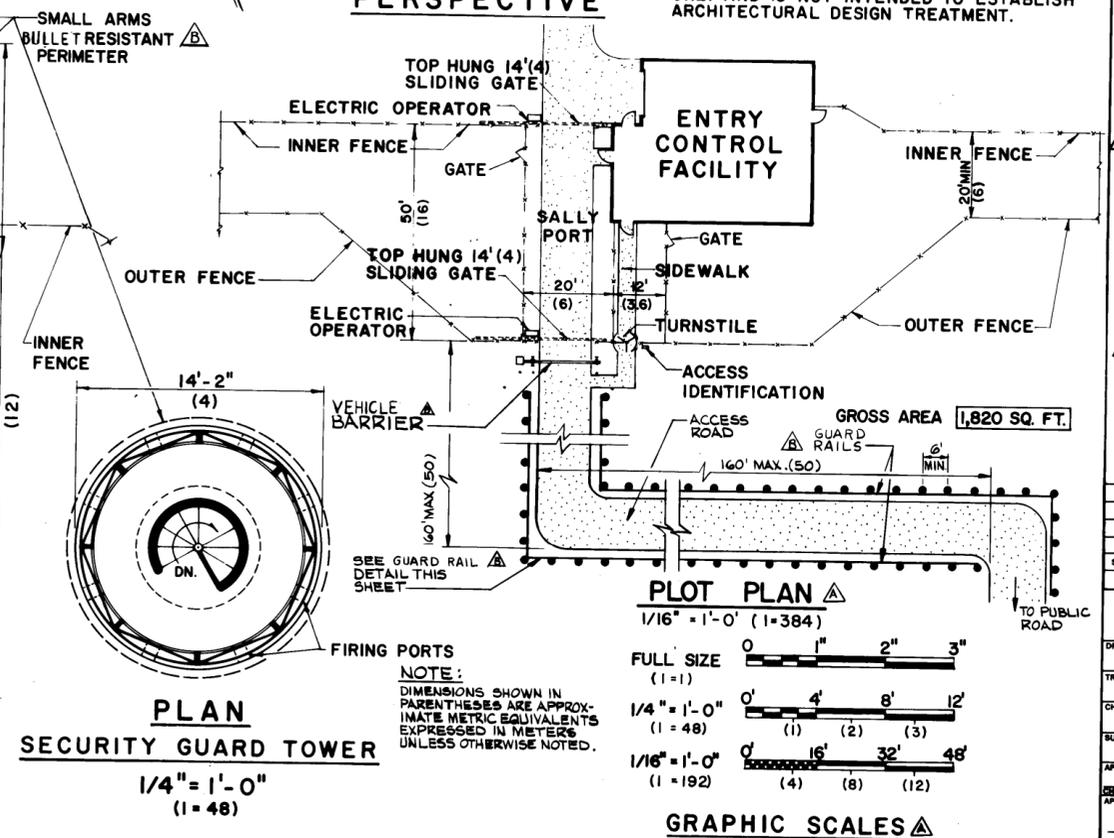
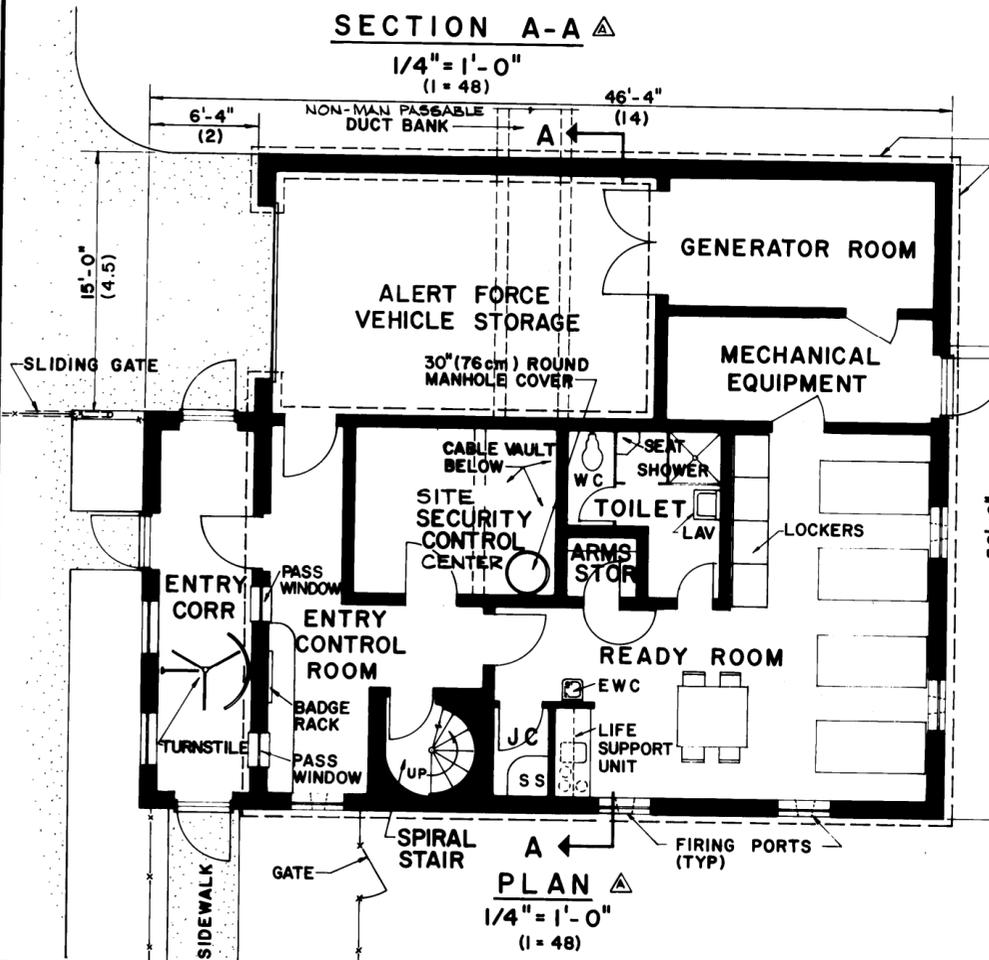


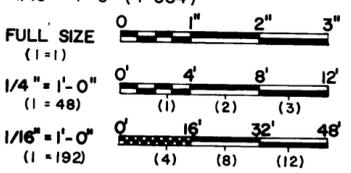
SECTION A-A

PERSPECTIVE



PLAN SECURITY GUARD TOWER

PLOT PLAN



GRAPHIC SCALES

REFERENCE MATERIAL

- NOT USED
- DDO 5210.41-M, NUCLEAR WEAPON SECURITY MANUAL
- AR 50-5, NUCLEAR WEAPONS AND MATERIAL, NUCLEAR SURETY
- AR 190-11, PHYSICAL SECURITY OF WEAPONS, AMMUNITION, AND EXPLOSIVES
- AR 395-68, AMMUNITION AND EXPLOSIVE SAFETY STANDARDS
- AR 415-50, CONTEMPORANEOUS UNITED STATES BASIC FACILITIES AND SPACE ALLOWANCES FOR CONSTRUCTION AT INSTALLATIONS IN EVENT OF EMERGENCY
- TM 5-785, ENGINEERING WEATHER DATA
- TM 5-800-1, CONSTRUCTION CRITERIA FOR ARMY FACILITIES
- TM 5-809-1, LOAD ASSUMPTION FOR BUILDINGS
- TM 5-810-1, MECHANICAL DESIGN-HEATING, VENTILATING, AND AIR CONDITIONING
- TM 5-810-5, PLUMBING
- TM 5-811-1, ELECTRICAL DESIGN: ELECTRIC POWER SUPPLY AND DISTRIBUTION
- TM 5-811-2, ELECTRICAL DESIGN: INTERIOR ELECTRICAL SYSTEM
- TM 5-811-3, ELECTRICAL DESIGN: LIGHTNING PROTECTION SYSTEM
- TM 5-853-2, SECURITY ENGINEERING: CONCEPT DESIGN
- CEGS 13970, BULLET-RESISTANT COMPONENTS
- CEGS 13955 VEHICLE BARRIERS
- U.S. ARMY CORPS OF ENGINEERS ARCHITECTURAL AND ENGINEERING INSTRUCTIONS (AEI), "DESIGN CRITERIA", DATED 9 DECEMBER 1991.

DESIGN GUIDES

ARCHITECTURAL

- WALLS AND ROOF STRUCTURE SHALL BE DESIGNED FOR THE APPROPRIATE BALLISTIC THREAT SEVERITY LEVEL REFER TO TM 5-853-2 FOR GUIDANCE. DOORS, WINDOWS, PASS-THROUGH DRAWERS, AND GUN PORTS SHALL BE SPECIFIED FOR THE APPROPRIATE BALLISTIC THREAT SEVERITY LEVEL USING CEGS 13970, BULLET-RESISTANT COMPONENTS.

NOT USED

- THE STRUCTURE'S INTERIOR SHALL CONSTITUTE A FIGHTING POSITION FOR SECURITY PERSONNEL. MANUALLY-OPERATED FIRING PORTS SHALL BE POSITIONED BELOW EACH EXTERIOR WINDOW AS SHOWN. WINDOW SILLS AND FIRING PORTS SHALL BE AT A HEIGHT TO PERMIT ALERT FORCE PERSONNEL TO FIRE FROM A KNEELING POSITION, UNLESS OTHERWISE NOTED. DOOR AND WINDOW LOCATIONS APPROXIMATE AND SERVE AS A DESIGN GUIDE ONLY.
- THE SECURITY GUARD TOWER SHALL PROVIDE A 360° FIELD OF VIEW OF THE SITE, EXTENDING VERTICALLY FROM A LINE 10' ABOVE THE HORIZONTAL TO AS NEAR AS POSSIBLE TO THE BASE OF THE TOWER OR FINISH GRADE OF THE BUILDING. THE TOWER OBSERVATION FLOOR SHALL BE LOCATED FROM 30 TO 45 FEET ABOVE THE GROUND, DEPENDING ON LOCAL SITE CONDITIONS.
- WINDOWS OF THE SECURITY GUARD TOWER SHALL BE DESIGNED TO BE CLEANED FROM THE INTERIOR OF THE TOWER AND SHALL BE EQUIPPED WITH WINDSHIELD TYPE WIPERS ON THE EXTERIOR.
- DOOR TO THE ALERT FORCE VEHICLE STORAGE AREA SHALL BE 14-GAGE STEEL OVERHEAD TYPE.
- A PREFABRICATED LIFE SUPPORT UNIT CONTAINING ELECTRIC SURFACE PLATES, OVEN, REFRIGERATOR, SINK, COUNTERTOP, AND UPPER CABINETS SHALL BE PROVIDED IN THE READY ROOM.
- A BADGE RACK SHALL BE INSTALLED BETWEEN THE TWO PASS WINDOWS IN THE ENTRY CONTROL ROOM.
- SECURITY TURNSTILE GATES SHALL BE TWO-WAY PASSAGE GATES TO PERMIT USERS TO ENTER OR EXIT. GATES SHALL BE COMPLETE UNITS INCLUDING CASE, BARRIER, ROTATING ARMS, CEILING PLATE, AND LOCKING CONTROLS. LOCKING CONTROLS SHALL BE BY TWO ELECTRICALLY-OPERATED LOCKING MECHANISMS, CONTROLLING BOTH ENTRANCE AND EXIT. WHEN UNLOCKED FOR ENTRANCE, THE GATE ARMS WILL REMAIN LOCKED AGAINST EXIT, AND VICE-VERSA.
- THE VEHICLE ENTRY AREA SHALL PROVIDE A 50-FOOT-LONG VEHICULAR SALLY PORT WITH POSITIVE-LOCKING ELECTRICALLY-OPERATED OVERHEAD HUNG SLIDING GATES. A ROADWAY BARRIER ELECTRICALLY-OPERATED, SHALL BE INSTALLED OUTSIDE THE SLIDING GATE OF THE OUTER FENCE.

STRUCTURAL

- DIMENSIONS MAY BE ADJUSTED FOR STRUCTURE ADAPTATIONS. LIVE LOADS SHALL BE IN ACCORDANCE WITH TM 5-809-1
- GUARD RAIL SHALL CONFORM TO AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS STANDARDS.

MECHANICAL

- HEATING, VENTILATION, AND AIR CONDITIONING SHALL BE IN ACCORDANCE WITH CURRENT TM 5-810-1 AND DOD 4270.1-M.
- VENTILATION SHALL BE PROVIDED AT THE RATE OF TWO AIR CHANGES OF FRESH AIR PER HOUR WHEN HEATING OR COOLING IS REQUIRED. A SEPARATE VENTILATION SYSTEM SHALL BE PROVIDED FOR 10 AIR CHANGES OF FRESH AIR PER HOUR IN ALL PERSONNEL AREAS. FRESH AIR INTAKES SHALL BE LOCATED IN OUTSIDE WALL IN A NON-VULNERABLE AREA.

ELECTRICAL

- POWER SERVICE REQUIREMENTS SHALL MEET CLEARANCE REQUIREMENTS. THE NORMAL SOURCE OF POWER SHALL BE BACKED UP WITH A STANDBY GENERATOR. THE GENERATOR SHALL AUTOMATICALLY START UPON FAILURE OF THE NORMAL SOURCE OF ELECTRICAL SERVICE AND SHALL OPERATE ALL CRITICAL LOADS AT FULL POWER WITHIN 30 SECONDS OF FAILURE OF THE REGULAR SERVICE. THE MAIN DISTRIBUTION PANELBOARD SHALL BE LOCATED IN THE GENERATOR ROOM. A 30-AMP FUSIBLE DISCONNECT SWITCH, ARRANGED SO THAT THE HANDLE CAN BE PADLOCKED IN THE "ON" OR "OFF" POSITIONS, SHALL BE INSTALLED IN THE SITE SECURITY CONTROL CENTER. POWER TO THIS SWITCH SHALL BE SUPPLIED FROM THE LINE SIDE OF THE MAIN DISTRIBUTION PANELBOARD SO THAT POWER TO THIS SWITCH CANNOT BE INADVERTENTLY OR INTENTIONALLY INTERRUPTED.

SYMBOL	DESCRIPTION	BY	DATE	APPROVAL
▲	GENERAL REVISIONS	DFH	6/92	DLQ
▲	GENERAL REVISIONS	HSM	1/86	RWS

BLACK & VEATCH CONSULTING ENGINEERS KANSAS CITY, MISSOURI

DEPARTMENT OF THE ARMY OFFICE OF THE CHIEF OF ENGINEERS MILITARY CONSTRUCTION - ENGINEERING DIVISION WASHINGTON, D. C.

DRAWN BY: DLQ
 TRACED BY: DLQ
 CHECKED BY: RWS
 SUBMITTED: WHM

APPROVED: [Signature]
 REVISIONS APPROVED: [Signature]
 DATE: 3/16/87

WEAPONS STORAGE AREA ENTRY CONTROL FACILITY (SMALL ARMS FIRE BULLET RESISTANT)

SCALE: AS NOTED SPEC. NO. NONE
 DRAWING NUMBER: DEF 141-32-02
 SHEET 1 OF 3