CONFIDENTIAL

3 AUG 1977

MEMORANDUM FOR: Chief, Real Estate Branch, RECD/OL

25X1 FROM: [redacted]
Chief, Field Engineering Branch, RECD/OL

SUBJECT: Energy Consumption for Heating and Cooling Family Housing Units [redacted] 25X1

25X1 [redacted]

1. (C) In response to your request, a review was made of the recent Real Estate Appraisal of Family Housing Units 25X1 at [redacted] The energy consumption for heating and cooling the housing units is rather high compared to a normal, well insulated residence of comparable size.

2. (U) The estimate for heating oil requirements provided by the local heating oil distributor, and cited in the study, states that the figures are based on average weather conditions for the winter and that consumption would be considerably less if dwellings were fully insulated. This information was used in determining the monthly fuel oil charge for each of the units recommended by the study. Available records indicate that the fuel oil consumption calculated either matched or was less than the fuel oil actually consumed, therefore, the charges recommended are not unfair for the consumption experienced.

3. (U) Data obtained from the National Bureau of Standards (NBS) for the average annual heating load for a well insulated house of comparable size and location as one of those in the appraisal, was used to make a comparison. In comparing numbers, it was determined that an average, well insulated 1200 sq. ft. house, with storm doors and storm windows, required 450 gallons of fuel per year. In the appraisal, housing unit No. 22 [redacted] consists of 25X1 1130 sq. ft. and requires 800 gallons of fuel per year. This indicates that substantial savings could be made if the units were fully insulated, equipped with storm doors and windows and if the occupant exercised a moderate amount of care in conserving heat.

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4. (C) Data was also obtained from NBS for the average annual cooling load. It was determined that substantial savings over costs experienced could be realized in the summer cooling season if the units were fully insulated and protected by the same criteria previously cited, including conservation practiced by the resident.

5. (U) The present houses (excluding [redacted] 25X1
25X1 [redacted] were constructed to the Federal Housing Administration Standards in existence at the time of their construction. This included four inches of insulation on the attic space. These standards have now been superseded.

6. (U) In view of the fact that the occupants have been consuming the energy and will continue to consume that energy on which the report is based, until corrections are made, it is recommended that the rental rate recommended by the report be instituted.

7. (U) Simultaneously, in keeping with the Presidential policy that has been promulgated, a project to fully insulate the houses and to install storm doors and storm windows and to educate occupants should be undertaken. This coupled with the installation of electric meters and the metering of the fuel oil delivered would result in a near term reduction of costs to the occupant but only when such a reduction is justified. To do otherwise is to violate the intent of the regulations and, in effect, to subsidize the occupant. When metering has been accomplished, the metered costs can be passed directly to the consumer rather than using a flat fee estimate, thus rewarding the conservator of energy and justifiably penalizing the occupant using energy extravagantly.

8. (U) The previous conclusions are supported by figures obtained from data supplied by the NBS. In the example of the 1200 sq. ft., well insulated house with storm windows and doors, a savings of 40% in fuel oil costs could be obtained in the present consumption of housing unit No. 22 if steps were taken to "properly" insulate the unit and the occupants exercised conservation measures.

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9. (U) A savings of 30% in air-conditioning electric costs would also be obtained if the measures stated above were implemented.

10. (U) The previous conclusions are supported by figures obtained from data supplied by the NBS. Considering a duplex Cape-Hart housing unit consisting of 1291 sq. ft. as a median, a savings of 35% in fuel oil costs could be obtained over the present consumption of these units if steps were taken to "properly" insulate the unit and the occupants exercised conservation measures.

[redacted] 25X1

Distribution:
Orig. - Addressee
1 - OL/RECD Official
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25X1 OL/RECD/FEB: [redacted] (3 Aug 77)