

NATIONAL BUREAU OF STANDARDS REPORT

2485

**Evaluation of Flooring Materials
in Army Installations**

By

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**U. S. DEPARTMENT OF COMMERCE
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Floor, Roof and Wall Coverings Section
Building Technology Division

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IN ARMY INSTALLATIONS

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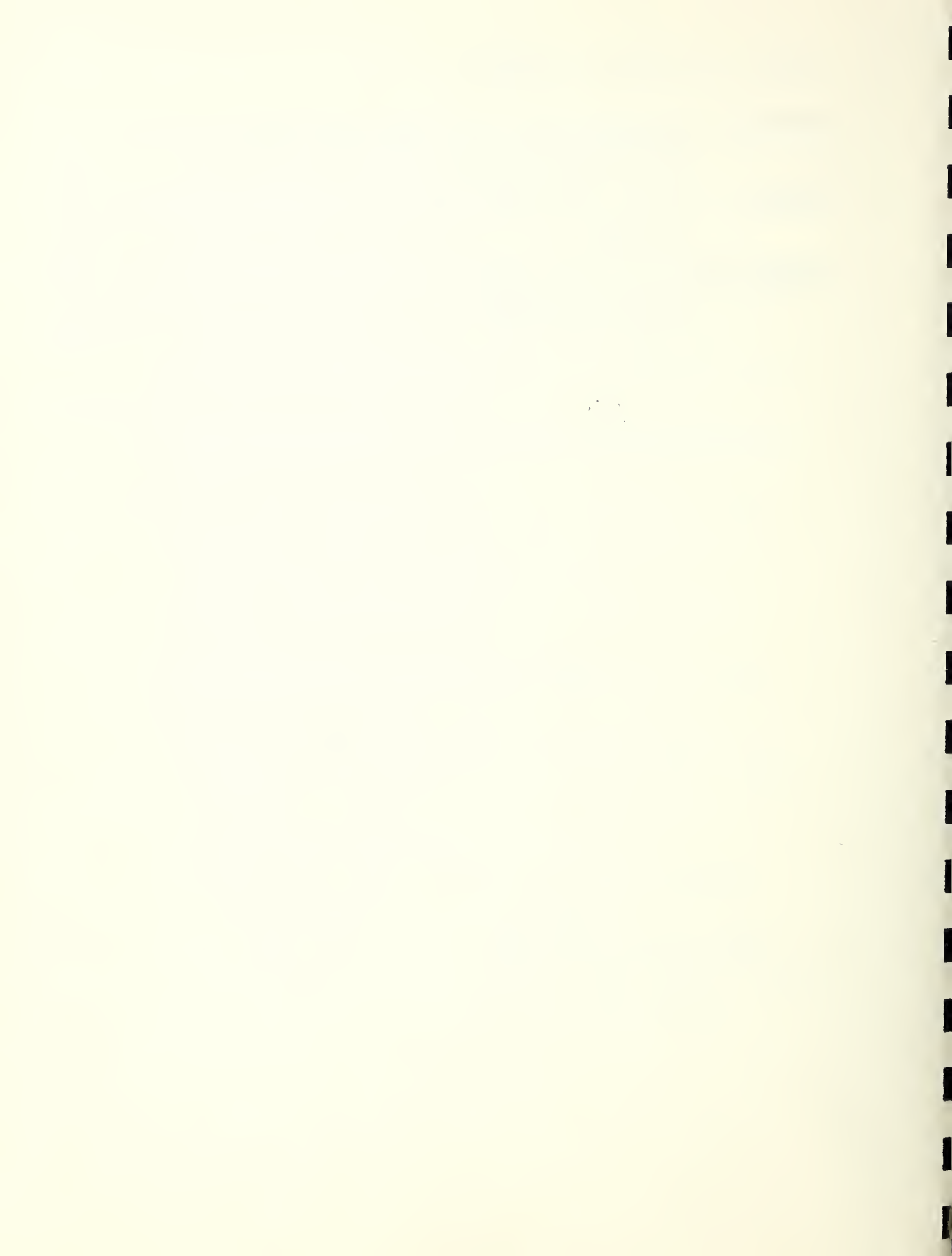
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EVALUATION OF FLOORING MATERIALS
IN ARMY INSTALLATIONS

1. PURPOSE OF INVESTIGATION

To evaluate the performance of flooring materials in military-type structures within the continental United States and to secure data upon which to base recommendations for coordinating and standardizing the repair and rehabilitation of floors in such structures on an economical basis.

2. BACKGROUND

The maintenance and repair of floors in Army buildings throughout the country has become a difficult problem. Many of the buildings were closed in 1946 and reopened for active service in 1949. In numerous cases, replacement of the floor surface was necessary if the buildings were to be kept in a sanitary and livable condition.

The various Armies have proposed and, in some cases, used, radically different methods for covering these floors, involving a wide range of materials and costs. Since very large floor areas were involved, it seemed desirable that an impartial survey be made of the conditions of the floors in need of repair, and of coverings now in use, in order to insure satisfactory and economical service from all reconditioned floors.

The Repairs and Utilities Division, Office of the Chief of Engineers, Department of the Army, requested the Building Technology Division, National Bureau of Standards, Department of Commerce, to conduct such a survey and submit appropriate recommendations.

3. METHOD OF MAKING THE SURVEY

The Office of the Chief of Engineers arranged for all inspections in the various Armies. The representative or representatives of the National Bureau of Standards visited stations selected either by the Office of the Chief of Engineers or by the Army headquarters in each area in company with an engineer from Army headquarters. Station engineers assisted in the actual inspections.

4. SCOPE OF THE INVESTIGATION

Fifty-six stations in the six Army areas and the Military District of Washington were visited. Practically every type of floor, floor covering, and method of repair was observed in the course of the inspections.

While emphasis was placed on floors in mobilization-type buildings, inspections were not confined to buildings of this type, but rather, included every category from permanent to most temporary.

The tabulated lists of floors, Tables 1 to 9 inclusive, give the stations visited and the condition of floors in buildings of different occupancy. It should be understood that, in most cases, numerous buildings of each type of occupancy were inspected at every station.

Stations Visited, Listed by Army Areas

Military District of Washington:

Walter Reed Army Hospital, District of Columbia.
Fort Belvoir, Virginia.
Fort Myer, Virginia.

First Army Area:

Govenors Island, New York.
Fort Jay, New York.
New York Port of Embarkation, New York.
Belle Mead Quartermaster Depot, New Jersey.
Raritan Ordnance Arsenal, New Jersey.
Fort Monmouth, New Jersey.
Fort Dix, New Jersey.
Camp Edwards, Massachusetts.
Fort Devens, Massachusetts.
Murphy Army Hospital, Massachusetts.

Second Army Area:

Fort George G. Meade, Maryland.
Aberdeen Proving Grounds, Maryland.
Valley Forge Army Hospital, Pennsylvania.
Richmond Quartermaster Depot, Virginia.
Fort Lee, Virginia.
Fort Eustis, Virginia.
Fort Monroe, Virginia.
Fort Campbell, Kentucky.
Fort Knox, Kentucky.

Third Army Area:

Fort McPherson, Georgia.
Atlanta General Depot, Georgia.
Fort Benning, Georgia.
Camp Gordon, Georgia.
Lawson Air Force Base, Georgia.
Fort McClellan, Alabama.
Fort Bragg, North Carolina.
Pope Air Force Base, North Carolina.
Fort Jackson, South Carolina.

Fourth Army Area:

Fort Sam Houston, Texas.
San Antonio Quartermaster Depot, Texas.
Brooke Army Hospital, Texas.
Camp Bullis, Texas.
Fort Hood, Texas.
Fort Bliss, Texas.
William Beaumont Army Hospital, Texas.
Camp Polk, Louisiana.
Camp LeRoy Johnson, Louisiana.
New Orleans Port of Embarkation, Louisiana.

Fifth Army Area:

Fort Sheridan, Illinois.
Fort Custer, Michigan.
Percy Jones Army Hospital, Michigan.
Fort Leavenworth, Kansas.
Fort Riley, Kansas.
St. Louis Medical Depot, Missouri.
Camp Carson, Colorado.

Sixth Army Area:

Presidio of San Francisco, California.
Letterman Army Hospital, California.
Oakland Army Base, California.
Camp Stoneman, California.
Fort Mason, California.
Fort Ord, California.
Presidio of Monterey, California.
Camp Roberts, California.

5. RESULTS OF INSPECTIONS

The various Armies have used practically every available material to repair and cover floors. In some cases, only small-scale experimental installations have been made; in others, millions of square feet of floors have been covered with the same material.

In this section, the condition of floors, as found during the survey period July 1952 to February 1953, in buildings of different occupancy, is discussed and the materials that are considered satisfactory for repairing them are listed. Materials that are reported as satisfactory have been observed to render satisfactory service for at least the periods of time indicated. Some materials that have not proved to be satisfactory are listed. (See Tables 1 to 9, inclusive.)

In cases where a material has not been in service long enough under a particular condition of exposure to state positively the minimum length of service it may be expected to render, an attempt has been made to predict, from information available from other sources, the service it is reasonable to expect. An example is vinyl plastic flooring in barracks, etc. Some vinyl plastic floorings exposed to heavy foot traffic have been under observation for 4 years.

No attempt has been made to establish cost data for any of the materials or methods of repair.

5.1 Barracks (Mobilization-Type, Excluding Latrine Areas)

Most of these two-story buildings were floored originally with 25/32-in., tongued-and-grooved, flat-grained pine, having a 3-1/4-in. face. The flooring was laid over 1-in. diagonally-placed boards. The average age of these floors was 11 years. They had been exposed to 8 years of severe use by troops. The condition of these floors was poor, although they were still usable. Splintered segments were torn out, wide cracks appeared between strips and at the end joints, and they have required between 10 and 15 percent replacement of the boards in each barracks approximately every four years. The poor condition of the floors was generally attributed to the unorthodox methods of maintenance used by the Army; largely excessive exposure to water (see Fig. 1).

Oak and edge-grained pine gave 15 or more years of satisfactory service when properly maintained and not exposed to excessive water.

Magnesium oxychloride flooring, heavy duty type, at least 5/8 in. thick, using proper mixing and installation methods with proper maintenance, should give 12 years of satisfactory service (see Fig. 6).

Asphalt tile, 1/8 or 3/16 in. thick, was not satisfactory when laid directly over strip-wood flooring, i.e., without a hard underlayment board (see Fig. 7).

Linoleum, burlap-backed, 1/8 in. thick, laid over sanded strip-wood and felt underlayment, gave approximately 8 years satisfactory service (see Fig. 11).

Vinyl plastic flooring, felt-backed, with a wearing surface at least 0.03 in. thick, should be equal in durability to 1/8-in. burlap-backed linoleum.

Pitch composition flooring, felt-backed, laid over strip-wood without underlayment board, gave satisfactory service for approximately 2 to 2-1/2 years before replacement was required (see Fig. 12). With underlayment board, felt-backed pitch composition flooring provided satisfactory service for approximately 3 to 3-1/2 years before localized replacement was required.

5.2 Mess Halls (Mobilization; Company & Consolidated Types)

(a) Dining Areas

The dining areas of these buildings were floored originally with the same type of strip-pine flooring used in the barracks. Most of these floors had been covered in each Army area and from these installations the following conclusions were drawn:

Wood floors were not satisfactory because of damage from the frequent wet mopping required to keep them in a sanitary condition.

Concrete slabs, $\frac{1}{4}$ in. or more thick, either structural or on grade, should provide 15 or more years of satisfactory service.

Concrete flooring, 1-1/2 to 2-1/2 in. thick, over wood should provide 10 or more years of satisfactory service provided appreciable structural movement does not occur.

Magnesium oxychloride flooring, heavy duty type, at least $\frac{5}{8}$ in. thick, over strip-wood, using proper mix and installation methods, should give 10 or more years service in dining-table areas and 5 to 6 years in the heavy trafficked areas, such as along serving lanes and at street entrances.

Asphalt tile, $\frac{1}{8}$ or $\frac{3}{16}$ in. thick, was not satisfactory when laid directly over strip-wood flooring without a hard underlayment board. It was satisfactory when laid directly over a concrete slab or in conjunction with a hardboard underlayment over strip-wood floors.

Linoleum, burlap-backed, $\frac{1}{8}$ in. thick, was satisfactory if a hard underlayment board was used over the strip-wood.

Pitch composition flooring, felt-backed, with under-
layment board, over strip-wood, provided only 1 to 2 years
service in the traffic areas and serving lanes.

(b) Kitchen Areas

The company-type kitchens were floored originally with
strip-pine flooring. Later most of these wood floors were
covered with regular-mix concrete ranging from 1-1/2 to 2-1/2
in. thick and reinforced or anchored by various methods. (See
Department of the Army Technical Manual TM5-615, Concrete and
Masonry.)

The consolidated-type kitchens were floored originally
with concrete slabs, four or more inches thick, over wood or
on a fill.

From the service life of the concrete and the limited
observations of experimental installations of toppings over
the concrete, the following conclusions were reached:

Concrete slabs, in thicknesses of four or more inches,
over wood or on a fill, provided only 5 to 8 years of service
before areas adjacent to ranges, sinks and drains were eroded
severely and the aggregate exposed.

Concrete floorings, 1-1/2 to 2-1/2 in. thick, over wood, provided only 5 to 7 years of service before areas adjacent to ranges, sinks and drains were eroded severely and the aggregate exposed. Numerous structural cracks also caused damaging effects (see Fig. 2).

Concrete toppings, integrally-hardened, 1/2 in. thick, over thoroughly scarified, old concrete floors, may prove to be very satisfactory if adequate bonding procedures are carried out carefully and the toppings are cured thoroughly.

Magnesium oxychloride floors over wood or as a topping over concrete were not satisfactory in kitchen areas since excessive amounts of water caused deterioration in less than 1 year (see Figs. 3 and 4).

Asphalt tile floors, grease-resistant, over concrete were not satisfactory. They provided only 6 months of service before replacements were necessary. They are damaged readily by impact and contact with hot cooking utensils and they require a smooth, rigid subfloor.

Quarry tile floors, with acid-resistant mortar joints laid over a structural concrete slab, were the most satisfactory of all the kitchen floors observed. They should give more than 15 years of excellent service (see Fig. 13). The floors were reported as being very slippery when wet.

5.3 Hospitals (Mobilization-Type)

Most hospitals of this type consist of numerous one-story, ward buildings connected by long, enclosed corridors. Special buildings, such as operating suites, laboratories, mess halls, and administrative offices, are also interconnected in the hospital area. These buildings and corridors were floored originally with 25/32-in. flat-grained pine over 1-in. diagonally-placed boards. Some wards were floored with edge-grained pine or oak.

(a) Corridors

The corridors have been subjected to constant foot and cart traffic. The floors were exposed occasionally to rain from open windows. Most corridors had connecting steam lines, either suspended from the roof or running directly under the floor, which often caused damage to the floor from leaks or extreme heat. In 1944 and 1945, many corridors were covered with a thin, felt-backed floor covering laid over 1/4-in. plywood. Some were covered without underlayment. Conclusions from the observations of these corridors were as follows:

Plywood underlayment, interior-type, showed delaminations at places exposed to puddles of water or steam leaks, which resulted in premature damage to the floor coverings at such locations (see Fig. 8).

Wood floors were not satisfactory because of frequent exposure to water, unevenness of boards and sanitary requirements (see Fig. 1).

Magnesium oxchloride floors were not satisfactory over wood floors in corridors (see Fig. 5).

Asphalt tile and felt-backed floor coverings were not satisfactory without a hard underlayment board (see Fig. 7).

Linoleum, burlap-backed, 1/8 in. thick, laid over a hard underlayment board, should give 15 to 20 years service with normal hospital maintenance.

Pitch composition matting, slip-resistant type, provided a satisfactory and safe surface when used on corridor ramps. Occasional replacement was necessary.

(b) Wards

The wards, with few exceptions, have had excellent maintenance and in many cases the original wood floors were still in good condition, which leads to the following conclusions:

Strip-wood floors, especially oak, with proper maintenance, were very satisfactory.

Asphalt tile, 1/8 in. thick, felt-backed linoleum and 1/8 in. burlap-backed linoleum over a hard underlayment board provided very satisfactory service when they were maintained properly.

(c) Kitchens and Dining Areas

Remarks concerning mess hall floors apply equally to floors in the kitchen and dining areas of hospitals (see Mess Halls).

(d) Administrative Offices

The condition of the floors in these buildings was found to be the same as those in General Administration Buildings (see Administration Buildings).

5.4 Administration and Recreation Buildings

In Administration and Recreation buildings wear of floorings has not been as serious a factor as damage caused by office furniture, game tables or rearrangement of space. Based on this type of occupancy, the following observations were made:

Linoleum, vinyl plastic, or asphalt tile floorings, directly over suspended concrete floors or over hardboard underlayment on existing wood floors, provided long service when reasonably protected against severe indenting loads or abuse. Asphalt tile indents readily at elevated temperatures such as 120°F. It, however, is one of the few floor coverings which can be installed satisfactorily over concrete floors in direct contact with the ground without the slab being thoroughly waterproofed.

Pitch composition type floorings were not satisfactory because of their relatively low resistance to indentation, puncturing and tearing.

5.5 Bakeries

These buildings were constructed originally with a concrete slab on grade. Because of dusting of the concrete, the floors have been covered with various materials. From these installations, the following conclusions were reached:

Maple floorings, 25/32 in. thick, tongued-and-grooved, laid over thoroughly waterproofed, existing concrete floors, were satisfactory.

Concrete toppings, integrally-hardened, not less than 1/2 in. thick, thoroughly bonded to existing concrete floors, were satisfactory.

Magnesium oxychloride floors, heavy-duty type, not less than 5/8 in. thick, thoroughly bonded to adequately waterproofed existing concrete floors, were satisfactory.

5.6 Warehouses

Most warehouse floors were found to be in a satisfactory condition. Heavy-duty mastic topping over existing concrete floors, as specified in War Department Technical Manual TM5-615, dated October 1946, rendered very satisfactory service.

6. RECOMMENDATIONS

Recommendations for floor coverings for cantonment-type buildings:

6.1 Barracks (Mobilization-Type, Excluding Latrine Areas)

(a) Resilient Type

Burlap-backed linoleum, 1/8 in. thick; felt-backed vinyl plastic flooring with a wearing surface not less than 0.03 in. thick; and 1/8 in. asphalt tile. The flooring materials, particularly asphalt tile, should be laid over a hardboard underlayment not less than 3/16 in. thick. The hardboard should be nailed on 6 in. centers in each direction over the entire area with ringed or barbed nails at least 1-3/4 in. long. Consideration should be given to linoleum and vinyl plastic floorings in tile form, particularly at entrances and heavy-trafficked areas, to permit economical and satisfactory replacement at damaged or worn areas. Means should be provided to protect resilient-type coverings against severe indenting loads such as from lockers and legs of cots (see Fig. 14).

(b) Magnesium Oxychloride Cement

Heavy-duty type, at least 5/8 in. thick, as specified by the American Standards Association Specification ASA A88.3-1951, "Heavy Duty Oxychloride Composition Flooring and Its Installation". The flooring should be installed in the following manner:

After preparation of the subfloor, a layer of 15-lb, asphalt-saturated felt, conforming to Federal Specification HH-F-191a, should be laid over all wood floor areas to be covered. All edges and joints of felt to be lapped not less than two inches and tacked in a manner sufficient to hold the felt in place until metal mesh is placed. Right-angled dividing strips of brass or suitable plastic, not less than 1/16 in. thick, and of sufficient width to conform to the thickness of the flooring, should be nailed to the felt and wood flooring at least every three feet. The dividing strips should be placed at not more than 30-ft. intervals and at inside entrances to hallways and rooms. Over the felt and butted tight to the dividing strips, an anchoring medium consisting of 2.5 lb, small, diamond-mesh, painted, expanded metal lath, conforming to Federal Specification QQ-B-1016, should be laid with joints lapped at least 1/2 in. The lath should be nailed with 1-1/2-in., large head, galvanized, roofing nails, except over joists, where nails should be of sufficient length to

extend not less than 1-1/2 in. into the floor joists. Lath should be nailed on 6-inch centers in two directions and driven tight enough to secure the lath to wood floor, but not hard enough to force the lath into or puncture the felt.

The magnesium oxychloride cement, as specified in the American Standards Association Specification should be worked into the lath and finished with experienced workmen.

Consideration should be given to the feasibility of installing a high wear-resistant oxychloride composition in hallways leading to stairs, latrine and street entrances.

(c) Wood Type

Replacement of the top tongued-and-grooved flat-grained pine with 25/32-in. tongued-and-grooved oak or maple in heavily-trafficked areas, or with edge-grained pine or edge-grained fir where less wear resistance is required. The existing 1-in. subfloor should be carefully examined for loose boards and/or defective places before placing of building paper and new top flooring. The finished flooring should be sanded and sealed with two coats of a penetrating sealer. Caution should be taken to prevent excessive water from coming in contact with wood flooring.

6.2 Mess Halls (Mobilization; Company & Consolidated Types)

(a) Dining Areas

A concrete topping, not less than 1-1/2 in. thick, over existing wood floors. The topping should be reinforced with 4- X 4-in., No. 10 gage, wire mesh suspended in the center of the slab and laid over 55-lb, asphalt-prepared roll roofing, lapped 4 inches, and sealed at all edges and joints with asphalt adhesive. Additional reinforcement with 20-d nails driven along all joists on 12-in. centers is recommended. The nails should be allowed to protrude one inch above the surface of the wood floor. The following references are given as sources of information on materials, placing, finishing, and curing of concrete: Department of the Army Technical Manual TM5-615, "Concrete and Masonry"; and "Concrete Floor Finishes", Portland Cement Association, 33 West Grand Avenue, Chicago, Illinois.

Vinyl plastic tile, semi-flexible and flexible, 1/8 in. thick, as specified in Interim Federal Specification L-T-751, dated 18 March, 1952. The tile should be placed over hard-board underlayment not less than 3/16 in. thick, which should be securely nailed on 6-in. centers, in two directions, with

ringed or barbed nails at least 1-3/4 in. long to the existing strip-wood floor. A water-resistant adhesive, recommended by the manufacturer of the flooring material, should be used in areas likely to be subjected to spillage of water, such as along serving lanes.

Felt-backed vinyl plastic flooring with a wearing surface not less than 0.03 in. thick. The flooring should be placed over hardboard underlayment over existing wood floor.

Flexible-type vinyl floorings are not recommended for concrete floors in direct contact with the ground. Semi-flexible vinyl or asphalt tiles are recommended for such locations.

(b) Kitchen Areas

Slip-resistant, abrasive-type, quarry tile with acid-resistant mortar joints. The tile should be applied only over a structurally-sound concrete slab and in continuously-used kitchens, such as in a permanent-type mess hall.

Integrally-hardened concrete toppings not less than 1/2 in. thick, or cement-latex toppings not less than 1/4 in. thick. The toppings should be placed over thoroughly scarified and cleaned existing concrete floors. Both of these types of toppings show promise of being satisfactory. However,

due to lack of information their use on an extensive basis is not recommended at this time. Additional studies being made of these materials will be covered in a supplemental report.

Existing magnesium oxychloride floors should be patched and a penetrating sealer applied over the entire floor to extend the service life as long as possible before removal. The sealer should be applied periodically depending upon the condition of the floors but in no case should the period between applications exceed 6 months.

6.3 Administration and Recreation Buildings (Including Offices, Day Rooms, and Club Rooms)

Suspended concrete floors and strip-wood floors in unsatisfactory condition should be covered with one of the floorings recommended for barracks. Recommended installation methods also apply. Rough concrete surfaces should be made even with a troweled-on, latex-type underlayment before installing resilient-type floor coverings.

Concrete floors, on- or below-grade, in need of repair, should be leveled with a troweled-on underlayment and covered with 1/8 in. asphalt tile or semi-flexible vinyl plastic tile using a cut-back type asphalt adhesive (see Fig. 9).

Means should be provided to protect resilient-type coverings, especially asphalt tile, against severe indenting loads from legs of desks, tables, chairs, and filing cabinets. Small-sized casters and glides on all movable furniture and equipment should be replaced with ample-sized fittings. Heavy equipment should be placed on protective blocks or cups.

In view of the likelihood of localized areas being damaged by severe indenting loads and the rearrangement of equipment and space, the use of resilient-type floor coverings in tile form is particularly recommended for administration and recreational buildings, to accommodate economical and satisfactory replacement at damaged areas (see Fig. 10).

6.4 Hospitals (Mobilization-Type)

(a) Corridors

Burlap-backed linoleum, 1/8 in. thick, or felt-backed vinyl plastic flooring with a wearing surface not less than 0.03 in. thick. These floorings should be laid over a hardboard underlayment not less than 3/16 in. thick. The hardboard should be nailed on 6-in. centers in both directions over the entire area with ringed or barbed nails at least 1-3/4 in. long.

(b) Wards

In general, the floors in the wards were found to be in good condition and should render many more years of service under the present type of maintenance. In the few exceptions where the floors may be in a condition which warrants covering, the recommendations given for barracks should be followed. Recommendations for the dining areas in mess halls should serve as a guide for diet kitchens.

(c) Kitchen and Dining Areas

Recommendations for mess halls should be followed for both kitchen and dining areas of hospitals (see Mess Halls).

(d) Administrative Offices

Recommendations as given for administration and recreation buildings should be followed.

7. COMMENTS ON THE CARE OF FLOORS

The importance of the proper care and adequate maintenance of floors, in order to prolong their life, render satisfactory service, and present a pleasing appearance, can hardly be overemphasized. In the course of the survey,

it was noted that training courses on floor maintenance were instituted in a few Army Areas. It was also observed that, in general the floors in these Army Areas were in relatively good condition.

Probably the most damaging treatment of floors is an excessive exposure to water. Practically all floors are harmed by such treatment, particularly wood floors. Continued wetting of wood floors causes the grain of the wood to raise, the strips to expand and buckle, and eventually result in a splintered and split flooring with open seams and end joints.

Resilient-type floor coverings are doubly harmed by excessive exposure to water. Even though the floor covering itself may be fairly resistant to water, failure in bond to an underlayment or to the subfloor is most likely to result. With a wood subfloor, additional damage to the floor covering occurs due to expansion and buckling of the flooring, or if a plywood underlay is involved, to the delamination of the plywood.

When wood and resilient-type floors need to be mopped in order to cleanse the floor surface, the least amount of water necessary to do the job should be used. Excess water

should be wrung from the mop into a pail and not spilled onto the floor surface. When detergent solutions are used, the floors should be rinsed with clear water. (See Department of the Army Technical Manual TM5-609, Custodial Services). Paste, spirit, and water emulsion waxes are suitable as a protective surface coating for wood, linoleum, and vinyl plastic floor coverings. Solvent-type or spirit waxes should never be used on asphalt tile as the turpentine or mineral spirits used in such waxes will soften or dissolve the tile, causing the colors to bleed. Use only water emulsion wax.

In general, water emulsion waxes are less slippery than paste and spirit waxes. The addition of colloidal silica to water emulsion waxes improves their slip resistance. The colloidal silica should be added during the manufacturing process.

Magnesium oxychloride floors which are porous should be sealed with a penetrating sealer of low viscosity. Spirit or water emulsion waxes are suitable as protective coatings. If colored waxes are desired, the coloring should be done only by experienced persons, or waxes already pigmented should be purchased.

While magnesium oxychloride floors are damaged to a considerable extent by continuous exposure to water, such as occurs around kitchen sinks, they will withstand intermittent exposure to water, such as from occasional spillage and wet mopping.

Repeated exposure to strong alkaline solutions or caustic preparations is harmful to most floors and will result in early deterioration. The service life of linoleum, in particular, is materially reduced by the frequent use of alkaline cleaning solutions.

8. ACKNOWLEDGMENT

The authors of this report wish to acknowledge and thank the many military and civilian members of the Engineering Section of the Department of the Army for their splendid cooperation and valuable assistance in this investigation and survey. Appreciation is also extended to the U. S. Army Signal Corps for photographs of flooring installations.

TABLE 1. WOOD FLOORING (25/32 IN. NOMINAL THICKNESS)

| MILITARY STATION | TYPE OF STRUCTURE | SUBFLOOR | TYPE OF FLOORING | APPROX. AGE, YRS. | OVERALL CONDITION | REMARKS |
|---------------------------------------|--|-------------------------------------|-------------------------------------|-------------------|-------------------|--|
| FORT BELVOIR ^a | BARRACKS; ^b 700 SERIES | 1-IN. BOARDS | PINE, FLAT-GRAIN, 3-1/4-IN. FACE | 10 | POOR | SPLINTERED. SEGMENTS TORN OUT. WIDE CRACKS BETWEEN STRIPS AND END JOINTS. |
| DO. | MESS HALL; ^b DINING AREA | DO. | DO. | 10 | POOR | DO. |
| DO. | BARRACKS; ^b 700 SERIES | PINE FLOORING ON 1-IN. BOARDS | OAK, EDGE-GRAIN, 3-1/4-IN. FACE | 3 | GOOD | STRIP OAK LAID AT RIGHT ANGLES TO STRIP PINE ALONG AISLE. SOME CRACKS BETWEEN STRIPS. |
| FORT MONMOUTH ¹ | DO. | 1-IN. BOARDS | PINE, FLAT-GRAIN, 3-1/4-IN. FACE | 10 | POOR | REQUIRES FREQUENT REPLACE- MENT OF DAMAGED AND WORN AREAS. |
| CAMP EDWARDS ¹ | DO. | PINE FLOORING ON 1-IN. BOARDS | DO. | 1 | GOOD | LAI D AT RIGHT ANGLES TO OLD PINE FLOOR. FEW SMALL CRACKS AND SPLINTERS. |
| FORT DEVENS ¹ | DO. | 1-IN. BOARDS | DO. | 12 | POOR | SPLINTERED. SEGMENTS TORN OUT. WIDE CRACKS BETWEEN STRIPS AND END JOINTS. |
| MURPHY HOSPITAL ¹ | HOSPITAL; ^c CORRIDORS | DO. | OAK, EDGE-GRAIN, 2-1/4-IN. FACE | 9 | GOOD | SOME LOOSE BOARDS. GOOD CARE. |
| FORT MEADE ² | BARRACKS; ^b 700 SERIES | DO. | PINE, FLAT-GRAIN, 3-1/4-IN. FACE | 12 | POOR | SPLINTERED. SEGMENTS TORN OUT. WIDE CRACKS BETWEEN STRIPS AND END JOINTS. |
| DO. | MESS HALL; ^b DINING AREA | DO. | DO. | 12 | POOR | DO. |
| DO. | RECREATION; ^b DAY ROOM | DO. | DO. | 12 | POOR | DO. |
| VALLEY FORGE HOSPITAL ² | HOSPITAL; ^c CORRIDORS | DO. | OAK, EDGE-GRAIN, 2-1/4-IN. FACE | 10 | VERY GOOD | EXCELLENT CARE. |
| FORT LEE ² | BARRACKS; ^b 700 SERIES | DO. | PINE, FLAT-GRAIN, 3-1/4-IN. FACE | 12 | POOR | SPLINTERED. SEGMENTS TORN OUT. WIDE CRACKS BETWEEN STRIPS AND END JOINTS. |
| FORT EUSTIS ² | BARRACKS; ^b 800 SERIES | DO. | DO. | 10 | POOR | DO. |

TABLE 1. WOOD FLOORING (25/32 IN. NOMINAL THICKNESS) CONTINUED - 2

| MILITARY STATION | TYPE OF STRUCTURE | SUBFLOOR | TYPE OF FLOORING | APPROX. AGE, YRS. | OVERALL CONDITION | REMARKS |
|------------------------------------|--|-----------------------------|--|-------------------------|----------------------|---|
| PORT EUSTIS ² | MESS HALL; ^b DINING AREA | 1-IN. BOARDS | PINE, FLAT-GRAIN 3-1/4-IN. FACE | 10 | POOR | SPLINTERED. SEGMENTS TORN OUT. WIDE CRACKS BETWEEN STRIPS AND END JOINTS. |
| DO. | HOSPITAL; ^b CORRIDORS | DO. | DO. | 10 | POOR | DO. |
| DO. | HOSPITAL; ^b WARDS | DO. | DO. | 10 | GOOD | FEW DAMAGED AREAS AND SOME REPLACEMENTS. GOOD CARE. |
| FORT CAMPBELL ² | BARRACKS; ^b 800 SERIES | DO. | DO. | 10 | POOR | BEING REPLACED WITH PINE FLOORING. |
| DO. | DO. | DO. | DO. | 2 | FAIR | SOME SPLINTERS AND CRACKS. DIFFICULT TO CLEAN. |
| DO. | MESS HALL; ^b DINING AREA | DO. | DO. | 10 | POOR | REQUIRES FREQUENT REPLACEMENT. |
| FORT KNOX ² | BARRACKS; ^b 700 SERIES | DO. | OAK, 3-1/4-IN. FACE | 1/4 | VERY GOOD | ORIGINAL PINE FLOORING REMOVED. OAK GIVEN TWO COATS OF SEALER. |
| ATLANTA GEN. DEPOT ³ | SCHOOL; ^b CLASS ROOM | DO. | PINE, FLAT-GRAIN, 3-1/4-IN. FACE | 4 | GOOD | FREQUENTLY WAXED. GOOD CARE. |
| FORT SAM, HOUSTON ⁴ | BAKERY | 1-IN. BOARDS ON SLEEPERS | MAPLE, 1-1/8-IN. THICK, 2-1/4-IN. FACE | 3/4 | VERY GOOD | EXCELLENT CARE. SOME OBJECTION TO SMALL CRACKS BETWEEN STRIPS. |
| DO. | GYMNASIUM | DO. | DO. | 8 | VERY GOOD | REFINISHED OFTEN. PHENOLIC VARNISH USED RECENTLY. |
| BROOKE HOSPITAL ⁴ | NURSES RESIDENCE ^c | CONCRETE | OAK UNIT-BLOCK | 13 | GOOD | APPRECIABLE SHRINKAGE OF UNIT-BLOCKS. FLOORS SAND- ED, FILLED AND SEALED. |
| FORT HOOD ⁴ | HOSPITAL; ^b WARDS | 1-IN. BOARDS | OAK, 2-1/4-IN. FACE | 10 | VERY GOOD | EXCELLENT CARE. |

TABLE 1. WOOD FLOORING (25/32-IN. NOMINAL THICKNESS) CONTINUED - 3

| MILITARY STATION | TYPE OF STRUCTURE | SUBFLOOR | TYPE OF FLOORING | APPROX. AGE, YRS. | OVERALL CONDITION | REMARKS |
|---|--------------------------------------|-------------------------------------|-------------------------------------|-------------------------|----------------------|---|
| FORT BLISS ⁴ | BARRACKS; ^b 700 SERIES | 1-IN. BOARDS | PINE, FLAT-GRAIN, 3-1/4-IN. FACE | 12 | POOR | SPLINTERED. SEGMENTS TORN OUT. WIDE CRACKS BETWEEN STRIPS AND END JOINTS. |
| CAMP POLK ⁴ | BARRACKS; ^b 800 SERIES | NONE | DO. | 8 | FAIR | FLOORS LACKED RIGIDITY. LOOSE BOARDS. |
| CAMP LEROY JOHNSON ⁴ | BARRACKS; ^b 700 SERIES | 1-IN. BOARDS | DO. | 11 | FAIR | SOME SPLINTERS AND CRACKS. |
| DO. | HOSPITAL; ^b WARD | DO. | DO. | 11 | VERY GOOD | EXCELLENT CARE. |
| FORT RILEY ⁵ | BARRACKS; ^b 800 SERIES | PINE FLOORING ON 1-IN. BOARDS | FIR, EDGE-GRAIN, 3-1/4-IN. FACE | 2 | GOOD | SOME WEAR AT ENTRANCES. NO SPLINTERING OR CRACKS. MAINTAINED WELL. |
| CAMP STONEMAN ⁶ | POST EXCHANGE ^b | 1-IN. BOARDS | OAK, 3-1/4-IN. FACE | 4 | GOOD | SEVERE TRAFFIC. MAIN- TAINED WELL. |
| DO. | SERVICE CLUB | DO. | PINE, EDGE-GRAIN, 3-1/4-IN. FACE | 12 | FAIR | SLIGHT SPLINTERING. FEW DAMAGED AREAS. 5% RE- PLACEMENT. |
| PRESIDIO OF SAN FRANCISCO ⁶ | BARRACKS ^c | DO. | OAK, EDGE-GRAIN, 2-1/4-IN. FACE | 30 | VERY GOOD | REFINISHED AND SEALED AT RECENT DATE. |
| DO. | FAMILY QUARTERS ^c | DO. | PINE, EDGE-GRAIN, 3-1/4-IN. FACE | 12 | VERY GOOD | REFINISHED AND SEALED FROM TIME TO TIME. |
| FORT ORD ⁶ | BARRACKS; ^b 700 SERIES | DO. | PINE, FLAT-GRAIN, 3-1/4-IN. FACE | 12 | POOR | SPLINTERED. WIDE CRACKS BETWEEN STRIPS. 25% REPLACEMENT. |
| PRESIDIO OF MONTEREY ⁶ | CLASSROOMS ^b | DO. | PINE, EDGE-GRAIN 3-1/4-IN. FACE | 40 | FAIR | WORN CONSIDERABLY. MAINTAINED WELL. |

NUMBERS REFER TO ARMY AREAS. ^aMILITARY DISTRICT OF WASHINGTON. ^bTEMPORARY-TYPE. ^cPERMANENT-TYPE.

^dTWO- BY FOUR-INCH SLEEPERS EMBEDDED IN WATER-PROOFED CONCRETE ON GRADE.

TABLE 2. CONCRETE FLOORS

| MILITARY STATION | TYPE OF STRUCTURE | SUBFLOOR | METHOD OF REINFORCING | APPROX. THICK., IN. | APPROX. AGE, YRS. | OVERALL CONDITION | REMARKS |
|-------------------------------------|--|----------------------|------------------------------------|---------------------|-------------------|-------------------|---|
| FORT BELVOIR ^a | HOSPITAL; ^b KITCHEN | WOOD ^d | ----- | 1-1/2 | ---- | POOR | AGGREGATE EXPOSED AT STOVE AND WASH AREAS. NO CRACKS. |
| DO. | MESS HALL; ^b KITCHEN | DO. | NAILS; 15-IN. ON CENTER, IN JOINTS | 1-1/2 | ---- | POOR | AGGREGATE EXPOSED. LARGE CRACKS. SUBFLOOR ROTTING. |
| FORT DEVENS ¹ | DO. | FILL | ----- | 4 | 8 | POOR | AGGREGATE EXPOSED OVER MOST OF KITCHEN FLOOR. CONSIDERABLE WEAR. |
| ABERDEEN PROVING GR. ² | DO. | DO. | ----- | 4 | 2 | GOOD | NO CRACKS. SLIGHT WEAR. |
| DO. | MESS HALL; ^b DINING AREA | WOOD ^d | WIRE MESH ^e | 1-1/2 | 1 | GOOD | DO. |
| DO. | MESS HALL; ^b KITCHEN | DO. | DO. | 1-1/2 | 2 | GOOD | DO. |
| ATLANTA GENERAL DEPOT ³ | DO. | FILL | ----- | 5 | 10 | GOOD | FEW CRACKS. SOME WEAR. |
| DO. | MESS HALL; ^b DINING AREA | DO. | ----- | 5 | 10 | GOOD | DO. |
| DO. | WAREHOUSE ^c | DO. | ----- | 8 | 11 | VERY GOOD | FEW SMALL CRACKS. SLIGHT WEAR. NO DUSTING. EXPOSED TO SEVERE TRUCKING. |
| FORT BENNING ³ | MESS HALL; ^b DINING AREA | WOOD ^d | WIRE MESH ^f | 1-1/2 | 1 | GOOD | SIX MESS HALLS INSPECTED, ALL IN GOOD CONDITION. |
| DO. | MESS HALL; ^b KITCHEN | DO. | DO. | 1-1/2 | 1 | GOOD | DO. |
| DO. | BARRACKS ^c | --- | ----- | 5 | 19 | GOOD | NO CRACKS. SOME WEAR. |
| SAN ANTONIO G.M. DEPOT ⁴ | WAREHOUSE ^c | --- | ----- | --- | -- | GOOD | VERY SMOOTH SURFACE. COATED WITH ABRASIVE PASTE |
| BROOKE ARMY HOSPITAL ⁴ | SERVICE CLUB | ON GRADE, TILE DRAIN | ----- | 6 | 8 | VERY GOOD | INTEGRAL-COLORED TOPPING, 1/4-IN. THICK, TREATED WITH SEALER. EXCELLENT COLOR AND FINISH. |

TABLE 2. CONCRETE FLOORS CONTINUED - 2

| MILITARY STATION | TYPE OF STRUCTURE | SUBFLOOR | METHOD OF REINFORCING | APPROX. THICK., IN. | APPROX. AGE, YRS. | OVERALL CONDITION | REMARKS |
|---------------------------------|--|-------------------|------------------------|---------------------|-------------------|-------------------|---|
| CAMP BULLIS ⁴ | MESS HALL; ^b DINING AREA | FILL | ----- | 4 | 30 | FAIR | FEW LARGE STRUCTURAL CRACKS. |
| DO. | MESS HALL; ^b KITCHEN | ON GRADE | ----- | 4 | 30 | FAIR | SOME PITTING AROUND STOVE AND WASH AREAS. SLIGHT WEAR. |
| DO. | LATRINE AND WASH ROOM ^b | DO. | ----- | --- | 3 | VERY GOOD | EXCELLENT FINISH. NO WATER DAMAGE. NO CRACKS. NO WEAR. |
| FORT HOOD ⁴ | MESS HALL; ^b KITCHEN | WOOD ^d | ----- | 5 | 10 | GOOD | CRACKS AT STOVES AND BEAMS. NO APPRECIABLE WEAR OR WATER DAMAGE. |
| FORT BLISS ⁴ | DO. | DO. | WIRE MESH ^e | 1-1/2 | 3 | FAIR | SOME PITTING AROUND SINKS AND DRAIN. FEW SMALL CRACKS. |
| DO. | DO. | DO. | DO. | 1-1/2 | 3 | VERY POOR | LARGE CRACKS. PITTED AROUND SINKS AND DRAIN. SOME WEAR. |
| DO. | RECREATION; ^b DAY ROOM | ON GRADE | ----- | --- | 11 | VERY GOOD | SOME SURFACE CRAZING. SLIGHT WEAR. NO CRACKS. |
| DO. | WAREHOUSE; ^c SHOPS | --- | ----- | --- | -- | VERY POOR | VERY POOR MIX. NUMEROUS LARGE CHIPS OF WOOD EXPOSED AND GOUGED OUT. |
| CAMP POLK ⁴ | MESS HALL; ^b DINING AREA | FILL | ----- | 6 | 10 | FAIR | STRUCTURAL CRACKS AND SEPARATIONS. SURFACE IN GOOD CONDITION. |
| DO. | MESS HALL; ^b KITCHEN | DO. | ----- | 6 | 10 | FAIR | STRUCTURAL CRACKS. SOME PITTING AROUND SINKS, DRAIN AND STOVES. |
| N.O.P.E. ⁴ | WAREHOUSE ^c | --- | ----- | --- | 34 | GOOD | FEW CRACKS. SOME HOLES AND DAMAGED SPOTS. SEVERE SERVICE. |
| CAMP LEROY JOHNSON ⁴ | MESS HALL; ^b DINING AREA | WOOD ^d | WIRE MESH ^h | 2-1/2 | 3-1/2 | GOOD | FEW CRACKS. SLIGHT WEAR. GOOD FINISH. |

TABLE 2. CONCRETE FLOORS CONTINUED - 3

| MILITARY STATION | TYPE OF STRUCTURE | SUBFLOOR | METHOD OF REINFORCING | APPROX. THICK., IN. | APPROX. AGE, YRS. | OVERALL CONDITION | REMARKS |
|-----------------------------------|------------------------------------|-------------------|------------------------|---------------------|-------------------|-------------------|--|
| FORT CUSTER ⁵ | MESS HALL; ^b KITCHEN | WOOD ^d | WIRE MESH ^f | 2-1/2 | 2 | POOR | AGGREGATE EXPOSED AT STOVE AND WASH AREAS. LARGE CRACKS. WORN. |
| DO. | DO. | ON GRADE | ----- | 5 | 7 | POOR | DO. |
| FORT RILEY ⁵ | DO. | WOOD ^d | WIRE MESH ^f | 2-1/2 | 2 | GOOD | SLIGHT WEAR. NO CRACKS. |
| CAMP STONEMAN ⁶ | DO. | DO. | ----- | 4 | 5 | POOR | AGGREGATE EXPOSED AT STOVE AND WASH AREAS. CONSIDERABLE WEAR. |
| FORT ORD ⁶ | DO. | DO. | WIRE MESH ^f | 1-1/2 | 1 | GOOD | FEW LARGE STRUCTURAL CRACKS. |
| PRESIDIO OF MONTEREY ⁶ | DO. | DO | ----- | 4 | 2 | FAIR | AGGREGATE EXPOSED AT STOVE AND WASH AREAS. |

NUMBERS REFER TO ARMY AREAS. ^aMILITARY DISTRICT OF WASHINGTON. ^bTEMPORARY-TYPE. ^cPERMANENT-TYPE.

^dSTRIP-PINE FLOORING OVER 1-IN. WOOD BOARDS. ^eCONCRETE REINFORCED WITH 4- X 4-IN., NO. 13-GAGE, WIRE MESH AND WITH 20-d NAILS DRIVEN 12 IN. ON CENTER ALONG FLOOR JOISTS, LEAVING 1-IN. OF NAIL EXTENDING ABOVE WOOD FLOORING, PLACED DIRECTLY ON WET WOOD FLOORING. ^fCONCRETE REINFORCED WITH 4- X 4-IN., NO. 10-GAGE, WIRE MESH, PLACED ON 55-LB., ASPHALT-PREPARED ROLL ROOFING. ^gCONCRETE REINFORCED WITH 12-d NAILS DRIVEN 12-IN. ON CENTERS ALONG FLOOR JOISTS, LEAVING 1-IN. OF NAIL EXTENDING ABOVE WOOD FLOORING, NO WIRE MESH, PLACED ON 15-LB., ASPHALT-SATURATED FELT. ^hCONCRETE REINFORCED WITH WIRE MESH AND NAILS ALONG JOISTS, PLACED ON ASPHALT-SATURATED FELT.

TABLE 3. FLOOR TOPPING (1/2-IN. NOMINAL THICKNESS) INTEGRAL-HARDENED CONCRETE

| MILITARY STATION | TYPE STRUCTURE | SUBFLOOR | SUBFLOOR TREATMENT | APPROX. AGE, YRS. | OVERALL CONDITION | REMARKS |
|--------------------------|------------------------------------|----------------------------------|--------------------|-------------------|-------------------|---|
| FORT DEVENS ¹ | BAKERY | CONCRETE, ON GRADE | ----- | 2 | VERY GOOD | |
| CAMP GORDON ³ | MESS HALL; ^a KITCHEN | CONCRETE ^b ON WOOD | MACHINE CHIPPED | 1 | VERY GOOD | GOOD BOND. NO CRACKS. NO WEAR. NO WATER DAMAGE. |
| DO. | DO. | DO. | DO. | 1 | VERY GOOD | DO. |
| DO. | DO. | DO. | DO. | 1 | VERY GOOD | DO. |
| FORT BRAGG ³ | DO. | DO. | ACID ETCHED | 1/12 | POOR | POOR BOND. OBJECTIONABLE CRACKS. |
| DO. | DO. | DO. | ----- | 1/12 | POOR | DO. |

NUMBERS REFER TO ARMY AREAS. ^aTEMPORARY-TYPE. ^bCONCRETE SLAB, 2-IN. THICK, REINFORCED WITH WIRE MESH, ON 55-LB., ASPHALT-PREPARED ROLL ROOFING OVER ORIGINAL WOOD FLOOR.

TABLE 4. MAGNESIUM OXYCHLORIDE (1/2-5/8 IN. NOMINAL THICKNESS)

| MILITARY STATION | TYPE OF STRUCTURE | SUBFLOOR | METHOD OF ANCHORING | APPROX. AGE, YRS. | OVERALL CONDITION | REMARKS |
|----------------------------|---|--------------------------------|-------------------------|-------------------|-------------------|--|
| FORT BELVOIR ^a | HOSPITAL; ^b OPERATING RM. | WOOD ^d | ----- | 10 | VERY GOOD | NO CRACKS. SLIGHT DUSTING. |
| DO. | BARRACKS; ^b 700 SERIES, 2ND FLR. | DO. | ADHESIVE ^f | 10 | POOR | CRACKED AND BROKEN. |
| DO. | MESS HALL; ^b KITCHEN | DO. | METAL MESH ^g | 1 | VERY GOOD | NO CRACKS. NO WATER DAMAGE. MARKED BY BLACK RUBBER HEELS. |
| FORT MYER ^a | THEATER; LATRINE | DO. | DO. | 1 | GOOD | NO CRACKS. SLIGHT WATER DAMAGE. POOR CARE. |
| FORT JAY ¹ | BARRACKS; ^b 700 SERIES | DO. | METAL MESH ^h | 1 | VERY GOOD | EXPOSED TO SEVERE TRANSIENT TRAFFIC. NO CRACKS. SLIGHT WEAR. |
| DO. | FORT; ^c PRISON CELLS | CONCRETE | ADHESIVE | 1/4 | VERY GOOD | EXCELLENT FINISH. |
| FORT MONMOUTH ¹ | BAKERY | CONCRETE, ON GRADE | ----- | 6 | VERY GOOD | NO CRACKS. SLIGHT WEAR. |
| FORT DIX ¹ | DO. | DO. | ----- | 6 | VERY GOOD | NO CRACKS. SLIGHT WEAR. |
| FORT DEVENS ¹ | MESS HALL; ^b KITCHEN | CONCRETE, ON WOOD ¹ | ----- | 2 | VERY GOOD | EXPOSED TO SEVERE WETTING. NO CRACKS. NO WATER DAMAGE. |
| DO. | BARRACKS; ^b 700 SERIES | WOOD ^a | METAL MESH ^h | 1 | VERY GOOD | NO CRACKS. SLIGHT WEAR. |
| FORT MEADE ² | HOSPITAL; ^b KITCHEN | CONCRETE, ON WOOD ¹ | ADHESIVE | 3 | VERY GOOD | NO CRACKS. NO WATER DAMAGE. |
| DO. | HOSPITAL; ^b DISH-WASHING ROOM | DO. | DO. | 3 | VERY POOR | COMPLETELY DISINTEGRATED. |
| FORT MONROE ² | ADMINIS-TRATION; ^c CORRIDORS | WOOD ^e | ----- | 10 | VERY GOOD | NO CRACKS. SLIGHT WEAR. GOOD CARE. |
| FORT CAMPBELL ² | HOSPITAL; ^b MESS, SERVING AREA | WOOD ^d | METAL MESH ^g | 2 | VERY GOOD | EXPOSED TO SEVERE TRAFFIC. NO CRACKS. SLIGHT WEAR. |
| FORT KNOX ² | BAKERY | CONCRETE, ON GRADE | ADHESIVE | 6 | GOOD | NO CRACKS. SOME WEAR FROM STEEL-TIRED TRUCK WHEELS. |

TABLE 4. MAGNESIUM OXYCHLORIDE (1/2-5/8 IN. NOMINAL THICKNESS) CONTINUED - 2

| MILITARY STATION | TYPE OF STRUCTURE | SUBFLOOR | METHOD OF ANCHORING | APPROX. AGE, YRS. | OVERALL CONDITION | REMARKS |
|-------------------------------|--------------------------------|----------------------------------|-------------------------|-------------------|-------------------|--|
| FORT BENNING ³ | BARRACKS; b 700 SERIES | WOOD ^d | METAL MESH ^g | 1 | VERY GOOD | 166 BARRACKS (900,000 FT. ²). NO CRACKS. SOME WEAR AT DOORWAYS. GOOD CARE. |
| FORT BRAGG ³ | DO. | DO. | DO. | 1 | VERY GOOD | 300 BARRACKS (1,250,000 FT. ²). NO CRACKS. SLIGHT WEAR. GOOD CARE. |
| CAMP GORDON ³ | MACHINE SHOP ^b | CONCRETE, ON GRADE | ----- | 1/2 | POOR | DAMAGED CONSIDERABLY FROM IMPACTS OF HEAVY OBJECTS. CRACKS OVER ENTIRE FLOOR AREA. |
| FORT SAM HOUSTON ⁴ | BARRACKS; b 700 SERIES | WOOD ^d | WIRE MESH ^j | 4 | POOR | CRACKED, BROKEN AND PITTED. CRUSHED AT STAIRWAY. |
| DO. | DO. | DO. | DO. | 4 | VERY POOR | FEW SMALL CRACKS. SOME WEAR AT DOORWAYS AND STAIRWAY. |
| DO. | DO. | DO. | ADHESIVE ^k | 4 | GOOD | NO CRACKS. MESH DESIGN SHOWING ON SURFACE. POOR FINISH. |
| DO. | DO. | DO. | WIRE MESH ^j | 3/4 | FAIR | FEW SMALL CRACKS. SOME WEAR AND MESH SHOWING AT DOORWAYS. |
| DO. | DO. | DO. | METAL MESH ^g | 1/4 | GOOD | SOME WEAR AND PITTING FROM WATER ALONG SERVING AREA. |
| DO. | MESS HALL; b DINING AREA | DO. | DO. | 2 | FAIR | CONSIDERABLE WATER DAMAGE. FLOOR GIVEN EXCELLENT CARE. |
| DO. | MESS HALL; b KITCHEN | CONCRETE ON WOOD ^d | ----- | 2 | VERY POOR | SLIGHT PITTING AND WEAR AT DOORWAY. EXCELLENT CARE. |
| DO. | DO. | DO. | ----- | 2 | GOOD | LARGE NUMBER OF BARRACKS INSPECTED. FEW SMALL CRACKS. |
| DO. | MESS HALL; b DINING AREA | WOOD ^d | METAL MESH ^g | 2 | GOOD | FEW NAIL HOLES. SOME CRACKS AROUND HEATER. SLIGHT WEAR. |
| FORT HOOD ⁴ | BARRACKS; b 800 SERIES | DO. | DO. | 2 | VERY GOOD | EXCELLENT CARE. WAXED WITH PIGMENTED SPIRIT WAX. |
| DO. | MESS HALL; b DINING AREA | DO. | DO. | 3 | GOOD | NUMEROUS CRACKS ACROSS CORRIDORS. STRUCTURAL CRACKS. |
| DO. | MESS HALL; b OFFICER'S MESS | DO. | DO. | 2 | VERY GOOD | |
| DO. | HOSPITAL; b CORRIDORS | DO. | DO. | 1 | POOR | |

TABLE 4. MAGNESIUM OXYCHLORIDE (1/2-5/8 IN. NOMINAL THICKNESS) CONTINUED - 3

| MILITARY STATION | TYPE OF STRUCTURE | SUBFLOOR | METHOD OF ANCHORING | APPROX. AGE, YRS. | OVERALL CONDITION | REMARKS |
|------------------------------------|---|-------------------------------|--|-------------------|-------------------|--|
| FORT BLISS ⁴ | MESS HALL; ^b KITCHEN | CONCRETE ON WOOD ¹ | ADHESIVE ¹ | 1/2 | POOR | WATER DAMAGE. CHANNIELED BY DRAIN WATER. BOND FAILURES. |
| DO. | MESS HALL; ^b DINING AREA | WOOD ^d | METAL MESH ^g | 3 | GOOD | FEW CRACKS AND NAIL HOLES. |
| DO. | BARRACKS; ^b 700 SERIES | DO. | METAL MESH ^h | 1-1/4 | VERY GOOD | NO CRACKS. SLIGHT WEAR. |
| DO. | BARRACKS ^c | WOOD ^e | DO. | 1 | GOOD | 3 BARRACKS INSPECTED. MAP-LIKE CRACKS. SLIGHT WEAR. |
| DO. | POST EXCHANGE ^b | WOOD ^d | METAL MESH ^g | 10 | VERY GOOD | BRASS DIVIDING-STRIPS USED EXTENSIVELY. FEW CRACKS AT DOORWAY. |
| WM. BEAUMONT HOSPITAL ⁴ | HOSPITAL; ^c OPERATING ROOM | CONCRETE | ----- | 1 | VERY GOOD | NO CRACKS. EXCELLENT FINISH. SLIGHT DAMAGE FROM IMPACTS. |
| CAMP POLK ⁴ | HOSPITAL; ^b CORRIDORS | WOOD ^d | METAL MESH ^g | 1/4 | FAIR | SOME CRACKS ACROSS CORRIDORS. UNEVEN TROWELING. |
| DO. | MESS HALL; ^b KITCHEN | DO. | DO. | 1-1/4 | VERY POOR | CONSIDERABLE WATER DAMAGE. CRACKED. BEING REPLACED. |
| DO. | MESS HALL; ^b DINING AREA | DO. | DO. | 2 | GOOD | SOME CRACKS. SLIGHT WEAR. |
| FORT SHERIDAN ⁵ | ADMINIS- TRATION; ^c LATRINE AND LOCKERS | ASPHALT MASTIC ON CONCRETE | ----- | 1/2 | VERY GOOD | EXCELLENT FINISH. NO CRACKS. FAIR UNIFORMITY OF COLOR. |
| DO. | BARRACKS ^c | WOOD ^d | ADHESIVE ^f METAL MESH ^g | 1 | GOOD | FEW STRUCTURAL CRACKS. |
| DO. | MESS HALL; ^c KITCHEN | DO. | DO. | 1 | GOOD | SOME WATER DAMAGE AND WEAR. |
| DO. | MESS HALL; ^c DINING AREA | DO. | DO. | 1 | GOOD | FEW SMALL CRACKS. |
| FORT CUSTER ⁵ | HOSPITAL; ^b OPERATING ROOM | CONCRETE ON WOOD ¹ | NONE | 4 | VERY POOR | NO BOND TO CONCRETE. CRACKED AND BROKEN. ROOM NOT USABLE. |
| DO. | HOSPITAL; ^b KITCHEN | DO. | CONCRETE SPOT CHIPPED | 4 | VERY POOR | NO BOND TO CONCRETE. CRACKED AND BROKEN. |

TABLE 4. MAGNESIUM OXYCHLORIDE (1/2-5/8 IN. NOMINAL THICKNESS) CONTINUED - 4

| MILITARY STATION | TYPE OF STRUCTURE | SUBFLOOR | METHOD OF ANCHORING | APPROX. AGE, YRS. | OVERALL CONDITION | REMARKS |
|---|---|-------------------|-----------------------------|-------------------|-------------------|--|
| FORT CUSTER ⁵ | HOSPITAL; ^b DINING AREA | WOOD ^d | METAL MESH ^g | 4 | VERY GOOD | NO CRACKS. EXCELLENT FINISH. |
| PERCY JONES HOSPITAL ⁵ | HOSPITAL; ^c OPERATING RM. | TERRAZZO | CONCRETE CHIPPED 1/4 IN. | 1 | VERY GOOD | TERRAZZO TYPE. NO CRACKS. EXCELLENT FINISH. |
| FORT RILEY ⁵ | ADMINISTRA- TION; ^b OFFICES | WOOD ^d | METAL MESH ^g | 1/2 | VERY GOOD | NO COLORING. NO CRACKS. |
| DO. | WAREHOUSE ^b | WOOD PLANKING | DO. | 1/2 | FAIR | NO CRACKS. SURFACE DAMAGED FROM TRUCKING AND IMPACTS. ERODED BY WATER. |
| DO. | WAREHOUSE; ^b COLD STORAGE | CONCRETE | ADHESIVE ^l | 1/2 | POOR | ERODED BY WATER. |
| CAMP STONEMAN ⁶ | POST EXCHANGE ^b | WOOD ^d | METAL MESH ^g | 4 | VERY GOOD | SUBJECTED TO SEVERE TRAFFIC. |
| PRESIDIO OF SAN FRANCISCO ⁶ | MESS HALL; ^c DISH-WASHING AREA | CONCRETE | ADHESIVE ^l | 3 | POOR | ERODED BY WATER. |
| DO. | BARRACKS; ^c LATRINE | DO. | DO. | 8 | FAIR | SOME WATER DAMAGE. COMPLETELY WORN IN AREAS. |
| LETTERMAN HOSPITAL ⁶ | MESS HALL; ^b KITCHEN | WOOD ^d | WIRE MESH ^j | 3 | VERY POOR | ERODED BY WATER. WIRE MESH AND SUBFLOOR EXPOSED IN AREAS. |
| DO. | MESS HALL; ^b DINING AREA | DO. | DO. | 3 | GOOD | SLIGHT WEAR. |
| FORT ORD ⁶ | MESS HALL; ^b KITCHEN | DO. | METAL MESH ^g | 1 | POOR | ERODED BY WATER. 11 KITCHENS. |

TABLE 4. MAGNESIUM OXYCHLORIDE (1/2-5/8 IN. NOMINAL THICKNESS) CONTINUED - 5

| MILITARY STATION | TYPE OF STRUCTURE | SUBFLOOR | METHOD OF ANCHORING | APPROX. AGE, YRS. | OVERALL CONDITION | REMARKS |
|---------------------------|------------------------------------|-------------------|-------------------------|-------------------|-------------------|---------------------------------|
| CAMP ROBERTS ⁶ | MESS HALL; ^b KITCHEN | WOOD ^d | METAL MESH ^e | 1 | FAIR | SOME WEAR AND EROSION BY WATER. |
| DO. | HOSPITAL; ^b KITCHEN | DO. | DO. | 1 | POOR | ERODED BY WATER. |

NUMBERS REFER TO ARMY AREAS. ^aMILITARY DISTRICT OF WASHINGTON. ^bTEMPORARY-TYPE. ^cPERMANENT-TYPE.
^dSTRIP-PINE FLOORING OVER 1-IN. WOOD BOARDS. ^eSTRIP-OAK FLOORING OVER 1-IN. WOOD BOARDS. ^fADHESIVE APPLIED TO 15-LB. ASPHALT-SATURATED FELT NAILED TO WOOD SUBFLOOR. ^gEXPANDED METAL MESH, 2-1/2 LB/YD², OVER 15-LB. ASPHALT-SATURATED FELT NAILED ON 6-IN. CENTERS TO WOOD SUBFLOOR WITH 1-1/2-IN. GALVANIZED ROOFING NAILS. ^hSAME AS ^g EXCEPT THAT LARGER NAILS WERE USED ALONG JOISTS TO EXTEND 1-1/2-IN. INTO WOOD JOISTS.
ⁱCONCRETE SLAB, 1-1/2-IN. THICK, REINFORCED WITH WIRE MESH, ON 55-LB. ASPHALT-PREPARED ROLL ROOFING OVER ORIGINAL WOOD FLOOR. ^jCHICKEN WIRE WITH 1-IN. OPENING OVER 15-LB. ASPHALT-SATURATED FELT NAILED ON 6-IN. CENTERS TO WOOD SUBFLOOR. ^kRUBBER LATEX ADHESIVE APPLIED DIRECTLY TO WOOD SUBFLOOR, NO FELT UNDERLAY.
^lRUBBER LATEX ADHESIVE APPLIED TO CONCRETE SUBFLOOR.

TABLE 5. ASPHALT TILE

| MILITARY STATION | TYPE OF STRUCTURE | SUBFLOOR | UNDERLAY | NOMINAL THICK., IN. | APPROX. AGE, YRS. | OVERALL CONDITION | REMARKS |
|--------------------------------------|--|----------------------|----------|---------------------|-------------------|-------------------|--|
| FORT BELVOIR ^a | MESS HALL; ^b DINING AREA | WOOD ^d | FELT | 1/8 | 1 | POOR | FRACTURED AT DOORWAY, KITCHEN AND STOVE. WAVY SURFACE. |
| WALTER REED HOSPITAL ^a | HOSPITAL; ^c RESEARCH SCHOOL | CONCRETE | NONE | 1/8 | 5 | FAIR | SEVERELY INDENTED BY EQUIP- MENT. DAMAGED BY CHEMICALS. |
| DO. | HOSPITAL; ^c CORRIDORS | TERRAZZO | NONE | 1/8 | 5 | GOOD | FEW FRACTURES AT EXPANSION JOINTS. EXCELLENT CARE. |
| FORT JAY ¹ | ADMINISTRA- TION; ¹ OFFICES, CORRIDORS | WOOD ^e | FELT | 1/8 | 3 | GOOD | SOME INDENTATION. NO FRACTURES. |
| N. Y. P. E. ¹ | CAFETERIA; ^c DINING AREA | CONCRETE | NONE | 1/8 | 10 | VERY GOOD | SLIGHT INDENTATION. NO FRACTURES. SEVERE SERVICE. |
| DO. | ADMIN- ISTRATION; ^c OFFICES, CORRIDORS | DO. | NONE | 1/8 | 10 | VERY GOOD | SLIGHT INDENTATION. NO FRACTURES. (250,000 FT. 2). |
| RARITAN ORD. ARSENAL ¹ | DO. | DO. | NONE | 1/8 | 11 | VERY GOOD | SLIGHT INDENTATION. NO FRACTURES. |
| DO. | DO. | DO. | NONE | 1/8 | 1 | FAIR | SEVERELY INDENTED. |
| FORT MONMOUTH ¹ | ADMIN- ISTRATION; ^b OFFICES | CONCRETE ON GRADE | NONE | 1/8 | 11 | GOOD | SOME INDENTATION. |
| FORT DIX ¹ | HOSPITAL; ^b KITCHEN | DO. | NONE | 1/8 ^f | 6 | POOR | COMPLETELY WORN AT DOOR- WAYS AND WORK AREAS. |
| FORT EDWARDS ¹ | POST EXCHANGE ^b | WOOD ^d | FELT | 1/8 | 10 | VERY POOR | COMPLETELY WORN IN TRAFFIC LANES. MANY FRACTURES. |
| DO. | HOSPITAL; ^b DINING AREA | DO. | PLYWOOD | 1/8 ^f | 2 | VERY POOR | CURLED AND SHRUNK. MANY FRACTURES. |
| MURPHY HOSPITAL ¹ | HOSPITAL; ^c RECREATION ROOM | CONCRETE | NONE | 1/8 | 9 | VERY GOOD | EXCELLENT CARE. |
| FORT MEADE ² | HOSPITAL; ^b DINING AREA | WOOD ^d | PLYWOOD | 1/8 | 5 | GOOD | PLYWOOD DELAMINATED AT WATER FOUNTAIN. |
| ABERDEEN PROVING GR. ² | BARRACKS; ^b 800 SERIES | DO. | FELT | 3/16 | 1 | POOR | 105 BARRACKS. 20% OF TILES FRACTURED. |

TABLE 5. ASPHALT TILE (CONTINUED) - 2

| MILITARY STATION | TYPE OF STRUCTURE | SUBFLOOR | UNDERLAY | NOMINAL THICK., IN. | APPROX. AGE, YRS. | OVERALL CONDITION | REMARKS |
|------------------------------------|--|-------------------|-----------|---------------------|-------------------|-------------------|---|
| VALLEY FORGE HOSPITAL ² | HOSPITAL; ^c LATRINE | WOOD ^d | PLYWOOD | 1/8 ^f | 2 | GOOD | EXCELLENT MAINTENANCE. NO FRACTURES. |
| DO. | POST EXCHANGE ^c | WOOD ^e | FELT | 1/8 ^f | 3 | VERY GOOD | NO INDENTATION. NO FRACTURES. |
| RICHMOND Q.M. DEPOT ² | MESS HALL; ^b KITCHEN, DINING | CONCRETE | NONE | 3/16 | 6 | GOOD | SOME INDENTATION. NOT EXPOSED TO SEVERE SERVICE. |
| FORT LEE ² | HOSPITAL; ^b CORRIDORS | WOOD ^d | PLYWOOD | 1/8 | 5 | GOOD | SOME FRACTURES. |
| DO. | HOSPITAL; ^b WARDS | DO. | FELT | 1/8 | 5 | VERY GOOD | INSTALLED ONLY IN CENTER AISLES. NO FRACTURES. |
| FORT MONROE ² | ADMIN- ISTRATION; ^c OFFICES, CORRIDORS | CONCRETE | NONE | 1/8 | 7 | GOOD | |
| FORT CAMPBELL ² | RECREATION; ^b DAY ROOM | WOOD ^d | FELT | 1/8 | 3 | VERY POOR | FRACTURED OVER ENTIRE AREA. |
| DO. | HOSPITAL; ^b DINING AREA | DO. | FELT | 1/8 | 1-1/2 | VERY POOR | FRACTURED OVER MOST OF AREA. |
| FORT KNOX ² | HOSPITAL; ^b CORRIDORS | DO. | PLYWOOD | 1/8 | 9 | GOOD | EXCELLENT CARE. |
| DO. | COMMISSARY ^b | CONCRETE | NONE | 1/8 | 1 | FAIR | SEVERELY INDENTED IN AREAS. |
| FORT MC PHERSON ³ | BARRACKS; ^b ADM. OFFICES | WOOD ^d | FELT | 1/8 | 5 | VERY POOR | INDENTED AND FRACTURED AROUND DESKS. 25% REPLACEMENT. |
| DO. | ADMIN- ISTRATION; ^c OFFICES, CORRIDORS | CONCRETE | NONE | 1/8 | 5 | GOOD | SOME INDENTATION. |
| ATLANTA GEN. DEPOT ³ | ADMIN- ISTRATION; ^c OFFICES, CAFE. | WOOD ^d | FELT | 1/8 | 5 | VERY POOR | INDENTED AND FRACTURED. 10% REPLACEMENTS. |
| FORT MC CLELLAN ³ | HOSPITAL; ^b WARDS | DO. | PLYWOOD | 1/8 | 8 | VERY POOR | FRACTURED AND SHRUNK OVER MUCH OF AREA. |
| FORT JACKSON ³ | HOSPITAL; ^b WARDS, CORRIDORS | DO. | HARDBOARD | 1/8 | 8 | GOOD | WELL MAINTAINED AND PROTECTED. |

TABLE 5. ASPHALT TILE (CONTINUED) - 3

| MILITARY STATION | TYPE OF STRUCTURE | SUBFLOOR | UNDERLAY | NOMINAL THICK., IN. | APPROX. AGE, YRS. | OVERALL CONDITION | REMARKS |
|---------------------------------------|--|-------------------|------------------------|---------------------|-------------------|-------------------|--|
| FORT JACKSON ³ | HOSPITAL; ^b CORRIDORS | WOOD ^d | FELT | 1/8 | 6 | VERY POOR | FRACTURED AND BROKEN. 30% REPLACEMENTS. |
| FORT SAM HOUSTON ⁴ | ADMIN- ISTRATION; ^b OFFICES | DO. | FELT | 1/8 | 1/4 | POOR | FRACTURED AND CRUSHED BY DESK CHAIRS. CURLED AND SHRUNK AT DOORWAY. |
| DO. | DO. | DO. | ASPHALT FIBERBOARD | 1/8 | 3 | FAIR | INDENTED SEVERELY BY DESKS & CHAIRS. NO FRACTURES. |
| DO. | DO. | DO. | NONE | 1/8 | 12 | VERY POOR | FRACTURED AND CRUSHED. WOOD SUBFLOOR EXPOSED IN MANY AREAS. |
| DO. | RECREATION; ^b POOL ROOM | DO. | NONE | 3/16 | 16 | VERY POOR | FRACTURED AND INDENTED. MOST OF ORIGINAL TILE RE- PLACED & FRACTURED ALSO. |
| FORT HOOD ⁴ | SERVICE CLUB ^b | DO. | FELT | 1/8 | 7 | VERY POOR | FRACTURED AND CRUSHED. COMPLETELY WORN IN SOME AREAS. |
| FORT BLISS ⁴ | POST EXCHANGE; ^c CARD SHOP | CONCRETE | NONE | 1/8 | 7 | FAIR | COMPLETELY WORN AT ENTRANCE. |
| WM. BEAUMONT HOSPITAL ⁴ | ADMIN- ISTRATION; ^c OFFICES | DO. | NONE | --- | 10 | VERY GOOD | SOME SCRATCHES AND INDEN- TATIONS. EXCELLENT CARE. |
| CAMP POLK ⁴ | POST EXCHANGE ^b | OXYCHLORIDE | NONE | 1/8 | 1-1/2 | GOOD | SOME INDENTATION. NO FRACTURES. |
| N.O.P.E. ⁴ | ADMIN- ISTRATION; ^c OFFICES | CONCRETE | NONE | 1/8 | 3 | VERY GOOD | VERY LARGE AREA. EX- CELLENT CARE. |
| DO. | CAFETERIA; ^c KITCHEN | DO. | NONE | 1/8 ^f | 1-1/4 | FAIR | CURLED, SHRUNK AND FRAC- TURED WHERE EXPOSED TO SEVERE WETTING. |
| DO. | CAFETERIA; ^c SERVING AREA | DO. | NONE | 1/8 ^f | 1-1/4 | VERY GOOD | NO CURLING, SHRINKAGE OR FRACTURES. |
| CAMP LEROY JOHNSON ⁴ | HOSPITAL; ^b DINING ROOM | WOOD ^d | PLYWOOD | 1/8 | 3 | GOOD | INDENTED BY TABLE AND CHAIR LEGS. NO FRACTURES. |
| FORT SHERIDAN ⁵ | BARRACKS; ^b 700 SERIES | DO. | LATEX COMPO- SITION | 1/8 | 1/2 | VERY GOOD | USED FOR FAMILY QUARTERS. UNDERLAYMENT TROUBLE TO HARD AND SMOOTH COATING. |

TABLE 5. ASPHALT TILE (CONTINUED) - 4

| MILITARY STATION | TYPE OF STRUCTURE | SUBFLOOR | UNDERLAY | NOMINAL THICK., IN. | APPROX. AGE, YRS. | OVERALL CONDITION | REMARKS |
|--|--------------------------------------|----------------------|----------|---------------------|-------------------|-------------------|---|
| PERCY JONES HOSPITAL ⁵ | HOSPITAL; ^c CORRIDORS | TERRAZZO | NONE | 3/16 | 10 | GOOD | ONLY FEW FRACTURED AND REPLACED TILES OVER LARGE AREA. EXCELLENT CARE. |
| DO. | HOSPITAL; ^c WARDS | DO. | NONE | 3/16 | 10 | VERY GOOD | NO REPLACEMENTS. EXCELLENT CARE. PROTECTED AGAINST INDENTATION. |
| DO. | DO. | DO. | NONE | 3/16 | 5 | VERY GOOD | DO. |
| ST. LOUIS MED. DEPOT ⁵ | ADMINISTRATION; OFFICES; CORRIDORS | CONCRETE | NONE | 1/8 | 8 | GOOD | SOME INDENTATION BY DESKS AND CHAIRS. EXCELLENT CARE. |
| FORT CARSON ⁵ | MESS HALL; ^b KITCHEN | NEW CONCRETE ON WOOD | NONE | 1/8 ^f | 1/2 | POOR | BOND FAILURES AND SHRINKAGE AT DRAINS. DAMAGED BY HOT KETTLES. 30 KITCHENS. |
| CAMP STONEMAN ⁶ | MESS HALL; ^b DINING AREA | WOOD ^d | PLYWOOD | 1/8 | 3 | GOOD | SLIGHT WEAR IN TRAFFIC LANES. EXCESSIVE MAINTENANCE WITH WATER. |
| PRESIDIO OF SAN FRANCISCO ⁶ | ADMINISTRATION; ^b OFFICES | DO. | FELT | 1/8 | 5 | VERY POOR | FRACTURED & CRUSHED. COMPLETELY WORN IN SOME AREAS. 30% REPLACEMENTS. |
| DO. | ADMINISTRATION; ^c OFFICES | CONCRETE | NONE | 1/8 | 15 | GOOD | SOME INDENTATION BY DESKS & CHAIRS. EXCELLENT CARE. |
| OAKLAND ARMY BASE ⁶ | BARRACKS ^c | DO. | NONE | 1/8 | 2 | VERY GOOD | NO REPLACEMENT. PROTECTED AGAINST INDENTATION. |
| FORT MASON ⁶ | POST EXCHANGE ^c | DO. | NONE | 1/8 | 10 | GOOD | ONLY FEW FRACTURED & REPLACED TILES OVER LARGE AREA. |
| PRESIDIO OF MONTEREY ⁶ | CLASSROOM ^b | WOOD ^d | FELT | 1/8 | 4 | FAIR | SOME FRACTURES & SHRINKAGE. 10% REPLACEMENTS. |
| CAMP ROBERTS ⁶ | ADMINISTRATION; ^b OFFICES | DO. | PLYWOOD | 1/8 | 10 | GOOD | INDENTED BY TABLE & CHAIR LEGS. NO FRACTURES. |
| DO. | MESS HALL; ^b DINING AREA | DO. | DO. | 1/8 | 12 | GOOD | SLIGHT WEAR & FRACTURES IN TRAFFIC LANES. |

NUMBERS REFER TO ARMY AREAS. ^aMILITARY DISTRICT OF WASHINGTON. ^bTEMPORARY-TYPE. ^cPERMANENT-TYPE.

^dSTRIP-PINE FLOORING OVER 1-IN. WOOD BOARDS. ^eSTRIP-OAK FLOORING OVER 1-IN. WOOD BOARDS.

^f"GREASE-RESISTANT" TILE.

TABLE 6. LINOLEUM (BURLAP-BACKED, SHEET FORM)

| MILITARY STATION | TYPE OF STRUCTURE | SUBFLOOR | UNDERLAY | NOMINAL THICK., IN. | APPROX. AGE, YRS. | OVERALL CONDITION | REMARKS |
|-----------------------------------|--|-------------------|-----------|---------------------|-------------------|-------------------|--|
| FORT BELVOIRA | HOSPITAL; ^b WARDS | WOOD ^d | NONE | 1/8 | 6 | FAIR | CRACKED ALONG STRIP SUBFLOOR. |
| WALTER REED HOSPITAL ^a | HOSPITAL; ^c OFFICE | CONCRETE | NONE | 1/4 | 21 | GOOD | HARDENED. SOME SURFACE CHECKING. |
| DO. | HOSPITAL; ^c WARDS | DO. | NONE | 1/4 | 21 | GOOD | HARDENED. SOME INDENTATION. |
| FORT JAY ¹ | HOSPITAL; ^c CORRIDORS | DO. | NONE | 1/4 | 14 | GOOD | DARKENED. WAX ACCUMULATED. |
| N.Y.P.E. ¹ | ADMINISTRATION; ^c OFFICES | DO. | NONE | 1/4 | 12 | GOOD | SOME INDENTATION. (250,000 FT. ²). |
| FORT DIX ¹ | HOSPITAL; ^b WARDS | WOOD ^d | PLYWOOD | 1/8 | 8 | VERY GOOD | UNIFORM SURFACE. SLIGHT INDENTATION. |
| FORT EDWARDS ¹ | BARRACKS; ^b 700 SERIES | DO. | NONE | 1/8 | 7 | GOOD | SEVERE SERVICE. POOR CARE. |
| DO. | HOSPITAL; ^b CORRIDORS | DO. | HARDBOARD | 1/8 | 2 | VERY GOOD | UNIFORM SURFACE. GOOD CARE. |
| FORT DEVENS ¹ | HOSPITAL; ^b WARDS | DO. | NONE | 1/8 | 8 | VERY GOOD | EXCELLENT CARE. |
| FORT MEADE ² | HOSPITAL; ^b WARDS | DO. | NONE | 3/16 | 8 | VERY GOOD | DO. |
| FORT MONROE ² | ADMINISTRATION; ^c OFFICES | CONCRETE | NONE | 1/8 | 11 | VERY GOOD | |
| FORT MCPHERSON ³ | ADMINISTRATION; ^c CORRIDORS | WOOD ^d | FELT | 1/8 | 5 | VERY GOOD | NO WEAR. GOOD CARE. |
| DO. | HOSPITAL; ^c WARDS, CORRIDORS. | WOOD ^e | NONE | 1/4 | 20 | VERY GOOD | EXCELLENT MAINTENANCE. |
| ATLANTA GEN. DEPOT ³ | BARRACKS; ^b 800 SERIES | WOOD ^d | FELT | 1/8 | 1 | GOOD | SOME INDENTATION BY FOOT LOCKERS. WELL MAINTAINED. (55 BARRACKS). |
| FORT BENNING ³ | BARRACKS; ^b 700 SERIES | DO. | FELT | 1/8 | 1 | GOOD | BLOCKS USED TO PREVENT INDENTATION. SOME STAINS AND BLISTERS. (30 BARRACKS). |
| DO. | DO. | DO. | FELT | 1/8 | 1 | VERY GOOD | OFFICER CANDIDATE SCHOOL AREA. EXCELLENT CARE. (20 BARRACKS). |
| DO. | CLASSROOMS ^b | DO. | FELT | 1/8 | 1 | VERY GOOD | NO INDENTATION FROM DESKS & CHAIRS. SEVERE SERVICE. SLIGHT WEAR. |
| DO. | RECREATION; ^b DAY ROOM | DO. | FELT | 1/8 | 1 | VERY GOOD | EXCELLENT CARE. |

TABLE 6. LINOLEUM (BURLAP-BACKED, SHEET FORM)(CONTINUED) - 2

| MILITARY STATION | TYPE OF STRUCTURE | SUBFLOOR | UNDERLAY | NOMINAL THICK., IN. | APPROX. AGE, YRS. | OVERALL CONDITION | REMARKS |
|------------------------------------|--|-------------------|----------|---------------------|-------------------|-------------------|---|
| FORT BENNING ³ | HOSPITAL; ^b CORRIDORS | WOOD ^d | FELT | 1/8 | 1 | VERY GOOD | EXCELLENT CARE. |
| CAMP GORDON ³ | HOSPITAL; ^b WARDS | DO. | FELT | 1/8 | 8 | VERY GOOD | EXCELLENT CARE |
| DO. | HOSPITAL; ^b DINING AREA | DO. | FELT | 1/8 | 1 | GOOD | SOME BLISTERS. |
| DO. | BARRACKS; ^b 700 SERIES | DO. | FELT | 1/8 | 1 | VERY GOOD | EXCELLENT CARE. SLIGHT WEAR. |
| FORT JACKSON ³ | HOSPITAL; ^b WARDS, CORRIDORS | DO. | FELT | 1/8 | 1 | VERY GOOD | ALL WARDS AND HALF OF CORRIDORS COVERED WITH LINOLEUM. |
| DO. | BARRACKS; ^b 700 SERIES | DO. | FELT | 1/8 | 1 | GOOD | SOME BLISTERS. |
| FORT BRAGG ³ | DO. | DO. | FELT | 1/8 | 1 | VERY GOOD | GOOD CARE. (2,750,000 FT. ²) |
| FORT SAM HOUSTON ⁴ | PROJECTION SCHOOL ^b | DO. | FELT | 1/8 | 12 | GOOD | FILM CABINETS ON BLOCKS OF WOOD. SOME INDENTATION. SLIGHT WEAR. |
| CAMP BULLIS ⁴ | ADMINISTRATION; ^b OFFICES | WOOD ^e | NONE | 1/4 | 12 | FAIR | INDENTED BY DESK CHAIRS. SOME WEAR. NO CRACKING. NO BOND FAILURE. |
| FORT BLISS ⁴ | BARRACKS; ^c CLASSROOMS | CONCRETE | NONE | 1/4 | 10 | VERY GOOD | SLIGHT INDENTATION AND WEAR. GOOD CARE. |
| DO. | ADMINISTRATION; ^b OFFICES | WOOD ^d | FELT | 1/8 | 4 | GOOD | SOME INDENTATION AND SMUDGES. SOME BOND FAILURE AT SEAMS. |
| DO. | DO. | DO. | FELT | 1/8 | 4 | FAIR | INLAID LINOLEUM. BOND FAILURE AT SEAMS. CONSIDERABLE PATCHING. |
| WM. BEAUMONT HOSPITAL ⁴ | BARRACKS ^c | CONCRETE | NONE | 1/4 | 24 | GOOD | SOME WEAR AT MAIN ENTRANCE. NO INDENTATION. GOOD SEAMS. |
| FORT SHERIDAN ⁵ | RECREATION; ^c DAY ROOM | WOOD ^f | FELT | 1/8 | 10 | GOOD | SOME SURFACE CHECKING. |
| DO. | BARRACKS ^c | DO. | PLYWOOD | 1/8 | 3 | FAIR | PLYWOOD DELAMINATED BY WATER IN AREAS. |

TABLE 6. LINOLEUM (BURLAP-BACKED, SHEET FORM) (CONTINUED) - 3

| MILITARY STATION | TYPE OF STRUCTURE | SUBFLOOR | UNDERLAY | NOMINAL THICK., IN. | APPROX. AGE, YRS. | OVERALL CONDITION | REMARKS |
|---|---|-------------------|----------|------------------------|-------------------------|----------------------|---|
| FORT SHERIDAN ⁵ | ADMINISTRATION; ^b OFFICES | WOOD ^d | PLYWOOD | 1/8 | 2 | GOOD | SOME WEAR ALONG SEVERE TRAFFIC LANE. |
| FORT CUSTER ⁵ | N.C.O. CLUB ^b | DO. | NONE | 1/8 | 3 | FAIR | BOND FAILURES AT SEAMS. |
| CAMP STONEMAN ⁶ | SERVICE CLUB ^b | DO. | NONE | 1/8 | 5 | VERY GOOD | SUBJECTED TO SEVERE SERVICE. |
| PRESIDIO OF SAN FRANCISCO ⁶ | BARRACKS; ^c CORRIDORS | WOOD ^e | NONE | 1/8 | 8 | GOOD | SOME WATER DAMAGE AT EN- TRANCE. |
| DO. | ADMINISTRATION; ^c OFFICES, CORRIDORS | CONCRETE | NONE | 1/4 | 15 | GOOD | SOME WEAR AND INDENTATION IN AREAS. |
| OAKLAND ARMY BASE ⁶ | DO. | WOOD ^d | FELT | 1/8 | 11 | GOOD | DO. |
| CAMP ROBERTS ⁶ | HOSPITAL; ^b CORRIDORS | DO. | PLYWOOD | 1/8 | 12 | VERY GOOD | SUBJECTED TO WATER FROM LEAKS ON OCCASIONS. EX- CELLENT CARE. |

NUMBERS REFER TO ARMY AREAS. ^aMILITARY DISTRICT OF WASHINGTON. ^bTEMPORARY-TYPE. ^cPERMANENT-TYPE.

^dSTRIP-PINE FLOORING OVER 1-IN. WOOD BOARDS. ^eSTRIP-OAK FLOORING OVER 1-IN. WOOD BOARDS.

^fSTRIP-MAPLE FLOORING OVER 1-IN. WOOD BOARDS.

TABLE 7. FELT-BACKED FLOOR COVERINGS

| MILITARY STATION | TYPE OF STRUCTURE | SUBFLOOR | UNDERLAY | SURFACE COMPOSITION | SURFACE THICK., IN. | APPROX. AGE, YRS. | OVERALL CONDITION | REMARKS |
|---------------------------------------|--|-------------------|-----------|----------------------|---------------------|-------------------|-------------------|---|
| FORT BELVOIR ^a | HOSPITAL; ^b CORRIDORS ² | WOOD ^d | PLYWOOD | CELLULOSE NITRATE | 0.05 | 9 | FAIR | WORN TO FELT IN SE- VERE TRAFFIC AREAS. RE- PLACED IN MANY AREAS. |
| FORT DIX ¹ | DO. | DO. | PLYWOOD | DO. | .02 | 8 | POOR | DO. |
| FORT MCCLELLAN ² | DO. | DO. | PLYWOOD | DO. | .02 | 8 | FAIR | WORN TO FELT IN SE- VERE TRAFFIC AREAS. DAMAGED BY LEAKING STEAM VALVES. |
| DO. | HOSPITAL; ^b LABORATORY | DO. | PLYWOOD | DO. | .02 | 6 | VERY POOR | DAMAGED BY CHEMICALS. COMPLETELY WORN. |
| CAMP GORDON ² | HOSPITAL; ^b CORRIDORS | DO. | PLYWOOD | DO. | .02 | 8 | GOOD | WORN TO FELT IN FEW AREAS. NO LEAKING STEAM VALVES. |
| FORT MYER ^a | THEATER; CORRIDOR | WOOD ^e | NONE | LINOLEUM | .09 | 3/4 | FAIR | APPRECIABLE WEAR ALONG RIDGES CAUSED BY STRIP SUBFLOOR. |
| FORT BELVOIR ^a | HOSPITAL; ^b CORRIDORS | WOOD ^d | PLYWOOD | DO. | .05 | 5 | VERY GOOD | NO APPRECIABLE WEAR. |
| BELLE MEAD Q.M. DEPOT ³ | HOSPITAL; ^b WARDS | DO. | NONE | DO. | .05 | 10 | FAIR | CONSIDERABLE BOND FAIL- URE AT SEAMS. SLIGHT WEAR. |
| FORT MONMOUTH ³ | DO. | DO. | HARDBOARD | DO. | .03 | 6 | POOR | WORN, INDENTED, SUR- FACE FRACTURED. |
| FORT SAM HOUSTON ⁴ | RECREATION; ^b DAY ROOM | WOOD ^e | NONE | DO. | .03 | 10 | FAIR | EXPANDED & BUCKLED AT SEAMS. |
| FORT HOOD ⁴ | SERVICE CLUB ^b | WOOD ^d | NONE | DO. | .03 | 7 | VERY GOOD | NO APPRECIABLE WEAR. |
| CAMP POLK ⁴ | ADMINISTRATION; ^b OFFICES | DO. | PLYWOOD | DO. | .09 | 5 | VERY GOOD | NO APPRECIABLE WEAR. SOME INDENTATION. |
| PERCY JONES HOSPITAL ⁵ | ADMINISTRATION; ^c OFFICES | TERRAZZO | NONE | DO. | .03 | 5 | POOR | COMPLETELY WORN. SUR- FACE FRACTURED. |
| FORT LEAVENWORTH ⁵ | BACHELOR-OFFICER QUARTERS | WOOD ^e | PLYWOOD | DO. | .09 | 1 | VERY GOOD | IN TILE FORM. NO BOND FAILURES. |
| LETTERMAN HOSPITAL ⁶ | HOSPITAL; ^{c, b} CORRIDORS | WOOD ^d | FELT | DO. | .09 | 4 | VERY GOOD | IN TILE FORM. NO BOND FAILURES. EXCELLENT CARE. |
| FORT MASON ⁶ | POST EXCHANGE ^b | DO. | FELT | DO. | .05 | 10 | GOOD | SOME WEAR. |
| FORT ORD ⁶ | HOSPITAL; ^b WARDS | DO. | PLYWOOD | DO. | .05 | 10 | VERY GOOD | EXCELLENT CARE. |

TABLE 7. FELT-BACKED FLOOR COVERINGS (CONTINUED) - 2

| MILITARY STATION | TYPE OF STRUCTURE | SUBFLOOR | UNDERLAY | SURFACE COMPOSITION | SURFACE THICK., IN. | APPROX. AGE, YRS. | OVERALL CONDITION | REMARKS |
|--------------------------------------|--|-------------------|-----------|---------------------|---------------------|-------------------|-------------------|--|
| FORT MCCLELLAN ³ | BARRACKS; ^b 700 SERIES | WOOD ^d | FELT | VINYL PLASTIC | .03 | 1 | VERY GOOD | NO WEAR. POOR MAINTEN- ANCE. 16 BARRACKS. |
| DO. | RECREATION; ^b DAY ROOMS | DO. | FELT | DO. | .03 | 1 | VERY GOOD | NO WEAR. 10 DAY ROOMS. |
| DO. | BACHELOR-OFFICER QUARTERS ^b | DO. | FELT | DO. | .03 | 1 | VERY GOOD | NO WEAR. 4 B.O.Q. |
| DO. | POST OFFICE ^b | DO. | FELT | DO. | .03 | 1 | VERY GOOD | |
| DO. | ADMINISTRATION; ^b FINANCE ROOM | DO. | FELT | DO. | .03 | 1 | VERY GOOD | |
| FORT SAM HOUSTON ⁴ | CARPENTER SHOP; ^b OFFICE | WOOD ^f | FELT | DO. | .006 | 1 | FAIR | SLIGHT SHRINKAGE AT SEAMS. SOME INDENTA- TION. |
| FORT ORD ⁶ | MESS HALLS; ^b DINING AREA | WOOD ^d | FELT | ---- | .07 | 1 | VERY GOOD | 11 COMPANY-TYPE MESS HALLS. MAINTAINED WELL. |
| FORT BELVOIR ^a | BARRACKS ^b | DO. | NONE | PITCH | .02 | 4 | FAIR | APPRECIABLE INDENTATION |
| N.Y.P.E. ¹ | ADMINISTRATION; ^c | WOOD BLOCKS | NONE | DO. | .02 | 5 | POOR | UNEVEN SURFACE DUE TO SUBFLOORS. |
| RARITAN ORD. ARSENAL ¹ | BARRACKS; ^b B.O.Q. | WOOD ^d | HARDBOARD | DO. | .02 | 2 | VERY GOOD | SLIP-RESISTANT TYPE |
| FORT MONMOUTH ¹ | DO. | DO. | PLYWOOD | DO. | .02 | 7 | VERY POOR | INDENTED & WORN. PLY- WOOD DELAMINATED. |
| DO. | HOSPITAL; ^b CORRIDORS | DO. | HARDBOARD | DO. | .02 | 8 | FAIR | |
| FORT DIX ¹ | BARRACKS; ^b 700 SERIES | DO. | NONE | DO. | .02 | 2/3 | POOR | PLACED ALONG CENTER AISLES. WORN & TORN. |
| FORT EDWARDS ¹ | OFFICER'S MESS; ^b DINING AREA | DO. | NONE | DO. | .02 | 1 | VERY POOR | BLISTERED, INDENTED, WORN. |
| FORT DEVENS ¹ | MESS HALL; ^b DINING AREA | DO. | NONE | DO. | .02 | 3 | FAIR | WORN IN SOME AREAS. |
| FORT MEADE ² | HOSPITAL; ^b CORRIDORS | DO. | PLYWOOD | DO. | .02 | 5 | VERY GOOD | NO APPRECIABLE WEAR. |
| DO. | DO. | DO. | NONE | DO. | .02 | 5 | VERY POOR | WORN. SURFACE FRAC- TURED. APPEARANCE POOR. |
| FORT CAMPBELL ² | DO. | DO. | PLYWOOD | DO. | .02 | 8 | VERY GOOD | HEAVY FOOT & CART TRAF- FIC. MAINTAINED WELL. |
| FORT KNOX ² | MESS HALL; ^b DINING AREA | DO. | PLYWOOD | DO. | .02 | 1/4 | VERY GOOD | NOT SUFFICIENT SERVICE TO EVALUATE. |

TABLE 7. FELT-BACKED FLOOR COVERINGS (CONTINUED) - 3

| MILITARY STATION | TYPE OF STRUCTURE | SUBFLOOR | UNDERLAY | SURFACE COMPOSITION | PITCH | SURFACE THICK., IN. | SURFACE APPROX. AGE, YRS. | OVERALL CONDITION | REMARKS |
|-------------------------------------|--|-------------------|-------------------|---------------------|-------|---------------------|---------------------------|--|---------|
| FORT KNOX ² | BARRACKS; ^b 700 SERIES | WOOD ^d | PLYWOOD | PITCH | .02 | 1 | POOR | PITTED & INDENTED. | |
| LAWSON AIR FORCE BASE | DO. | DO. | NONE | DO. | .02 | 1 | VERY POOR | WORN. SURFACE FRACTURED. BOND FAILURES. TO BE REPLACED. | |
| POPE AIR FORCE BASE | DO. | DO. | NONE | DO. | .02 | 1 | VERY POOR | IN TILE FORM. APPRECIABLE BOND FAILURES. INDENTED. | |
| CAMP GORDON ³ | POST EXCHANGE ^b | DO. | FELT | DO. | .02 | 1/4 | GOOD | IN TILE FORM. NO BOND FAILURES. SOME INDENTATION. | |
| FORT BRAGG ³ | HOSPITAL; ^b CORRIDORS | DO. | PLYWOOD | DO. | .02 | --- | GOOD | | |
| FORT SAM HOUSTON ⁴ | PROJECTION SCHOOL ^b | CONCRETE | NONE | DO. | .02 | 12 | FAIR | INDENTED. MARRED. APPEARANCE POOR. | |
| DO. | ADMINISTRATION; ^b OFFICE | WOOD ^d | PITCH FELT-BACKED | DO. | .02 | 1/52 | FAIR | INDENTED BY CHAIR & DESK LEGS. GOUGED BY FILE LEGS. PROMINENT FOOT PRINTS. | |
| DO. | BARRACKS ^c | WOOD ^e | NONE | DO. | .02 | 3 | GOOD | INDENTED & CUT BY COT LEGS. SOME SURFACE CHECKING. | |
| SAN ANTONIO Q.M. DEPOT ⁴ | MESS HALL; ^b DINING AREA | WOOD ^d | FELT | DO. | .02 | 4 | GOOD | MAINTAINED WELL. SOME WEAR. | |
| DO. | MESS HALL; ^b KITCHEN | DO. | FELT | DO. | .02 | 1 | POOR | WORN TO FELT IN AREAS. WATER DAMAGE. PITTED. PREVIOUS PITCH FLOORING LASTED 3 YEARS. | |
| CAMP POLK ⁴ | HOSPITAL; ^b CORRIDORS | DO. | HARDBOARD | DO. | .02 | 1 | VERY GOOD | | |
| DO. | DO. | DO. | PITCH FELT-BACKED | DO. | .02 | 1 | GOOD | SOME RUTTING BY FOOD CARTS. | |
| DO. | HOSPITAL; ^b BARBER SHOP | DO. | NONE | DO. | .02 | 9 | VERY POOR | IN TILE FORM. COMPLETELY WORN TO SUBFLOOR. PITTED. MARRED. | |
| CAMP LEROY JOHNSON ⁴ | HOSPITAL; ^b ENTRANCE | DO. | PLYWOOD | DO. | .02 | 3-1/2 | VERY GOOD | | |

TABLE 7. FELT-BACKED FLOOR COVERINGS (CONTINUED) - 4

| MILITARY STATION | TYPE OF STRUCTURE | SUBFLOOR | UNDERLAY | SURFACE COMPOSITION | PITCH | SURFACE THICK., IN. | APPROX. AGE, YRS. | OVERALL CONDITION | REMARKS |
|-----------------------------------|-------------------------------------|-------------------|-----------|---------------------|-------|---------------------|-------------------|-------------------|---|
| CAMP LEROY JOHNSON ⁴ | COMMISSARY ^b | WOOD ^f | NONE | DO. | DO. | .02 | 1/2 | GOOD | NO APPRECIABLE WEAR AT CHECK-OUT COUNTER. |
| FORT CUSTER ⁵ | BARRACKS; ^b 700 SERIES | WOOD ^d | NONE | DO. | DO. | .02 | 2 | POOR | PLACED ALONG CENTER AISLES. FITTED & INDENTED. REPLACED AT ENTRANCES. |
| PERCY JONES HOSPITAL ² | BARRACKS ^b | DO. | NONE | DO. | DO. | .02 | 2 | FAIR | SOME BOND FAILURES AT SEAMS. SLIGHT INDENTATION. MAINTAINED WELL. |
| FORT LEAVENWORTH ⁵ | BARRACKS; ^b CCC TYPE | DO. | NONE | DO. | DO. | .02 | 3 | FAIR | FITTED & INDENTED. MAINTAINED WELL. |
| DO. | CLASSROOMS ^c | CONCRETE | NONE | DO. | DO. | .02 | 2 | GOOD | SLIGHT INDENTATION. MAINTAINED WELL. |
| FORT RILEY ⁵ | BARRACKS; ^b 700 SERIES | WOOD ^d | PLYWOOD | DO. | DO. | .02 | 1 | FAIR | NAIL FAILURE IN PLYWOOD DAMAGING COVERING. INDENTED AND FITTED. |
| DO. | MESS HALL; ^b DINING AREA | DO. | NONE | DO. | DO. | .02 | 1 | POOR | COMPLETELY WORN AT SERVING AREA AND AT ENTRANCES. |
| CAMP CARSON ⁵ | BARRACKS; ^b 800 SERIES | DO. | HARDBOARD | DO. | DO. | .02 | 4 | POOR | COMPLETELY WORN AT ENTRANCE. DAMAGED BY WATER. OUTSIDE LATHING. INDENTED. |
| DO. | HOSPITAL; ^b CORRIDORS | DO. | PLYWOOD | DO. | DO. | .02 | 8 | GOOD | SLIGHT FITTING. EXCELLENT MAINTENANCE. |
| CAMP STONEMAN ⁶ | BARRACKS; ^b 700 SERIES | DO. | NONE | DO. | DO. | .02 | 2-1/2 | VERY POOR | COMPLETELY WORN OUT AT ENTRANCES & CENTER AISLES. BAD INDENTATION. |
| OAKLAND ARMY BASE ⁶ | BARRACKS; ^b 700 SERIES | DO. | NONE | DO. | DO. | .02 | 1-1/2 | GOOD | SLIGHT USAGE. SLIGHT WEAR & INDENTATION. |
| DO. | POST EXCHANGE ^b | CONCRETE | NONE | DO. | DO. | .02 | 4 | GOOD | IN TILE FORM. REPLACED ALONG SERVING AREA. |

TABLE 7. FELT-BACKED FLOOR COVERINGS (CONTINUED) - 5

| MILITARY STATION | TYPE OF STRUCTURE | SUBFLOOR | UNDERLAY | SURFACE COMPOSITION | PITCH | SURFACE THICK., IN. | APPROX. AGE, YRS. | OVERALL CONDITION | REMARKS |
|--------------------------------------|--|-------------------|----------|---------------------|-------|------------------------|-------------------------|----------------------|--|
| FORT MASON ⁶ | ADMINISTRATION; ^b CORRIDORS AND OFFICES | WOOD ^d | NONE | | | .02 | 6 | POOR | DAMAGED BY STRIP SUB- FLOOR. BAD INDENTA- TION. |
| FORT ORD ⁶ | HOSPITAL; ^b CORRIDORS | DO. | PLYWOOD | DO. | | .02 | 2 | GOOD | SLIP-RESISTANT TYPE. WORN AT ENTRANCES. |
| PRESIDIO OF MONTEREY ⁶ | BARRACKS; ^b 800 SERIES | DO. | NONE | DO. | | .02 | 2 | GOOD | SLIGHT INDENTATION & WEAR. GOOD CARE. |
| DO. | CLASSROOMS ^b | DO. | NONE | DO. | | .02 | 2 | FAIR | CONSIDERABLE INDEN- TATION. |
| CAMP ROBERTS ⁶ | BARRACKS; ^b 700 SERIES | DO. | NONE | DO. | | .02 | 1 | GOOD | EXCELLENT MAINTENANCE. SLIGHT WEAR & INDEN- TATION. 1000 BARRACKS. |
| FORT BELVOIR ^a | BARRACKS; ^b SUPPLY ROOMS | DO. | NONE | RESIN | | .02 | 1 | GOOD | |
| FORT LEE ² | MESS HALL; ^b DINING AREA | DO. | PLYWOOD | DO. | | .02 | 1/4 | VERY POOR | WORN TO FELT AT SERV- ING COUNTERS & EN- TRANCE. INDENTED. |
| DO. | BARRACKS; ^b B.O.Q. | DO. | PLYWOOD | DO. | | .02 | 1 | FAIR | POOR APPEARANCE. WORN TO FELT AT ENTRANCE. |
| FORT LEAVENWORTH ⁵ | BARRACKS; ^b CCC TYPE | DO. | NONE | DO. | | .02 | 1/2 | POOR | CONSIDERABLE SURFACE FRACTURING. SOME IN- DENTATION. |

NUMBERS REFER TO ARMY AREAS. ^aMILITARY DISTRICT OF WASHINGTON. ^bTEMPORARY-TYPE. ^cPERMANENT-TYPE.

^dSTRIP-PINE FLOORING OVER 1-IN. BOARDS. ^eSTRIP-OAK FLOORING OVER 1-IN. BOARDS.

^fTONGUED-AND-GROOVED FLOORING, 2-IN. X 6-IN., SANDED.

TABLE 8. QUARRY TILE

| MILITARY STATION | TYPE OF STRUCTURE | SUBFLOOR | TYPE OF MORTAR JOINTS | APPROX. AGE, YRS. | OVERALL CONDITION | REMARKS |
|--|------------------------------------|-----------------------------|-----------------------|-------------------|-------------------|---|
| WALTER REED HOSPITAL ^a | MESS HALL; ^c KITCHEN | STRUCTURAL CONCRETE | SPECIAL | 11 | VERY GOOD | HEAVY FOOD-CART TRAFFIC. SLIP- PERY WHEN WET. |
| FORT CAMPBELL ² | MESS HALL; ^b KITCHEN | DO. | DO. | 1 | VERY GOOD | SLIP-RESISTANT TYPE. |
| VALLEY FORGE HOSPITAL ² | MESS HALL; ^c KITCHEN | DO. | DO. | 3 | VERY GOOD | HEAVY FOOD-CART TRAFFIC. |
| FORT KNOX ² | DO. | DO. | DO. | 13 | VERY GOOD | |
| FORT BENNING ³ | DO. | DO. | DO. | 7 | VERY GOOD | |
| BROOKS HOSPITAL ⁴ | DO. | DO. | DO. | 13 | VERY GOOD | STAINLESS-STEEL PANS UNDER STEAM KETTLES. |
| PERCY JONES HOSPITAL ⁵ | MESS HALL; ^b KITCHEN | DO. | REGULAR | 9 | GOOD | SLIGHT FAILURE OF MORTAR JOINTS IN DISH-WASHING AREA. |
| CAMP STONEMAN ⁶ | MESS HALL; ^b KITCHEN | 4-IN. CONCRETE OVER WOOD | SPECIAL | 3 | VERY GOOD | 5 CONSOLIDATED MESS HALLS OF THIS TYPE. |
| LETTERMAN HOSPITAL ⁶ | MESS HALL; ^c KITCHEN | STRUCTURAL CONCRETE | DO. | 15 | VERY GOOD | |
| PRESIDIO OF SAN FRANCISCO ⁶ | DO. | DO. | DO. | 3 | VERY GOOD | |
| OAKLAND ARMY BASE ⁶ | MESS HALL; ^b KITCHEN | CONCRETE ON GRADE | REGULAR | 4 | GOOD | SLIGHT FAILURE OF MORTAR JOINTS AROUND DRAINS. 2 COMPANY-TYPE MESS HALLS. |
| FORT MASON ⁶ | DO. | DO. | SPECIAL | 3 | VERY GOOD | |
| PRESIDIO OF MONTEREY ⁶ | DO. | 4-IN. CONCRETE OVER WOOD | REGULAR | 2 | GOOD | SLIGHT FAILURE OF MORTAR JOINTS AROUND DRAINS AND STEAM KETTLES. |

NUMBERS REFER TO ARMY AREAS. ^aMILITARY DISTRICT OF WASHINGTON.^bTEMPORARY-TYPE. ^cPERMANENT TYPE.

TABLE 9. RUBBER AND VINYL TILES (1/8-IN. NOMINAL THICKNESS)

| MILITARY STATION | TYPE OF STRUCTURE | SUBFLOOR | UNDERLAY | TYPE OF TILE | APPROX. AGE, YRS. | OVERALL CONDITION | REMARKS |
|--------------------------------------|--|----------|----------|-------------------------|-------------------------|----------------------|--|
| WALTER REED HOSPITAL ^a | HOSPITAL; ^c WARD | TERRAZZO | NONE | RUBBER | 11 | VERY GOOD | EXCELLENT CARE. |
| FORT BLISS ⁴ | POST EXCHANGE; ^c CORRIDOR AND CAFETERIA | CONCRETE | NONE | RUBBER | 3/4 | GOOD | SEVERE TRAFFIC. VERY POOR WORKMANSHIP IN INSTALLING. |
| WALTER REED HOSPITAL ^a | HOSPITAL; ^c WARDS | DO. | NONE | VINYL, FLEXIBLE | 1 | VERY GOOD | |
| FORT KNOX ² | POST EXCHANGE; ^b CAFETERIA | DO. | NONE | VINYL, SEMI-FLEXIBLE | 3 | GOOD | SEVERE TRAFFIC. SLIGHT WEAR. NO INDENTATION. |

NUMBERS REFER TO ARMY AREAS. ^aMILITARY DISTRICT OF WASHINGTON.

^bTEMPORARY-TYPE. ^cPERMANENT-TYPE.

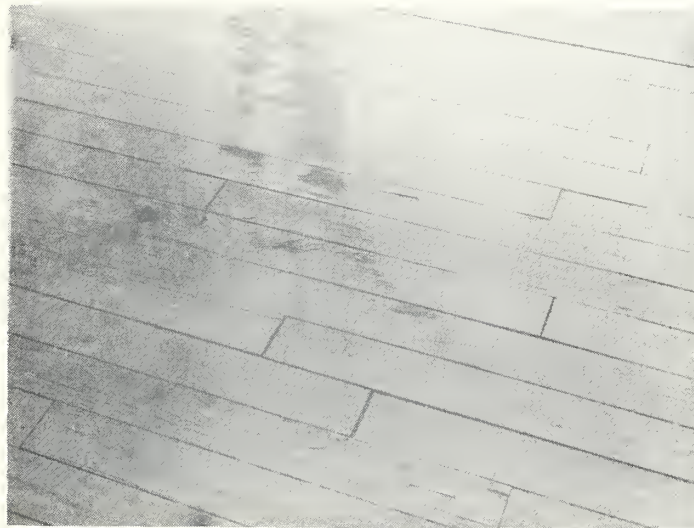
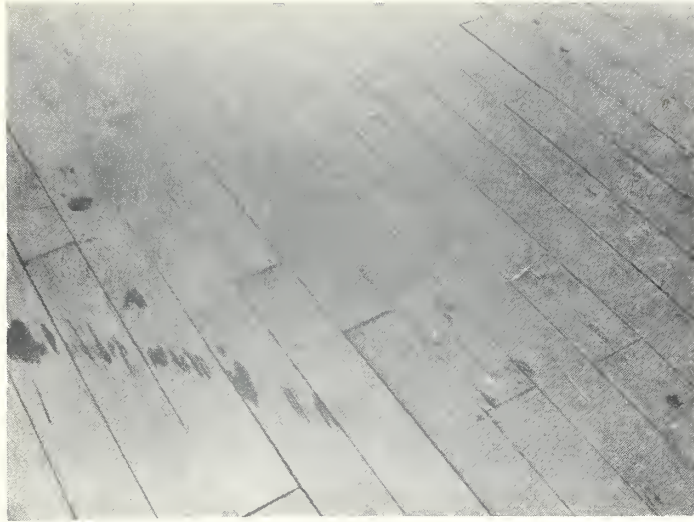


Figure 1. Typical mobilization-type barracks floor with 25/32-in., tongued-and-grooved, flat-grained pine having a 3 1/4-in. face. The flooring was laid over 1-in., diagonally-placed boards. Note splintered segments torn out, and wide cracks between strips and end joints.



Figure 2. Concrete floor, 1-1/2 in. thick, eight years old, over typical, original wood floor in company-type kitchen. Note exposure of aggregate, structural cracks and damage around drain.



Figure 3. Magnesium oxychloride floor, two years old, over concrete in kitchen. Note disintegration caused by water from dishwasher.



Figure 4. Magnesium oxychloride floor, one month old, in kitchen of company-type mess hall. Note eroded channel caused by drain from refrigerator.



Figure 5. Magnesium oxychloride floor, one year old, in hospital corridor. Note numerous cracks running across corridor, apparently caused by structural movement of wood subfloor.



Figure 6. Magnesium oxychloride floor, 5/8-in. thick, one year old, laid over wood in a mobilization-type barracks. Installation was made in accordance with recommended method.



Figure 7. Asphalt tile, 1/8-in. thick, four years old, laid over a strip-pine floor with a 15-lb, asphalt-saturated felt underlayment in a mobilization-type barracks. Note deterioration of tiles and numerous cracks running parallel to tongued-and-grooved, strip-pine flooring.

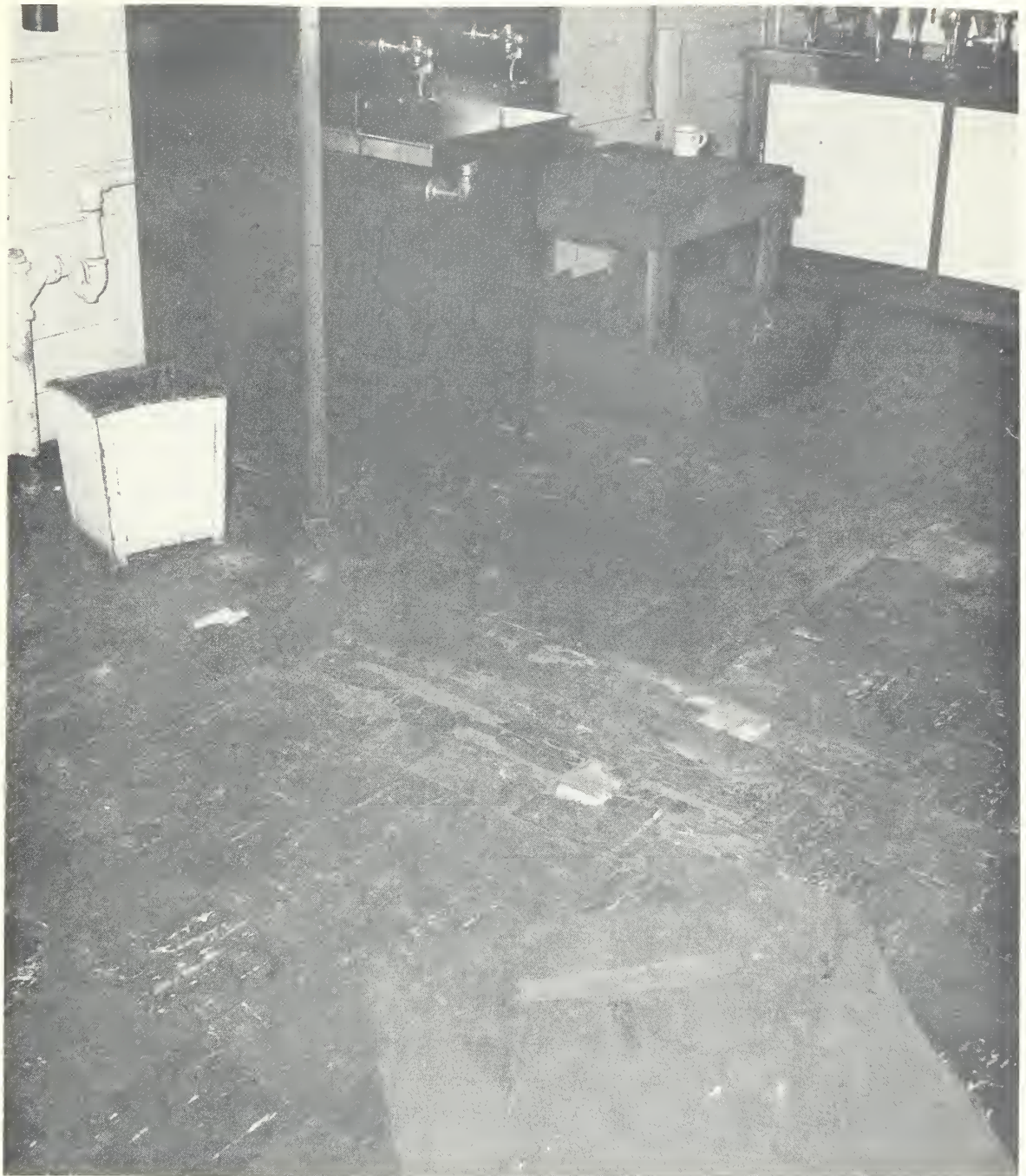


Figure 8. Asphalt tile, five years old, laid over 1/4-in. plywood adjacent to drinking fountain. Spillage of water has caused delamination of plywood and subsequent failure of asphalt tile.

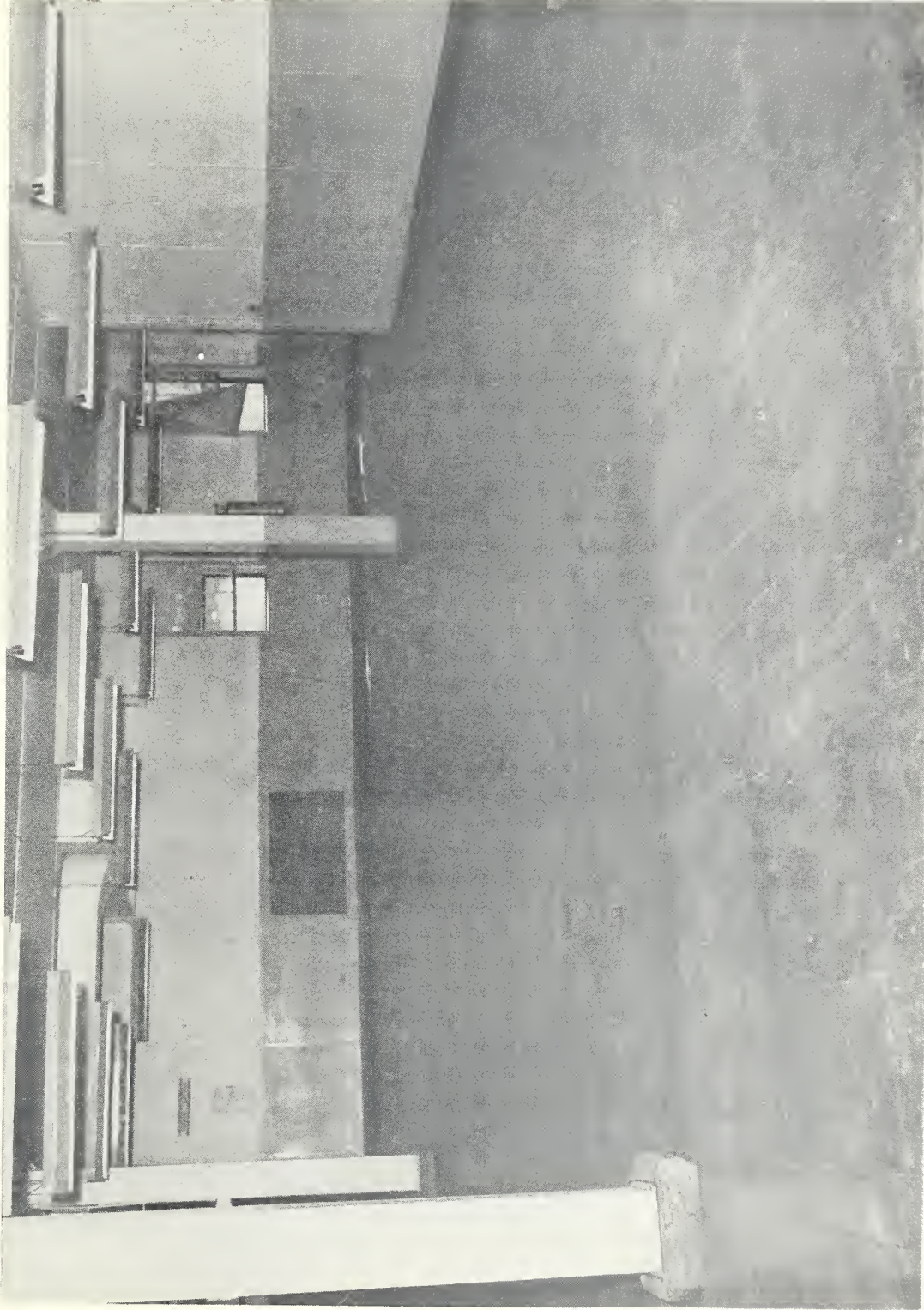


Figure 2. Asphalt tile, six years old, laid over concrete on grade in administration building. This floor was flooded twice by overflow of nearby stream, but still has excellent bond to concrete.

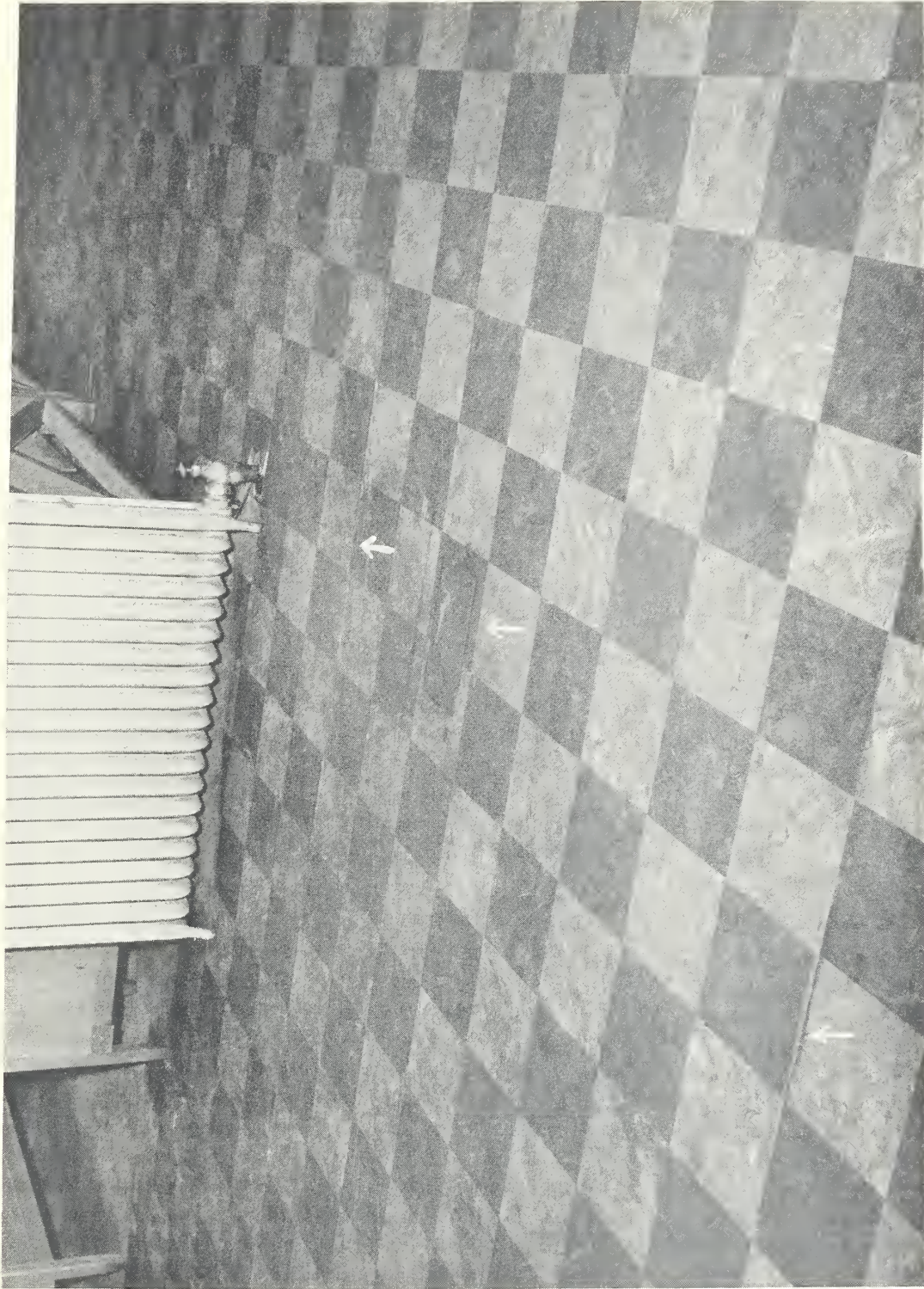


Figure 10. Linoleum, inlaid, sheet form, 1/8-in., build-
fourteen years old, laid in large administration build-
ing. Note failure at seams and patching.

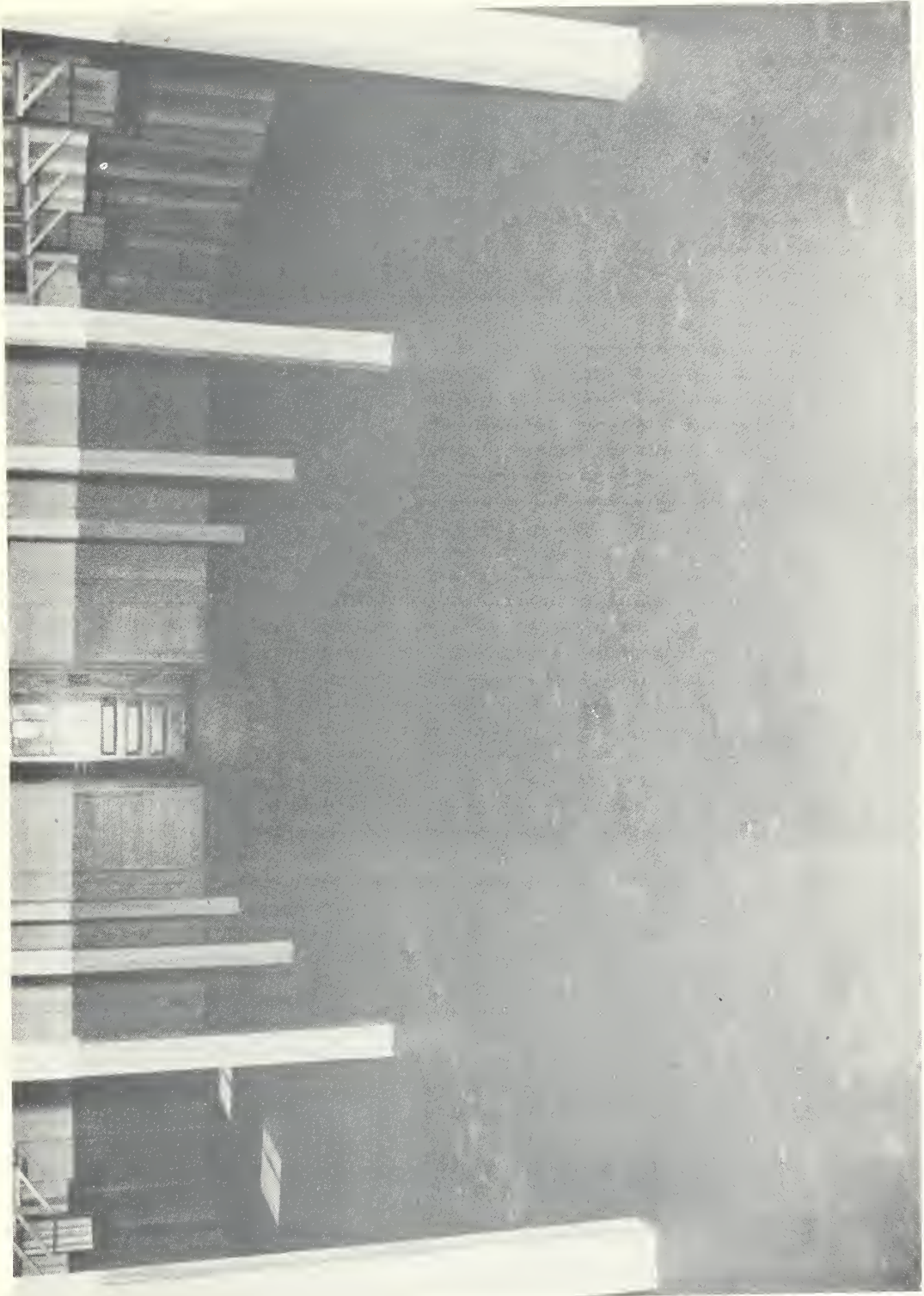


Figure 11. Linoleum, burlap-backed, 1/8-in., one year old, laid over sanded wood floor and felt underlayment.

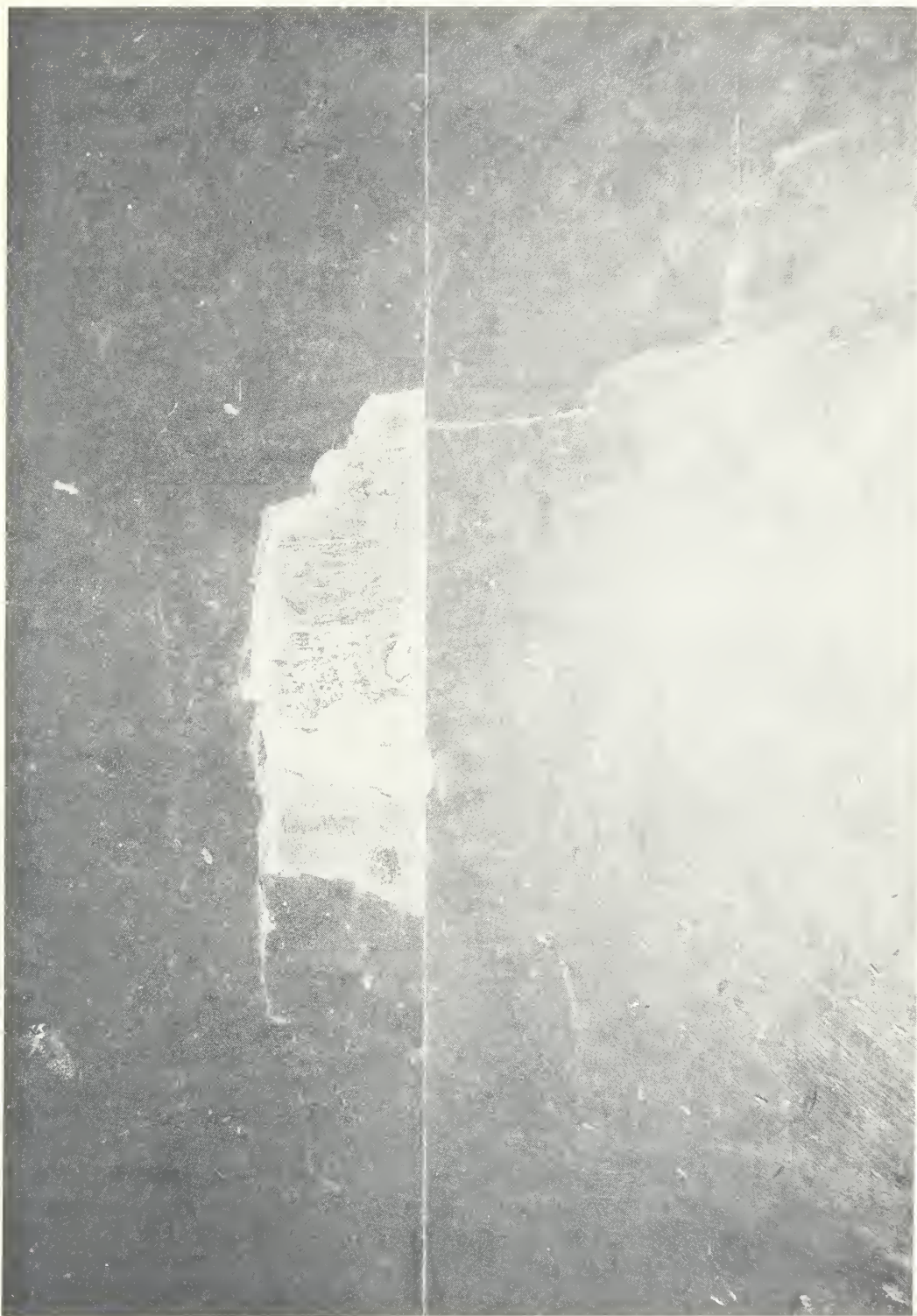


Figure 12. Felt-backed, pitch composition floor covering, one year old, laid over pine flooring in mobilization-type barracks. Note scars, seam failure and wear.



Figure 13. Quarry tile floor with acid-resistant mortar joints, thirteen years old, in permanent-type kitchen.

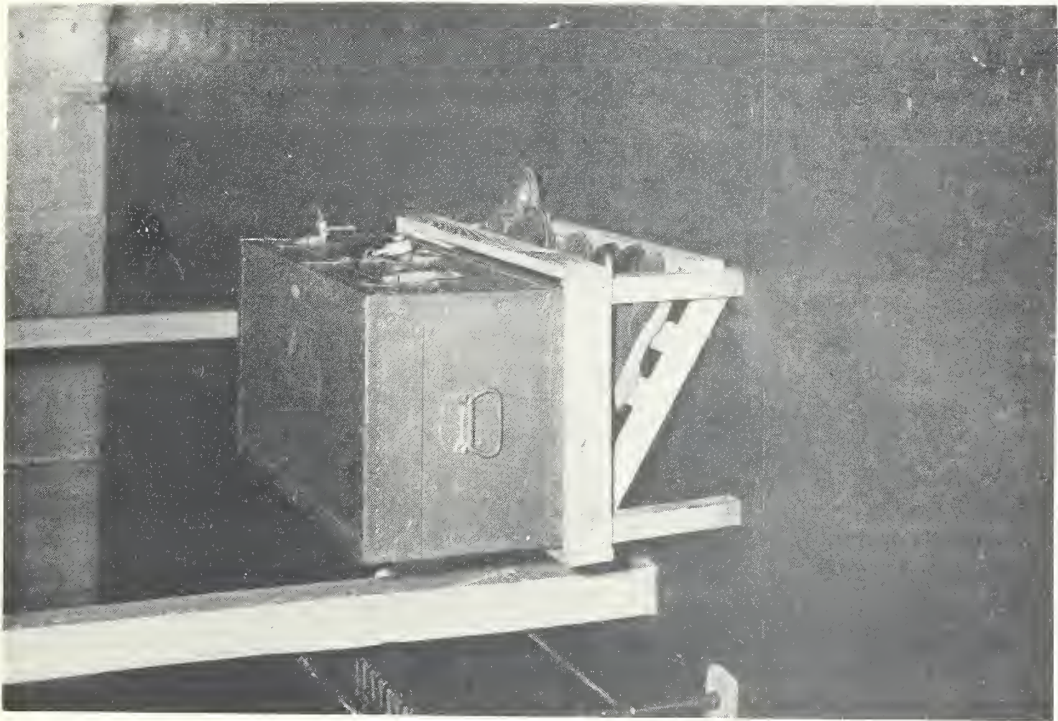


Figure 14. Foot locker stands and bed post blocks used to protect resilient-type coverings against severe indenting loads.

THE NATIONAL BUREAU OF STANDARDS

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