

**WAR DEPARTMENT
UNITED STATES ENGINEER OFFICE**

HANFORD ENGINEER WORKS
P. O. BOX 550
PASCO, WASHINGTON

IN REPLY
REFER TO

EIDM AR-1

26 July 1944

Subject: Livability of Prefabricated Houses

MEMORANDUM TO: Major General L. R. Groves, P. O. Box 2610, Washington, D.C.

1. As you requested, a check was made as to the general living conditions of the prefabricated houses as compared to the houses in Richland. Summarized information as to inside and outside temperatures comparing the two bedroom prefabricated house with the one story and two story duplex house is herein presented together with a tabulated list of objections made by tenants in the prefabricated houses. You will note that the prefabricated houses show a considerably higher temperature both inside and outside. It is generally considered by the occupants that the houses are more comfortable than the average houses in this area excluding the new houses built. It is also felt that the basement in the standard type house has a considerable influence on keeping the houses cool during the hottest part of the day.

2. During the three day period, July 17 to 19 inclusive, temperature readings were made hourly, throughout the daylight hours of the day, inside and outside a two bedroom prefabricated house, a one story two bedroom duplex, and a two story three bedroom duplex. This period was the warmest this year and included the hottest day of this year, July 18. The average temperature of 15 hourly readings from 8:00 A.M. to 10:00 P.M. inside and outside each of the houses, together with maximum inside and outside readings, is tabulated below:

<u>JULY 17, 1944</u>				
<u>Type house</u>	<u>Av. Inside °F</u>	<u>Av. Outside °F</u>	<u>Maximum Inside °F</u>	<u>Maximum Outside °F</u>
2BR-1-story	85.9°	82.4°	92°	98°
2BR-Prefab.	90.5°	89.7°	100°	99°
3BR-2-story	86.7°	86.8°	96°	96°
<u>JULY 18, 1944</u>				
2BR-1-story	90.9°	94.8°	98°	103°
2BR-Prefab.	97.1°	97.0°	107°	106°
3BR-2-story	91.9°	94.5°	99°	103°
<u>JULY 19, 1944</u>				
2BR-1-story	87.0°	87.0°	90°	96°
2BR-Prefab.	88.3°	87.0°	96°	96°
3BR-2-story	85.4°	86.4°	90°	96°

620 Hanford 88-6.5

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Memo. to: Maj. Gen. L. R. Groves

26 July 1944

AVERAGE THREE DAYS

<u>Type House</u>	<u>Av. Inside °F</u>	<u>Av. Outside °F</u>	<u>Max. Inside Av. °F</u>	<u>Max. Outside Av. °F</u>
2BR-1-story	87.9°	88.1°	93.3°	99.0°
2BR-Prefab.	92.0°	91.2°	101.0°	100.3°
3BR-2-story	88.0°	89.2°	95.0°	98.5°

3. In general it can be stated that the prefabricated houses absorb more heat than the other houses, which is probably due to their flat roof construction. It will be noted that both the inside and outside temperatures of the prefabricated houses greatly exceed similar temperatures in the other houses, but it is expected this difference will be reduced considerably when lawns are placed in the prefabricated housing area. At present the prefabricated houses are surrounded by sand areas giving the same effect as a refractory furnace.

F. T. Matthias
F. T. MATTHIAS
Lt. Col., C. of E.
Area Engineer

Incl.
Prefab Survey

PREFAB SURVEY

July 13, 1944

Result of 20 individual interviews:

- 1 Object to living in prefab
- 19 Do not object to living in prefab

- 7 Object to dirt and sand
- 13 Do not object to dirt and sand

- 1 Object to heat
- 9 Do not object to heat

- 7 Request telephone

- 11 Complain pantry too hot for storing food

- 2 Object to lack of storage space

- 2 Desire lawn and trees

- 3 Complain beds are not strong enough

- 1 Complain cabinet over sink is coming apart

- 1 Prefer other type house

- 1 Complain windows do not fit tight

- 2 Object to lack of storage space

- 1 Desires more room

- 1 Desires clothes line

- 1 Desires garbage can

- 1 Complains lamp was cracked and never replaced

- 1 Desires rug in living room and an additional chair

- 2 Agree 3 - 7 is the hottest part of the day

Joe M Austin

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