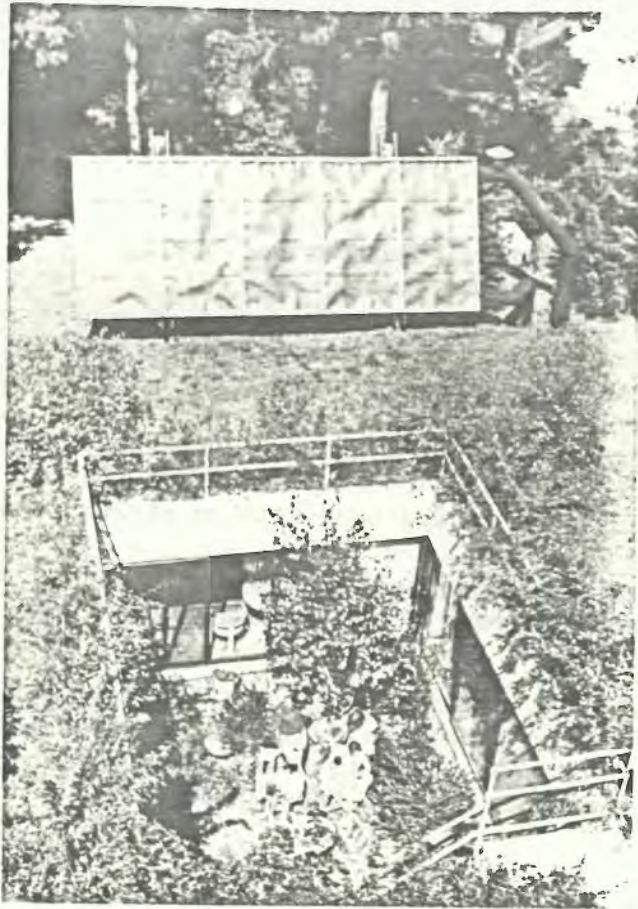


FO
MA
80



AREA	FORM NO.
MMC	24

Town Barnstable (Marstons Mills-The Plains)

Address 885 Race Lane

Historic Name Ecology House

Use: Present dwelling

Original dwelling

DESCRIPTION:

Date 1973

Source architect

Style earth sheltered housing

Architect John E. Barnard, Jr., A.I.A.

Exterior wall fabric cement

Outbuildings solar unit

Major alterations (with dates) _____

none

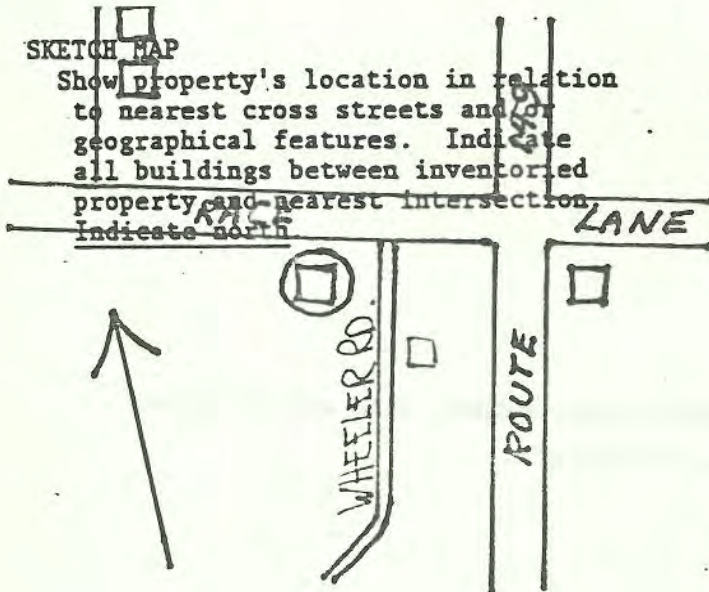
Moved no Date _____

Approx. acreage under one

Setting rural

SKETCH MAP

Show property's location in relation to nearest cross streets and/or geographical features. Indicate all buildings between inventoried property and nearest intersection. Indicate north



Recorded by BettyGoddard

Organization Barnstable Historical Comm.

Date 1983 revised 1985

Photo #89-1-C24

(Staple additional sheets here)

ARCHITECTURAL SIGNIFICANCE (Describe important architectural features and evaluate in terms of other buildings within the community.)

"Structurally Ecology House is simplicity itself--the exterior walls being of poured concrete using standard forms and reinforcing. The structural roof which is also the finished ceiling is precast concrete plank. Styrofoam insulation is applied to the exterior surfaces of the building and is 2" thick on the side walls and the roof, and 1" thick under the floor slab. The floor is slab-on-grade construction with heating ducts and electrical conduits buried. Waterproofing consists of three plies of 60# asbestos felt and hot pitch only mopped on the side walls." The house is entirely underground with an atrium open to the sky to provide light and air.

HISTORICAL SIGNIFICANCE (Explain the role owners played in local or state history and how the building relates to the development of the community.)

The Ecology House was built as a demonstration model of earth sheltered housing in 1973 by architect John E. Barnard. Both stock and custom plans are available to potential buyers. "The Ecology House is an architectural concept which is based on conservation of energy, low initial cost and minimal maintenance". (Ecology House brochure)

BIBLIOGRAPHY and/or REFERENCES (name of publication, author, date and publisher)

Barnard, John E. Ecology House. undated brochure.

MMC-24

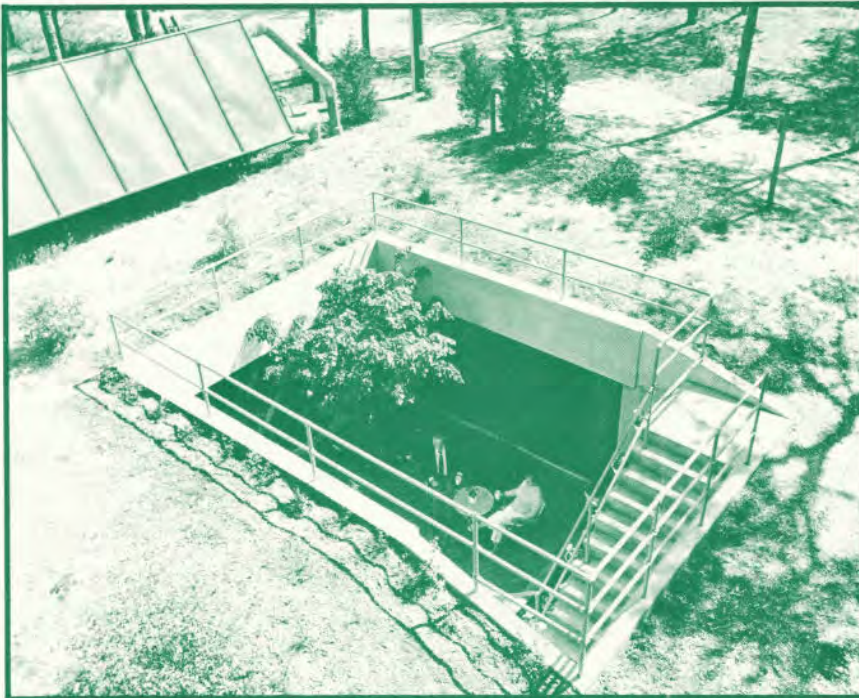
Open July 1 through Labor Day
10:00 A.M. - 4:00 P.M.
Closed Fridays

Race Lane
Marstons Mills
(Off. Rte. 149)



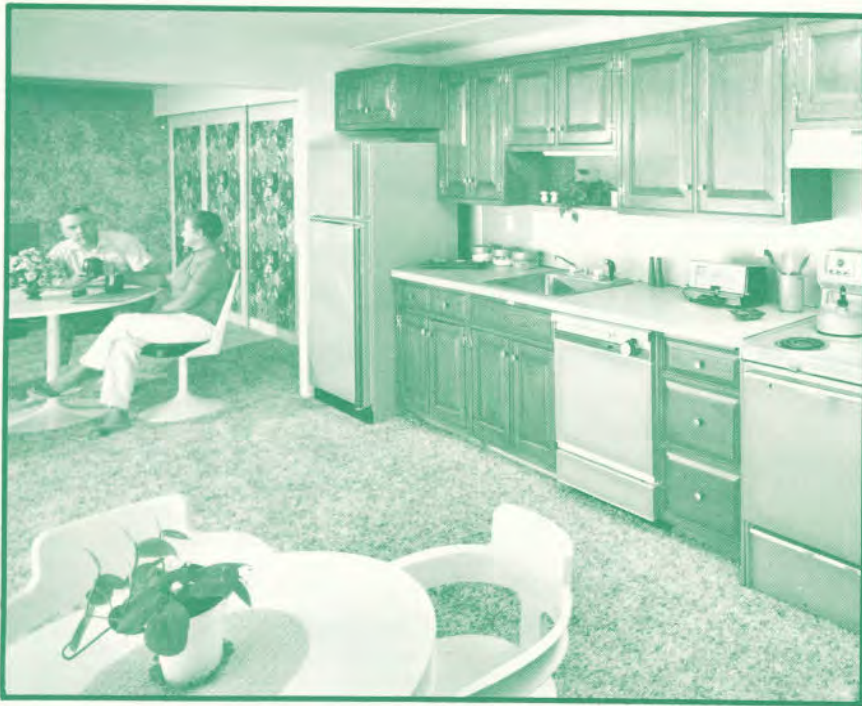
ECOLOGY HOUSE

Featuring a Radical Concept in Housing
Geared to Meet the Ecological and Financial
Needs of Today



Designed by John E. Barnard, Jr., A.I.A.
Osterville, Mass. 02655

Tel. (617) 428-2360



PROVIDING:

- conservation of oxygen-producing greenery
- 25% saving in construction costs
- 25% saving in fuel use
- elimination of dust and pollen within the home
- almost no exterior maintenance

- a home that is fireproof, termite-proof and rot-proof
- privacy of view and elimination of noise pollution
- tornado & storm protection
- more economical use of above ground area
- an architectural concept applicable to any size house, office, school or condominium
- readily adapts to solar heating
- custom designs & stock plans



THE SITE is first excavated to accommodate the entire building. The footings and walls are cast in place. Steel beams and columns support the roof deck of pre-cast concrete plank. Curb beams and stairs are then cast. The entire structure is then water-proofed, insulated and back filled.

ECOLOGY HOUSE - An Energy Saving Concept

The Ecology House is an architectural concept which is based on conservation of energy, low initial cost and minimal maintenance.

For years many architects have proceeded (especially in the high rise urban field) with a concept that there is no mechanical problem which cannot be solved by massive infusion of energy. Even if fuels were not in short supply, it seems the height of waste to design a building which on a sunny day in the winter will require heat on the northerly side while carrying a heavy air conditioning load on its sunny exposures. It is time that this most extravagant concept is abandoned.

Most home built today have fairly low upkeep for the first ten or fifteen years of their lives but from twenty years on, a wood frame building requires a tremendous amount of exterior maintenance such as replacement of gutters, repainting and puttying, repairing termite damage, etc. If the home were owner-built, this period of high expense generally coincides with time of retirement and decreased income. By omitting perishable materials from the exterior of the building and replacing them with glass, concrete and anodized aluminum this expense is eliminated. If the home is of fire-safe construction, fire insurance coverage can be drastically lowered with continuing savings over the years. Termite damage would be virtually eliminated.

Structurally Ecology House is simplicity itself - the exterior walls being of poured concrete using standard foundation forms and



reinforcing. The structural roof which is also the finished ceiling is precast concrete plank. Styrofoam insulation is applied to the exterior surfaces of the building and is 2" thick on the side walls and the roof, and 1" under the floor slab. The floor is slab-on-grade construction with heating ducts and electrical conduits buried. Waterproofing consists of three plies of 60# asbestos felt and hot pitch on the roof and hot pitch only mopped on the side walls.

To minimize danger of leaks there are no openings through the roof slab. Chimney, air induction and exhaust ducts, plumbing vents, etc. all pass through the side walls. A standard home air conditioning unit not only provides the usual heating and cooling but also handles ventilation, humidification, dehumidification and contains an electrostatic air filter.

Because of the simplicity of construction, much of the labor can be performed by unskilled workers. Concrete has not increased in price anywhere near as drastically as other materials. The result is significantly lower construction costs =

\$27.00 per square foot or about 75% of a similarly appointed conventional house. Instead of the elimination of oxygen producing greenery this concept allows for the replanting and conserving this our most valuable resource.

While the underground concept is not a viable alternative to high rise

multiple dwellings, it is eminently practical for suburban communities consistent with better land use. Such a community (whether single family, apartment units, commercial or municipal buildings) would then resemble a park rather than the ugly sprawl that now blights much of the country.

The New England Home for Little Wanderers

In 1865 ten citizens gave \$5000 each to found The New England Home for Little Wanderers with the stated purpose: to rescue children from want; to provide them with food and clothing; to give them instruction for the mind and heart . . . and at the discretion of the managers, to afford relief to the destitute in connection with the families.

One hundred and ten years later The New England Home is still providing children with a broad continuum of social work services. It relies greatly now, as it did in 1865, upon support from the private sector to fulfill its commitment to children with special needs. As a non-profit, multi-service child welfare agency it served some 1100 children in the past year in the following manner:

Group Care — 108 children

About nine percent of the children are served in our four residence programs — boys and girls between the ages of 7 and 12 in our Child Care Center; teenage boys at Longview Farm, Walpole; and adolescent girls at Everett House, Dorchester and Orchard Home, Watertown.

Foster Homes — 247 children

Some 22 percent of our children live in foster and adoptive homes,

specialized foster homes and in the temporary foster care provided through a Department of Youth Services contract.

Day Treatment, Education, Own Homes and After Care — 510 children

About 44 percent come each day from the inner city to attend special education classes and afternoon activity groups; receive counseling in own homes or in After Care.

Family Resources — 182 children

We serve 16 percent of our children through the specialized services of our family-finding program and its follow-up work with families.

Family Camp — 73 children

About 6 percent of our children went to Family Camp last summer, providing both mother and child with a week in the country.

Unmarried Parents

— 31 adolescents

Some 3 percent were given pregnancy counseling and assistance.

Bequests, legacies and memorials invited.

The New England Home for Little Wanderers

161 South Huntington Avenue
Boston, Massachusetts 02130
Phone: 232-8600