

APPENDIX E

RANGE CONSTRUCTION/MODIFICATION

This appendix provides structural dimensions and safety requirements for the construction/modification of a hand grenade range.

E-1. STRUCTURAL DIMENSIONS

The structural dimensions of throwing pits will be in accordance with Chapter 4, with a separation distance of 25 meters between them. This will place adjacent pits outside the effective casualty-producing radius of 15 meters for the M67 fragmentation grenade. A rear wall (knee wall) will be constructed no more than 0.6 meter (2 feet) high and 0.15 meter (6 inches) thick. It will extend the width of the throwing pit, connecting both ends of the enclosure. The top of the knee wall should be sloped inward to allow any grenade dropped on the wall to roll into the throwing pit. Drain pipes, no more than 2 inches in diameter, will be installed in the knee wall, to allow throwing pit drainage. The floor of the throwing pits should be sloped in the direction of the drainage pipes. Grenade sumps/ditches will not be constructed inside the throwing pits. (See Figure E-1.)

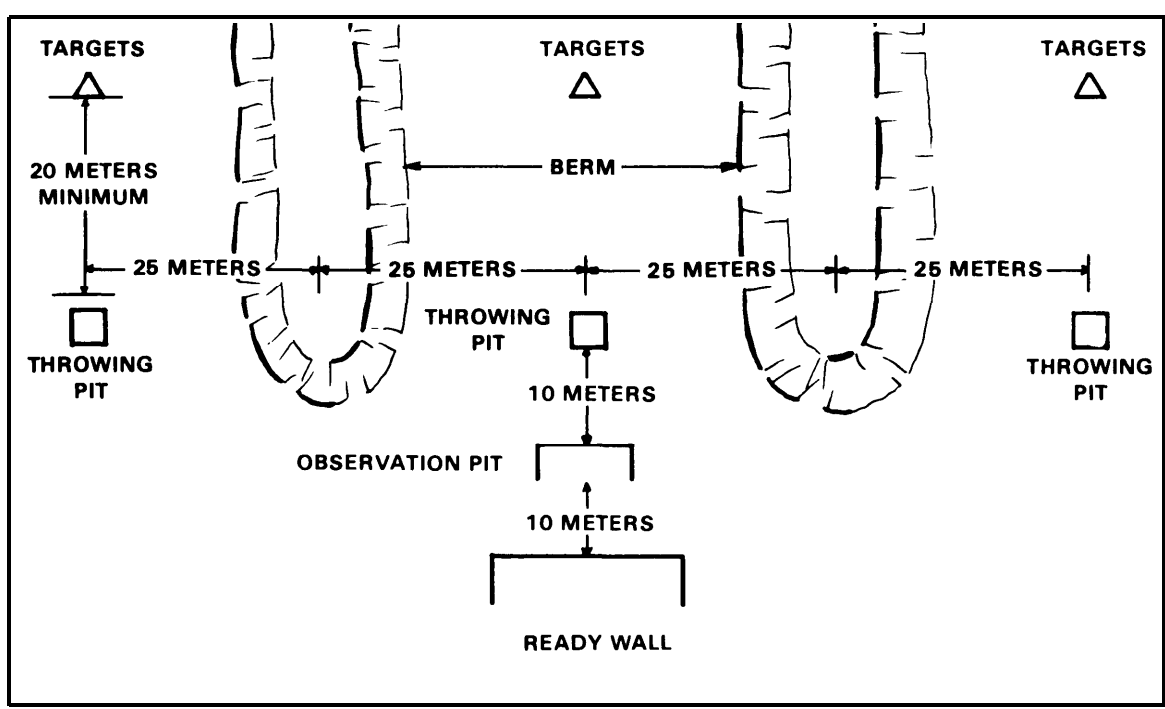


Figure E-1. Range layout.

E-2. SAND/SAWDUST PIT AND THROWING PIT

A sand/sawdust pit will be placed outside the knee wall to cushion the fall of personnel diving over the wall in the event a grenade is dropped in the throwing pit. (See Figure E-2.)

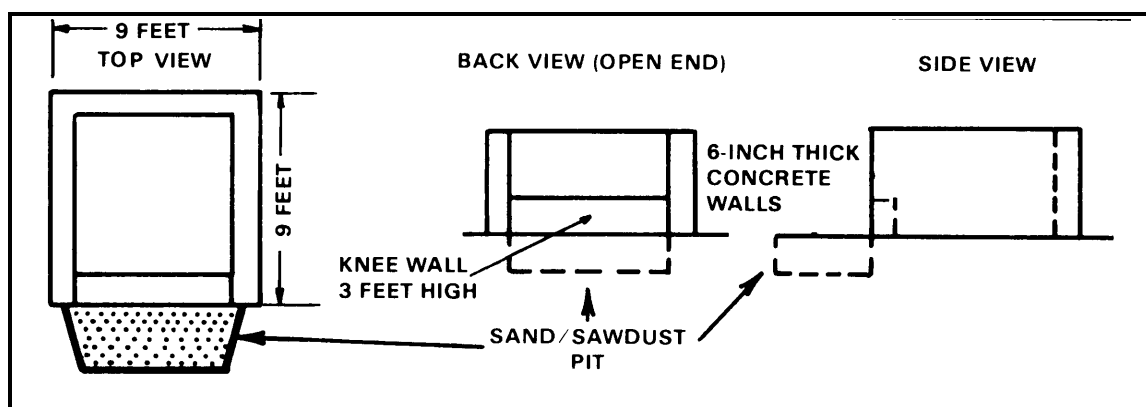


Figure E-2. Sand/sawdust pit and throwing pit.

E-3. PIT SEPARATIONS

Where possible, throwing pits should be separated by steel/concrete/wooden revetments or earthen berms of a length and height to lessen the effect of high velocity/low angle fragments; for example, 50 meters long and 1.8 meters high. The thickness will vary according to the type of construction. This would permit grenade throwing to continue from adjacent pits when a dud grenade occurs, requiring closure of a specific pit pending dud disposal.

E-4. OBSERVATION PITS

Observation pits will be built of a sufficient height to enable the OIC to better observe and control all throwing pits. Laminated window panes, constructed as described below, provide the necessary degree of safety for observation pits.

10-millimeter glass (outside)
7-millimeter polycarbonate resin sheet
6-millimeter glass
6-millimeter polycarbonate resin sheet
6-millimeter glass
Total: 35 millimeters (approximately 1 3/8 inches)