

261 Heath's Bridge Rd

Concord Historic Preservation Commission Presentation
November 10, 2021

Background and Timeline

We have lived in Concord for the past 18 years and decided to purchase a smaller home here for our retirement now that our three children have left the nest. We also wanted a home with a dramatically lower carbon and water use footprint for both environmental and economic reasons. When we embarked on this journey and throughout the design process our new home, built in 1952, was not subject to the Demolition Review Bylaw. Based on recent amendment, it now is.

September, 2020	Entered purchase and sale agreement for 261 Heath's Bridge Road in Conantum
December, 2020	Moved in while waiting for closing (delayed by probate court issues and Covid)
January, 2021	Engaged architect, commenced design
April, 2021	Obtained Board of Health approval for septic tank and pump chamber relocation
May, 2021	Filed Notice of Intent with the Natural Resource Commission
June, 2021	Article 33 passes at town meeting, section 3.2 amends 1941 cut off date to older than 50 years
July, 2021	Obtained Order of Conditions from NRC
October, 2021	MA Attorney General approves Article 33 and enforcement begins

To date, we have spent \$37,145 on the project which includes filing fees and the contract services of an Architect, Surveyor, Wetland Specialist, Arborist, Civil Engineer, Septic Engineer, Stormwater Management Engineer and Building Science Engineer. All of this work has been based on plans to demolish the current residence and replace it with a smaller (<3000 sqft, 3 bedroom), high performance home approaching Passive House energy efficiency standards.

Reasons for Historic Significance (our assumptions)

1) The Conantum Community

- a) First planned development community in Concord
- b) Vision of Rupert Maclaurin to create affordable housing for young families, particularly for faculty members at MIT and Harvard
- c) Early adopter of anti-discrimination clause in deeds
- d) Development was not well received by town residents
- e) Created their own water district when town authorities refused to allow Conantum to connect to town water

2) Architect Carl Koch

- a) Enlisted by Rupert Maclaurin to design Conantum homes (~104) and common land layout
- b) Subsequently created the Techbuilt method of home construction (low cost, modular)
- c) Legacy, "The Grandfather of Prefab"

The Case For Not Finding Preferably Preserved

With respect for the work of the HPC, we would like to offer the following arguments for not finding 261 HBR “preferably preserved”.

- Due to the siting of the home, it is not clear who will benefit from preservation
- By virtue of prior renovation, 261 HBR is a diluted example of Carl Koch’s original design
 - There are several, higher fidelity examples of Carl Koch designs within Conantum
- Conantum is not listed as an historic district nor is it listed on any historic registry
- The proposed home is consistent with the “character” of the Conantum neighborhood
- The proposed home is a model for environmental stewardship, a principle well ingrained in our community’s history
 - Koch designs were recognized for their low cost and a renowned lack of regard for energy conservation; “energy will be so cheap, it will not be worth metering”

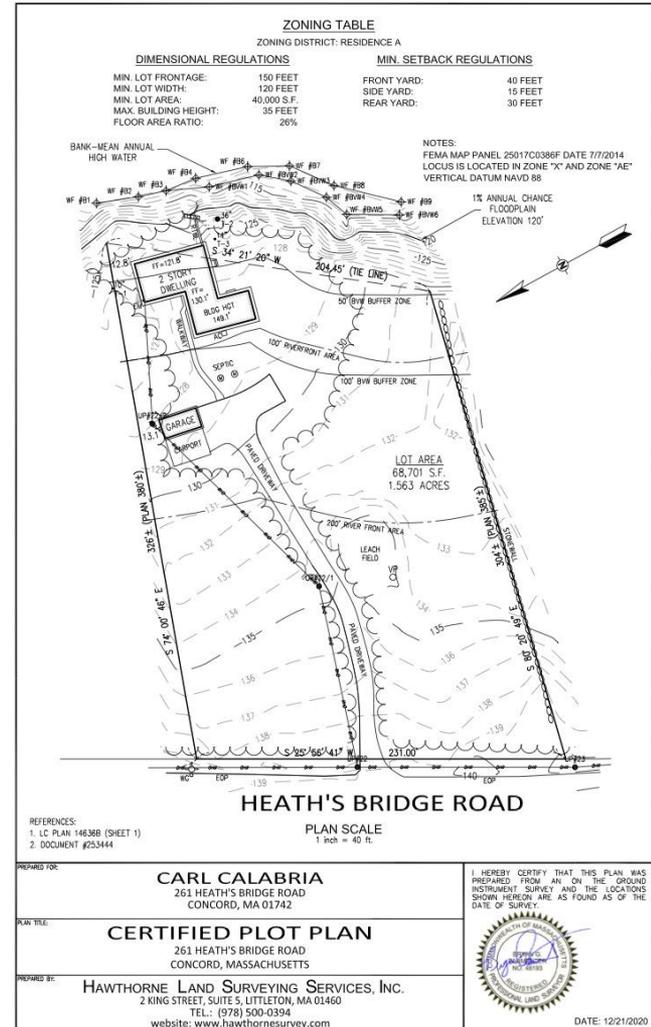
Beneficiaries of Preservation?

Due to the siting of the home on a heavily wooded lot, it is all but obscured from Heath's Bridge Road and very visible from the Sudbury River.

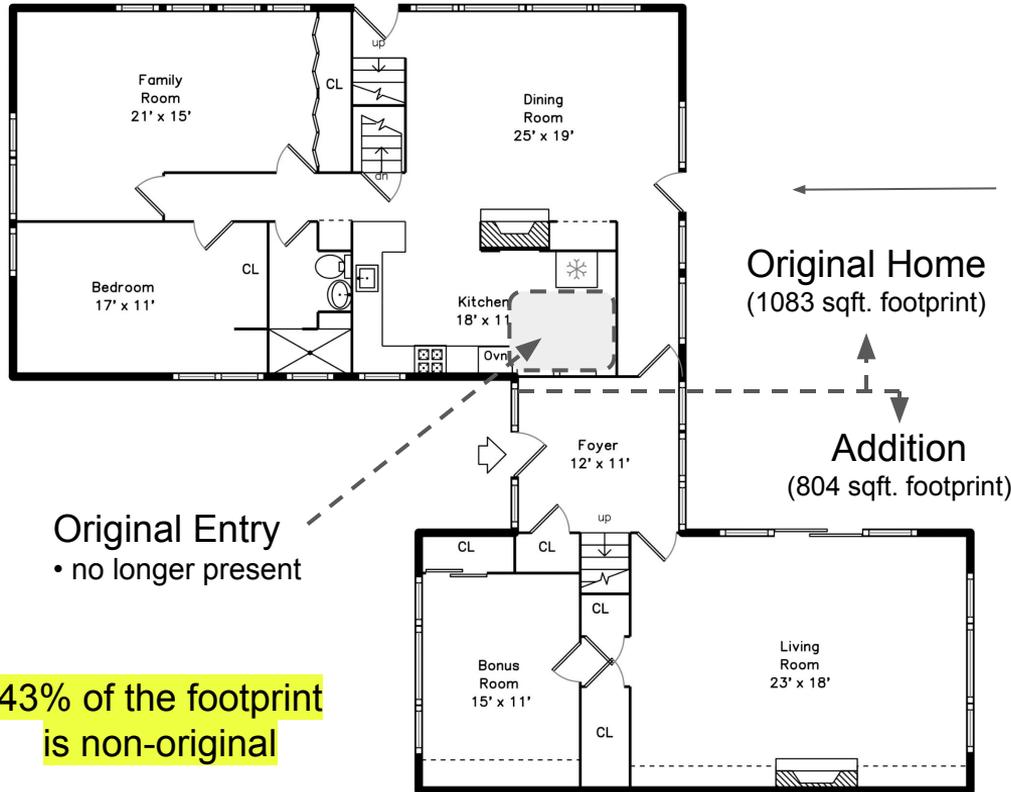
From our experience, people traversing this section of the Sudbury River are doing so to enjoy the natural beauty, wildlife viewing, fishing, and/or for exercise.

We do not believe anyone passing through this section of the river is doing so with the expectation or goal of viewing historic homes. Quite to the contrary, we believe they would be most appreciative of seeing no homes whatsoever and would favor smaller over larger homes.

With these observations in mind, it begs the question, "Who is expected to benefit from preservation of this home?"



Dilution of the Original Carl Koch Design



- Koch Design
- asymmetrical
 - offset

- Addition Design
- symmetrical
 - centered



Reasons for Demolition (highlighted items are incompatible with Koch design)

- (1) **To reduce size:** The current home is 3,722 sqft. with 5 bedrooms. Our plans are for a 2,978 sqft. house with 3 bedrooms on the existing footprint. This will be accomplished by making half of the house one story instead of two. A smaller home will be easier to maintain and less costly to own/operate, an important factor during our retirement years.
- (2) **To reduce energy consumption:** We are committed to doing our part to reduce the human impact on climate change. Our new design will approach passive house envelope insulation and air infiltration standards. Our plan **eliminates both chimneys and fireplaces** (to eliminate air leakage and thermal bridging). It features **low pitch (1.5:12) shed roofs** designed to hold snow for added winter insulation. We plan to **replace the foundation so that the slab can be insulated from below**. Windows will be triple glazed and located to enjoy views of the river. To preserve the thermal budget, windows will be absent elsewhere unless they are required by code. All **windows will be rectangular** so they can be fitted with automated shades to minimize solar gain in the summer and maximize gain in the winter.
- (3) **To allow us to age in place:** The new home is designed for wheelchair access and has code compliant 7:11 rise/run stairs. The existing home has 8.5:9 rise/run stairs which are unsafe for anyone but particularly dangerous for the elderly. The new home will have an **attached garage** rather than the existing detached garage/carport for more convenient and safer access to vehicles during inclement weather.
- (4) **To create a healthy interior environment:** When we took possession of the home it was infested with rodents and contained a great deal of mold, particularly in the bathrooms and basement. We have already removed significant amounts of insulation, drywall, ceiling tiles and flooring to eliminate the feces and urine impregnated materials. Similarly, the basement and all but one of the bathrooms have had all mold covered materials removed. The new home will be combustion free and have state of the art air ventilation and dehumidification. It will also include an under slab radon mitigation system which is not present in the existing home.
- (5) **To reduce maintenance:** We are looking forward to less home maintenance during our retirement years. To this end we have selected a **standing seam metal roof** which is virtually maintenance free. The current home is clad in cedar tongue and groove. It is being attacked by our resident woodpeckers and has several holes in it. We plan to use thermally modified spruce on the new home. All of the cellulose is baked out so there is no food source for insects. We have selected the natural aged color of spruce so the house will never need to be painted or treated.

