

This dual-purpose structure offsets the cost of adequate shelter by serving as a convenient fruit and vegetable storage cellar. The space shelters six persons, but the plan can be lengthened to shelter more. Allow 2 feet of length per person.

An excellent fallout radiation protection factor of over 5,000 results from the concrete and 3 feet of earth overhead, and from indirect entrances. The door to the basement should be covered with asbestos cement board for fire protection but heavy radiation shielding doors are not needed, even if the house is destroyed. If this happened, an emergency exit at the opposite end of the shelter would be used. The shaft for this exit gives additional storage space.

Drainage and water-proofing is important. The castin-place, reinforced concrete is sealed all around with polyethylene film. The site should be either naturally or artificially well-drained. Backfill should be sloped away from the house and slightly mounded over the shelter. Drain tile may be needed around the footing on the outside. CORRIDOR LIVING — STORAGE
AREA

EMERGENCY EXIT

OVER

LOADING CHUTE

PLAN

WASHINGTON, D.C.

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UNITED STATES DEPARTMENT OF AGRICULTURE

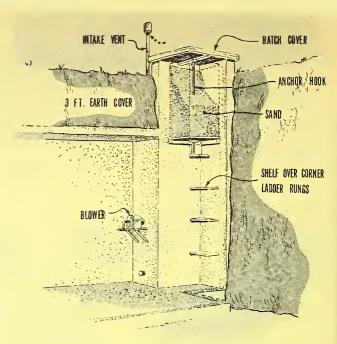
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Crates containing fruits, vegetables, or supplies slide down the loading chute for storage. Crates are easy to handle, and may be easily moved from storage to the basement in the event of catastrophe.

Natural ventilation for stored produce is provided by 3-inch-diameter pipe risers with a hood or "U" on top. Insect screens, but not dust filters, are necessary. In emergency, each shelter occupant will need at least 3 cubic feet per minute of fresh air, drawn into the shelter with a hand-cranked blower. Select a blower with sufficient capacity to give the required air change when it is operated 10 to 15 minutes each hour.

Arrangement of storage bins and shelves has been left to the user. These should be built above the floor for cleaning ease and to avoid contact with the cooler floor that may condense water. Wall space near the ceiling and space in the emergency exit shaft should have racks or shelves for storing shelter equipment. Planning the inside arrangement before construction will allow supports to be cast into the walls or ceiling.

Electrical circuits: One electrical circuit will serve the shelter for minimum requirements. A safety disconnect switch is suggested in the basement near the corridor door. If you anticipate the possibility of using power from an external stand-by electrical generator, a double throw switch should be installed. Type UF, 14-2 with ground or 12-2 with ground is suggested, or install electrical conduit with appropriate outlet and junction boxes inside forms before casting concrete walls and ceiling. Type TW wire can be threaded in the conduit after forms are removed.



emergency exit

For emergency escape, one short board in the bottom of the escape hatch may be pried endways to release the sand fill. Steel rungs cast into the walls provide a ladder. The lid and anchor hook is designed so control is completely from within the escape exit.

