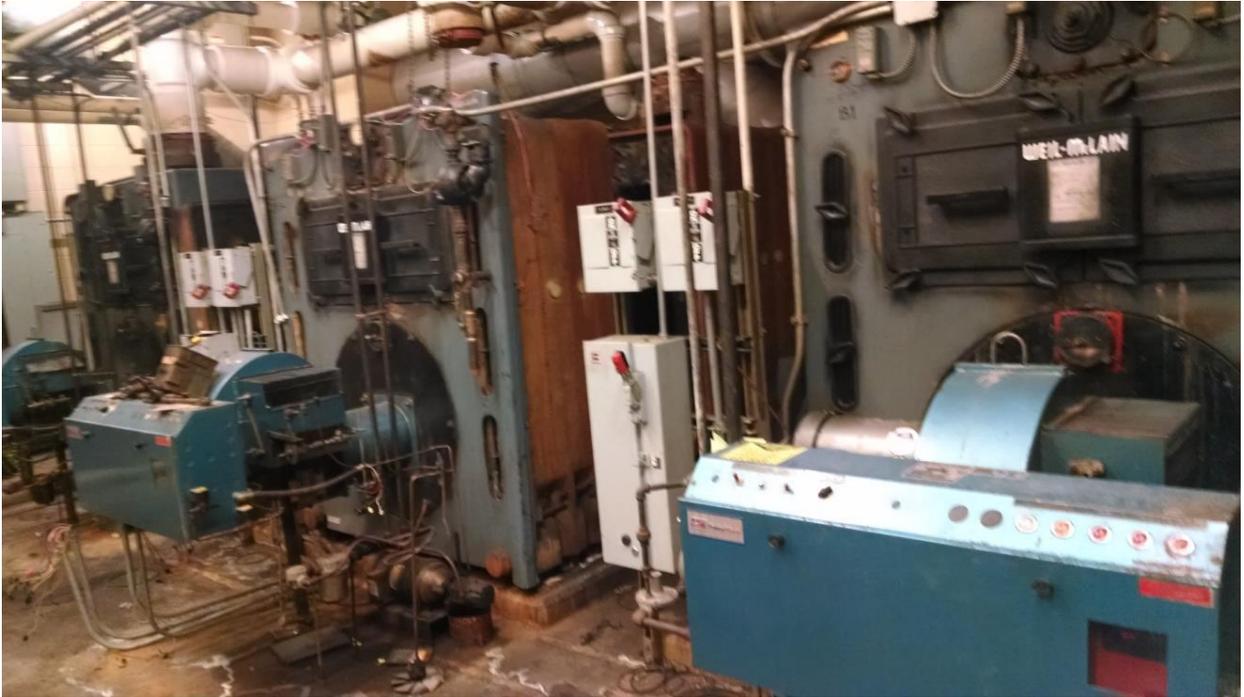
### What is the Project Plan for the Roof?

- The scope of construction will include removing and replacing the roof membrane, insulation, and flashing, and adding a code-required roof drainage system to reduce the possibility of overload due to backed up water as well as a code-mandated, structural reinforcement of the roof decking. The work will also require miscellaneous mechanical and electrical work on the roofs to accommodate the new roofing installation as well as the addition of emergency drains to multiple roof areas.
- The new roof project must comply with the revised Massachusetts Stretch Energy Code that mandates increasing building efficiency values. This project in combination with other recent SBRSD energy-saving initiatives will result in a 20% increase in building energy efficiency.
- The new roofing will have a 72 mil membrane with a 25-year warranty, almost double the thickness of the current membrane.

## SBRSD BOILERS

### Why do the Boilers Need to Be Replaced?

- All 3 boilers need replacement due to age and poor condition. One boiler is cracked and out of service. Two are leaking and could fail at any time.
- The boilers are 23 years old, original to the building, and have exceeded their life expectancy.
- Multiple engineering reports confirm that all 3 boilers must be replaced immediately (to review the Boiler Replacement Study/Schematic Design by Dietz & Co. Architects and BEAM Engineering please visit [www.SBRSD.org](http://www.SBRSD.org)).



*Current Boilers*

### What is the Project Plan for the Boilers?

- With grant assistance from the DOER, the District will replace the existing 3 oil boilers with 2 biomass boilers fueled by wood pellets and 1 oil boiler. The new boilers will have a 25 year estimated lifespan.
- This hybrid pellet/oil system will eliminate the consumption of approximately 50,000 gallons of fuel oil through the burning of 600 tons of pellets annually.
- By heating with pellets, the District will reduce CO2 emissions by approximately 85%.
- It is projected that the District will save between \$40,000 and \$50,000 annually on fuel consumption.
- As per a new Massachusetts law, the District will have the added benefit of earning approximately \$40,000 per year by selling Alternative Energy Credits to utility markets.



*Example of Pellet Boiler –Veissmann Pyrot 540*



*Example of Pellet Storage Silo*

## PROJECT FINANCING

### What will the Roof and Boiler Project Cost?

The SBRSD has secured a significant grant from the MSBA to cover 39.21% of the project costs. SBRSD will be submitting bills to the MSBA for reimbursement on a monthly basis throughout the project period. The District's portion of the expenses will be paid out of a short-term loan (similar to a construction loan) which will be turned into a 10 or 20 year bond once the project is completed.

Maximum Total Project Estimate includes a 10% contingency, should additional work become necessary in order to complete the project. This means that the project may end up costing less than estimated. The District will be financing only those expenses that are actually incurred, and only its share of those expenses after the grant funds have been received.

<b>Total Project Estimate</b>	<b>\$7,741,013.00</b>
MSBA Grant	-\$2,743,157.00
DOER Grant (Pellet Boilers)	-\$ 360,000.00
<hr/>	
<b>District Portion</b>	<b>\$4,637,856.00</b>

### PROJECTED PAYMENT SCHEDULE FOR A \$4,637,856 BOND

Based on an estimate of possible future interest rates. Actual payments may be lower.

<u>Year</u>	<u>10 Years at 3% Interest</u>	<u>20 Years at 4% Interest</u>
1	\$ 614,500.00	\$ 436,000.00
2	\$ 600,250.00	\$ 426,000.00
3	\$ 586,000.00	\$ 416,000.00
4	\$ 571,750.00	\$ 406,000.00
5	\$ 557,500.00	\$ 396,000.00
6	\$ 543,250.00	\$ 386,000.00
7	\$ 504,000.00	\$ 351,000.00
8	\$ 490,500.00	\$ 342,000.00
9	\$ 477,000.00	\$ 333,000.00
10	\$ 463,500.00	\$ 324,000.00
11		\$ 315,000.00
12		\$ 306,000.00
13		\$ 297,000.00
14		\$ 288,000.00
15		\$ 279,000.00
16		\$ 270,000.00
17		\$ 261,000.00
18		\$ 252,000.00
19		\$ 243,000.00
20		\$ 234,000.00
Total	\$5,408,250.00	\$6,561,000.00

**PROJECTED TOWN SPLIT OF BOND ISSUE**

*SAMPLE FIRST-YEAR PAYMENT AMOUNT BASED ON FY15 ASSESSMENTS\**

		<u>10 year</u>	<u>20 year</u>
ALFORD	3.34%	\$ 20,510.00	\$ 14,552.00
EGREMONT	11.55%	\$ 70,995.00	\$ 50,372.00
MONTEREY	10.53%	\$ 64,684.00	\$ 45,895.00
NEW MARLBOROUGH	20.80%	\$127,791.00	\$ 90,670.00
SHEFFIELD	53.79%	\$330,521.00	\$234,511.00
TOTAL		\$614,500.00	\$436,000.00

PLEASE NOTE: First bond payment for towns will not be due until Fiscal Year 2017, with payments decreasing each year over the life of the bond.

*\*Assessment percentages change annually based upon Massachusetts state formula*

**PROJECTED APPROXIMATE COST PER \$100,000 OF ASSESSED HOME VALUE  
(20 Year Bond)**

*PAYMENT AMOUNTS BASED ON FY15 ASSESSMENTS\**

	<u>1<sup>st</sup> Year Taxpayer Payment (2017)</u>	<u>20<sup>th</sup> Year Taxpayer Payment (2036)</u>
ALFORD	\$ 5.74	\$ 3.08
EGREMONT	\$12.28	\$ 6.59
MONTEREY	\$ 9.28	\$ 4.98
NEW MARLBOROUGH	\$19.97	\$10.72
SHEFFIELD	\$37.86	\$20.32

*\*Assessment percentages change annually based upon Massachusetts state formula*

## FREQUENTLY ASKED QUESTIONS

*Q: Why are we choosing to undertake a major project at this point in time?*

A: Knowing that the roof and boilers needed to be replaced, the District's administrators and School Committee chose to apply in February 2014, along with hundreds of other schools in the Commonwealth, for grant funding from MSBA to help defray the cost of completing this work. After making site visits and then reviewing our application and feasibility studies, MSBA approved a grant to pay for 39.21% of our project on January 14, 2015, provided we appropriate funding within 90 days. In addition, delaying the project will result in further water damage to the roof and inside of the building, ultimately increasing the cost of repairs. The engineers are concerned that the boilers may not make it through this heating season and therefore, it is imperative that they be replaced as soon as possible.

*Q: What is the time frame for this project?*

A: The schedule calls for work to begin in the late spring and for major construction to be completed by the beginning of the '15-'16 school year.

*Q: Where are we in the process?*

A: Funding from the MSBA and DOER has been approved. Feasibility studies have been completed and preliminary designs are in hand. The District would like to send the project out to bid in early spring, so that work can commence by early summer. Prior to the project moving forward, all five member towns must approve the debt that the District will incur as a result of taking on the project.

*Q: Why is the project moving so quickly?*

A: The MSBA Accelerated Repair Program, which is covering 39.21% of the cost, requires that districts appropriate funding quickly and adhere to an accelerated project schedule. It is also imperative that a substantial portion of the work be completed during the summer months while the children are not in school, and that the new boilers are operational prior to next year's heating season.

*Q: Where does the Massachusetts School Building Authority get its funding?*

A: MSBA receives one penny of every dollar generated by the state's 6.25% sales tax.

*Q: How did MSBA arrive at the 39.21% reimbursement figure for the grant?*

A: MSBA relies on a complex algorithm to arrive at the reimbursement rate for each project. Factors included the income rates and property values within the District's five towns plus incentive points for increasing energy efficiency.

*Q: Is the MSBA funding guaranteed?*

A: The MSBA board approved the SBRSD project on January 14, 2015, and this approval guarantees that MSBA will pay its share of the costs, so long as the project is approved by voters in each of the five towns before April 14, 2015. If the project is not approved, the MSBA funding will be lost.

*Q: Is it possible to repair, rather than replace, the roof and/or boilers?*

A: Since the roof is 13 years beyond warranty, engineers have advised that the district replace rather than repair the roof at this juncture. During the feasibility phase, roof test cuts revealed areas of wet insulation. Replacement is necessary to preserve the integrity of the building and avoid having moisture and rot spread beneath the roof membrane. The boilers have been repaired repeatedly over the years and, according to technicians, have reached the point where they can no longer be maintained in good working order without extensive repairs and section replacement.

*Q: Do pellet boilers have increased operation and/or maintenance costs?*

A: This will be an industrial-scale system in which pellets are mechanically fed into the boiler from a storage silo that will be installed in the back of the building adjacent to the boiler room. It is necessary to periodically remove a small volume of ash from the boiler (1 gallon of ash per ton of pellets). The ash is organic material

that can be used as a soil supplement. It is recommended that maintenance staff complete a 4-hour tube cleaning procedure every 600 hours of running time. Other annual maintenance costs are on par with other types of boilers and heating systems.

*Q: Will there be a cost savings associated with using pellets versus oil?*

A: Pellet prices fluctuate, as do oil prices. Despite the current drop in oil prices, pellets have remained competitive in terms of cost. Because one of the three new boilers will use oil, the District can switch fuels at will in order to realize the biggest savings.

*Q: What will the District do with the money it may receive from the sale of alternative energy credits as a result of heating with biomass?*

A: The District plans to put any money received from this revenue source directly into repayment of the bond.

*Q: Will the District have a reliable source for pellets?*

A: There are three pellet-fuel manufacturing plants that ship bulk pellets within delivery range of Sheffield (in Jaffrey, NH; North Clarendon, VT; and Deposit, NY) and a new plant is due to be built in Wilbraham, MA.

*Q: What are the environmental impacts of a biomass heating system?*

A: The DOER estimates that the district will reduce its CO2 emissions by 85%, or about 600 tons, annually by heating with pellets. Pellets are a clean-burning fuel whose emissions contain a small amount of very fine particulate matter that has a minimal effect on indoor or outdoor air quality.

*Q: Will the new roof be able to support solar panels?*

A: Yes, in certain areas. Although roofing experts recommend additional padding if panels are installed.

*Q: What will be the impact of this project on tax rates?*

A: The impact on taxes will be different in each town and will be determined by the annual assessments set by the District as prescribed in the regional agreement using state formulas. Financial impacts to each town from repayment of the bond will not be felt until fiscal year 2017, and will decrease each year over the term of the bond.

*Q: What's the difference between a 10 and a 20 year bond, and when will the term be decided?*

A: A 20 year bond takes twice as long to pay back and includes more interest payments. Taxpayers could end up paying \$1 million more in interest with a 20 year bond. Because the debt will not be rolled into a bond until the project is finished, it is impossible to predict what interest rates will be at that time. The numbers presented here are conservative, and interest rates may end up being lower than represented. Because the financial advantage of a 10 year bond over a 20 year bond could be significant, and because we don't yet know how much the project will actually cost, the District felt it was better to finalize this decision when all variables are known.

*Q: When and where do we vote?*

A: Each town may convene a special town meeting for its voters to disapprove the debt being incurred by the district as a result of taking on this project. These meetings will take place on or before March 21, 2015, as specified by Massachusetts General Laws. Each town also has the option of asking its voters to approve or disapprove a 2.5% override measure relative to its regular operating budget.

*Q: Where can I find additional information on the project?*

A: The feasibility studies for the project and other related documents are posted on the District's website: [www.sbrsd.org](http://www.sbrsd.org). Other questions can be directed to Ingrid Borwick in the SBRSD administrative office: 413-229-8778, ext. 300.