

**CHAPTER 291: VETERANS HEALTH ADMINISTRATION - ACQUISITION AND  
MATERIEL MANAGEMENT SERVICE (AMMS) - WAREHOUSE**

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## 1 PURPOSE AND SCOPE

This document outlines Space Planning Criteria for Chapter 291: Acquisition and Material Management Service – Warehouse. It applies to all medical facilities at the Department of Veterans Affairs (VA).

AMMS -Warehouse is to provide storage and distribution of supplies and equipment. The total physical distribution systems for warehouse areas only, includes those areas needed to receive, store and distribute supplies to the consumer unit within a facility.

Warehouse criteria include the space requirements for the following areas: the storekeeper's office; medical and general storage, including secured and flammable storage; subsistence, forms and processed stores; equipment and medical gas storage; excess property storage; receiving and issue area; medical research storage; un-posted stock holding area; dialysis storage; toilets; lockers, lounge, and dock space.

## 2 DEFINITIONS

- A. Concept of Operations: A user-developed guide to the functional operation of the VA healthcare facility. It defines the function of the facility and the scope of medical or optometric services to be provided in the new or remodeled space.
- B. Full-Time Equivalent (FTE): A staffing parameter equal to the amount of time assigned to one full time employee. It may be composed of several part-time employees whose total time commitment equals that of a full-time employee. One FTE equals 40 hours per week.
- C. Functional Area: The grouping of rooms and spaces based on their function within a clinical or clinical support service. Typical Functional Areas are Reception Areas, Patient Areas, Support Areas, Staff and Administrative Areas, and Residency Program.
- D. Input Data Statement: A set of questions designed to elicit information about the healthcare project in order to create a Program for Design (PFD) based on the criteria parameters set forth in this document. Input Data Statements could be Mission related, based in the project's Concept of Operations; and Workload or Staffing related, based on projections and data provided by the VHA or the VISN about the estimated model of operation. This information is processed through mathematical and logical operations in SEPS.
- E. Program for Design (PFD): A space program based on criteria set forth in this document and specific information about Concept of Operations, workload projections and staffing levels authorized.
- F. SEPS (VA-SEPS): Acronym for Space and Equipment Planning System, a digital tool developed by the Department of Defense (DoD) and the Department of Veterans Affairs to generate a Program for Design (PFD) and an Equipment List for a VA healthcare project based on specific information entered in response to Input Data Questions. VA-SEPS incorporates the propositions set forth in all VA space planning

criteria chapters. VA-SEPS has been designed to aid healthcare planners in creating a space plan based on a standardized set of criteria parameters.

- G. Warehouse: A term that is synonymous with storage and distribution of supplies and equipment. The total physical distribution systems include those areas needed to receive, store and distribute supplies to the consumer unit within a facility.

### 3 OPERATING RATIONALE AND BASIS OF CRITERIA

- A. Workload Projections or planned services / modalities for a specific VA medical center, hospital or satellite outpatient clinic project are provided by the VA Central Office (VACO) / VISN CARES Capacity Projection Model. The workload projections are generated by methodology based upon the expected veteran population in the respective market / service area. Healthcare planners working on VA medical center, hospital or satellite outpatient clinic projects will utilize and apply the workload based criteria set forth herein for identified services and modalities to determine room requirements for each facility.
- B. Total beds include hospital, domiciliary, spinal cord injury, and nursing home care beds.
- C. Space planning criteria have been developed on the basis of an understanding of the activities involved in the functional areas of Acquisition and Material Management Service - Warehouse and its relationship with other services of a medical facility. These criteria are predicated on established and/or anticipated best practice standards, as adapted to provide environments supporting the highest quality health care for Veterans.
- D. These criteria are subject to modification relative to development in the equipment, medical practice, vendor requirements, and subsequent planning and design. The selection of the size and type of Acquisition and Material Management Service - Warehouse equipment is determined by VACO and upon Veterans Health Administration (VHA) anticipated medical needs.
- E. These criteria are subject to modification relative to the requirements of the individual VA medical campus, the number and types of buildings and services to be served. Also, consideration must be given to support of any off campus facilities or home care programs.

### 4 PROGRAM DATA REQUIRED (Input Data Questions)

- A. Mission Input Data Statements
1. Is a Medical Research Program authorized? (M)
  2. Is a Medical Gas Storage / Staging authorized? (M)
  3. Is a Regional Office Warehouse support authorized? (M)
  4. Are twelve-foot high shelves authorized? (M)
  5. Is a Dialysis Storage authorized? (M)
- B. Workload Input Data Statements
1. How many MS&N patient beds are projected? (W)
  2. How many SCI patient beds are projected? (W)

3. How many Mental Health and Behavioral Patient Care Unit patient beds are projected? (W)
4. How many Nursing Home / Residential Care Center patient beds are projected? (W)
5. How many Domiciliary patient beds are projected? (W)
6. How many annual Outpatient Visits are projected? (W)

C. Staffing Input Data Statements

1. How many Receiving Clerk FTE positions are authorized? (S)

D. Miscellaneous Input Data Statements

1. How many FTEs will work on peak shift? (Misc)
2. How many FTE positions are not authorized to have office or cubicle space? (Misc)

## 5 SPACE CRITERIA

A. Warehouse Areas:

1. **Storage, General and Medical (VAS01) ..... 1000 NSF (92.9 NSM)**  
*Minimum NSF; provide an additional 10 NSF per each projected MS&N and SCI patient bed; an additional 4 NSF per each projected Mental Health, Nursing Home/Residential Care Center and Domiciliary patient bed, an additional 0.02 NSF per each projected annual Outpatient Clinic Stops whichever is greater. Provide an additional 2 NSF per each projected patient bed if twelve feet high shelving is authorized.*

Area assumes ceiling height of 15' allowing for 12' stacking height.

1. **Receiving Dock (DOCK1) ..... 264 NSF (24.6 NSM)**  
*Minimum NSF if the total amount of General and Medical Storage is between 1000 and 2,750 NSF; provide an additional 84 NSF if the total amount of General and Medical Storage is between 2,751 NSF and 5,500 NSF; provide an additional 194 NSF if the total amount of General and Medical Storage is between 5,501 NSF and 7,700 NSF; provide an additional 304 NSF if the total amount of General and Medical Storage is between 7,701 NSF and 9,900 NSF; provide an additional 414 NSF if the total amount of General and Medical Storage is between 9,901 NSF and 12,300 NSF; provide an additional 524 NSF if the total amount of General and Medical Storage is between 12,301 NSF and 16,400 NSF; provide an additional 634 NSF if the total amount of General and Medical storage is greater than 16,400. See Table 1(next page)*

**TABLE 1: RECEIVING DOCK AREA CALCULATION**

| <b>GENERAL AND MEDICAL STORAGE AREA</b> | <b>NUMBER OF TRUCK BAYS</b> | <b>NSF</b> |
|-----------------------------------------|-----------------------------|------------|
| 1000 and to 2,750 NSF                   | 2                           | 264        |
| 2,751 NSF to 5,500 NSF                  | 3                           | 348        |
| 5,501 NSF to 7,700 NSF                  | 4                           | 458        |
| 7,701 NSF to 9,900 NSF                  | 5                           | 568        |
| 9,901 NSF to 12,300 NSF                 | 6                           | 678        |
| 12,301 NSF to 16,400 NSF                | 7                           | 788        |
| Greater than 16,400 NSF                 | 8                           | 898        |

2. **Receiving and Issue (MMRP1)**..... **500 NSF (46.5 NSM)**  
*Minimum NSF or total calculated General and Medical Storage times 0.5 whichever is greater; maximum 1,800 NSF.*

3. **Storage, Secured (SSS01)** ..... **200 NSF (18.6 NSM)**  
*Minimum NSF; provide an additional 25 NSF for every increment of one hundred patient beds greater than one hundred.*

4. **Storage / Staging, Medical Gas (SRGC1)** ..... **160 NSF (14.9 NSM)**  
*Provide one if authorized in Concept of Operations.*

This space is required both if the medical center is provided with complete piped-in medical gas systems, and if complete system is not available, for storage of cylinders.

5. **Storage, Flammable (SRGC1)**..... **50 NSF (4.7 NSM)**  
*Minimum NSF; provide an additional 50 NSF if the total number of projected patient beds is greater than three hundred and fifty.*

6. **Storage, Medical Research (SRS01)** ..... **200 NSF (18.6 NSM)**  
*Minimum NSF or 0.2 x total calculated General and Medical Storage, whichever is greater, if Medical Research Program is authorized in Concept of Operations.*

7. **Storage, Equipment (SRSE1)** ..... **200 NSF (18.6 NSM)**  
*Minimum NSF or 0.2 x total calculated General and Medical Storage, whichever is greater.*

8. **Storage, Forms (Office Supplies) (SRS01)** ..... **250 NSF (23.3 NSM)**  
*Minimum NSF; provide an additional 80 NSF for each increment of one hundred projected patient beds greater than two hundred.*

9. **Warehouse, Regional Office Support (SRS01)**..... **400 NSF (37.2 NSM)**  
*Provide one if Regional Office Warehouse support is authorized in Concept of Operations.*

10. **Storage, Dialysis (RDP01)**..... **150 NSF (14.0 NSM)**  
*Provide one if authorized in Concept of Operations.*

B. Staff and Administrative Areas:

1. **Office, Storekeeper (OFA01 / OFA02)**..... **100 NSF (9.3 NSM)**  
*Provide one per Acquisition and Material Management Service-Warehouse;  
provide OFA01 if standard furniture is authorized; or, OFA02 if systems furniture  
is authorized.*
2. **Cubicle, Receiving Clerk (OFA03)** ..... **64 NSF (5.9 NSM)**  
*Provide one per Receiving Clerk FTE position authorized.*

C. Staff Lounge, Lockers and Toilets:

The spaces below provide programming of Lounge, Lockers, and Toilets at department / service / chapter level. Alternatively, sum all departments/services data for Lockers, Lounges and Toilets, and program space in Chapter 410-EMS Lockers, Lounges, Toilets and Showers. Either/or – do not duplicate space. Program locker space only for those FTEs without office or cubicle space.

1. **Lounge, Staff (SL001)**..... **80 NSF (7.5 NSM)**  
*Minimum NSF; provide an additional 15 NSF per each projected FTE on peak shift greater than five; maximum 230 NSF.*

For less than five FTE combine Lounge facilities with adjacent department or sum in chapter 410.

2. **Locker Room, Staff (LR001)**..... **80 NSF (7.5 NSM)**  
*Minimum NSF if total number of FTE positions not authorized to have office or cubicle space is between five and thirteen; provide an additional 6 NSF per FTE position if total number of FTE positions not authorized to have office or cubicle space is greater than thirteen.*

Provide locker space only for those FTEs without assigned office or cubicle space. For less than five FTE combine Locker Room facilities with adjacent department or sum in chapter 410.

3. **Toilet, Staff (TLTU1)**..... **50 NSF (4.7 NSM)**  
*Minimum one; provide an additional staff toilet for each increment of five projected FTEs on peak shift greater than thirteen.*

## 6 PLANNING AND DESIGN CONSIDERATIONS

- A. Departmental net-to-gross factor (DNTG) for **Acquisition and Material Management Service-Warehouse** is **1.10**. This number when multiplied by the programmed net square foot (NSF) area determines the departmental gross square feet.
- B. A separate warehouse connected to the main hospital is preferable.
- C. Enclosed loading docks should be considered during the design process.

- D. Ceiling height in the General Storage shall be 15' high, allowing for a stack height of 12'.
- E. A freight elevator is required if the warehouse is on two levels.

**7 FUNCTIONAL RELATIONSHIPS**

Relationship of Relationship of Acquisition and Material Management Service-Warehouse to services listed below:

**TABLE 2: FUNCTIONAL RELATIONSHIP MATRIX**

| SERVICE                             | RELATIONSHIP | REASONS   |
|-------------------------------------|--------------|-----------|
| Loading Dock                        | 1            | A,B,C,G,I |
| AMM Service – SPD Central           | 2            | A,B,C,G,I |
| Dietetic Services – Food Production | 2            | A,B,I     |
| Environmental MGMT Service          | 2            | A,B,C,G,I |
| Engineering Service                 | 3            | I         |
| Pharmacy – Inpatient                | 3            | B         |
| Inpatient Units                     | X            | B,D,E ,I  |
| Laboratory Service                  | X            | B         |
| Surgical Service                    | X            | D,E,F     |

Legend

Relationship:

- 1. Adjacent
- 2. Close / Same Floor
- 3. Close / Different Floor Acceptable
- 4. Limited Traffic
- 5. Separation Desirable

Reasons:

- A. Common use of resources
- B. Accessibility of supplies
- C. Urgency of contact
- D. Noise or vibration
- E. Presence of odors or fumes
- F. Contamination hazard
- G. Sequence of work
- H. Patient convenience
- I. Frequent contact
- J. Need for security
- K. Closeness inappropriate

**FIRST DRAFT: FOR VACO REVIEW**

**8 FUNCTIONAL DIAGRAM**

