

Minutes of the Half Crown-Marsh Neighborhood Conservation District Commission

Mon., January 10, 2011 at 6:00 PM, Friends Meeting House, 5 Longfellow Pk., Cambridge

Commission Members present: James Van Sickle, *Chair*, Judith Dortz, William King, *members*; Deborah Masterson (recused), *alternate*

Commission Members absent: Robert Banker, *member*; Grenelle Scott, *alternate*

Staff present: Sarah Burks, Eiliesh Tuffy

Members of the Public: See attached list

Chair Van Sickle called the meeting to order at 6:04 PM. Mr. Van Sickle introduced the Commissioners and staff present then read the rules and regulations for public hearings.

Public Hearing: Alterations to Designated Properties

HCM-97: 45 Foster St., by John Greenup. Relocation of exterior mechanicals. Two proposed air handling units to be mounted on the north elevation.

Ms. Masterson identified herself as an abutter to the property under review, recused herself from the Commission, and was seated in the audience for the duration of the hearing.

Ms. Tuffy presented slides showing a mock-up of the previously approved location -- on the west elevation facing Foster Place -- where an air conditioning condenser had been proposed. She explained that a new application was submitted which proposed revised locations for what now amounted to two exterior mechanical units, which would be used for both heating and cooling. In the application, several possible locations for these two units were presented by the applicant. Photographs of a cardboard mock-up in each of the three proposed locations were displayed as part of the staff presentation. The mock-up was assembled to reflect the overall dimensions of two condensing units installed side-by-side.

Two of the proposed locations were found by staff to be the most publicly visible. They were:

- mounted on the upper gable roof on the north-facing slope, and
- hung from brackets at the 2nd floor level, on the easternmost portion of the north elevation

A third location, mounted on the porch roof above the rear Foster Place entrance, appeared to be the least publicly visible of the three proposed locations.

John Greenup, the property owner, said he had already submitted a design that included mechanicals at grade level on the west elevation that had been previously approved. He said that he could simply install the two newly proposed units in that location.

Mr. Greenup said that, in an effort to be energy efficient, he was proposing a heat pump system instead of a carbon-fueled boiler. There had not been enough room on the site to install geo-thermal heating, and he could only heat half the house with one condensing unit. His goal was to heat the entire house using one system, rather than having to combine a heat pump system and a fuel burning system. In looking for an appropriate location for the two proposed condensers, Mr. Greenup said he recognized two points of concern: noise sensitivity and aesthetics. He felt the Cambridge Noise Ordinance was very restrictive, but that his proposed locations for the condensers would meet the noise limits, leaving only the aesthetics elements up for discussion by the Commission.

Mr. Greenup said that two neighbors had asked him not to install a fence on the Foster Place elevation, which he felt would make it more difficult to screen the mechanicals in the previously approved location at grade level on the west elevation. In outlining the three proposed locations for the heat pump/air conditioners, Mr. Greenup made the following points:

Location: Above the Rear Door

- shielded to obscure views from Brown Street and Foster Street

Location: North Elevation, 2nd story

- units could be mounted separate from one another, each only projecting approximately 16" out from the wall
- units would only be visible from Foster Place

Location: Rooftop, north slope

- top of the units would be no higher than the existing ridge line
- units would not be visible from Foster Street
- units would only be marginally visible from Brown Street
- units could be boxed in to create a false chimney

- felt the rooftop locations would be less noisy than placing the units at grade level
- Mr. Greenup mentioned the presence of rooftop mechanicals at 35 Foster Street as another example of this type of solution.

Ms. Masterson of 53 Foster Street interjected, raising several points of concern including:

- questioning inaccuracies on the application
- the property owner's assumption that he already had permission to install a heat pump, when she felt the prior approvals had been expressly for an air conditioner compressor, and
- an attachment to the application where the owner had referenced the "currently approved air conditioning/heat pump"

Ms. Masterson asked that the Commission discuss that matter first, before ruling on the proposed locations of the units.

Chairman Van Sickle called a point of order, stating that the Commission was presently asking questions of fact of the applicant.

The Commission asked Mr. Greenup to explain how a heat pump works and what the dimensions of such a unit would be. Mr. Greenup said that the dimensions of a heat pump versus an air conditioning compressor are essentially identical and that they only differ in operation. He said that one 2.5-ton unit would measure 36"W x 31"H x 12"D, and that it would only heat half of the house. His application was therefore for 2 units.

Ms. Masterson interjected, stating that an air conditioner would only be used seasonally, whereas a combination system would be running all year.

Chairman Van Sickle asked the property owner what other ground-level locations had been considered. Mr. Greenup said the location under the windows along the driveway would interfere with the car door. Beside the fence on the north property line did not provide the required clearance for the unit to operate. The east elevation, facing 39 Foster Street, was too close to the property line and would not be shielded. He also had looked for an internal unit that could be ducted through the wall, but was unable to find one. Chairman Van Sickle suggested a slightly recessed pit for the units, in order to minimize their visibility, which Mr.

Greenup said could be acceptable to him. Mr. King asked whether the unit could comply with the noise ordinance if it were depressed. Ms. Dortz asked how much the noise level would increase using 2 units. Mr. Greenup said he had calculated it at 55db using 2 units, and that it would decrease by 9db in night mode, leaving him a 5db margin even at the daytime operational mode. [The Cambridge noise ordinance sets a limit of 60db for daytime use and 50 db for evening use in residential locations.]

Mr. King commented that the use of a heat pump would be a 365-day occurrence. He added that people get used to air conditioners in the summer. Also that windows are mostly closed in the winter. Mr. King said that the noise ordinance is enforced by the License Commission. He also noted that in the past, the Commission has reviewed any changes publicly visible from Foster Place. Mr. Greenup said the city's Dept. of Public Works had informed him Foster Place was a private way.

Questions of fact were accepted from the public.

Mrs. Field of 39 Foster Street asked if the roof structure could support the weight of 2 pieces of equipment. Mr. Greenup said that the roof location would be supported by 2 load bearing walls that could carry the 400lb combined weight of the units. Mrs. Field said she did not want another structure to darken her house.

Ms. Masterson, quoting the manufacturers claims of 54db when operated as a heat pump, asked how those tests were conducted, whether they were in an open field condition, and how much the db count would increase with 2 units. Mr. Greenup said that, based on a conversation with a representative from the Daikin company, the tests are run in a test chamber at the full capacity of the unit and that the second unit would add 3 additional decibels. He wanted to make it clear that he was committed to meeting the noise ordinance requirements. Ms. Masterson asked if the mechanical units would cycle on and off. Mr. Greenup said that they would, since it is a multi zone system. Ms. Masterson said she wanted to see nighttime decibel specifications in writing and that an acoustical consultant was needed for this case. Chairman Van Sickle restated that enforcement of the noise ordinance is the responsibility of the License Commission.

Mr. Neil Levine of 5 Foster Place asked why the rear garden side location, facing Foster Street, had been rejected by the owner as a location for mechanicals. Mr. Greenup said that location would be very visible from Foster Street where most people pass by.

Woody Tucker of 46 Foster Street asked if there would be an emissions from these mechanicals, such as steam. Mr. Greenup said no.

Marie Schram of 7 Foster Place said that heat pumps of this sort are more common in France and that they create much controversy. She felt the noise would be very significant and wondered whether placing the units in the depressed pit would help.

Susan Lockhart of 5 Foster Place said that heat pumps are not recommended for climates with extreme temperatures. She said that she has one at her Arizona property that is very noisy and cycles on and off frequently.

George Kent of 2 Foster Place explained the technical aspects of how a heat pump operates, stating that he believes these units make more noise when running in the heat pump mode and that he was not sure they would be able to meet the nighttime decibel limits. He also pointed out that two of the three proposed locations would have reflective surfaces that could further add to the decibel levels, creating a big problem.

Chairman Van Sickle told the owner that the Commission does not have the authority to tell him what system to use inside his house, but did ask if he had considered a high efficiency furnace that would only require a condenser. Mr. Greenup said he had, but wanted to be as efficient as possible, adding that he could put a boiler in as a supplemental system to make sure he did not exceed the noise ordinance.

Mr. Kent asked about the dimensions of the cardboard box used in the mock-up photos and whether the two units would fit on the roof ledge above the rear entrance. Mr. Greenup and Ms. Tuffy said the mock-up represented the total volume of two units placed side-by-side plus the required spacing in between, which would not extend over the edge of the roof at the rear entrance.

Mr. Downes of 8 Foster Place voiced concerns over the details of the mechanical units, including the potential noise, and wondered why they had not been discussed earlier in the planning of the reconstruction. Mr. Greenup noted that the approved plans which originated with the previous owner, Mr. Matthew Curtis, indicated an air conditioner at the grade-level location facing Foster Place.

Mr. Levine said he wanted to go on record clarifying that the 2006 approval was for an air conditioning unit.

Comments were accepted from the public.

Mary Louise Kent of 2 Foster Place expressed that, between October 2009 and now Mr. Greenup has come back many times with revisions and been granted permission to do everything he wants and wondered when the additions and changes would stop. She voiced displeasure with how 45 Foster looks, as viewed from her property, and that she did not want to hear mechanicals as well, requesting that the Commission deny the application.

Another neighbor, Juanita, said that she hears mechanicals at 50 Foster Street, but they are muffled by shrubbery.

Mrs. Field said that they will hear mechanicals in any rooftop location and that it was not initially expressed that there would be two pieces of equipment. She also said that, without downspouts on the east elevation of the house facing their property, rainwater was hitting her car.

Ms. Masterson wanted to point out the criteria for Commission members to consider as part of their ruling, specifically the potential adverse effect on surrounding properties and the streetscape. Based on that criterion, she felt the application should be denied and that only an air conditioner in the previously approved location should be allowed. Ideally, she would prefer to see the condenser on the east side of the structure.

Cally Burns of 8 Foster Place mentioned that the quality of life would be negatively impacted by placing loud mechanicals in an otherwise quiet neighborhood.

Mr. Levine reiterated that the previous discussions regarding this property have never considered a heat pump, which he feels would be inappropriate and against the district guidelines. He also stated that he specifically chose his house for the quiet location, because that is the environment in which he wishes to spend the rest of his life.

Mr. Kent felt the rooftop location was inappropriate and that, perhaps by creating a depressed pit and planting a hedge, the unit would be shielded from view while dampening the sound. Mr. Kent asked if any other public comment had been received by the staff, to which Ms. Tuffy said there had not.

Mrs. Field expressed opposition to locating the mechanicals on the east side of the property facing her house.

Chairman Van Sickle closed public comment for the Commission to deliberate.

Ms. Dortz spoke in favor of a single unit shielded by shrubbery. Mr. King noted that ambient noise is a cost of living in the city. He felt that all three proposals were incongruous because of their visibility in the elevated locations.

Chairman Van Sickle said that his assumption at the last review of this project in August 2010 was that the mechanicals on the plans would be a typical air conditioning condenser, but that the proposal before the Commission was for a different system. He also said that it has been his experience that heat pumps tend to get louder over time. He suggested the Commission approve a location for an air conditioning condenser only, and that it be placed in a depressed pit. Alternately, he would also accept an air conditioning unit on the east side of the house.

Mr. King moved to deny the application to install equipment above grade level at any of the proposed locations, as they are all incongruous to the house and the immediate surroundings because of their bulk, size, and public visibility. Ms. Dortz seconded the motion, which passed 3-0.

In closing comments, Mr. King said it was his understanding when he voted on plan alterations at the August 2010 hearing – which included shifting the location of the mechanicals – that they were talking about a typical air conditioning condenser that they are

used to seeing. He also said he'd be willing to go back to the site if a location on the east side was proposed. Mr. Greenup declined entertaining an east side location.

Minutes

Mr. King moved to approve the minutes from the December 2010 meeting. Ms. Dortz seconded the motion, which passed 3-0.

Ms. Dortz moved to adjourn the meeting. Mr. King seconded the motion, which passed 3-0. The meeting was adjourned at 9:20p.m.

Respectfully submitted,

Eiliesh Tuffy
Preservation Administrator

Members of the Public who signed the attendance sheet, January 10, 2011

George Kent	2 Foster Place, Cambridge, MA 02138
Mary Louise Kent	2 Foster Place, Cambridge, MA 02138
Melvin Field	39 Foster Street, Cambridge, MA 02138
Mary E. Field	39 Foster Street, Cambridge, MA 02138
Cally Burns	8 Foster Place, Cambridge, MA 02138
John Downes	8 Foster Place, Cambridge, MA 02138
Marie-Annick Schram	7 Foster Place, Cambridge, MA 02138
Woody Tucker	46 Foster Street, Cambridge, MA 02138
Karl Klaussen	20 Brown Street, Cambridge, MA 02138
Neil Levine	5 Foster Place, Cambridge, MA 02138
Susan Lockhart	5 Foster Place, Cambridge, MA 02138
Dorothy M. Altman	43 Gibson St., Cambridge, MA 02138