

I support full Historic Recognition and Designation for 2502 Park View.

2502 Park View was one of the experimental houses in The Air Conditioned Village, used to determine how residences could/should be air-conditioned. The experiment was to try various ways to install air conditioning, try different A/C designs, study how to distribute the cold air, how to prevent the summer heat from coming in, to measure the electricity used to cool the houses, to determine what life effects the cooling would have.

The A/C Village was a joint project of the National Association of Homebuilders, and the University of Texas. It was similar to SEMATECH, the semiconductor consortium that Admiral Inman initiated here in Austin in 1987.

In 1950s major population centers were in the North. There, houses have basements because the foundation must be deep, below the freeze line. Furnaces were put in the basement, and in some of them ducts in the basement directed the hot air to the various rooms; some sent heat via steam pipes to the various rooms for radiators.

Also, in the North, attics are extra rooms, where odd stuff is stored. In the South, attics are ovens. In the South freezing ground isn't a problem, so houses have slab foundations or short piers. The AC Village would 'investigate' various ways to place equipment, investigate how to distribute conditioned air, to determine what redesign would improve that. It was to show the practicality of air-conditioned living.

Before 1950, air conditioners used ammonia as the chemical to move heat from the cooling evaporator to the condenser. Liquid ammonia expands and vaporizes as it is

released into cooling coils. The heat of vaporization required to change from liquid stage to vapor is taken from the coils, and thus from the air that blows over them; the air is cooled. The ammonia, now a gas is sucked thru piping to a compressor, where, during compression, that same heat is released to a second set of coils making them hot. When those are cooled, the ammonia again becomes a liquid, repeating the cycle. Using ammonia, the coils at the compressor must give such a temperature change that a water cooling tower is needed.

One of the results of the AC Village was to redesign the air conditioners to use a different chemical, replacing ammonia. Some of the air conditioning manufacturers looked for an 'inert' chemical with suitable heat of vaporization, and pressure state curves. They found what we call Freon. It was a laboratory curiosity first compounded by DuPont in the 1930s. The A/C Village got some of it put into production to test as the ammonia replacement. The 'new' Freon was successful. If it leaked it wasn't corrosive and didn't injure people who were in the cloud. And, it didn't require a water-chilling tower to re-condense – a fan blowing out-door temperature air across the coils could cool it for the next cycle. The house at 2502 Park View is one of those houses – Chrysler Air-Temp started making units using Freon.

In the A/C Village ducts carried the cool air to the various rooms. That allowed for a single blower and one set of cooling coils, making things cheaper. The design recycled the inside air, re-cooling it with the single blower. This required that the architects provide for the ducts. But, existing buildings likely didn't have space for the ducts. The equivalent of steam radiators for air conditioning wasn't feasible or cost effective in the '50s.

The follow up to this redesign, was further massive changes in society outside the project. The manufacturers soon made compact units with evaporator and condenser coils on the two ends of a box – 'window' air conditioning units. Mount

the box in a window, plug it in, and cool air comes out the grill inside the room, and hot air blows out the outside grill. No ducts. Then, by about 1957 you got air conditioners in cars.

Another big change that happened at the village was with thermal insulation. How to keep the cool-inside from being ruined by the hot-outside. Through the 1940s the material used for thermal insulation was asbestos. Asbestos 'wool' was used for insulation of hot water heaters, for steam pipes, for furnaces, and was beginning to be used as roof insulation in houses.

In the 1930s a way to make glass fibers was developed. A jet of air is blown onto a pool of molten glass, and that will blow up a drop of glass; it is caught and the trailing thread is rolled onto a spindle. As it rolls up, long glass threads are made. During WW-II the glass threads were woven into strong fabric for various applications.

During the time of the AC Village, manufacturers substituted fiberglass fibers for asbestos to make insulation. They insulated the ducts carrying cooled air to various rooms. Soon they insulated the walls and ceilings too.

The changes triggered by the AC Village were not just physical engineering and architectural things; they were also policy and finance. The success of the A/C Village influenced the loan policies of the Federal Housing Administration (FHA), the Veterans Administration (VA), and other lending institutions. Officials from both FHA and VA attended the 'opening' of the project. At its end, you could get a subsidized loan on an air-conditioned house.

The A/C Village confirmed that there would be a residential market, so technology was invented and improved. Freon became dominant, replacing ammonia. The

'experimental' houses became part of the neighborhood – families lived there and kept them.

Recently Austin Energy held a session about changes in their Green Building program. The basic energy building code has been updated. And, the changes address similar issues as the Air Conditioned Village, where ducts are placed and how they are insulated; what sorts of wall and ceiling insulation are placed and where. It was a significant list of updates to the Standard, and the Air Conditioned Village was the clear forerunner of this contemporary active program.

That's what you're being asked to preserve. This house, its purpose, and its past are what you are asked preserve. The houses of the Village are Historical. The houses are icons of a past time that led to the future. They are like cameras from 1860s, like working steam locomotives from 1880s, like preserved 1909 airplanes, like Edison recordings, like transistorized computers from late 1950s.

Cameras, locomotives, airplanes, recordings, and computers can be kept in museums. A village is its' own museum, if you preserve it.

Do your duty; protect this house. 2502 Park View is not like just any 1860's camera, it is like Mathew Brady's camera that photographed the Civil War.

2502 Park View must be protected. It documents the changes that made the 'New South' possible -- air conditioning and how to use it in residences.

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