

Base Engineer Covered Storage Facility. FAC: 4421

CATCODE: 219946

OPR: AFCEC/COS

OCR: AFCEC/CFT

1.1. Description. This facility provides environmentally controlled storage space and related operating space for the supplies and material the BCE organization uses in its day-to-day operation, maintenance, and construction facilities. The facility is used for supplies and materials that cannot withstand storage in sheds or yards. A typical storage facility provides storage space in bins, on shelves, on racks, or an automated storage system; support areas such as office space, break, lunch or meeting room space; restrooms; and shipping and receiving space. Three types of storage facilities store material and equipment and are accountable to the BCE, a designated representative, or the counterpart to the BCE in base tenant organizations. These three storage facilities are the Base Engineer Covered Storage Facility (**CATCODE 219946**), Base Engineer Storage Shed (**CATCODE 219947**), and Base Civil Engineer Open Storage (**CATCODE 452255**).

1.2. Requirements Determination. The BCE has the following seven basic storage areas.

1.2.1. Holding Area. The holding area is a secure storage area for material associated with work orders or job orders. Materials are stored until the job starts.

1.2.2. Stores. Provides storage for materials on hand for day-to-day work orders and job orders. Stores keep such things as bench stock for base supply and storage areas for a contractor operated civil engineering supply store (COCESS). CE may have other stores to stock materials needed by craft workers and customers. These stores include self-help stores, "U-Fix-It" stores, and stores with centralized bench stock. Any changes or modifications to contractor operated facilities should be coordinated with the local contracting office.

1.2.3. Tool Crib. A tool crib stores and issues tools for worker's tool kits.

1.2.4. Residual Storage Area. A residual storage area stores items left over from job orders and work orders that may have future use and are not normally stocked in COCESS or bench stock supplies.

1.2.5. Bulk Storage. This area stores large, unwieldy items issued with work or job orders such as sand and gravel.

1.2.6. Appliances. Refer to the *Air Force Family Housing Guide*.

1.2.7. Prime Base Emergency Engineering Force (BEEF) / Mobility Assets. The BCE may be required to store mobility bags, a home station training kit, and camouflage netting and may require a mobility staging area and space for repairing assigned equipment (including tents) and space for building team equipment into deployable packages.

1.3. Scope Determination. The BCE activity usually requires 0.09m^2 (1ft^2) of environmentally controlled storage space for each square meter of zonal

maintenance space. In regions that experience severe winters (other than arctic areas), the BCE may need 0.11 m² (1.2 ft²) of storage space for each square foot for zonal maintenance space. In arctic regions, the requirement can be combined with **CATCODE 219947** and, in part, **CATCODE 452255**. Support areas should be sized to maximize storage space while allowing adequate support for day-to-day administrative and personnel activities in the warehouse. Table 1.1 lists established planning factors for environmentally controlled warehouse gross space for BCE organizations. To estimate space for shipping and receiving, consider the type, number, and flow of items. Plan for 0.46 m² (5.0 ft²) of combined storage (**CATCODEs 219946, 219947 and 452255**) for each square meter of zonal maintenance space.

1.4. Dimensions. See Table 1.1.

1.5. Design Considerations.

1.5.1. Expanding Available Storage Capability. Several alternatives are available for expanding insufficient storage space. The first alternative is to redesign the warehouse layout and install equipment that increases storage capacity. The second alternative is to use vertical space for a mezzanine (if ceiling height permits). Free standing mezzanines can double the usable storage space by creating space above existing storage or administrative areas. A third alternative is to use staging containers for orders that are 100 percent material complete but not scheduled to start for several months. Staging containers weighing up to 907 kg (2,000 lbs) can be stacked four high away from the active section of the warehouse. Collapsible staging containers provide an alternative to storing oddly shaped and sized items for special work orders. A fourth alternative is to construct or acquire another facility.

Table 1.1. Space Requirements for BCE Facilities – BCE Covered Storage

Functions	Net Building Area	
	m ²	ft ²
Logistics Management		
Material Control Section ¹	110	1,180
Stock Storage Area (GOCESS/COCESS)	1,487	16,000
NOTES:		
1. This is an average zone/facility size. Each Squadron should adjust these sizes based on local requirements.		