



## DoD SPACE PLANNING CRITERIA

### CHAPTER 130: NET TO GROSS CONVERSION FACTORS JUNE 1, 2016

---

**Originating Component:** Defense Health Agency Facilities Division

**Effective:** June 1, 2016

**Releasability:** No Restrictions

---

**Purpose:** This issuance: To provide space planning criteria guidance in support of planning, programming and budgeting for DoD Military Health System (MHS) facilities.

# ***SUMMARY of CHANGE***

This revision, dated 1 June 2016 includes the following:

- On page 4, the description under the Section 2 title is changed to read “Once the Net Square Feet (NSF) for each room / space is established for a project, the Department Net to Gross (DNTG) factor is applied to determine the Department Gross Square Feet (DGSF). Each department has a pre-determined DNTG factor. To determine the Building Gross Square Feet (BGSF); a second factor is applied to the total sum of the DGSF of all the departments in the project.”
- On page 4, section 2.3, changed the first sentence to read “Building Gross Square Feet (BGSF) is the aggregate area of all enclosed floor areas and supporting structure and certain unenclosed areas (i.e. internal atriums or gardens), which support the function of the building.”
- On page 4, section 2.4, deleted sentences 1 through 4. Added the statement “refer to UFC 4-510-01, Table 3-1 for Gross Area Accounting Rules.”
- On Page 4 deleted section 2.5 MULTI-STORY ELEMENTS COUNTED ONCE IN THE GROSS AREA PER FLOOR:
- On page 5 deleted section 2.6 SPACES NOT COUNTED IN THE GROSS AREA:
- On page 5, changed section 2.7 to read “2.5 CALCULATION METHODOLOGY.” Eliminated language describing the “One-Step Method”. Clarified the description of the “Two-Step Method”.
- On page 5, deleted the old chapter number column from TABLE 1: NET TO DEPARTMENT GROSS FACTORS. Corrected chapter number for Pediatric Clinic from 330 to 303; corrected multiple chapter names to align with space planning criteria chapter naming convention; reordered listings based on Chapter Number sequence.
- On page 7, added “TABLE 2: BUILDING GROSSING FACTORS” and associated notes.
- On page 6, section 3.1 PLANNING EXAMPLE, updated the departmental gross SF calculation table with more current departments and values.

## **TABLE OF CONTENTS**

SECTION 1: PURPOSE AND SCOPE.....	4
SECTION 2: NET TO GROSS CALCULATION METHODOLOGY .....	5
2.1. Net Square Feet (NSF).....	5
2.2. Department Gross Square Feet (DGSF). ....	5
2.3. Building Gross Square Feet (BGSF).....	5
2.4. Spaces Counted As One-Half of the Actual Gross Area. ....	5
2.5. Calculation Methodology.....	5
SECTION 3: PLANNING EXAMPLE .....	7

## **SECTION 1: PURPOSE AND SCOPE**

**1.1. PURPOSE AND SCOPE.** The Office of the Assistant Secretary of Defense for Health Affairs (ASDHA) has primary responsibility for establishing functional space and equipment planning criteria and standards for all the facilities in the Military Health System (MHS). The purpose of this document is to outline the way the Space and Equipment Planning documents are organized in order to facilitate planning, programming, and budgeting for DoD Medical Facilities for all services. Space Planning Criteria (SPC) is organized by chapter. A chapter corresponds to a department or departments with similar clinical functions in a healthcare facility. The intent of the Space Planning Criteria chapters and their implemented version in SEPS is to aid the space planner working on an MHS project to create a baseline space program, or a Program for Design (PFD), and a Program Room Contents (PRC) using DoD approved standards.

The Space and Equipment Planning documentation is available on the World-Class Facilities website at the following link: <https://facilities.health.mil/home/>. It is accessible from the home page under “CONNECT” and selecting the SPC icon.

## **SECTION 2: NET TO GROSS CALCULATION METHODOLOGY**

Once the Net Square Feet (NSF) for each room / space is established for a project, the Department Net to Gross (DNTG) factor is applied to determine the Department Gross Square Feet (DGSF). Each department has a pre-determined DNTG factor. To determine the Building Gross Square Feet (BGSF); a second factor is applied to the total sum of the DGSF of all the departments in the project.

**2.1. NET SQUARE FEET (NSF).** Net Square Feet (NSF) is the area of an individual room or the usable floor area that is assigned to a function in an open area. Net square feet for each room is measured from the inside finished surface of surrounding partitions or enclosing elements and from the outline of the floor area for a space in an open area. Net areas do not include partitions or structural elements such as columns, column enclosures, circulation or access spaces.

**2.2. DEPARTMENT GROSS SQUARE FEET (DGSF).** Department Gross Square Feet (DGSF) is a measurement of an assemblage of rooms and spaces as assigned to a department or service and includes internal departmental and/or service circulation and partitions, columns and projections enclosing the structural elements of the building within the departmental space. The boundary defining DGSF is drawn from the inside finish of the permanent exterior building walls to the centerline of department-separating wall partitions, or to the centerline of corridors which separate and provide access to spaces in adjoining departments.

**2.3. BUILDING GROSS SQUARE FEET (BGSF).** Building Gross Square Feet (BGSF) is the aggregate area of all enclosed floor areas and supporting structure and certain unenclosed areas (i.e. internal atriums or gardens), which support the function of the building. BGSF includes all DGSF space, as well as the area of the exterior wall and structure; common and service spaces not assigned to a department; enclosed mechanical spaces; vertical circulation spaces including elevators, stairs, and escalators, shafts and stacks; and any other areas which make up the entire building.

**2.4. SPACES COUNTED AS ONE-HALF OF THE ACTUAL GROSS AREA.** Refer to UFC 4-510-01, Table 3-1 for Gross Area Accounting rules.

### **2.5. CALCULATION METHODOLOGY.**

A. The BGSF is determined by using a Two-Step method. First, the DGSF is calculated by using the NSF value for each department and multiplying by the corresponding DGF included in Table 1. Repeat this for all departments and calculate the total.

a. **Step 1: DNSF to DGSF**

$$(\text{DNSF}) \times (\text{Department gross factor from Table 1}) = \text{DGSF}$$

B. The second step is to calculate the BGF by using the total DGSF and multiplying by the building type grossing factor included in Table 2.

a. **Step 2: DGSF to BGSF**

$$(DGSF) \times (\text{Building conversion factor from Table 2}) = BGSF$$

b. For projects in Germany increase the building type grossing factor by 0.05.

c. For all renovation / alteration projects increase the building type grossing factor by 0.15.

TABLE 1: NET TO DEPARTMENT GROSS FACTORS

CHAPTER NUMBER	CHAPTER NAME	DGF
110	General	N/A
120	Occupancy Rates	N/A
130	Net to Gross Conversion Factors	N/A
140	Medical Mobilization Requirements	N/A
210	General Administration	1.40
230	Education and Training	1.35
240	Information Management	1.35
250	Health Benefits and Patient Administration	1.35
301	Primary Care / Family Medicine	1.40
303	Pediatric Clinic	1.35
310	Audiology, Hearing Conservation, Speech – Language Pathology and ENT Clinic	1.40
311	General and Specialty Surgical Clinics	1.40
312	Orthopedics, Podiatry, Physical Medicine & Rehabilitation, Chiropractic and Sports Medicine	1.35
313	Ophthalmology / Optometry Clinic	1.35
314	Urology Clinic	1.35
315	Specialty Medical Clinics	1.40
316	Cardiology / Pulmonary Services / Sleep Disorders Center	1.35
318	Behavioral Health Clinic	1.40
319	Preventive Medicine	1.35
320	Dental Clinic	1.40
350	Emergency and Ambulance Services	1.45
360	Women's Health Clinic	1.35
380	Occupational Therapy Clinic	1.30
390	Physical Therapy	1.35
410	Nursing Units	1.50
420	Labor and Delivery / Obstetric Units	1.50
430	Neonatal Intensive Care Unit	1.45
440	Surgical / Interventional Services & Ambulatory Surgery Center	1.60
450	Sterile Processing	1.30
460	Inpatient Behavioral Health / Partial Hospitalization / Substance Abuse & Alcohol Rehab	1.50
510	Food Service	1.40

520	Logistics	1.25
530	Pathology and Clinical Laboratory	1.30
540	Radiology, Nuclear Medicine and Radiation Oncology	1.50
550	Pharmacy (Inpatient and Outpatient)	1.25
560	Veterinary Services	1.35
570	Worship and Chaplain Services	1.20
610	Common Areas	1.20

TABLE 2: BUILDING GROSSING FACTORS

BUILDING TYPE	Grossing Factor *
Medical / Dental Clinics	1.35
Ambulatory / Healthcare Facility	1.37
Community Hospitals	1.39
Regional Medical Centers	1.41

\*Provide an additional 0.05 allowance for projects in Germany.

\*Provide an additional allowance up to 0.15 of the total altered net space for building flexibility on alteration projects only. This scope must be validated during design.

## SECTION 3: PLANNING EXAMPLE

### 3.1. PLANNING EXAMPLE.

A. Two-Step Method: Regional Medical Center

**Step 1:**

$$(\text{DNSF}) \times (\text{DNTG Factor from Table 1}) = \text{DGSF}$$

TABLE 3: DEPARTMENTAL GROSS SF CALCULATION

CHAPTER NUMBER	DEPARTMENT (CHAPTER)	NSF	DGF	DGSF
610	Common Areas	1,770	1.20	2,124
301	Primary Care / Family Medicine	54,640	1.40	76,496
350	Emergency and Ambulance Services	15,600	1.45	22,620
360	Women's Health Clinic	1,840	1.35	2,484
310	Audiology, Hearing Conservation, Speech – Language Pathology and ENT Clinic	3,240	1.40	4,536
311	General and Specialty Surgical Clinics	16,800	1.40	23,520

312	Orthopedics, Podiatry, Physical Medicine & Rehabilitation, Chiropractic and Sports Medicine	1,840	1.35	2,484
313	Ophthalmology / Optometry Clinic	1,430	1.35	1,931
315	Special Medical Clinics	6,560	1.40	9,184
316	Cardiology / Pulmonary Services / Sleep Disorders Center	3,260	1.35	4,401
320	Dental Clinic	7,460	1.40	10,444
410	Nursing Units	84,200	1.50	126,300
440	Surgical / Interventional Services & Ambulatory Surgery Center)	10,340	1.60	16,544
540	Radiology, Nuclear Medicine and Radiation Oncology	5,400	1.50	8,100
450	Sterile Processing	3,250	1.30	4,225
510	Food Service	4,500	1.40	6,300
550	Pharmacy (Inpatient and Outpatient)	8,540	1.25	10,675
210	General Administration	860	1.40	1,204
240	Information Management	460	1.35	621
520	Logistics	560	1.25	700
	TOTAL	230,780	---	334,893

**Step 2:**

$$(\text{Total DGSF}) \times (\text{BGF}) = \text{BGSF}$$

TABLE 4: BUILDING GROSS SF CALCULATION

DEPARTMENTS	DGSF	BG FACTOR	BGSF
Total DGSF	334,893	1.41	472,199