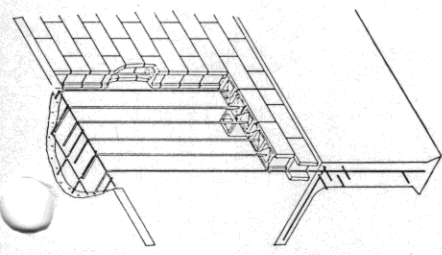
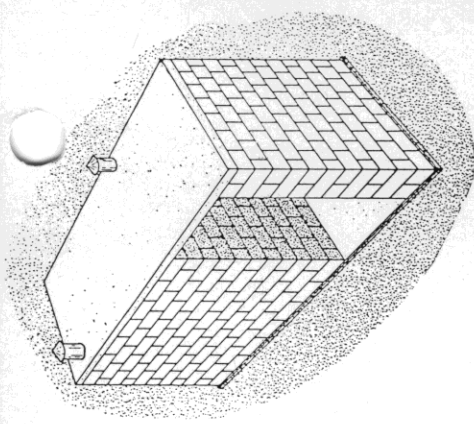


**FLOOR PLAN**



**CUT-AWAY ISOMETRIC OF SIDEWALL AND ROOF**  
(NOT TO SCALE)

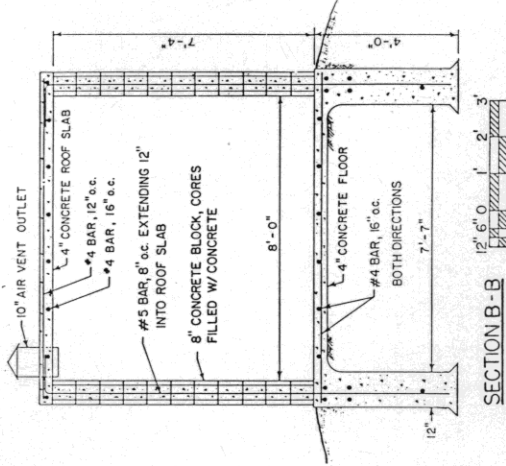


**PERSPECTIVE** (NOT TO SCALE)

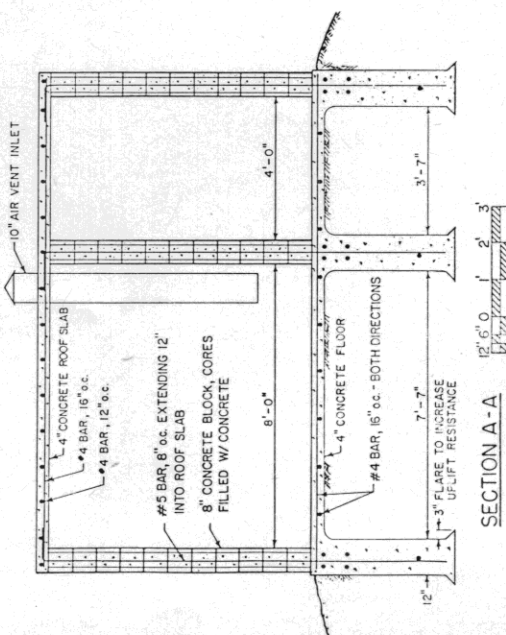
**NOTES:**

THIS SHELTER IS DESIGNED TO WITHSTAND THE PRESSURES INDUCED BY A 260 MPH WIND AS RECOMMENDED BY "INTERIM GUIDELINES FOR BUILDING OCCUPANT PROTECTION FROM TORNADOES AND EXTREME WINDS", TR-83A, DEFENSE CIVIL PREPAREDNESS AGENCY, SEPTEMBER, 1975.

SHELTER OPENING SHOULD FACE AWAY FROM PROBABLE STORM DIRECTION. EASTERN EXPOSURES FIT THE NEED FOR MOST OF U.S. . . . CONSULT LOCAL BUILDING AUTHORITIES BEFORE STARTING CONSTRUCTION.



**SECTION B-B**



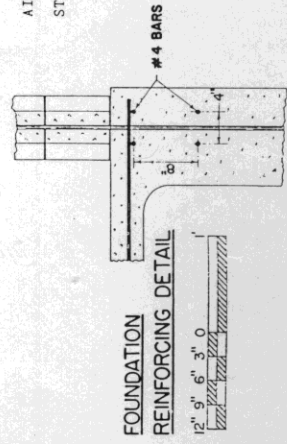
**SECTION A-A**

**GENERAL SPECIFICATIONS**

- CONCRETE: 3,500 PSI MINIMUM COMPRESSIVE STRENGTH
- STEEL: 40,000 PSI MINIMUM YIELD STRENGTH REINFORCEMENT BARS. OVERLAP SPLICES A MINIMUM OF 12 INCHES AND USE WIRE TIES TO SECURE. DO NOT WELD.
- CONCRETE MASONRY: 8-INCH SAND AND GRAVEL BLOCKS
- MORTAR: TYPE M OR S
- JOINT REINFORCEMENT: PLACE HORIZONTAL, TRUSS-DESIGN, REINFORCEMENT AT EVERY HORIZONTAL MORTAR JOINT. OVERLAP SLICES A MINIMUM OF 6 INCHES AND USE WIRE TIES TO SECURE.
- GROUT: USE NOT LESS THAN 6 BAGS PORTLAND CEMENT PER CUBIC YARD OF GROUT AND AGGREGATE NO LARGER THAN 1/2-INCH DIAMETER.
- OTHER USE: ALTHOUGH STRUCTURE MAY BE SUITABLE FOR VEGETABLE OR OTHER STORAGE IT SHOULD NOT BE USED FOR THAT PURPOSE AS IT WILL REDUCE CAPACITY AND MAY BLOCK ENTRY.

**BILL OF MATERIALS**

DESCRIPTION	QUANTITY
CONCRETE FOUNDATION AND FLOOR	10.5 CU. YD.
ROOF GROUT (ALL CORES FILLED)	2 CU. YD.
MORTAR	6 CU. YD.
CONCRETE BLOCK	9 CU. YD.
STRETCHER	296
CORNER	56
DOUBLE CORNER	11
HALF CORNER	22
REINFORCED CONCRETE LINTEL, 4'-8" LENGTH	2
REINFORCING STEEL	
NO. 5 (3/8-INCH DIA.)	820 FT.
NO. 4 (1/2-INCH DIA.)	500 FT.
JOINT REINFORCEMENT	500 FT.
AIR VENT (10-INCH DIA.)	8 FT.
STEEL DOOR AND FRAME, 3'-0" X 6'-8"	1



**FOUNDATION REINFORCING DETAIL**

COOPERATIVE EXTENSION SERVICE  
AGRICULTURE AND HOME ECONOMICS

UNITED STATES DEPARTMENT OF AGRICULTURE COOPERATING

ABOVE-GROUND STORM SHELTER

OK 1985 6376 SHEET 1 OF 1