

Hicks Memorial Municipal Center and Library: HVAC Replacement Need

More Information

Please see <http://www.tolland.org/hickshvac/>
for detailed information.

Contact TETF:

Mark Summers, Chairman

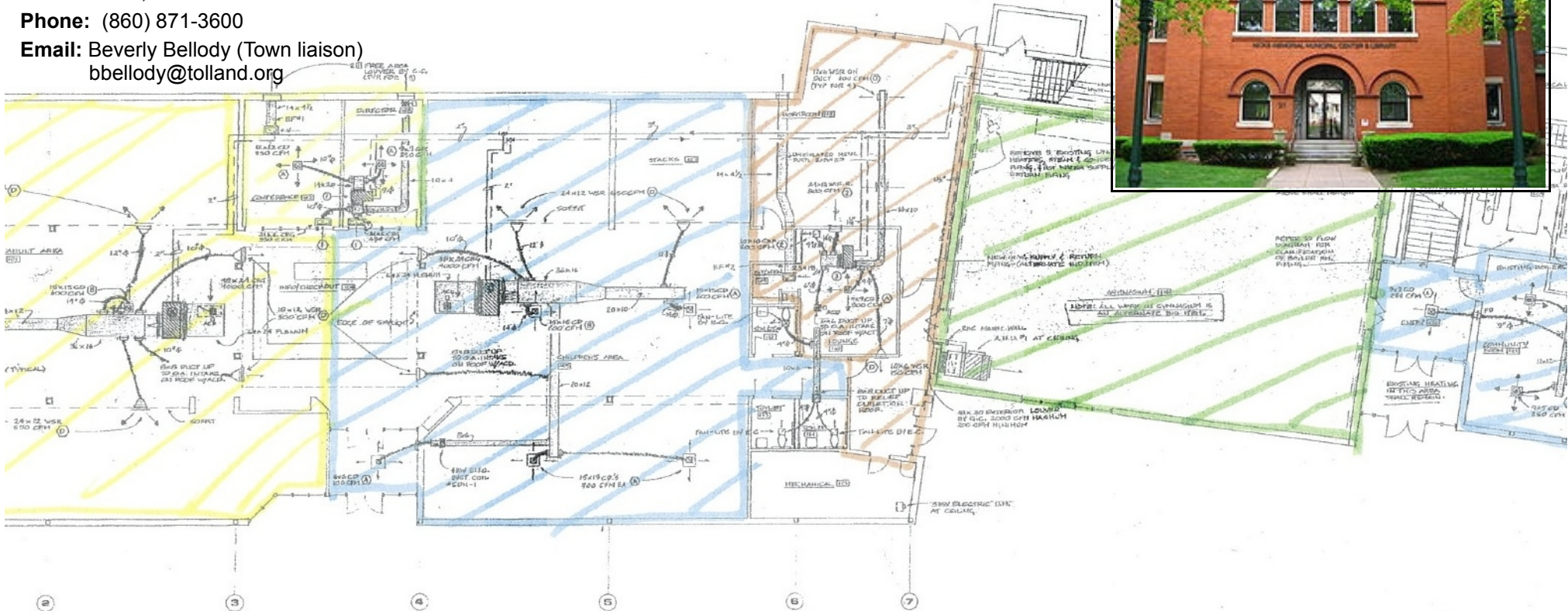
21 Tolland Green
Tolland, CT 06084

Phone: (860) 871-3600

Email: Beverly Bellody (Town liaison)
bbellody@tolland.org

Please see

<http://www.tolland.org/hickshvac/>
for detailed information.



Town Hall Library complex...

The Hick's Memorial Municipal Center & Library is Tolland's primary community building. It facilitates preschool programs, recreation activities, the town's volunteer commissions, transaction of governmental affairs, organization meetings, as well as storage of vital records, a home for Probate Court, and the majority of Tolland's town workers, librarians, and all those books we love. The Town Hall and Library facility is one of Tolland's most heavily utilized public spaces excluding schools.

Town Hall & Library facts:

- Originally constructed in 1908
- Additions added in 1940s & 1960s
- Last renovated in 1984
- 40,000 sq feet stretched over 6 levels
- Accounts for 26% of the town's energy expenditures (excluding BOE)

The problem...

The Town Hall and Library's Heating, Ventilation, and Cooling (HVAC) system is failing and needs to be replaced.

In December, 2007, after continuous HVAC system failures, the town hired *Consulting Engineering Services* from Middletown, CT to assess the HVAC system's condition. Their advice:

1. Replace the HVAC system.
2. Bring fresh air into the facility.

Three years later, we're still maintaining the same failing system. It's not improved, it's getting worse and repairs are more costly.

What are our options?

1. Do Nothing; Maintain current system.

- Current expenditures (operating and maintenance costs) for the system are in excess of \$65,000 per year.
- Expenses will continue to rise as the system ages, failures persist, and the price of fuel continues to increase.
- Indoor air quality will remain a problem.
- The problem is not resolved.

2. Replace the system in phases.

- Completion takes years not months.
- Indoor air quality & energy cost savings not realized immediately.
- Engineering a phased project is very difficult and will cost a premium.
- Estimates suggest it may cost 10-20% more than a single renovation.
- Bonding is difficult to estimate as rates vary from year to year, but finance costs will rise.
- During "phased" period, we continue to utilize and pay for the use of the present failing system in addition to the new system.
- Building disruption will be prolonged.

3. Replace the system all at once.

- Best practical, contractual, and engineering option available.
- Immediate air quality improvements.
- Immediate fuel savings.
- Resolves problem immediately and virtually eliminates maintenance.

Recommendation...

Replace the system all at once.

The Energy Task Force, Town Manager, and architects and engineers involved in the project recommend replacing the Town Hall and Library HVAC system. The advice is to replace the system all at once to get immediate benefit from the system and ultimately provide the citizens of Tolland with the greatest return on their investment.

Estimated costs:

- \$3.2M - \$3.5M (*Referendum required*).
- Bonding impacts the budget's *Debt Services* portion by \$55 to the average household in the peak bonding year.
- *Debt Services* is currently in a decline, so the project actually results in no increase in total *Debt Services* costs after fiscal year 2012/13.

What system should be installed?

The suggestion is to replace the current system with a [Geothermal Heating/Cooling system](#). Analysis of replacement options was performed in 2009. Geothermal is known to have several advantages over conventional fossil fuel systems, such as:

- Extremely efficient heating & cooling.
- Lower operating & maintenance costs.
- Cost ~6.5% more than traditional to install, but payback is < 6 years.
- Significant greenhouse gas emission reductions.
- Powered by electricity vs fossil fuels.