

# **Standards for Factory-Fabricated Housing**

NOT FOR  
CIRCULATION

U.S.

~~Federal Public Housing Authority~~ - National Housing Agency

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STANDARDS  
FOR  
FACTORY-FABRICATED HOUSING

This bulletin sets forth the standards and procedures under which manufacturers may secure approval of their systems of factory-fabricated houses for use on war housing projects. It supersedes the requirements contained in the letter which established general rules for such approval, dated October 30, 1942 and signed by the Director of the Technical Division of the Federal Public Housing Authority.

All temporary housing units constructed by FPFA must conform to the TDU series of floor plans and to structural designs approved by the Central Office. The word "design," as used herein, means the structural elements of the building and methods of assembly. The attached sheets shows typical floor plans for the standard TDU series of plans. Manufacturers may secure approval of their design as applied to the TDU-1 plan, the TDU-2, the TDU-3, or to all of these plans.

In order to qualify for approval of a system, the manufacturer must submit, in duplicate, prints 17" x 13" in size, each set numbered consecutively and each print bearing an identical current date, showing graphically and by notations:

1. Foundation and floor plans and structural details giving sufficient data for the method of assembly and for a determination of the structural stability of the building.
2. One vertical section at 1/2" scale from top of foundations through roof, showing all anchorages of roof, wall and floor, location of insulation in floor, wall and ceiling, and the ventilation of roof.
3. Sections through exterior doors and window frames.
4. Typical panels of floors, walls, ceilings and roofs, noting size and spacing of members and methods of fastening, such as nails or glue.
5. Typical panel connections.
6. If roof is trussed, a stress diagram with sizes and spacings of members and details of all fastenings or connections.

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7. To increase the applicability of a design, details of slab-on-ground floor construction as follows: Use 6" of porous concrete or 4" of 2000# concrete over 6" of porous fill. Separate fill and concrete with a layer of waterproof fibered paper. Separate concrete slab from contact with foundation wall or outside air with a layer of insulation and cover insulation at edge of slab by suitable base board.
8. Occasional notes on the drawings, placed near the items affected, with notation of alternate suitable classes of materials. No specification is desired.
9. Location of heating, cooling and plumbing fixtures but no piping and wiring diagrams. Ranges and heaters must clear combustible partitions by at least 6". Where such equipment is between 6" and 12" from combustible partitions fire-retardant protection must be shown.

The manufacturer should furnish with plans a statement of the total softwood lumber (not including interior or exterior trim) and a list of structural metals (not including plumbing, heating or electrical work). As a measure of possible economy in the use of structural softwood lumber, limit a one-story two-bedroom house to 5' B.M. per square foot of floor plan if the floor construction is wood and 3' B.M. if the floor is concrete.

Base designs on 25 lbs. live load on floors and 20 lbs. live load on roofs, with 1000 p.s.i. flexural stress in #2 lumber and 150 lbs. p.s.i. horizontal shear.

Some approved materials which have been used are:

Exterior	Hardwood plywood painted; asphalt fiberboard covered with slate surfaced roofing felt; gypsum board painted; wood siding; wood shingles; asbestos shingles; cement board.
Interior	Gypsum board; cement board; laminated composition wallboard for one-story houses; plywood; masonite; and like materials with various finishes.
Roof Sheathing	Composition board; plywood; gypsum board on 1 x 4 wood 11-1/3" o.c.
Floors	Hardwood strip; plywood.

Other materials developed by the designer may be used when approved.

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No details of plumbing or electrical work are required. Such work must conform to current WFB restrictions and therefore does not enter into consideration of a design for approval.

Details of construction, such as fire-retardant construction and concrete floors, will be governed by the Temporary Housing Specification issued by the FPHA regional offices and included in the Bid Documents. This Specification also will govern all other items of construction, and where necessary, the regional office will prepare an addendum to the Specification covering any special details of workmanship or materials if any of the systems of construction for which bids may be solicited. No negotiation, therefore, will be necessary after the opening of bids.

Details of foundations, assembly of houses into rows, and locations of draft stop divisions and fire stop divisions will be shown on bidding documents.

Details concerning bidding procedures and prospective bid openings can be obtained from any of the FPHA regional offices.

FPHA REGIONAL OFFICES

REGION I  
24 School Street  
Boston, Massachusetts

REGION VI  
201 N. Wells Street  
Chicago, Illinois

REGION II  
270 Broadway  
New York City

REGION VII  
Dierks Building  
1006 Grand Avenue  
Kansas City, Missouri

REGION III  
Temporary Bldg. No. 2  
19th and D Streets, N. W.  
Washington, D. C.

REGION VIII  
1205 Electric Building  
7th and Taylor Streets  
Ft. Worth, Texas

REGION IV  
Georgia Savings Bank Bldg.  
Peachtree & Broad Sts.  
Atlanta, Georgia

REGION IX  
Skinner Building  
5th Avenue and Union Street  
Seattle, Washington

REGION V  
Cleveland Trust Co.  
2073 E. Ninth Street  
Cleveland, Ohio

REGION X  
Humboldt Bank Bldg.  
705 Market Street  
San Francisco, California

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LIST OF PREFABRICATED CONSTRUCTION  
SYSTEMS APPROVED BY FPFA FOR TEMPORARY HOUSING

<u>SUBMITTER</u>	<u>PLAN TYPES</u>
The Aladdin Company Bay City, Michigan	TDU-1
Allied Housing Associates, Inc. Langehorne, Pa.	TDU-1 TDU-3
American Houses, Inc. 570 Lexington Avenue New York City	TDU-1 TDU-2 TDU-3
Henry C. Beck Company First National Bank Building Atlanta, Georgia	TDU-1
Bell Lumber Company Green Bay, Wisconsin	TDU-1
Carpenter Houses, Inc., c/o E. L. Bruce Company Memphis, Tenn.	TDU-1
The Celotex Corporation 120 South LaSalle Street Chicago, Illinois	TDU-1 TDU-2 TDU-3
Contractors Supply & Lumber Company 1509 Delano Street Houston, Texas	TDU-1 TDU-2 TDU-3
General Timber Service First National Bank Building St. Paul, Minn.	TDU-1
Green Lumber Company Laurel, Mississippi	TDU-1 TDU-3
Gunnison Housing Corporation New Albany, Indiana	TDU-1 TDU-3
Henke Construction Company 200 East Walton Street Chicago, Illinois	TDU-1
Home Building Corporation 4534 Main Street Kansas City, Missouri	TDU-1

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<u>SUBMITTER</u>	<u>PLAN TYPES</u>
The Homasote Company Trenton, New Jersey	TDU-1 TDU-2
Houston Ready-Cut House Company Houston, Texas	TDU-1 TDU-3
Hussmann-Ligonier Company 2401 North Leffingwell Avenue St. Louis, Missouri	TDU-1 TDU-3
T. C. King Company Anniston, Alabama	TDU-1
Kroening Engineering Corporation 4500 West Mitchell Street Milwaukee, Wisconsin	TDU-1
Larcomb Contracting Company 19 East Hudson Street Columbus, Ohio	TDU-1
Libbey Owens-Ford Glass Company Nicholas Building Toledo, Ohio	TDU-3
Matern, Graff & Paul 10 Rockefeller Plaza New York City	TDU-1
Mengel Company, Inc. Louisville, Kentucky (Branch-1413 H. St., N.W., Wash., D.C.) Developed by PHC Housing Corporation 300 Fourth Avenue New York City	TDU-1
Modulok, Inc. 700 Cathedral Street Baltimore, Maryland	TDU-1 TDU-2 TDU-3
National Homes Corporation Lafayette, Indiana	TDU-1 TDU-3
Nettleton & Baldwin 6803 Fox Avenue Seattle, Washington	TDU-1

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SUBMITTER

PLAN TYPES

Norwood Manufacturing Company  
Cincinnati, Ohio

TDU-1  
TDU-3

Portland Door Company  
4701 S.E. 24th Avenue  
Portland, Oregon

TDU-1

Ratio Structures, Inc.  
Paul Lester Wiener  
33 West 42nd Street  
New York City

TDU-1

C. E. Schunack, Inc.  
470 Center Street  
Meriden, Connecticut

TDU-1  
TDU-2  
TDU-3

Standard Houses, Inc.  
225 Broadway  
New York City

TDU-1

Stout Houses, Inc.  
319 Stephenson Building  
Detroit, Michigan

TDU-1

Structiform Engineering Company  
234 South Wabash Avenue, Chicago, Illinois

TDU-1

Travelodge Corporation  
Lynchburg, Virginia

TDU-1

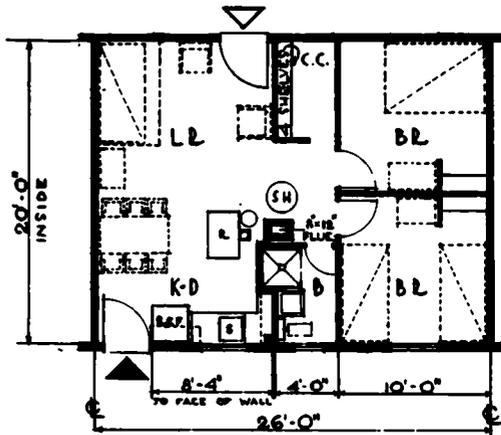
Vagtborg Construction Co.  
40 Wall Street  
New York City

TDU-1

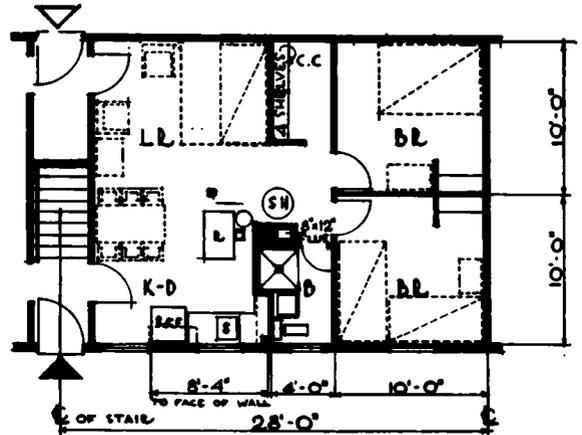
Kem Weber System  
6707 Milner Road  
Los Angeles, California  
(Eastern Office;  
Otto K. Eitel  
171 West Randolph Street  
Chicago, Illinois)

TDU-1

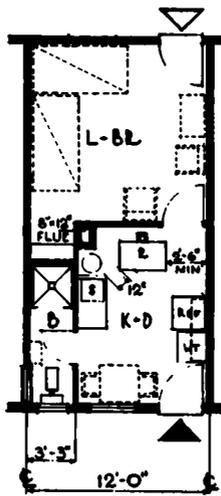
This list includes all systems approved as of 7-16-43. Super-  
seding lists, to include systems approved subsequently, will be  
issued monthly as necessary.



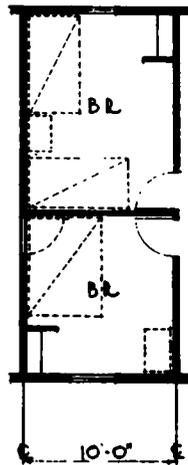
TWO BEDROOMS • ONE STORY  
 TDU-1



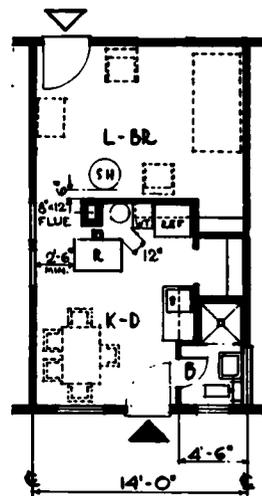
TWO BEDROOMS • TWO STORY  
 TDU-2



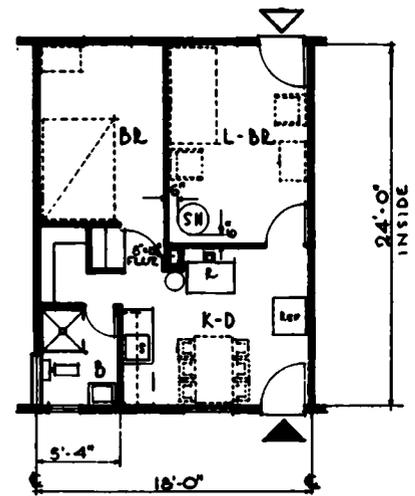
A-O • UNIT



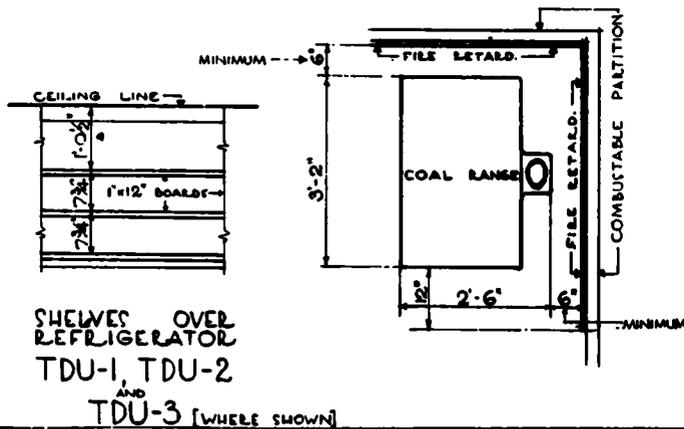
BEDROOM • UNIT



B-O • UNIT  
 TDU-3



C-1 • UNIT



TYPICAL • FLOOR • PLANS  
 OF  
 TEMPORARY • DWELLING • UNITS

TDU-1, 2 AND 3 SERIES