## **Roxanne Maher**

From: John C. Marshall

Sent: Friday, January 27, 2023 6:12 PM

**To:** Andra Ingalls; Gary Paul; John C. Marshall; Kevin J. Dombrowski; Mary K. McGrattan;

Naomi Rodriguez; Roxanne Maher; Timothy Ryan; Whit Irwin; William Saums; Fred Allyn,

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**Subject:** senior center and fire house

## Good Evening All,

At the last council meeting, Fred reported that the heating/cooling system at both the senior center and ledyard fire house were failing, and that the replacement/repair would cost well over \$100K for each location. Both systems are also inefficient to run.

I think we should look into a geo thermal system for both locations. preliminary investigation shows a large, high end, ground source heat pump would cost roughly \$45K installed. Geo thermal can reduce operating costs by as much as 65%.

Back in the day, it was suggested we put in radiant floor heat in the bay of the fire house, but it was put out there that radiant heat was a "luxury" item and the town was not going to pay for that. Radiant heat would have been the intelligent choice. Geo thermal is not a luxury item either, and I believe it is worth discussing.

Another idea to make heating the bay of the fire house is to install duct work and internal fans to capture the warm air up at the ceiling and bringing it down to the floor of the bay. those large fans just mix the warm with the cold air, and it never reaches the floor. I have seen this done in several residential applications, and it works very well

John