

KETCHIKAN GATEWAY BOROUGH SCHOOL DISTRICT BOARD OF EDUCATION  
AGENDA STATEMENT

No. 8 c.

MEETING OF April 26, 2023

ITEM TITLE:

**CONSENT CALENDAR**

Motion to approve applying for a Bipartisan Infrastructure Law (BIL) Renew America's Schools Grant to help fund improvements at Point Higgins Elementary.

REVIEWED BY:

Superintendent

Finance

Administration

CONTACT: Michael Robbins      907 247 2109  
Name                                      Phone

**SUMMARY STATEMENT:**

The School Board is being asked to approve applying for a Bipartisan Infrastructure Law (BIL) Renew America's Schools Grant to help fund improvements at Point Higgins Elementary in the amount of \$4,865,280 in grant funding, with a Federal Share of \$4,622,016, and local share of \$243,264, representing 5% of the project total.

**ISSUE:**

Per Board Policy 3291, School Board approval is required for grant applications exceeding \$5,000.

**BACKGROUND:**

Major upgrades are needed to the Point Higgins Elementary School mechanical and electrical systems, as well as the building envelope and have been identified as capital project needs for the Borough for many years. The building has been in service without major upgrades for 37 years and the Ketchikan Gateway Borough School District (District) submitted a pre-application concept paper for the project and was encouraged by the Department of Energy to follow on by submitting a full application.

At its meeting of April 17, 2023 The Ketchikan Gateway Borough Assembly approved Resolution 3007 A Resolution of the Assembly of the Ketchikan Gateway Borough, Authorizing the Ketchikan Gateway Borough School District to Apply for and Approves the Submission of a Grant Application for Bipartisan Infrastructure Law Renew America's Schools Funding for Point Higgins School Totaling \$4,865,280.

**RECOMMENDATION:**

Approval from the School Board for the School District to apply for the BIL Renew America's Schools Grant in the amount of \$4, 865, 280.00

**ATTACHMENTS:**

- Point Higgins Elementary Project Cover Page
- Borough Resolution No. 3007

**FISCAL NOTE:**

NA

**RECOMMENDED ACTION (*Only if not approved as part of the Consent Calendar*):**

"I move that the Board of Education **approve applying for a Bipartisan Infrastructure Law (BIL) Renew America's Schools Grant to help fund improvements at Point Higgins Elementary in the amount of \$4, 865, 280.**"

**COVER PAGE**

Project Title: Point Higgins School Energy Conservation

Topic Area: Topic Area 1 - High-Impact Energy Efficiency and Health Improvements

Technical Point of Contact: David Landis - davidl@serrc.org

Business Point of Contact: Al Jacobson - al.jacobson@k21schools.org

Team Member Organizations:

- Ketchikan Gateway Borough School District
- Ketchikan Gateway Borough
- Point Higgins School
- Welsh Whiteley Architects, LLC
- Alaska Energy Engineering, LLC

Project Address: 981 North Point Higgins Road, Ketchikan Alaska 99901

## PROJECT DESCRIPTION

The Point Higgins School was constructed in 1986 using standard architecture and construction technology and practices for that time period. Now, 37 years later, the school is showing its age and is quite inefficient by today's standards. The Project Team, consisting of Owner, users, stakeholders and design and engineering professionals, propose the following optimal strategy: The energy performance of the school will be enhanced in a cost-effective manner by first reducing energy loads and secondly to employ efficient systems to supply the loads.

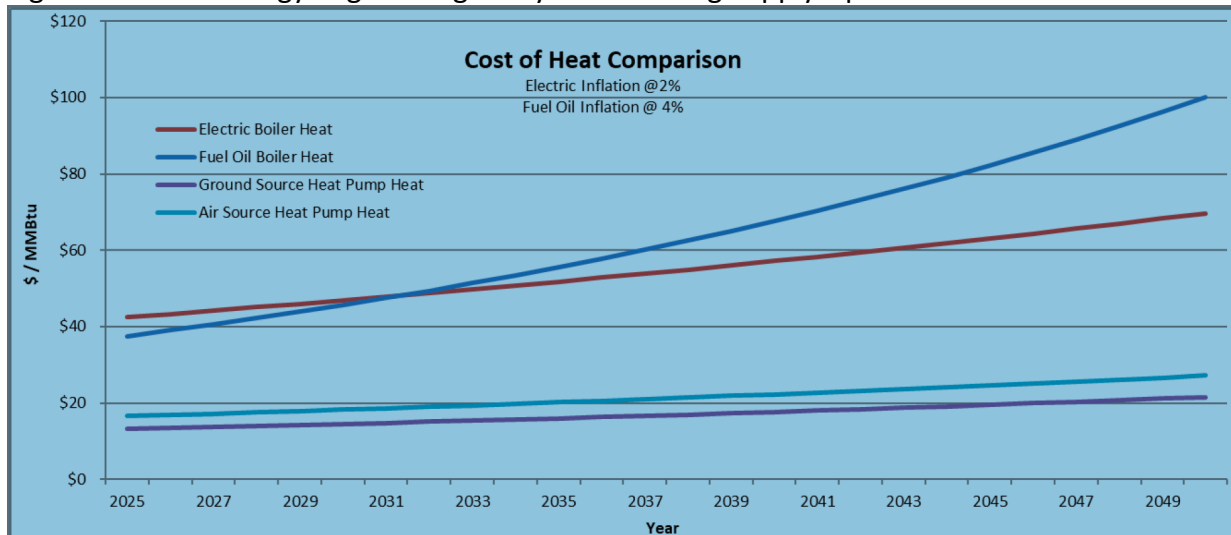
### Reduce loads with energy efficiency measures:

- Upgrade windows and doors
- Upgrade roof insulation to R-50 or better
- Upgrade lighting to LED luminaries
- Gym CO2 control
- Scheduled ventilation (lower ventilation rates before and after school)
- Supply air temperature reset (reduces reheat energy)
- Dedicated outdoor air system (DOAS) for the classrooms

### Heating plant improvements:

- Replace #2 fuel oil boilers with a new dual-fuel electric plant for energy flexibility
- Upgrade baseboard to multiple tier models with underfloor tubing
- Install heating coils in the air supply in high heating demand spaces
- Install a ground source heat pump system as a long-term investment

Figure 1: Alaska Energy Engineering Analysis of Heating Supply Options



### Potential energy efficiency, health and safety benefits

The current school has an EUI of 78 kBtu/sqft). An efficient school would be around EUI=60. The goal of this project is to seek to exceed that by 15% for an EUI= 50. This is easily attainable with the DOAS concept, and adding the heat pump will bring the EUI to less than 40, or a nearly 50%

reduction in purchased energy from the current benchmark. The engineering team feels that these are achievable goals for this project. The DOAS concept, which will utilize existing dedicated exhaust air at 4500 cfm, will provide a constant source of clean air supply rate using filters, air cleaners, and other airborne infectious aerosol removal mechanisms for a healthy learning and working environment.

#### Cost estimate

The Point Higgins School owner has commissioned a professional condition survey with ROM estimates for work specific to this facility, along with an energy audit done by a PE working exclusively in the energy engineering space. These source documents will be used first to establish the budget for proposed energy improvements, and then to guide the bid process for design work to full construction drawings and specifications. This work is underway and is expected to be concluded in February 2023, giving ample time for inclusion with the full proposal for this BIL grant. At this point, however, the early ROM estimates received are:

Construction Costs		
Item		Cost
Doors, Windows, skylights		\$ 800,000
Boilers and piping		\$ 470,000
AHUs, ductwork, balance		\$ 1,155,000
Lighting		\$ 1,376,000
SubTotal		\$ 3,801,000
Project Adders		
CM by Consultant	3%	\$ 114,030
Design	10%	\$ 380,100
District Overhead	5%	\$ 190,050
Project Contingency	10%	\$ 380,100
SubTotal		\$ 1,064,280
Total		\$ 4,865,280

#### Plan to execute and maintain improvements

The district has a sophisticated procurement/project management function, along with a fully equipped in-house maintenance crew of qualified workers with adequate planning and staffing in all positions. Any projects which are beyond the capability of the district are contracted to a roster of professional individuals and firms that the district has long-term relationships with.

In addition, the State of Alaska Department of Education and Early Development requires the district to provide for the development and implementation of a preventive maintenance and facilities management program for all school facilities. programs. continuous documentation of a formal maintenance management program, and energy management plan, a custodial program, a maintenance training program and a renewal and replacement schedule are all required and monitored by the State DEED.