

UFC 4-740-02
26 September 2006

UNIFIED FACILITIES CRITERIA (UFC)

FITNESS CENTERS



APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED

UNIFIED FACILITIES CRITERIA (UFC)**FITNESS CENTERS**

Any copyrighted material included in this UFC is identified at its point of use.
Use of the copyrighted material apart from this UFC must have the permission of the copyright holder.

U.S. ARMY CORPS OF ENGINEERS

NAVAL FACILITIES ENGINEERING COMMAND (Preparing Activity)

AIR FORCE CIVIL ENGINEER SUPPORT AGENCY

Record of Changes (changes are indicated by \1\ ... /1/)

Change No.	Date	Location

UFC 4-740-02
26 September 2006

FOREWORD

The Unified Facilities Criteria (UFC) system is prescribed by MIL-STD 3007 and provides planning, design, construction, sustainment, restoration, and modernization criteria, and applies to the Military Departments, the Defense Agencies, and the DoD Field Activities in accordance with [USD\(AT&L\) Memorandum](#) dated 29 May 2002. UFC will be used for all DoD projects and work for other customers where appropriate. All construction outside of the United States is also governed by Status of forces Agreements (SOFA), Host Nation Funded Construction Agreements (HNFA), and in some instances, Bilateral Infrastructure Agreements (BIA.) Therefore, the acquisition team must ensure compliance with the more stringent of the UFC, the SOFA, the HNFA, and the BIA, as applicable.


UFC are living documents and will be periodically reviewed, updated, and made available to users as part of the Services' responsibility for providing technical criteria for military construction. Headquarters, U.S. Army Corps of Engineers (HQUSACE), Naval Facilities Engineering Command (NAVFAC), and Air Force Civil Engineer Support Agency (AFCESA) are responsible for administration of the UFC system. Defense agencies should contact the preparing service for document interpretation and improvements. Technical content of UFC is the responsibility of the cognizant DoD working group. Recommended changes with supporting rationale should be sent to the respective service proponent office by the following electronic form: [Criteria Change Request \(CCR\)](#). The form is also accessible from the Internet sites listed below.

UFC are effective upon issuance and are distributed only in electronic media from the following source:


- Whole Building Design Guide web site <http://dod.wbdg.org/>.

Hard copies of UFC printed from electronic media should be checked against the current electronic version prior to use to ensure that they are current.

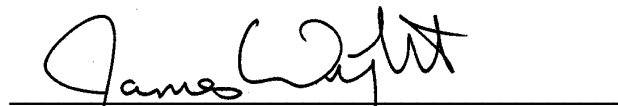
AUTHORIZED BY:




DONALD L. BASHAM, P.E.
Chief, Engineering and Construction
U.S. Army Corps of Engineers



KATHLEEN I. FERGUSON, P.E.
The Deputy Civil Engineer
DCS/Installations & Logistics
Department of the Air Force



DR. JAMES W. WRIGHT, P.E.
Chief Engineer
Naval Facilities Engineering Command



Dr. GERT W. MOY, P.E.
Director, Installations Requirements and
Management
Office of the Deputy Under Secretary of Defense
(Installations and Environment)

UFC 4-740-02
26 September 2006

UNIFIED FACILITIES CRITERIA (UFC) REVISION SUMMARY SHEET

Document: UFC 4-740-02

Superseding: UFC 7-740-02N, Design: Indoor Fitness/Recreational Facilities.

Description: This UFC consolidates the single service design criteria for fitness facilities. It also identifies the differences between fitness programs offered by the individual services. Information regarding aquatic facilities and pools is not included in this UFC. Information regarding recreations centers is in UFC 4-740-16, *Military Recreation Centers*.

Reasons for Document: This UFC contains the criteria for determining the appropriate size of a fitness facility based on base population. It also provides information on the fitness programs offered by each service to allow for a fitness facility design that meets the individual service and base requirements. It provides non-Government standard resources that provide guidance in the design of fitness facilities.

Impact: Cost impacts are negligible. However, having this information in a single document should decrease design time and design expense.

CONTENTS

CHAPTER 1 INTRODUCTION.....	1
1-1 SCOPE OF DOCUMENT.....	1
1-2 USERS OF THIS DOCUMENT.....	1
1-2.1 Architects and Engineers.....	1
1-2.2 Planning Personnel.....	1
1-2.3 Additional Users.....	1
1-3 SCOPE OF FACILITY.....	2
1-4 PROGRAM AREAS.....	2
1-4.1 Fitness Program, Administrative Areas, and Building Support.....	2
1-4.2 Health and Wellness Center Program Areas.....	6
1-5 USERS OF FACILITY.....	7
1-6 RELATED DOCUMENTS.....	7
CHAPTER 2 PLANNING AND LAYOUT.....	1
2-1 SIZE DETERMINANTS.....	1
2-1.1 Army.....	1
2-1.4 Marine Corps.....	2
2-2 SPACE PROGRAM.....	3
2-3 LOCATION DETERMINANTS.....	3
2-3.1 Access.....	3
2-3.2 Related Facilities.....	4
2-3.3 Cost.....	4
2-4 LAYOUT AND ADJACENCIES.....	4
2-4.1 Basic Facility.....	4
2-4.2 Facility with a Consolidated Health and Wellness Center.....	5
2-4.3 Facility to Accommodate a Pool.....	7
2-5 SPACE ASSESSMENT.....	7
2-6 ALTERATIONS TO EXISTING FACILITIES.....	7
2-6.1 Regulatory Authorities.....	7
2-6.2 Other Considerations.....	8
CHAPTER 3 GENERAL DESIGN CRITERIA.....	1
3-1 GENERAL.....	1
3-2 STRUCTURE.....	1
3-2.1 Foundation.....	1
3-2.2 Superstructure.....	1
3-3 EXTERIOR DESIGN.....	1
3-3.1 Entrances/Exits.....	1
3-3.2 Doors and Windows.....	1
3-3.3 Exterior Finishes.....	2
3-3.4 Exterior Signage.....	2
3-3.5 Exterior Walls and Mold.....	2
3-4 INTERIOR DESIGN.....	2
3-4.1 Interior Construction.....	2
3-4.2 Finishes.....	3
3-5 SERVICES.....	3

3-5.1	Plumbing	3
3-5.2	Heating, Ventilating, and Air Conditioning (HVAC)	3
3-5.3	Fire Protection	4
3-5.4	Electrical	4
3-6	SITE DESIGN AND ORGANIZATION	5
3-6.1	Landscaping	5
3-6.2	Parking and Access Drives	5
3-6.3	Service Drive	5
3-6.4	General Site Lighting	6
3-7	BARRIER-FREE DESIGN REQUIREMENTS	6
3-8	ANTITERRORISM	6
3-9	SUSTAINABLE DESIGN	6
3-9.1	Service Specific	7
3-9.2	Other Sustainable Design Criteria	8
3-9.3	DoD Energy Budget	8
	CHAPTER 4 SPECIFIC DESIGN CRITERIA	1
4-1	INTRODUCTION	1
4-2	HEALTH AND WELLNESS CENTER SPACES	38
	APPENDIX A REFERENCES	1
	APPENDIX B SPACE PROGRAM	1
B-1	SPACE PROGRAM STANDARDS	1
B-2	SAMPLE INTERACTIVE SPREADSHEETS	4
	APPENDIX C EQUIPMENT LISTS	1
C-1	FITNESS EQUIPMENT LISTS	1
C-1.1	Free/plate-loaded Weights	1
C-1.2	Selectorized (Machine) Equipment	3
C-1.3	Cardiovascular Equipment	5

FIGURES

FIGURE 2.1.	BASIC FACILITY FUNCTIONAL RELATIONSHIP DIAGRAM	5
FIGURE 2.2.	FACILITY WITH CONSOLIDATED HEALTH AND WELLNESS CENTER FUNCTIONAL RELATIONSHIP DIAGRAM	6
FIGURE 2.3.	FACILITY TO ACCOMMODATE A POOL FUNCTIONAL RELATIONSHIP DIAGRAM	7
FIGURE B-1.	SPACE PROGRAM STANDARDS	2
FIGURE B-1.	SPACE PROGRAM STANDARDS (continued)	3
FIGURE B-2.1.	SAMPLE INTERACTIVE WORKSHEET FOR AN ARMY FITNESS FACILITY	4
FIGURE B-2.1.	SAMPLE INTERACTIVE WORKSHEET FOR AN ARMY FITNESS FACILITY	5
FIGURE B-2.1.	SAMPLE INTERACTIVE WORKSHEET FOR AN ARMY FITNESS FACILITY	6

FIGURE B-2.1. SAMPLE INTERACTIVE WORKSHEET FOR AN ARMY FITNESS FACILITY	7
FIGURE B-2.1. SAMPLE INTERACTIVE WORKSHEET FOR AN ARMY FITNESS FACILITY	8
FIGURE B-2.2. SAMPLE INTERACTIVE WORKSHEET FOR A NAVY FITNESS FACILITY	9
FIGURE B-2.2. SAMPLE INTERACTIVE WORKSHEET FOR A NAVY FITNESS FACILITY	10
FIGURE B-2.2. SAMPLE INTERACTIVE WORKSHEET FOR A NAVY FITNESS FACILITY	11
FIGURE B-2.2. SAMPLE INTERACTIVE WORKSHEET FOR A NAVY FITNESS FACILITY	12
FIGURE B-2.2. SAMPLE INTERACTIVE WORKSHEET FOR A NAVY FITNESS FACILITY	13
FIGURE B-2.3. SAMPLE INTERACTIVE WORKSHEET FOR A MARINE CORPS FITNESS FACILITY	14
FIGURE B-2.3. SAMPLE INTERACTIVE WORKSHEET FOR A MARINE CORPS FITNESS FACILITY	15
FIGURE B-2.3. SAMPLE INTERACTIVE WORKSHEET FOR A MARINE CORPS FITNESS FACILITY	16
FIGURE B-2.3. SAMPLE INTERACTIVE WORKSHEET FOR A MARINE CORPS FITNESS FACILITY	17
FIGURE B-2.3. SAMPLE INTERACTIVE WORKSHEET FOR A MARINE CORPS FITNESS FACILITY	18

TABLES

TABLE 1-1. FUNCTIONAL PROGRAM AREAS	3
TABLE 1-2. HEALTH AND WELLNESS PROGRAM AREAS	6
TABLE 4-1. ENTRY/LOBBY and WAITING/DISPLAY	1
TABLE 4-2. CONTROL COUNTER/EQUIPMENT ISSUE/STORAGE	3
TABLE 4-3. RETAIL/VENDING/JUICE BAR	5
TABLE 4-4. LAUNDRY	6
TABLE 4-5. PUBLIC TOILETS/JANITOR'S CLOSET	7
TABLE 4-6. PARENT/CHILD AREA	8
TABLE 4-7. RECEIVING AND EQUIPMENT REPAIR	9
TABLE 4-8. ADMINISTRATIVE OFFICES	10
TABLE 4-9. CLASSROOMS/TRAINING ROOMS	11
TABLE 4-10. COPY/WORK/BREAK ROOM	12
TABLE 4-11. MEN'S AND WOMEN'S LOCKERS/DRESSING	13
TABLE 4-12. MEN'S AND WOMEN'S SHOWERS	15
TABLE 4-13. MEN'S AND WOMEN'S TOILETS	16
TABLE 4-14. FAMILY CHANGING ROOM/FAMILY LOCKER ROOM	18
TABLE 4-15. STEAM ROOM	19
TABLE 4-16. SAUNA	20
TABLE 4-17. MASSAGE ROOM	21
TABLE 4-18. HOT TUB	22
TABLE 4-19. CONVERTIBLE LOCKER SPACE	23

UFC 4-740-02
26 September 2006

TABLE 4-20. GYMNASIUM/BASKETBALL/VOLLEYBALL COURTS	25
TABLE 4-21. GYMNASIUM EQUIPMENT STORAGE	27
TABLE 4-22. ROCK CLIMBING	28
TABLE 4-23. RACQUETBALL COURTS	29
TABLE 4-24. UNIT PT/GROUP EXERCISE ROOM.....	30
TABLE 4-25. FITNESS AREA.....	32
TABLE 4-26. FITNESS ASSESSMENT ROOM	34
TABLE 4-27. PHYSICAL THERAPY/REHAB TRAINING	35
TABLE 4-28. INDOOR TRACK	36
TABLE 4-29. HEALTH AND WELLNESS CENTER RECEPTION/WAITING AREA	38
TABLE 4-30. HEALTH AND WELLNESS CENTER DEMONSTRATION KITCHEN	39
TABLE 4-31. HEALTH AND WELLNESS CENTER ADMINISTRATIVE AREA	40
TABLE 4-32. HEALTH AND WELLNESS CENTER ERGOMETRY/FITNESS TESTING	41
TABLE 4-33. HEALTH AND WELLNESS CENTER STORAGE	42
TABLE 4-34. HEALTH AND WELLNESS CENTER TOILETS/LAVATORIES.....	43
TABLE 4-35. HEALTH AND WELLNESS CENTER RELAXATION ROOM	44

CHAPTER 1 INTRODUCTION

1-1 SCOPE OF DOCUMENT.

This UFC provides guidelines for evaluating, planning, programming, and designing Fitness Facilities. The information in this UFC applies to the design of all new construction projects, to include additions, alterations, and renovation projects in the continental United States (CONUS) and outside the continental United States (OCONUS). It also applies to the procurement of design/build services for the above-noted projects. Alteration and renovation projects should update existing facilities to meet the guidance and criteria within budgetary constraints. This UFC is not intended as a substitution for thorough review by individual Program Managers and Operations Staff in the appropriate Service.

1-2 USERS OF THIS DOCUMENT.

This UFC is intended to be a source of basic architectural and engineering information for all individuals involved in the planning, design, or evaluation of Fitness Facilities. Note: where one Service's criteria vary from the other Services' criteria, it is noted in the text as a **Service Exception**. Specific users of the UFC include the following.

1-2.1 Architects and Engineers.

Architects and Engineers (A/Es) who will provide design services under the direction of the individual design agencies, including the Army Corps of Engineers (COE), Army Community and Facility Support Center (CFSC), Naval Facilities Engineering Command (NAVFAC), Commander, Navy Installations (CNI), and the Air Force Major Command Civil Engineers.

1-2.2 Planning Personnel.

Planning personnel will use this UFC along with other documents for programming new or replacement facilities, pre-design planning, or assessing the extent of improvements required in an existing Fitness Facility in order to achieve the standard established herein.

1-2.3 Additional Users.

Additional users include the following:

- a. Headquarters staff and field operating agencies,
- b. Major command staff/regions,
- c. Installation commanders,
- d. Installation facilities management,
- e. Installation technical proponents,

- f. Program directors, and
- g. Facility/program operations staff.

1-3 SCOPE OF FACILITY.

The Fitness Facility comprises the fitness program spaces, the administrative area, and building support.

An additional component for some facilities is the Health and Wellness Center (HAWC)/health promotions. This component includes health promotions, health education, and fitness testing functions. **Service Exceptions:** Only the Air Force provides the Health and Wellness Center as a consolidated center. The Marine Corps provides the health promotion functions in at least one Fitness Facility on an Installation and integrates fitness testing with their fitness program. The Army may provide some of the functions of the Health and Wellness Center within their fitness program.

Additionally, there are core functional program areas and optional functional program areas. All functional program areas are listed and described in Tables 1-1 and 1-2. All of these spaces are described in greater detail in Chapters 2 and 4. Additionally, due to the numerous possible variations of Fitness Facility programs, a special space program tool has been developed to help users navigate the intra- and inter-Service permutations. This tool is described in paragraph 2-2.

1-4 PROGRAM AREAS.

1-4.1 Fitness Program, Administrative Areas, and Building Support.

Table 1-1 lists the core and optional areas for the fitness program, administrative areas, and building support. These are the traditional functions of a Fitness Facility. They provide facilities and support services to meet the general fitness, skill development, training, and sports needs of all authorized users.

TABLE 1-1. FUNCTIONAL PROGRAM AREAS

Functional Program Area	Description/Service Exceptions
Lobby/Reception	
Entry lobby	Minimal entry space in front of control and/or vestibule. Usually combined with the waiting/display area.
Control counter/equipment issue storage	Sign-in and small gear issue, visual control over the facility via line of sight (LOS) entry, free weights, locker room entrance. LOS control over cardio, selectorized, courts, group exercise is also desired, but may be accommodated via CCTV if necessary. Provides area to hold gear for issue (i.e. towels, balls, rackets).
Vending	Food and beverages. May be combined with gear issue (refrigerator); may be self-serve (vending).
Waiting/display	Waiting area with seating and display.
Public restrooms/phone	Public restrooms (tied to gym capacity), telephone.
Administrative	
Director's office	Private office.
Program managers offices	Private offices (AF and Marine Corps) or workstations (Army and Navy).
Administrative offices	Workstations.
Classrooms/training rooms	Required program space. For AF facilities, if a Health and Wellness Center is attached to the Fitness Center, these rooms will be supplanted by the Health and Wellness Center classroom/training room.
Copy/work/break room	Copier, layout space, storage, small break area.
Gymnasium	
Basketball/volleyball court(s)	NCAA-size court(s).
Spectator seating	Minimum of 200 seats, more as required and with additional courts.
Storage/support	Storage area with access to both the gym and to the outside if adjacent intramural fields are present.
Unit PT/Group Exercise	
Group exercise room	One large subdivideable room with partitions (for classes and/or unit/command fitness training).
Storage/support	Storage area with access to Unit PT/group exercise room.
Fitness Spaces	
Stretching/warm-up/cool-down	Usually one open space; may use floor finishes to separate subspaces; may use alcoves; may use balconies/mezzanines.
Free/plate-loaded weights	
Selectorized (machine) weights	
Cardiovascular (cardio) equipment	

TABLE 1-1. FUNCTIONAL PROGRAM AREAS

Functional Program Area	Description/Service Exceptions
Fitness program manager's office	Private office adjacent to fitness assessment room and fitness spaces. May include fitness testing equipment. Marine Corps requires fitness testing equipment.
Fitness assessment room	Private office with desk, computer, and chairs for staff to meet with customer adjacent to fitness spaces. Includes fitness testing equipment.
Structured Activities	
Structured activity space	Can be used as needed, i.e. for climbing wall, spinning, martial arts/boxing, other structured activity, or rolled into other functional areas as needed. Army requires this as a stand-alone space.
Racquetball courts	Sized and specified to include wally ball, squash, and handball.
Spectator area/officiating	Optional for Marine Corps. Required for AF and Army. Not supported by Navy.
Locker Rooms	
Men's Locker Room	Separate male/female facilities. Each locker room is divided into the three sub areas indicated.
Locker/changing area	
Shower/drying area	
Toilet area	
Women's Locker Room	Separate male/female facilities. Each locker room is divided into the three sub areas indicated.
Locker/changing area	
Shower/drying area	
Toilet area	
Sauna	Separate male/female facilities. Optional for Army to have either sauna or steam room (see below). Optional for Air Force and Marine Corps.
Steam room	Separate male/female facilities. Optional for Army to have either steam room or sauna (see above). Optional for Air Force. Not supported by Marine Corps.
Hot tub	Optional. May be separate male/female or may be combined. Not supported by Army.
Convertible locker space	Optional for Army and Air Force. Optional for Marine Corps only in Large or Extra Large Facilities. Not supported by Navy. This is locker/changing space that can be used for additional male or female space to accommodate tournaments and/or changing demographics. It is a separate room between the male and female locker rooms with double-locked doors into each.
Support Areas	
Laundry	For towels and uniforms. Adjacent to receiving (if laundry service used) and control desk, if possible.

TABLE 1-1. FUNCTIONAL PROGRAM AREAS

Functional Program Area	Description/Service Exceptions
Receiving and equipment repair	Receiving, storage, and repair (with tool storage). Adjacent to loading dock or double exterior doors and the fitness spaces. Area to hold (if necessary), assemble, and repair equipment. Also store overflow from the equipment issue (i.e. seasonal items). Lockable storage with a sub area of additional secure storage.
Additional programmatic storage	Optional storage for additional, optional program equipment (i.e. boxing ring). May be combined with receiving/equipment repair.
Other Program Areas	
Pool	Note that pools and natatoriums are a different category code. If a pool/natatorium is desired, it will affect the adjacencies and traffic flow within the building. See Figure 2.3 for these adjacencies. For space and technical criteria for pools/natatoriums, refer to the following additional documents: <ul style="list-style-type: none"> • Army, US Army Community and Family Support Center (CFSC), • Navy and Marine Corps. NAVFAC P-80, <i>Facility Planning Criteria for Navy and Marine Corps Shore Installations CCN 740-53 and 750</i>; and • Air Force. UFC 4-750-07F, <i>Aquatic Facilities</i>.
Track	Army required—space for indoor track may be used for additional cardio space in temperate locations with approval of CFSC. Air Force required—Installation determines indoor track or outdoor track. Navy and Marine Corps—optional. Navy determines permissibility by center size and climate.
Massage room	Optional room for massage. Not supported by Navy.
Physical therapy/rehabilitation training	Optional. Similar functional requirements to fitness assessment office. Not supported by Navy. Air Force recommends locating this function in the HAWC (see Table 1-2).
Expanded retail	Optional. Retail area for clothes, sports equipment. Not supported by Navy.
Expanded juice bar	Optional. A separate counter in lobby space. May be contract space. Not supported by Navy.
Family changing room	Required for Army and Navy if co-located with a pool/natatorium. Optional for Air Force and Marine Corps. Single-person locker room with shower, lavatory, and toilet—family member accompanies child. Adjacent to locker area and pool (if provided).

TABLE 1-1. FUNCTIONAL PROGRAM AREAS

Functional Program Area	Description/Service Exceptions
Male Distinguished Visitor's (DV) locker room *	AF only option.
Female DV locker room *	AF only option.
Parent child area *	AF-only option: Provides a separate room for parents to watch their children while they work out—includes adult fitness equipment on one side and a separate child play area on the other. The two sides are divided by a 760-mm- (30-in.-) high clear wall with a central entry/exit point. Marine Corps-only option: Provides an unstaffed child care room with play area for the children and a seating/lounge area for the adults—adults are required to attend to their children. Does not include fitness equipment.

* Service-specific space

1-4.2 Health and Wellness Center Program Areas.

The Health and Wellness Center spaces described in Table 1-2 may be required for the Air Force as part of a consolidated Health and Wellness Center. For the Marine Corps, some of the spaces are required as part of their health promotions program and some are integrated with their fitness program. For the Army, they may be provided as part of the fitness program. The Health and Wellness Center is not supported in Navy Fitness Facilities.

Note: The Health and Wellness Center criteria provided in this document applies to a Health and Wellness Center that is collocated with a Fitness Facility. If a stand-alone Health and Wellness Center is to be built, review this information for general guidance only, and develop a comprehensive facility program that includes the appropriate support spaces.

TABLE 1-2. HEALTH AND WELLNESS PROGRAM AREAS

Functional Program Area	Description/Service Exceptions
Lobby/reception	AF required. Not supported by Army and Marine Corps.
Director's office	AF required. Army and Marine Corps optional.
Program managers' offices	AF required. Army and Marine Corps optional.
Support staff workstations	AF required. Army and Marine Corps optional.
Classroom/training room	AF and Marine Corps required. Army optional. These rooms take the place of the fitness classroom/training room. Requires access from Fitness center in this case.
Resource room/computer lab	AF and Marine Corps required. AF combines with lobby/reception. Optional for Army.
Storage/support	Tied to classrooms and demonstration kitchen.

TABLE 1-2. HEALTH AND WELLNESS PROGRAM AREAS

Functional Program Area	Description/Service Exceptions
Ergometry and fitness testing	AF required. Marine Corps required and should be adjacent to the fitness area. Not supported by Army.
Wellness assessment room	AF required. Not supported by Army and Marine Corps.
Equipment demonstration room	Required AF only if Health and Wellness Center is not collocated with the fitness facility. Optional for Army.
Demonstration kitchen	AF, Marine Corps (required in at least one facility on an installation), and Army optional.
Relaxation room	AF and Marine Corps optional. Lounge/massage chairs, music.
Physical therapy workstation/athletic training room	Optional. PT clinical space.

1-5 USERS OF FACILITY.

The facility users are as follows:

- a. Active duty, guard, reserve, retired military personnel and their family members;
- b. DoD civilians and others as authorized.

1-6 RELATED DOCUMENTS.

The Department of Defense (DoD) Memorandum dated 25 January 1999 requires the use of The American College of Sports Medicine's *Health/Fitness Facility Standards and Guidelines* for fitness and sports standards.

Also refer also to the following **Service-specific** related documents:

- a. **Army.** U.S. Army Physical Fitness Facilities Technical Criteria,
- b. **Navy and Marine Corps.** NAVFAC P-80, Facility Planning Criteria for Navy and Marine Corps Shore Installations and Navy Fitness Center Standards and Metrics, and
- c. **Air Force.** AF Services Facilities Design Guide: Fitness Centers.

CHAPTER 2 PLANNING AND LAYOUT

2-1 SIZE DETERMINANTS.

Fitness Facility size is generally driven by the Installation population. However, the population and sizing factors vary by Service.

2-1.1 **Army.**

For **Army** population and Fitness Facility size criteria, use this UFC and the associated space program spreadsheet (see Section 2-2). Also refer to *U.S. Army Physical Fitness Facilities Technical Criteria* and the *Army Quantity Questionnaire spreadsheet* for additional information.

The **Army** uses five size classifications:

- a. Extra small, for populations between 251 and 1,000;
- b. Small, for populations between 1,001 and 3,000;
- c. Medium, for populations between 3,001 and 6,000;
- d. Large, for populations between 6,001 and 10,000; and
- e. Extra large, for populations between 10,001 and 15,000.

Over 15,000, the Army adds population in increments of 5,000 for the purpose of determining Fitness Facility sizing.

2-1.2 **Navy.**

For **Navy** population and Fitness Facility size criteria, refer to *NAVFAC P-80, Facility Planning Criteria for Navy and Marine Corps Shore Installations (P-80)* and *Navy Fitness Center Standards and Metrics*. This UFC and the associated space program spreadsheet (see Section 2-2) have been designed to work with the Navy population and size criteria. In the event of a conflict between this UFC and the P-80, use the criteria in this UFC.

The **Navy** uses six size classifications:

- a. Extra small, for populations less than 500;
- b. Small, for populations between 501 and 3,000;
- c. Medium, for populations between 3,001 and 7,000;
- d. Large, for populations between 7,001 and 14,000;
- e. Extra large, for populations between 14,001 and 30,000; and

- f. Jumbo, for populations over 30,000.

2-1.3 Air Force.

Air Force population and Fitness Facility size criteria are provided at the following Web site: <http://www-p.afsv.af.mil/FC/DesignGuides.htm>. The space program spreadsheet (see paragraph 2-2) associated with this UFC does not provide size criteria for Air Force facilities. The Air Force uses the following size classifications:

- a. Small, for populations less than 1,000;
- b. Medium 1, for populations between 1,001 and 2,000;
- c. Medium 2, for populations between 2,001 and 3,000;
- d. Medium 3, for populations between 3,001 and 4,000;
- e. Medium 4, for populations between 4,001 and 5,000; and
- f. Large, for populations between 5,001 and 6,000.

Over 6,000, the Air Force adds population in increments of 1,000 for the purpose of determining Fitness Facility sizing. The facility area increases by 465 m² (5,000 ft.²) for every 1,000-person increase in population.

2-1.4 Marine Corps.

For **Marine Corps** population and Fitness Facility size criteria, refer to *NAVFAC P-80, Facility Planning Criteria for Navy and Marine Corps Shore Installations*. This UFC and the associated space program spreadsheet (see Section 2-2) have been designed to work with the Marine Corps population and size criteria. In the event of a conflict between this UFC and the P-80, use the criteria in this UFC.

The **Marine Corps** uses five size classifications:

- a. Extra small, for populations less than 500;
- b. Small, for populations between 501 and 3,000;
- c. Medium, for populations between 3,001 and 7,000;
- d. Large, for populations between 7,001 and 14,000; and
- e. Extra large, for populations between 14,001 and 30,000.

The **Marine Corps** also uses actual Installation population figures and a specific formula for sizing the fitness spaces on Installations with populations greater than 3,000: Peak load = 3.5% of installation population; fitness area = 4.2 m (45.32 ft.²) times peak load. For the purposes of this formula, the fitness areas only include the

free weight, selectorized equipment, and cardio equipment areas and do not include space for stretching/warm-up/cool-down and the fitness assessment office.

2-2 **SPACE PROGRAM.**

The space program for Fitness Facilities is developed through the use of an interactive spreadsheet. It is completed by first entering the appropriate Service branch and then selecting the appropriate size basis for the facility. These selections generate the default space program which is broken down into the spaces listed in Tables 1-1 and 1-2. In some cases, there are options to modify the default numbers or to add optional spaces.

This spreadsheet is available as a downloadable Microsoft® Excel® file from the Whole Building Design Guide Website (www.wbdg.org) under the DoD page.

Service Exception: The **Air Force** worksheet is available as a downloadable Microsoft® Excel® file from the Air Force Services Agency public Website: www-p.afsv.af.mil/FC/AF_Fitness_Centers.htm.

2-2.1 Samples of completed interactive spreadsheets for each Service are included in Appendix B.

2-2.2 The data upon which the interactive spreadsheet is based is also provided in Appendix B. Do not use Appendix B to develop the space program—use only the interactive spreadsheet.

2-2.3 The space program developed through the use of the interactive spreadsheet serves as a guideline for the Fitness Facility planning team and generally represents the maximum space allowed. The final space program for a new Fitness Facility will need to be carefully determined by Installation representatives and the appropriate Service program office guided by the criteria in this UFC.

2-3 **LOCATION DETERMINANTS.**

Several factors determine the most appropriate and cost-effective location for a Fitness Facility. In general, considerations should include the availability and capacity of required utilities and the mass/scale of the facility relative to adjacent structures.

2-3.1 **Access.**

The Fitness Facility's ideal location should encourage participation by a diverse representation of the target audience, including both genders, by being visible and easily accessible. Consider locating the facility along the pedestrian paths to the existing barracks/dormitories, existing MWR/NEX/MCCS/ Services facilities, and/or the dining facility. To accommodate patron access, consider the relationships to existing vehicular and pedestrian circulation patterns, bike trails, and bus stops. Provide adequate parking as close to the facility as possible within Antiterrorism (AT) requirements.

2-3.2 Related Facilities.

Consider locating the facility near other high-visibility areas and related functions such as outdoor running tracks, sports fields, open park space, swimming pools, outdoor recreation centers, military recreation centers, etc.

2-3.3 Cost.

These facilities should be designed with the objective of achieving the lowest life cycle cost over a 30-year period. To do so, the project's design program must adequately define the scope and performance requirements and match those needs against a budget. Conversely, the budget must adequately support an appropriate and high-quality program and the performance requirements outlined and identified in this UFC. Also consider possible future additions when selecting the site to ensure cost-effective expansion possibilities.

2-4 LAYOUT AND ADJACENCIES.

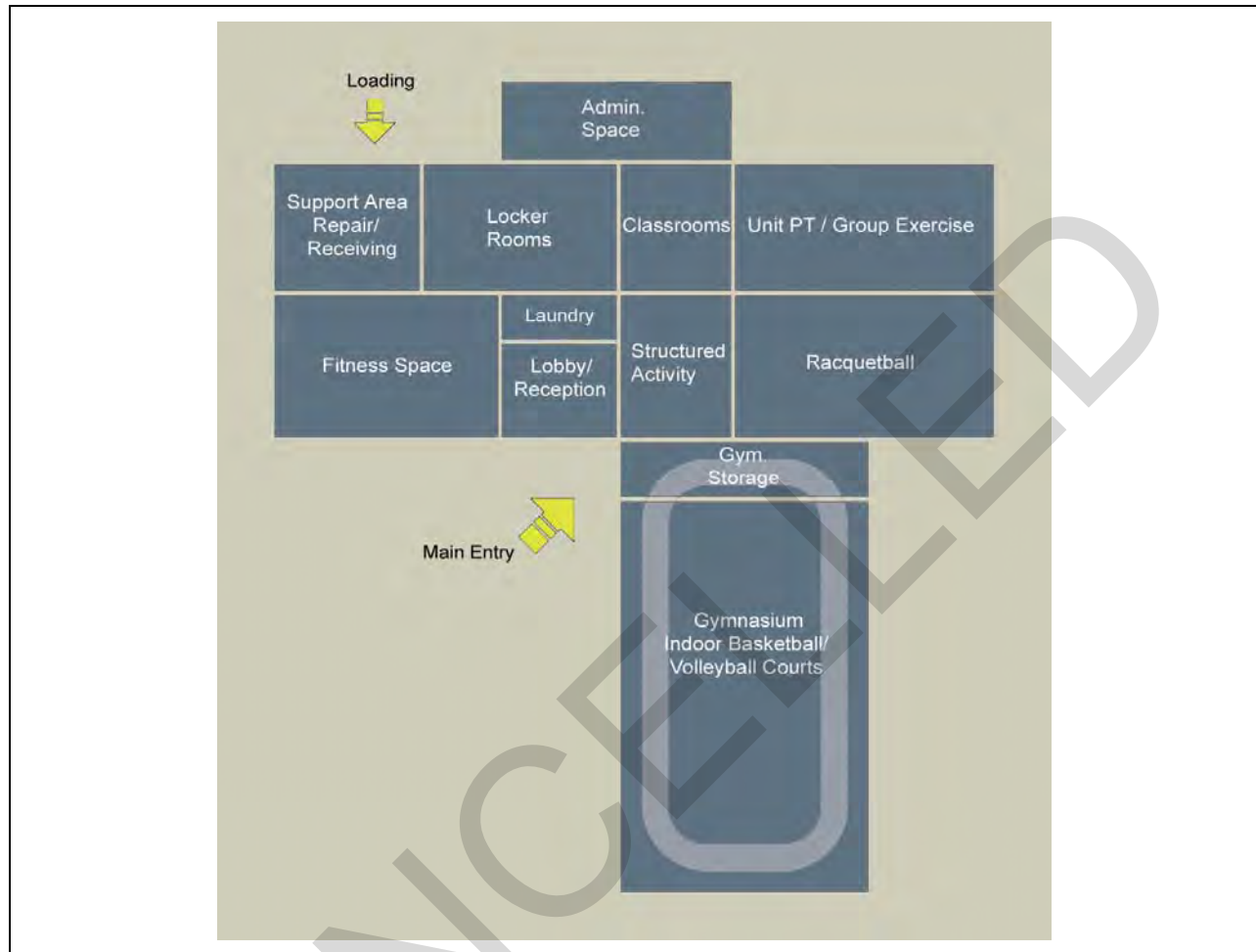
The appropriate layout and adjacencies are illustrated in Figures 2.1 through 2.3. These diagrams are not intended to convey a building shape. Required adjacencies may be accommodated vertically.

These three figures all illustrate a facility with the gymnasium near the front entrance. This configuration allows the gymnasium to be used for events while the rest of the facility is closed off. However, also consider the massing of the facility when determining the location of the gymnasium.

2-4.1 Basic Facility.

The diagram in Figure 2-1 indicates acceptable relative adjacencies of the major functional spaces for a basic facility.

FIGURE 2.1. BASIC FACILITY FUNCTIONAL RELATIONSHIP DIAGRAM

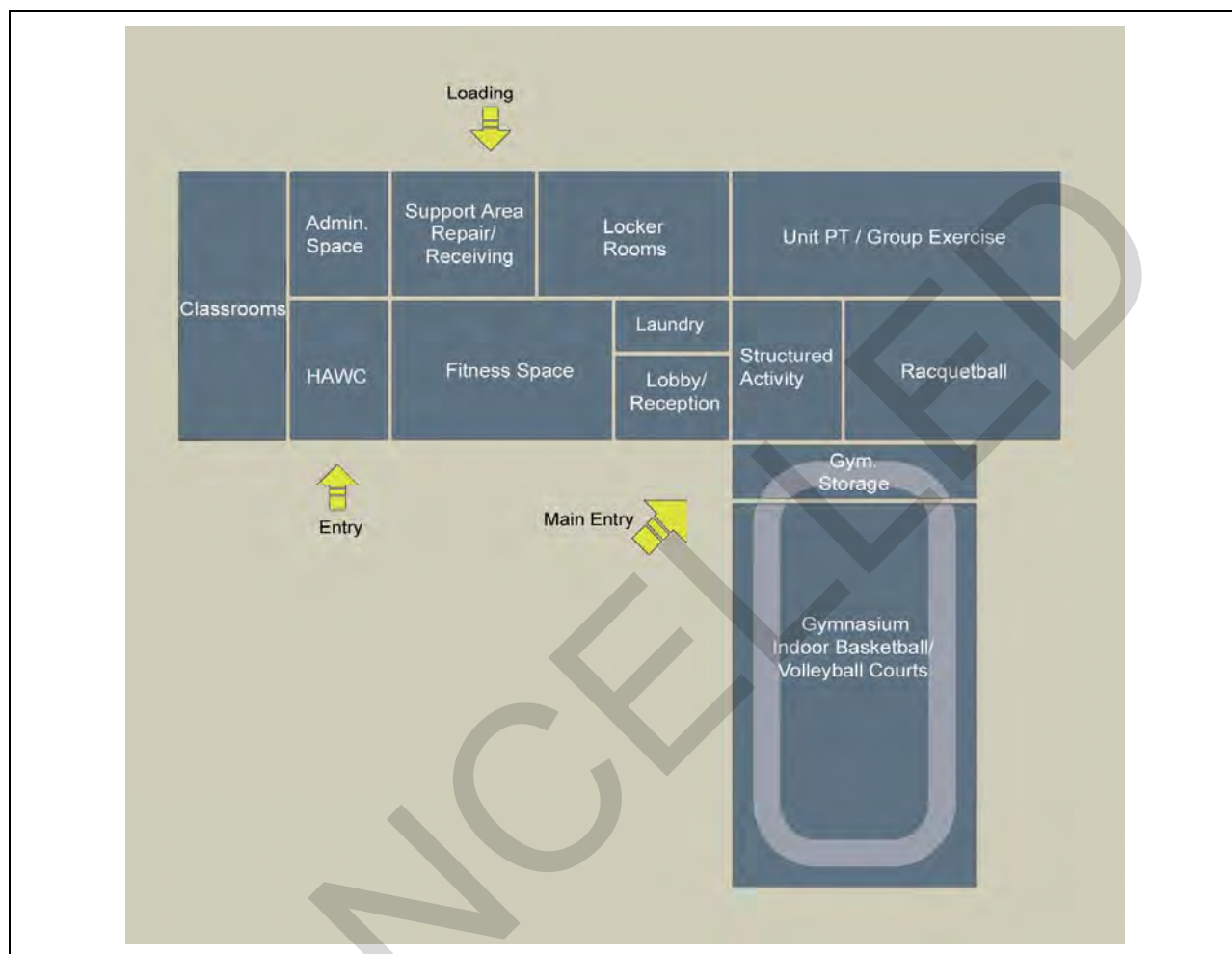


2-4.2 Facility with a Consolidated Health and Wellness Center.

The diagram in Figure 2-2 indicates acceptable relative adjacencies of the major functional spaces for a facility with a consolidated Health and Wellness Center. Note that only Air Force facilities include a consolidated HAWC.

UFC 4-740-02
26 September 2006

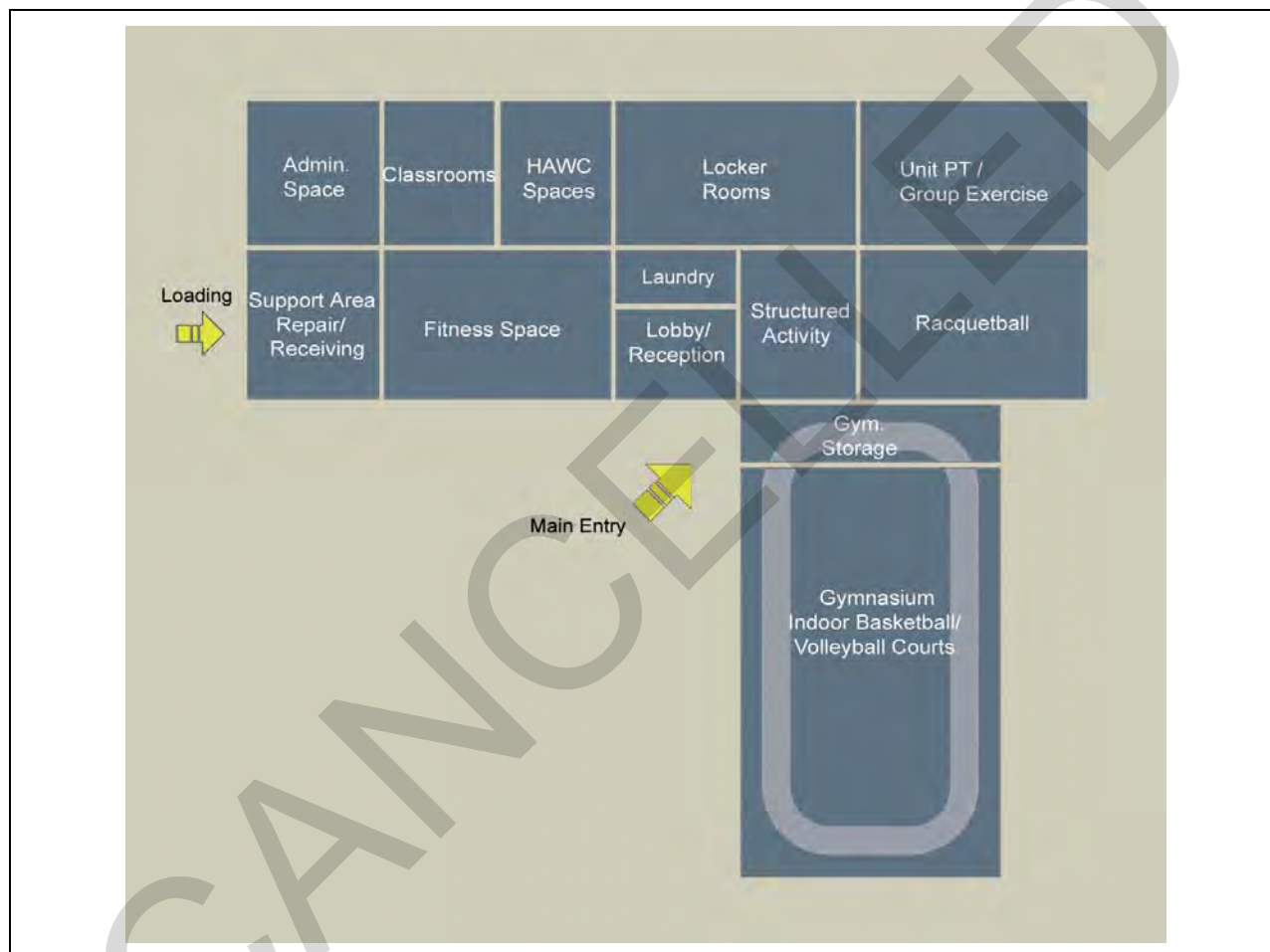
**FIGURE 2.2. FACILITY WITH CONSOLIDATED HEALTH AND WELLNESS CENTER
FUNCTIONAL RELATIONSHIP DIAGRAM**



2-4.3 Facility to Accommodate a Pool.

The diagram in Figure 2-3 indicates acceptable relative adjacencies of the major functional spaces for a facility that will include or is adjacent to a pool (pool not shown but would be adjacent to the locker rooms).

**FIGURE 2.3. FACILITY TO ACCOMMODATE A POOL
FUNCTIONAL RELATIONSHIP DIAGRAM**

**2-5 SPACE ASSESSMENT.**

See the Functional Data Sheets in [Chapter 4](#) for additional information on the space types and their relationships to each other.

2-6 ALTERATIONS TO EXISTING FACILITIES.**2-6.1 Regulatory Authorities.**

Refer to the following regulatory authorities for each Service:

- a. **Army.** The standard may be modified to accommodate the existing structure. However, all proposed modifications to the standard must be sent to the Army Corps of Engineers, Engineering & Support Center, HSV (CEHNC) for review and HQDA (CFSC‑CYS) for approval prior to the initiation of concept design.
- b. **Navy and Marine Corps.** Authorities are contained in *OPNAVINST 11010.20F Facilities Projects Manuals* and *NAVFACINST 11010.45 Comprehensive Regional Planning Instruction*. Prior to planning alterations to an existing facility to convert it to a Fitness Center, the activity should consult the following: Navy: CNI (N254) and Marine Corps: HQMC Personal and Family Readiness Division (MRS/MRD).
- c. **Air Force.** The standard may be modified to accommodate the existing structure. However, all proposed modifications to the standard must be sent to HQ Air Force Civil Engineering Support Agency (AFCESA) for fire and life safety issues, to HQ Air Force Services Agency (AFSVA) for functional issues, and to the respective MAJCOM Services Director for deviations from the core requirements.

2-6.2 Other Considerations.

Consider the site of the existing facility and its limitations with regard to the Fitness Center's needs. Only permanent facilities should be considered for conversion to a Fitness Center. Exceptions may be made for other buildings that are in excellent condition, subject to the location determinants in Section 2-3.

Existing buildings being considered for conversion, alteration, or addition should be assessed as to whether they can support all the core and optional spaces and dimensional requirements of the proposed building program. For example, can the building accommodate an appropriately sized gymnasium? Can it accommodate the locker rooms? Are the floor-to-ceiling heights appropriate? All technical, code, accessibility, and AT requirements must be met as noted in Chapter 3.

CHAPTER 3 GENERAL DESIGN CRITERIA

3-1 GENERAL.

Use UFC 1-200-01, *General Building Requirements* for guidance on the use of model building codes for design and construction of Department of Defense facilities. See Section 3-5 for the appropriate governing codes for building services.

This chapter provides general criteria only and consists mainly of references to the technical design criteria documents and general considerations. Chapter 4 provides the specific design requirements for each Fitness Facility space.

3-2 STRUCTURE.

3-2.1 Foundation.

The foundation is site specific and must be designed upon known geotechnical considerations, by an engineer knowledgeable of the local conditions.

3-2.2 Superstructure.

Provide clear spans as required for the activity areas and gymnasium. Use pre-engineered components for superstructure framing, where feasible.

3-3 EXTERIOR DESIGN.

In general, the building's image, theme, and fixtures must be consistent with the programs offered. The building design should reflect the local geographical and cultural environment and comply with the appropriate Service and Installation architectural standards. The building and site should provide a visually attractive, safe, and welcoming appearance. Consider grouping high bay spaces together. The high bay areas should not dominate or overwhelm surrounding structures.

3-3.1 Entrances/Exits.

The main facility entrance to the lobby should serve as a welcome and transition point—elements such as a covered entry are very desirable. In cold climates, provide a canopy (or a recess) at required egress doors to ensure that doors can open completely without obstruction from snow and ice.

If applicable, provide a separate entrance to the Health and Wellness Center and a separate entrance for equipment deliveries. Provide a separate gymnasium emergency/special event exit with a paved path to the parking area. See Paragraph 3-6 for more information on site work.

3-3.2 Doors and Windows.

Provide windows to allow natural light into the facility, considering AT and energy conservation/sustainable design issues (see Sections 3-8 and 3-9). Use aluminum or

hollow metal frames and doors. Mitigate glare and direct sunlight in activity spaces such as the gymnasium and fitness spaces.

3-3.3 Exterior Finishes.

The exterior color, texture, and design should be consistent with the programs offered and the local environment in accordance with Installation standards. They should also be appropriate for the building type. The design should communicate a sense of activity and fun while complying with Installation architectural standards. Coordinate the exterior finishes with the Service-specific design standards noted below in Section 3-4.2 for interior finishes.

3-3.4 Exterior Signage.

The main entrance should be equipped with an attractive, clearly visible sign that provides the program hours of operation. Ensure that signage complies with Installation requirements. Sign placement and type are site-specific, but signs must be strategically located, adequately lit, and of sufficient size to permit proper viewing by individuals approaching the facility.

3-3.5 Exterior Walls and Mold.

Comply with current industry standards and the following documents during design to help prevent the development of mold in exterior walls:

- a. **Navy.** Interim Technical Guidance (ITG) FY03-4, *NAVFAC Mold Response Manual*,
- b. **Air Force.** ETL 04-3: Design Criteria for Prevention of Mold in Air Force Facilities.

3-4 INTERIOR DESIGN.

Construction and finishes (walls, floor, and ceiling) should support the image and theme of the facility and be consistent with the programs offered and any Installation interior standards. The interior design should offer the same interest, excitement, and professionalism that can be found in comparable commercial facilities. As with the exterior, design the Fitness Facility interior to reflect a high energy, non-institutional character that communicates a sense of activity.

3-4.1 Interior Construction.

Interior construction should be extremely durable. Use no hollow core wood doors. All interior glass must be tempered safety glass and mirrors must be made of break-resistant materials.

Counters, casework, and cabinets should be of high-quality and durable construction. Specify Architectural Woodwork Institute (AWI) Premium or Custom for finishes per *AWI Quality Standards Illustrated*, Current Edition. Casework and cabinet doors and drawer

faces should be provided as veneer panel core. Doors, drawers, and casework faces should be plastic laminate at a minimum. Where no water source is present, countertops should be plastic laminate as a minimum with hardwood or solid surface edging. Where a water source is present, countertops should be solid surface/solid composite plastics only. Specify 20-mm (.75-in.) minimum thickness for plywood, plywood backing, and solid wood panels.

Identify the amount (linear mm/ft.) of counter/casework and its functional requirements in each space within the Fitness Facility with the specific program and the following Service-specific contacts:

- a. The Installation Manager for **Army** and **Air Force** projects and
- b. HQ Program Managers for **Navy** and **Marine Corps** projects.

3-4.2 **Finishes.**

Finishes should take into account the intended uses, be appropriately durable, and be low maintenance. Finishes should have good acoustical, noise reducing characteristics. They must meet the requirements listed in NFPA 101, *Life Safety Code*. Also coordinate the interior design with the following Service-specific standards or agencies:

- a. **Army.** DG 1110-3-122, Interior Design Guide and Installation Design Guide Standards;
- b. **Navy.** CNI (N254);
- c. **Air Force.** Air Force Interior Design Guide, Major Command and Installation design standards, and Engineering Technical Letter (ETL) 03-3, Air Force Carpet Standard; and
- d. **Marine Corps.** HQMC Personal and Family Readiness Division (MRS/MRD).

3-5 **SERVICES.**

Also see Section 3-9 for information on sustainable design and energy consumption.

3-5.1 **Plumbing.**

Design domestic hot and cold water, sanitary and storm drainage, propane, fuel oil, or natural gas systems to meet the requirements of UFC 3-420-01, *Plumbing* and local Installation standards.

3-5.2 **Heating, Ventilating, and Air Conditioning (HVAC).**

Design the HVAC system to meet the requirements of UFC 3-410-01FA, *Heating, Ventilating, and Air Conditioning*; and UFC 3-410-02A, *Heating, Ventilating, and Air*

Conditioning (HVAC) Control Systems. Comply with AT requirements in the design of the HVAC system (see Paragraph 3-8).

Do not locate HVAC equipment above the gymnasium due to the risk of a leak causing water damage.

3-5.3 Fire Protection.

Design fire protection and life safety to comply with UFC 3-600-01, *Fire Protection Engineering For Facilities*.

3-5.4 Electrical.

Provide electric service and distribution equipment, wiring receptacles and grounding, interior and exterior lighting and control, emergency lighting, telephone, communication systems, fire alarm, other health and safety alarms, and intrusion systems in accordance with NFPA 70, *National Electrical Code*; UFC 3-520-01, *Interior Electrical Systems*; and the latest Installation design requirements. See the latest edition of *Electric Current Abroad*, U.S. Department of Commerce, to determine voltages and cycles in overseas locations. Service grounding system and all wiring methods must meet the current NFPA 70 requirements. All service equipment must be Underwriters Laboratories (UL) listed. Alternately, published proof from an approved independent testing laboratory may be provided.

3-5.4.1 Lighting.

Provide lighting and control systems throughout the facility in accordance with UFC 3-530-01, *Interior and Exterior Lighting and Controls*. Pay particular attention to issues such as glare, heat generation, and impact protection for the fixtures in Fitness Facility activity spaces.

3-5.4.2 Communications and Data.

Telephone and data outlets may be independent of each other or combined into a single junction box. Also consider wireless audio, video, and data installations for Fitness Facilities to add flexibility. If the hard-wired connections can be combined into a single junction box then the cover plate to that junction box must allow for multiple connections. In some unique situations, the cable television (CATV)/internal video connection can also be combined into a single junction box with the appropriate cover plate. Identify the preference for individual or combined telephone/data/video outlets with the following Service-specific contacts:

- a. The Installation Manager for **Army** projects,
- b. The project manager for **Air Force** projects, and
- c. HQ Program Managers for **Navy** and **Marine Corps** projects.

Service Exception: The **Navy** requires that each space supplied with a data connection have two hard-wired connections: a primary and an alternate. The alternate serves as a back-up and is generally not activated.

The Functional Data Sheets in Chapter 4 specify the need for a public address (PA) system and a closed circuit television (CCTV) system for each individual space. Identify the technical design requirements for the PA system and CCTV system with the following Service-specific contacts:

- d. The Installation Manager for **Army** and **Air Force** projects and
- e. HQ Program Managers for **Navy** and **Marine Corps** projects.

3-5.4.3 **Alarm System.**

Consider providing an alarm system for intrusion detection to protect equipment and assets. Provisions for an alarm system must be justified during the planning/programming process. Service Exception: For Navy, the individual Navy Installation desiring an alarm system may fund the system as collateral equipment.

3-6 **SITE DESIGN AND ORGANIZATION.**

Where possible, use outdoor spaces as transition spaces and for extended fitness uses, such as areas for runners and bicyclists. The site design should feel safe for all authorized users. If located nearby, provide access paths to related functions such as outdoor running tracks, sports fields, open park space, etc. The site design and all exterior features must comply with the AT standards in Paragraph 3-8.

3-6.1 **Landscaping.**

Landscaping should reflect the programs offered and the local geographical environment. The plant selection should be easy to maintain and enhance the visual quality of the facility in all seasons. Indigenous species are preferred. Comply with UFC 3-201-02, *Landscape Architecture* and the local Installation landscape standards. Service Exception: For Air Force, also refer to the USAF *Landscape Design Guide* and any Major Command standards. Provide an irrigation system, as needed. See Paragraph 3-9 for information on sustainable design.

3-6.2 **Parking and Access Drives.**

Provide adequate parking for both staff and patrons with the appropriate access drives. Consider location of bicycle racks near the facility entrance in a secure location. Comply with UFC 3-210-02, *POV Site Circulation and Parking*. Service Exception: For Air Force, also refer to AFH 32-1084, *Facility Requirements*, paragraph 20.2.2.2 and note 1 of table 20.2.

3-6.3 **Service Drive.**

The size of required service vehicles should be verified by the designer prior to planning the service access areas. A back-up spur should be provided for dead-end and service drives which exceed 30 m (100 ft.) in length. Access should be near the serviced areas: the receiving area, garbage dumpster/storage (indoor or outdoor), mechanical room, and service entry, if one is designated. Provide a service vehicle apron and consolidate service access when possible. Screen or separate the service area from public use or traffic areas with attractive walls, fences, depressions, berms, and landscaping. Ensure proper drainage if depressions are used. Do not cross outdoor activity areas with service access. Ensure compliance with AT standards noted in Paragraph 3-8 below, particularly for dumpster separation and access control.

3-6.4 General Site Lighting.

Ensure that parking areas and the facility have adequate lighting for safety, evacuation, and security measures. Comply with UFC 3-530-01, *Interior and Exterior Lighting and Controls*.

3-7 BARRIER-FREE DESIGN REQUIREMENTS.

Design Fitness Facilities to be barrier-free and accessible in compliance with the Architectural Barriers Act (Public Law 90-480) of 1968, <http://www.access-board.gov/ufas/ufas.html/ufas.htm> - ABA. Provide barrier-free design requirements in accordance with the Uniform Federal Accessibility Standards (UFAS), published as Federal Standard (FED-STD)-795, <http://www.access-board.gov/ufas/ufas.html/ufas.htm>, and 28 CFR Part 36, the Americans With Disabilities Act Accessibility Guidelines for Buildings and Facilities (ADAAG), <http://www.access-board.gov/adaag/html/adaag.htm>.

The ADA and ABA Accessibility Guidelines for Buildings and Facilities, <http://www.access-board.gov/ada-aba.htm>, was published in July 2004. These updated guidelines will supercede the Uniform Federal Accessibility Standards (UFAS), published as Federal Standard 795 and Americans With Disabilities Act Accessibility Guidelines (ADAAG) when adopted by the Department of Defense. Until then these updated guidelines are not enforceable and UFAS and ADAAG still apply. When the new guidelines are adopted, they will be referenced in this section and the criteria outlined in this section modified as necessary.

3-8 ANTITERRORISM.

Design the facility to comply with UFC 4-010-01, *DoD Minimum Antiterrorism Standards for Buildings* and UFC 4-021-01, *Mass Notification Systems*. All Fitness Facilities within the European Command area of responsibility must also comply with Appendix 1 (AT/FP Construction Design Standards) to Appendix D (Logistics) to USCINCEUR AT/FP OPOD 01-01.

3-9 SUSTAINABLE DESIGN.

Use an integrated approach to the planning and design of Fitness Facilities that minimizes energy consumption and optimizes life cycle cost renewable energy possibilities. Use a practical combination of site selection and siting, energy conserving building envelope technologies, energy efficient lighting, occupant sensing controls, variable frequency drives for motors and exhaust fans, and high efficiency HVAC systems to achieve this goal. Incorporate renewable energy principles such as day-lighting, passive and active solar heating, natural ventilation, and photo-voltaics where they are life cycle cost effective.

Follow the guidance in UFC 3-400-01, *Energy Conservation*.

A new UFC addressing sustainable design is in draft form. When it is released, it will be referenced in this section and the criteria outlined in this section modified as necessary.

3-9.1 Service Specific.

See the following Service-specific requirements:

3-9.1.1 Army.

Design Fitness Facility projects with consideration for sustainable ratings in eight facility categories: Sustainable Sites, Water Efficiency, Energy and Atmosphere, Materials and Resources, Indoor Environmental Quality, Facility Delivery Process, Current Mission, and Future Missions. The minimum rating for the Army's Sustainability Project Rating Tool (SPiRiT) must be in accordance with the current rating. Most projects can reach the sustainability rating without increasing costs, while improving Installation sustainability and balancing available resources with customer requirements. Understanding and applying the principles of sustainable design and development and using the SPiRiT rating process improves day-to-day decisions and project quality.

3-9.1.2 Navy and Marine Corps.

Use the United States Green Building Council (USGBC) Leadership in Energy and Environmental Design™ (LEED™) Green Building Rating System to measure the sustainability of the completed project. It can also be used during planning and design as a source of green building strategies. LEED™ addresses sustainable sites, water efficiency, energy and atmosphere, materials and resources, and indoor environmental quality. At a minimum Navy projects must be LEED™ "Certified." Meeting the rating of "Silver" or higher is preferred.

Follow the guidance in UFC 3-400-01, *Energy Conservation*.

3-9.1.3 Air Force.

It is Air Force policy to apply sustainable development concepts to the planning, design, construction, environmental management, operation, maintenance, and disposal of facilities and infrastructure projects, consistent with budget and mission requirements.

Each Major Command should incorporate sustainable development using LEED™ criteria. The *Air Force Sustainable Facilities Guide* will provide tools and suggested guidelines for selecting candidate projects. The goal is to have all MILCON projects, FY09 and beyond, capable of achieving LEED™ certification. Submission to the USGBC for actual LEED™ certification is at MAJCOM discretion. This policy does not apply to Host Nation or NATO-funded projects.

Sustainable development concepts will benefit the Air Force by creating high-performance buildings with long-term value. They are to be integrated into the development process and balanced with all other design criteria to achieve best value for the Air Force. The economic analysis process need not change, but the elements to consider will now include sustainable technologies and their potential for long-term savings. Complete Air Force policies may be found in the *Air Force Sustainable Facilities Guide* found at <http://www.afcee.brooks.af.mil/dc/dcd/arch/rfg/index.html>.

3-9.2 Other Sustainable Design Criteria.

The following general references provide more information:

When specifying products that are included in EPA's list of affirmative procurement guideline items, designers must include the requirement for these products to meet or exceed the recycled material content standards established by EPA. The list of products and their corresponding recycled content requirements are found at www.epa.gov/cpg/products. Listed products likely to be used in Fitness Facilities include building insulation, carpet and cushion, cement and concrete, latex paint, floor tiles, patio blocks, restroom dividers, and structural fiberboard.

The "Whole Building Design Guide" www.wbdg.org further explains the environmental issues related to building materials and provides technical guidance on green building material selection.

3-9.3 DoD Energy Budget.

Design of new facilities must ensure that building energy consumption does not exceed the DoD energy budget figures.

CHAPTER 4 SPECIFIC DESIGN CRITERIA**4-1 INTRODUCTION.**

This chapter identifies the specific design needs for each functional area as outlined in the space program. Tables 4-1 through 4-28 provide this data in a standard Functional Data Sheet format.

These Data Sheets are available as a Microsoft® Word® file for use during project execution. The file is downloadable from the Whole Building Design Guide Web site (www.wbdg.org) under the DoD page, Tools section.

TABLE 4-1. ENTRY/LOBBY and WAITING/DISPLAY

Description/ Usage	The lobby serves as the primary entrance to the facility for patrons, visitors, and spectators. The lobby should be open and friendly in design and serve to introduce the rest of the facility. Immediately adjacent to the lobby is the waiting/display area which provides an area for customers to relax and for the facility to display trophies and special activities and programs.
Min. Ceiling Ht.	3.05 m (10 ft.) minimum.
Finishes	<p>Walls. Provide a low-maintenance, durable finish with a wainscot. Consider painted gypsum wallboard or the use of vinyl wall covering where budget and practical considerations allow.</p> <p>Floor. Provide a low-maintenance, durable, moisture and slip-resistant finish suitable for this high traffic area. Consider stained concrete, stone, terrazzo, or quarry tile. Provide a walk-off mat/area at the entrance door. Provide a base that matches the flooring or a vinyl or rubber base.</p> <p>Ceiling. Provide a decorative ceiling. Consider exposed, painted structure with an acoustical spray paint.</p>
Plumbing	Provide drinking fountain(s).
HVAC	20 C (68 F) minimum, 26 C (78 F) maximum.
Fire Protection	Provide system per Section 3-5.3.
Power	Provide outlets per code.
Lighting	430 Lux (40 ft. candles). General ambient lighting. Consider decorative and task lighting.
Communication	<p>CCTV. Provide at least one outlet.</p> <p>CATV/Internal Video. Provide a CATV outlet.</p> <p>PA/Audio. Provide a speaker.</p> <p>Telephone. Provide one line.</p> <p>Data. Provide an outlet in the waiting/display area.</p> <p>Security. None required.</p>
Casework/ Built-in Equipment	Provide display cases in this space.

TABLE 4-1. ENTRY/LOBBY and WAITING/DISPLAY

Furnishings Fixtures & Equip. (FF&E)	Provide CCTV cameras per the outlet count. Floor mat at entrance. Waiting/display area should include durable, easy to clean, and moisture-resistant furniture; tables; magazine and brochure rack; tack surfaces; wall art; trophy case (if not built-in); and a wall clock. Provide a means to display Installation and staff information. Consider providing a self-use blood-pressure monitor, a computer with Internet connectivity, and a pay phone.
Special Req.	Provide an airlock at the main entrance. Provide a grated snow-trap for northern tier bases. Signage.
For use during project execution by the appropriate Service agency	
Occupancy	Staff. Customers.
Min. net m² (ft²)	

TABLE 4-2. CONTROL COUNTER/EQUIPMENT ISSUE/STORAGE.

Description/ Usage	<p>The control counter is often referred to as the front desk or reception desk. It's the focal point of information exchange within the building and is the check-in location for patrons; the check-in method may be located at the facility entrance or in the lobby to ensure all patrons check-in at entry. Do not use check-in/counting methods that restrict rapid access/egress to/from the facility, such as a turnstile.</p> <p>Equipment such as towels, balls, and racquetball rackets will be issued from the control desk. It must provide for direct supervision of the facility and greeting, informing, and directing patrons to their particular activity area. Additionally, the control desk serves as the focal point for safety and emergency situations.</p> <p>In smaller facilities, vending functions can be provided as an over-the-counter service at the control counter. Also see Table 4-3.</p>
Min. Ceiling Ht.	2.74 m (9 ft.) minimum.
Finishes	<p>Walls. Painted gypsum wallboard. Consider vinyl wall coverings.</p> <p>Floor. In front of counter: Provide a low-maintenance, durable, moisture and slip-resistant finish suitable for this high traffic area. Consider stained concrete, stone, terrazzo, or quarry tile. Provide a base that matches the flooring or a vinyl or rubber base.</p> <p>Behind counter: Provide stained concrete, stone or quarry tile, vinyl composition tile (VCT), or carpet. Provide vinyl or rubber base.</p> <p>Ceiling. Acoustical Ceiling Panels (ACP). Consider using the ceiling to define and separate this area from the Lobby, i.e., a dropped gypsum board soffit over the control desk and gypsum board false beams.</p>
Plumbing	None required.
HVAC	20 C (68 F) minimum, 26 C (78 F) maximum. Provide an emergency shut-off control per AT requirements.
Fire Protection	Provide system per Section 3-5.3.
Power	Provide power for all equipment. Perform a power requirement survey as this area's power requirements are extremely site- and locale-specific.
Lighting	540 Lux (40 ft. candles). General ambient lighting. Provide task lighting; consider decorative fixtures.
Communication	<p>CCTV. All monitors must be viewable from this area.</p> <p>CATV/Internal Video. None required.</p> <p>PA/Audio. PA controls. Provide a speaker.</p> <p>Telephone. Provide one line per two points of sale (POS). Provide at least two additional general purpose phone lines.</p> <p>Data. Provide one outlet per POS. Provide additional outlets, as needed, for associated hardware.</p> <p>Security. Consider providing duress alarm control next to the POS units.</p>

TABLE 4-2. CONTROL COUNTER/EQUIPMENT ISSUE/STORAGE.

Casework/ Built-in Equipment	<p>Provide a 610-mm- (24-in.-) deep counter with built-in cabinets. Provide file drawers and storage drawers with a minimum of two lockable drawers for each POS. The counter should be dual height for standing transactions, seated office functions, and ADA customer service. Note that ADA-height counter should have knee-hole space on both sides of the counter. The counter must be a durable solid surface material such as granite, concrete, or solid plastic—laminates is not permitted. Modesty panels and apron must be of durable materials. Provide a towel return drop opening in the counter top with space for a laundry cart below. The staff access to the counter must permit access to the free weight area for emergency response.</p> <p>Consider supports such as steel angle braces for counters with knee-hole space. Consider providing wall and base cabinets and an equipment counter.</p> <p>Storage must accommodate towels, small athletic equipment such as balls and rackets, and juice bar/vending supplies (if provided at the control counter). Consider if clean towels will be provided by a service or if they will be in laundry carts and provide storage space accordingly.</p>
Furnishings Fixtures & Equip. (FF&E)	POS units, desktop computer for administrative functions. CCTV monitors. Printers. Chairs and stools. Scanner or swipe-card check-in device (optional for Air Force). PA controls. Consider providing an automatic external defibrillator (AED).
Special Req.	<p>Attendants at the control desk must have direct line-of-sight visual control over the following: the main entrance, the free weight area, the gymnasium entrance, the locker room entrance, and the climbing wall (if provided). Attendants should also have visual control (via line of sight or CCTV) over the unit PT/group exercise rooms, the selectorized equipment, the cardio equipment, and structured activity areas.</p> <p>Service Exception: The Army and Air Force permit visual control of the locker room entrance via CCTV.</p> <p>Consider providing a gate between the desk and surrounding area. Consider providing a coiling door or grille at the counter to serve as a security screen.</p>
For use during project execution by the appropriate Service agency	
Occupancy	Staff. Customers.
Min. net m² (ft²)	

TABLE 4-3. RETAIL/VENDING/JUICE BAR.

Description/ Usage	The retail/vending functions may be accommodated at the control counter. A juice bar or expanded retail functions will be provided in a separate area. Vending can also be provided at a self-service standalone space with vending machines. The vending area, if a standalone space, should be identifiable, visually screened but not totally enclosed, and visually accessible from the control desk. Service Exception: Navy only provides vending.
Min. Ceiling Ht.	2.74 m (9 ft.) minimum or matched with the lobby.
Finishes	Walls. Ceramic wall tile or other hard surfaces approved for the snack bar to a minimum of 1.22 m (4 ft.) from finished floor. Floor. Provide hard-surface flooring such as VCT, seamless vinyl, or quarry tile or other durable material. Ceiling. ACP or painted gypsum board.
Plumbing	Two-compartment countertop sink with hot and cold water supply. Floor drain. If an icemaker is desired, provide a cold water connection.
HVAC	20 C (68 F) minimum, 26 C (78 F) maximum.
Fire Protection	Provide system per Section 3-5.3.
Power	Provide dedicated outlets for the vending machines and countertop height convenience outlets for microwave and other equipment as required.
Lighting	430 Lux (40 ft. candles) general ambient lighting. Provide task lighting. Consider accent fixtures and lighting to provide special ambience.
Communication	CCTV. Provide sufficient quantity to allow adequate coverage. CATV/Internal Video. Provide an outlet at juice bar, if applicable. PA/Audio. Provide a speaker and intercom connection. Telephone. Provide one line per two points of sale (POS). Provide at least one additional general purpose phone line. Data. Provide one outlet per POS. Provide additional outlets, as needed, for associated hardware. Security. Consider providing duress alarm control next to the POS units.
Casework/ Built-in Equipment	Countertop with base and wall cabinets at the front opening. Behind the service corridor, provide base and wall cabinets. Countertop at sink area is required to be solid-surface. Drink rail.
Furnishings Fixtures & Equip. (FF&E)	Provide CCTV cameras per the outlet count. Juice bar/expanded retail: Under cabinet or counter microwave, refrigerator, freezer, dishwasher, and other small appliances as required. POS unit(s). Also provide a menu board. Provide refrigerated display cases and bistro-style tables and chairs. Consider an ice maker. Vending machines.
Special Req.	Provide a means to secure the juice bar. Consider providing a built-in safe per local policy.
For use during project execution by the appropriate Service agency	
Occupancy	Staff. Customers.
Min. net m² (ft²)	

TABLE 4-4. LAUNDRY.

Description/ Usage	The laundry cleans and dries towels and uniforms. Some Installations contract out towel laundry; however, there is still a requirement to provide laundry for uniforms. The laundry room should be adjacent to the control counter. It may be combined with the receiving and equipment repair area (Table 4-7) if it requires adjacency to a loading dock or exterior service entrance for laundry service.
Min. Ceiling Ht.	2.74 m (9 ft.) minimum.
Finishes	<p>Walls. Epoxy painted CMU or water-resistant gypsum wallboard. Consider the impacts from carts and the movement of equipment—provide durable finishes, rub rails, and metal/high-impact plastic corner guards.</p> <p>Floor. Sealed concrete, VCT, or seamless vinyl.</p> <p>Ceiling. None or ACP. Consider washable and humidity resistant panels. Gypsum wallboard ceiling may also be used.</p>
Plumbing	Provide hot and cold water and drain connections to each of the washing machines and one laundry sink. Provide floor drains. Provide recessed plumbing cabinets for each utility connection to the machines. Provide cold water to an ice machine and utility sink in the equipment storage area and provide a separate floor drain.
HVAC	20 C (68 F) minimum, 27 C (80 F) maximum. Provide separate vents to the outside for the dryers. Provide eight to 12 air changes per hour and 50 to 60% relative humidity.
Fire Protection	Provide system per Section 3-5.3. Note requirement for one-hour rated construction and 45-minute-rated door with self closer.
Power	Provide outlets per code. Provide power to each washer and dryer.
Lighting	540 Lux (50 ft. candles) general ambient lighting.
Communication	<p>CCTV. None required.</p> <p>CATV/Internal Video. None required.</p> <p>PA/Audio. Provide one speaker.</p> <p>Telephone. None required.</p> <p>Data. None required.</p> <p>Security. None required.</p>
Casework/ Built-in Equipment	Provide a built-in folding table and shelves for clean towel storage.
Furnishings Fixtures & Equip. (FF&E)	<p>Large, high capacity industrial extractors and dryers—provide a minimum of two dryers per extractors. Extractors must be mounted on concrete foundations.</p> <p>Provide for storage of laundry supplies. Consider providing a hanging rack.</p> <p>Ice machine.</p>
Special Req.	<p>Provide easy access to rear of dryers to allow easy maintenance and cleaning of vents (see HVAC).</p> <p>Coordinate door openings and dimensions with room layout and equipment sizes, e.g., laundry carts, washers, dryers, and ice machines. Provide acoustical measures to control the noise/vibration of the washers and dryers. The laundry room should not be visible from the lobby area.</p>
For use during project execution by the appropriate Service agency	
Occupancy	<p>Staff.</p> <p>Customers.</p>
Min. net m² (ft²)	

TABLE 4-5. PUBLIC TOILETS/JANITOR'S CLOSET

Description/ Usage	These toilet rooms are used primarily by visitors, spectators, and persons not using the locker and shower rooms. They should be adjacent to the lobby and gymnasium. Provide separate male and female restrooms.
Min. Ceiling Ht.	2.74 m (9 ft.) minimum.
Finishes	<p>Walls. Epoxy or enamel painted, moisture-resistant gypsum wall board with a ceramic tile wainscot. Consider full ceramic tile walls with integral patterns. Use a dark-colored epoxy grout.</p> <p>Floor. Ceramic tile with integral patterns. Use a dark-colored epoxy grout.</p> <p>Ceiling. Epoxy or enamel painted, moisture-resistant gypsum board. None needed for janitor's closet.</p>
Plumbing	Provide wall-hung water closets, wall-hung urinals (Service Exception: Navy prefers floor-mounted urinals), and lavatories based on the applicable code for the calculated occupancy of the gymnasium. Provide a floor drain. Provide a keyed hose bibb.
HVAC	20 C (68 F) minimum, 26 C (78 F) maximum. Ventilate to the exterior per code. Provide eight to 12 air changes per hour.
Fire Protection	Provide system per Section 3-5.3.
Power	Provide outlets per code.
Lighting	540 Lux (50 ft. candles).
Communication	<p>CCTV. None required.</p> <p>CATV/Internal Video. None required.</p> <p>PA/Audio. Provide a speaker.</p> <p>Telephone. None required.</p> <p>Data. None required.</p> <p>Security. None required.</p>
Casework/ Built-in Equipment	<p>Solid-surface countertop with either underhung or integral sink.</p> <p>Solid composite toilet and urinal partitions. Consider permanent ceramic-tile partitions.</p> <p>Toilet accessories: toilet paper dispensers, paper towel dispenser with integral trash receptacle, robe hooks, grab bars, sanitary napkin disposal (female water closet stalls), seat cover dispensers, and soap dispensers.</p> <p>Mirror.</p> <p>Fold-down diaper changing table/station in both the male and female toilets.</p>
Furnishings Fixtures & Equip. (FF&E)	
Special Req.	Provide a Janitor's closet associated with or in proximity of these toilets. This closet includes a floor mop sink with hot and cold water and a hose connection, a floor drain, and storage for pails, mops, vacuums, and related cleaning supplies and equipment. Include a lockable door, (which can be opened from the inside) with a vision panel. Provide lockable cabinets for cleaning supplies. Provide exhaust ventilation directly to the outside.
For use during project execution by the appropriate Service agency	
Occupancy	Staff. Customers.
Min. net m² (ft²)	

TABLE 4-6. PARENT/CHILD AREA.

Description/ Usage	<p>The Parent/Child area is optional for the Air Force and the Marine Corps only.</p> <p>Service Exceptions: The Air Force option provides parents/guardians a venue in which to exercise while maintaining direct visual control over their child. Part of the room has exercise equipment for the parent to use while the other part is designated for the children. The two areas should be divided by a 760-mm- (30-in.-) high, 13-mm- (.5-in.-) thick, clear, shatterproof Plexiglas partition to ensure the parent can see the child at all times. Include a centrally-located entry/exit in the partition.</p> <p>The Marine Corps option provides a short-term, self-service care room in which parents may watch their children separate from the rest of the facility. There is no exercise component in this room.</p>
Min. Ceiling Ht.	2.74 m (9 ft.) minimum.
Finishes	<p>Walls. Painted gypsum wallboard. Consider vinyl wall coverings.</p> <p>Floor. VCT or sheet vinyl and vinyl or rubber base. Exercise area should include permanently adhered impact flooring with a nonporous, high-density rubber/elastic surface. Composite products such as recycled rubber may be used; however, the top layer should be virgin (unrecycled) material chemically bonded to the sublayers. Avoid the use of interlocking impact flooring tiles.</p> <p>Ceiling. Acoustical Ceiling Panels (ACP).</p>
Plumbing	None required.
HVAC	18 C (65 F) minimum, 23 C (74 F) maximum. Provide eight to 12 air exchanges per hour.
Fire Protection	Provide system per Section 3-5.3.
Power	Provide outlets per code in the child area. Provide flush-floor outlets for commercial-grade fitness equipment and outlets for wall or ceiling mounted television monitors in the exercise area.
Lighting	540 Lux (50 ft. candles).
Communication	<p>CCTV. Provide outlets to ensure adequate coverage. Service Exception: Not supported by Air Force.</p> <p>CATV/Internal Video. Provide an outlet in the exercise area. Consider providing an outlet in the child area.</p> <p>PA/Audio. Provide a speaker. Provide an emergency call/alarm that sounds at the control counter.</p> <p>Telephone. Provide an outlet.</p> <p>Data. Provide an outlet.</p> <p>Security. None required.</p>
Casework/ Built-in Equip.	Child area: Storage cabinet for children's games and toys.
Furnishings Fixtures & Equip. (FF&E)	<p>Provide CCTV cameras per the outlet count. Service Exception: CCTV not supported by Air Force.</p> <p>Child area: Provide child-sized tables, chairs, and games. Consider providing a TV, VCR/DVD, and exercise mat. Note, if a TV is included, provide a protective shield to minimize damage to the TV from children and thrown objects.</p> <p>Exercise area: Provide exercise equipment and a TV.</p>
Special Req.	Meet the requirements outlined in AFI 34-266, <i>Air Force Fitness and Sports Programs</i> .
For use during project execution by the appropriate Service agency	
Occupancy	<p>Staff.</p> <p>Customers.</p> <p>Adults.</p> <p>Children.</p>
Min. net m² (ft²)	

TABLE 4-7. RECEIVING AND EQUIPMENT REPAIR.

Description/ Usage	<p>Provides an area to hold, assemble, and repair fitness equipment. It will also be used to store overflow from the control counter/equipment issue storage, such as large or seasonal items. This area is adjacent to the fitness areas.</p> <p>There is an option for additional programmatic storage for optional programmatic items (such as a boxing ring). If required, this space will usually be part of/adjacent to the receiving and equipment repair area.</p>
Min. Ceiling Ht.	3.05 m (10 ft.) minimum.
Finishes	<p>Walls. CMU with glazed wall coating or heavy-duty epoxy paint.</p> <p>Floor. Concrete slab.</p> <p>Ceiling. None. Paint the exposed structure.</p>
Plumbing	Provide a work sink with hot and cold water connections and a floor drain.
HVAC	20 C (68 F) minimum, 26 C (78 F) maximum.
Fire Protection	Provide system per Section 3-5.3.
Power	Provide outlets per code. Provide additional outlets at the work bench.
Lighting	540 Lux (50 ft. candles) general ambient lighting. Provide task lighting at the work bench.
Communication	<p>CCTV. Provide one outlet.</p> <p>CATV/Internal Video. None required.</p> <p>PA/Audio. Provide a speaker.</p> <p>Telephone. Provide one line with internal two-way communication.</p> <p>Data. Provide one outlet.</p> <p>Security. Provide a door alarm and exterior door bell.</p>
Casework/ Built-in Equipment	Provide a 2438 by 609 mm (96 by 24 in.) work bench for equipment repair within the storage area.
Furnishings Fixtures & Equip. (FF&E)	<p>Provide CCTV cameras per the outlet count.</p> <p>Provide adequate shelving, bins, and open end cubicles for storage of athletic equipment and supplies for both in and out of season.</p> <p>Consider providing a computer (for maintenance use).</p>
Special Req.	<p>Provide a locking exterior double door with flush sills and sufficient height to facilitate movement of equipment. Consider an electric roll-up door with an exterior transition ramp or a loading dock and associated roadway.</p> <p>Provide an interior double door to facilitate movement of equipment.</p> <p>Provide a secure storage area for equipment, tools, supplies, and resale items. It must include adequate shelving, bins, and open end cubicles.</p>
For use during project execution by the appropriate Service agency	
Occupancy	<p>Staff.</p> <p>Customers.</p>
Min. net m² (ft²)	

TABLE 4-8 ADMINISTRATIVE OFFICES

Description/ Usage	<p>The administrative offices consist of a mix of private and open office space. The quantity and type of offices are facility specific. Generally speaking, the following office spaces are provided: Director's office, Program Managers' office(s), and support staff workstations.</p> <p>The offices should be free from frequent distraction, have a professional appearance, and provide a sense of work place.</p>
Min. Ceiling Ht.	2.74 m (9 ft.) minimum.
Finishes	<p>Walls. Painted gypsum wall board or vinyl wall covering.</p> <p>Floor. Carpet with vinyl or rubber base</p> <p>Ceiling. ACP</p>
Plumbing	None required.
HVAC	20 C (68 F) minimum, 26 C (78 F) maximum.
Fire Protection	Provide system per Section 3-5.3.
Power	Ensure an adequate number of circuits to power all equipment. Provide a minimum of one quad outlet in closed offices on at least three walls. Gang outlets with data and telephone. Workstations should provide at least one quad outlet per staff. Provide additional outlets as necessary to operate shared equipment such as printers, fax, etc.
Lighting	540 Lux (50 ft. candles). General ambient fixtures.
Communication	<p>CCTV. None required.</p> <p>CATV/Internal Video: None required.</p> <p>PA/Audio: Provide a speaker. Provide controls in the Director's office.</p> <p>Telephone. Provide one line per staff plus one additional line for fax and copier.</p> <p>Data. Provide one outlet per staff plus one outlet for each printer, copier, scanner, etc.</p> <p>Security. None required.</p>
Casework/ Built-in Equipment	None required.
Furnishings Fixtures & Equipment (FF&E)	<p>Private Offices—provide furniture for 11 m² (120 ft.²) or 9.3 m² (100 ft.²) office: desk, credenza, filing cabinet, desk chair, and two side chairs.</p> <p>Workstations—provide furniture for 6 m² (64 ft.²) workstation: desk chair and side chair for open offices. Workstation systems furniture must provide adequate space for filing and overhead storage.</p> <p>Provide dry-erase boards in select offices and workstations.</p>
Special Requirements	<p>Locate offices on exterior wall and provide windows for natural light admission.</p> <p>Provide side lights next to the office doors for supervision and security.</p>
For use during project execution by the appropriate Service agency	
Occupancy	<p>Staff.</p> <p>Customers.</p>
Min. net m² (ft²)	

TABLE 4-9. CLASSROOMS/TRAINING ROOMS

Description/ Usage	This space is used as a classroom for conducting programmed fitness and health related training. Service Exception: For Air Force and Marine Corps facilities that include a Health and Wellness Center, this classroom will be shared with that component and should be easily accessible from the Health and Wellness Center.
Min. Ceiling Ht.	2.74 m (9 ft.) minimum.
Finishes	Walls. Painted gypsum wallboard or vinyl wall covering. Floor. VCT with vinyl base. Consider carpet. Ceiling. ACP.
Plumbing	Consider providing a small sink (see Casework).
HVAC	20 C (68 F) minimum, 26 C (78 F) maximum.
Fire Protection	Provide system per Section 3-5.3.
Power	Provide outlets per code and additional outlets necessary to operate dedicated equipment.
Lighting	540 Lux (50 ft. candles) ambient lighting from fluorescent fixtures. Dimmable recessed lighting.
Communication	CCTV. Provide outlets as required for coverage. CATV/Internal Video. Provide one outlet. PA/Audio. Provide a speaker. Telephone. Provide one line. Data. Provide a minimum of one outlet. Consider providing additional outlets for training purposes. Security. None required.
Casework/ Built-in Equipment	Solid-surface countertop; see Paragraph 3-4.1 for length criteria. Provide lockable wall and base cabinets. Provide a storage closet for training materials and AV cart. Provide an electrically operated retractable screen and a built-in computer projector.
Furnishings Fixtures & Equipment (FF&E)	Provide CCTV cameras per the outlet count. Provide tables, chairs, bulletin board with tack surface and dry-erase board. Consider providing overhead projector, printer, TV, VCR, and DVD player.
Special Requirements	Consider the acoustics of the space and features to eliminate potential distractions. Provide a minimum sound transmission coefficient (STC) rating of 50 to 55. Provide a vision panel in the door. Service Exception: For the Air Force, provide a moveable partition to divide the large classroom into two spaces.
For use during project execution by the appropriate Service agency	
Occupancy	Staff. Customers.
Min. net m² (ft²)	

TABLE 4-10. COPY/WORK/BREAK ROOM

Description/ Usage	This space is used as a staff workroom for copying, meetings, breaks, and lunches.
Min. Ceiling Ht.	2.74 m (9 ft.) minimum.
Finishes	Walls. Painted gypsum wall board or vinyl wall covering. Floor. VCT with vinyl or rubber base. Ceiling. ACP
Plumbing	Provide a sink with hot and cold water. Consider a cold water connection for refrigerator ice maker.
HVAC	20 C (68 F) minimum, 26 C (78 F) maximum
Fire Protection	Provide system per Section 3-5.3.
Power	Provide outlets per code. Provide one additional outlet at counter height for convenience. Provide additional outlets necessary to operate dedicated equipment such as the copier, fax machine, printers, coffee machine, refrigerator, time clocks, microwave, and various other office machines.
Lighting	540 Lux (50 ft. candles). Consider dimmable lights.
Communication	CCTV. None required. CATV/Internal Video. Consider providing one outlet. PA/Audio. Provide a speaker. Telephone. Provide one line. Data. Provide outlets as required for equipment. Security. None required.
Casework/ Built-in Equipment	Provide two separate solid-surface countertops: one for food/break functions and one for administrative functions. See Paragraph 3-4.1 for length criteria. Provide lockable wall and base cabinets.
Furnishings Fixtures & Equipment (FF&E)	Provide copier, fax machine, printers, table, chairs, microwave, coffee machine, refrigerator, bulletin board with tack surface, dry-erase board, and other office equipment as required. Consider providing a laminating machine.
Special Requirements	Locate copy/work/break room on exterior wall and provide windows for natural light admission. Provide a vision panel in the door.
For use during project execution by the appropriate Service agency	
Occupancy	Staff. Customers.
Min. net m² (ft²)	

TABLE 4-11. MEN'S AND WOMEN'S LOCKERS/DRESSING

Description/ Usage	Separate men's and woman's locker/dressing rooms will be used by those participating in fitness/sports activities for changing, dressing, and securing personal effects. It is open and directly adjacent to the toilet/shower facilities. As such, moisture and humidity must be addressed in the locker/dressing rooms.
Min. Ceiling Ht.	3.05 m (10 ft.) minimum except where furred down.
Finishes	Walls. Epoxy or enamel painted concrete masonry units (CMU) or moisture-resistant gypsum wall board. Floor. Slip-resistant tile with dark grout. Ceiling. High humidity-rated, ceramic-faced ACP. Provide a corrosion-resistant supporting grid.
Plumbing	Provide a floor drain. Consider providing a water fountain.
HVAC	21 C (70 F) minimum, 26 C (78 F) maximum. Provide for air flow from the dry side of this space (opposite the adjacent toilet/shower wet side) to the exhaust intakes in the wet area. Provide eight to 12 air changes per hour with supply by air dump to decrease air velocities, negative pressure, and 0.50 CFM/ft. ² . Limit relative humidity to under 50% through the use of humidistats. Humidistats may also be used to throttle back air changes as long as temperature and humidity remain within limits.
Fire Protection	Provide system per Section 3-5.3.
Power	Provide outlets per code. Provide counter-height outlets at the vanity area.
Lighting	430 Lux (40 ft. candles). General ambient lighting. Lighting fixtures should have translucent, moisture resistant, nonbreakable, protective covers. Minimize shadowing at face of lockers.
Communication	CCTV. None required. CATV/Internal Video. Consider providing an outlet. PA/Audio. Provide a speaker. Provide an emergency call/alarm. Telephone. Provide one line. Data. Consider providing outlets to support personal fitness tracking devices. Security. None required.
Casework/ Built-in Equipment	Provide lockers and benches. Typically provide a mix of full- and half-sized Z-shaped lockers. However, consider the location's climate when determining the ratio of half- to full-sized lockers: Colder climates will require a higher percentage (or 100%) of full-sized lockers to accommodate bulkier cold weather gear. Provide integral benches (usually part of the locker system) at least 406 mm (16 in.) wide. Solid composite plastic lockers are strongly preferred. Mount lockers at a level above the floor which provides reachable operating hardware. Provide a vanity area with a counter and mirror. Provide wall-mounted hair dryers adjacent to this area. Provide one hair dryer for every three shower heads for men and one hair dryer for every two shower heads for women. Provide shelves and hooks for coats and hats. Provide a full-height wall mirror. Consider providing ceiling fans. Service Exception: For the Air Force, provide multi-speed ceiling fans.
Furnishings Fixtures & Equip. (FF&E)	Provide a scale. Consider providing a blood pressure monitor.

TABLE 4-11. MEN'S AND WOMEN'S LOCKERS/DRESSING

Special Req.	Provide dropped gypsum board soffits over lockers to preclude the tops of the lockers being used for storage. Service Exception: The Air Force allows an option for additional, separate male and female distinguished visitors (DV) locker rooms independent from the core locker rooms. They should be adjacent to but visually separate from the group locker rooms.
For use during project execution by the appropriate Service agency	
Occupancy	Staff. Customers.
Min. net m² (ft²)	

TABLE 4-12. MEN'S AND WOMEN'S SHOWERS

Description/ Usage	These separate male and female areas are directly adjacent to (and may be open to) the corresponding gender's locker/dressing and toilet areas and include private shower/drying stalls. Several other functions may be provided in this space such as sauna, steam room, and/or hot tub.
Min. Ceiling Ht.	2.74 m (9 ft.) minimum
Finishes	Walls. Full height ceramic tile with a dark-colored epoxy grout. Floor. Mud set, non-slip ceramic tile. Use dark-colored, epoxy grout in the shower floor tiling. Ceiling. Moisture-resistant gypsum board with a veneer plaster (level 5) finish and epoxy paint.
Plumbing	Provide minimum 1068-mm- (42-in.-) wide private shower/drying stalls for men and women. Provide proper drainage (i.e., floor drains and/or perimeter trench drains).
HVAC	21 C (70 F) minimum, 26 C (78 F) maximum. Provide for air flow from the dry side (adjacent locker/dressing area) to the exhaust intakes in the wet (toilet/shower) area. Provide 20-30 air changes per hour with negative pressure and supply by air dump to decrease air velocities.
Fire Protection	Provide system per Section 3-5.3.
Power	Provide outlets per code.
Lighting	430 Lux (40 ft. candles). General ambient lighting. Lighting fixtures should have translucent, moisture resistant, nonbreakable, protective covers. In the showers, provide recessed fixtures with sealed lenses, rated for wet applications.
Communication	CCTV. None required. CATV/Internal Video. None required. PA/Audio. Provide a speaker. Provide an emergency call/alarm. Telephone. None required. Data. None required. Security. None required.
Casework/ Built-in Equipment	Phenolic or solid composite shower partitions secured at floor and ceiling.
Furnishings Fixtures & Equip. (FF&E)	
Special Req.	Do not allow direct views into the shower room areas. Provide a privacy screen at the entrance to this area. Consider providing natural light via frosted skylights or translucent wall building materials (such as insulated glass block). Service Exception: For Air Force facilities, if DV locker rooms are provided (see Table 4-11), provide associated, separate male and female toilet and shower facilities. When funds are limited, consider providing DV lockers and dressing area separate from the main locker room with access to the shower and toilet areas.
For use during project execution by the appropriate Service agency	
Occupancy	Staff. Customers.
Min. net m² (ft²)	

TABLE 4-13. MEN'S AND WOMEN'S TOILETS

Description/ Usage	Separate men's and women's toilet facilities are open and directly adjacent to the corresponding gender's locker/dressing and shower areas.
Min. Ceiling Ht.	2.74 m (9 ft.) minimum
Finishes	<p>Walls. Full height ceramic tile with dark-colored epoxy grout at wet walls and ceramic tile wainscots at fixture areas. Epoxy or enamel painted, moisture-resistant gypsum wall board elsewhere.</p> <p>Floor. Mud set, non-slip ceramic tile with dark-colored epoxy grout.</p> <p>Ceiling. Moisture-resistant gypsum board with a veneer plaster (level 5) finish and epoxy paint.</p>
Plumbing	<p>Provide lavatories, urinals, and water closets. Service exception: Navy prefers floor-mounted urinals.</p> <p>Provide proper drainage (i.e., floor drains and/or perimeter trench drains).</p>
HVAC	20 C (68 F) minimum, 26 C (78 F) maximum. Provide for air flow from the dry side (adjacent locker/dressing area) to the exhaust intakes in the wet (toilet/shower) area. Provide 15 to 20 air changes per hour with supply by air dump to decrease air velocities, negative pressure. Limit relative humidity to under 50% through the use of humidistats. Humidistats may also be used to throttle back air changes as long as temperature and humidity remain within limits.
Fire Protection	Provide system per Section 3-5.3.
Power	Provide outlets per code. Provide GFCI outlets at lavatory at counter height.
Lighting	430 Lux (40 ft. candles). General ambient lighting. Lighting fixtures should have translucent, moisture resistant, nonbreakable, protective covers. Provide lighting directly over lavatories and grooming counters and minimize reflection glare in the mirrors in the overall lighting design.
Communication	<p>CCTV. None required.</p> <p>CATV/Internal Video. None required.</p> <p>PA/Audio. Provide a speaker. Provide an emergency call/alarm.</p> <p>Telephone. None required</p> <p>Data. None required.</p> <p>Security. None required.</p>
Casework/ Built-in Equipment	<p>Solid-surface countertop supported at both ends and with the front edge supported by galvanized angle reinforcing. The sink may be either underhung or integral with the counter.</p> <p>Phenolic or solid composite water closet and urinal partitions secured at floor and ceiling.</p> <p>Toilet accessories: toilet paper dispensers, paper towel dispenser with integrated trash receptacle, robe and towel hooks, grab bars, feminine hygiene receptacles in women's water closets, seat cover dispensers, and soap dispensers at lavatories.</p> <p>Provide wall-mounted shelves and full-width mirror at the lavatories.</p> <p>Provide a full-length mirror.</p>
Furnishings Fixtures & Equip. (FF&E)	

TABLE 4-13. MEN'S AND WOMEN'S TOILETS

Special Req.	Do not allow direct views into this area. Provide a privacy screen at the entrance. Consider providing natural light via frosted skylights or translucent wall building materials (such as insulated glass block). Service Exception: For Air Force facilities, if DV locker rooms are provided (see Table 4-10), provide associated, separate male and female toilet and shower facilities. When funds are limited, consider providing DV lockers and dressing area separate from the main locker room with access to the shower and toilet areas.
For use during project execution by the appropriate Service agency	
Occupancy	Staff. Customers.
Min. net m² (ft²)	

TABLE 4-14. FAMILY CHANGING ROOM/FAMILY LOCKER ROOM

Description/ Usage	This optional space provides separate, individual rooms equipped with changing area, shower, toilet, sink, diaper changing table, and lockers intended to accommodate adults with small children. Locate near the pool (if provided) or near the parent/child area. Army and Navy only provide this option when the facility includes a pool.
Min. Ceiling Ht.	2.74 m (9 ft.) minimum.
Finishes	Walls. See Tables 4-11, 4-12, and 4-13 for the appropriate finishes. Floor. See Tables 4-11, 4-12, and 4-13 for the appropriate finishes. Ceiling. See Tables 4-11, 4-12, and 4-13 for the appropriate finishes.
Plumbing	Provide shower stall, lavatory, and water closets. Provide proper drainage (i.e., floor drains and/or perimeter trench drains).
HVAC	20 C (68 F) minimum, 26 C (78 F) maximum. Provide 15-20 air changes per hour with supply by air dump to decrease air velocities. Limit relative humidity to 45% through use of humidistats. Humidistats may also be used to throttle back air changes as long as temperature and humidity remain within limits.
Fire Protection	Provide system per Section 3-5.3.
Power	Provide outlets per code. Provide counter-height GFCI outlets at the lavatory.
Lighting	430 Lux (40 ft. candles). General ambient lighting. Lighting fixtures in wet area should have translucent, moisture resistant, nonbreakable, protective covers. Provide lighting directly over lavatory and consider reflections and glare in the mirrors when designing the overall lighting design. In the shower, provide recessed fixtures with sealed lenses, rated for wet applications.
Communication	CCTV. None required. CATV/Internal Video. None required. PA/Audio. Provide a speaker. Provide an emergency call/alarm. Telephone. None required. Data. None required. Security. None required.
Casework/ Built-in Equipment	See Tables 4-11, 4-12, and 4-13 for the appropriate casework.
Furnishings Fixtures & Equip. (FF&E)	See Tables 4-11, 4-12, and 4-13 for the appropriate FF&E.
Special Req.	See Tables 4-11, 4-12, and 4-13 for the appropriate special requirements.
For use during project execution by the appropriate Service agency	
Occupancy	Staff. Customers.
Min. net m² (ft²)	

TABLE 4-15. STEAM ROOM

Description/ Usage	The optional steam room should have an adjacent cool down space and direct access to the shower spaces and the locker spaces. It provides a warm, extremely humid (close to 100%) environment for therapy and relaxation. Provide separate male and female rooms as part of or adjacent to male and female toilet and shower facilities. Consider providing a prefabricated, packaged unit.
Min. Ceiling Ht.	2.74 m (9 ft.) minimum.
Finishes	Walls. Full height ceramic tile with dark-colored epoxy grout. Floor. Non-slip ceramic or quarry tile. Ceiling. Tile. Should be pitched for drainage down the walls.
Plumbing	Provide a cold water shower with a rope pull-chain. Provide floor drains. Provide access to a keyed hose bibb with hot and cold water.
HVAC	38 C (100 F) minimum, 43 C (110 F) maximum. Humidity 100% relative. Provide secured controls.
Fire Protection	Provide system per Section 3-5.3.
Power	None required.
Lighting	375 Lux (35 ft. candles). General ambient lighting. Lighting fixtures should have translucent, moisture resistant, nonbreakable, protective covers.
Communication	CCTV. None required. CATV/Internal Video. None required. PA/Audio. Provide a speaker in the adjacent cool-down area. Provide an emergency call/alarm in the steam room that sounds at the control counter. Telephone. None required. Data. None required. Security. None required.
Casework/ Built-in Equipment	Provide ceramic tile benches in a single- or double-tiered arrangement.
Furnishings Fixtures & Equip. (FF&E)	Provide steam generator in an adjacent closet.
Special Req.	An adjacent cool down space can serve the steam room, sauna (if provided), and hot tub (if provided). It should have a bench with wall-mounted clothing/towel hooks. Provide a full-glass door with a door seal adequate to retain the steam within the room.
For use during project execution by the appropriate Service agency	
Occupancy	Staff. Customers.
Min. net m² (ft²)	

TABLE 4-16. SAUNA

Description/ Usage	The optional sauna should have an adjacent cool down space and direct access to the shower and locker spaces. It provides a very hot, dry environment for therapy and relaxation. Provide separate male and female rooms as part of or adjacent to male and female toilet and shower facilities. Consider providing a prefabricated, packaged unit.
Min. Ceiling Ht.	2.44 m (8 ft.) minimum.
Finishes	Walls. CMU with either redwood or cedar panels. Floor. Sealed concrete with removable redwood tile "mats." Ceiling. Plaster or redwood or cedar panels.
Plumbing	Provide a floor drain.
HVAC	Provide a separate dry heat system with individual temperature controls and a timer to achieve 170 to 180 F with 5% relative humidity. Provide secure controls. Provide passive ventilation to achieve four air changes/hour.
Fire Protection	Provide system per Section 3-5.3.
Power	Provide a dedicated circuit for the heat source.
Lighting	375 Lux (35 ft. candles).
Communication	CCTV. None required. CATV/Internal Video. None required. PA/Audio. Provide a speaker. Provide an emergency call/alarm in the sauna space that sounds at the control counter. Telephone. None required. Data. None required. Security. None required.
Casework/ Built-in Equipment	Provide solid board cedar or redwood benches.
Furnishings Fixtures & Equip. (FF&E)	Provide a water tub and ladle and a wall-mounted room temperature and humidity gauge. Provide hooks. Provide a wall-mounted clock.
Special Req.	Provide an insulated door with a vision panel and seals to maintain temperature. Minimize exposed metal hardware. Ensure no exposed metal fasteners on the benches. Use plastic or wood interior door handle. An adjacent cool down space can serve the sauna, steam room, (if provided), and hot tub (if provided). It should have a bench with wall-mounted clothing/towel hooks.
For use during project execution by the appropriate Service agency	
Occupancy	Staff. Customers.
Min. net m² (ft²)	

TABLE 4-17. MESSAGE ROOM

Description/ Usage	The optional message room provides a private space for message service. It should be adjacent to the locker/shower facilities. Service Exception: The Navy does not support the message room.
Min. Ceiling Ht.	2.74 m (9 ft.) minimum.
Finishes	Walls. Painted gypsum wall board. Floor. Solution dyed nylon carpet with antimicrobial treatment with resilient vinyl transitions. Ceiling. ACP.
Plumbing	Provide a hand-wash sink with hot and cold water connections.
HVAC	22 C (72 F) minimum, 26 C (78 F) maximum. Provide six to 10 air changes per hour and less than 60% relative humidity. Provide dedicated controls.
Fire Protection	Provide system per Section 3-5.3.
Power	Provide outlets per code.
Lighting	540 Lux (50 ft. candles). Use indirect light fixtures and provide dimming capability.
Communication	CCTV. None required. CATV/Internal Video. None required. PA/Audio. Provide a speaker. Consider providing an emergency call/alarm that sounds at the control counter. Telephone. Provide one line. Data. None required. Security. None required.
Casework/ Built-in Equipment	Provide a securable storage cabinet for supplies such as sheets, towels, and message oil.
Furnishings Fixtures & Equip. (FF&E)	Provide height-adjustable message table with adjustable head rest and chairs. Provide an adjustable-height wheeled stool for the therapist. Consider providing a message chair in addition to or in lieu of the message table. Provide clothes hooks. Provide a phone and a small table for making and verifying appointments.
Special Req.	
For use during project execution by the appropriate Service agency	
Occupancy	Staff. Customers.
Min. net m² (ft²)	

TABLE 4-18. HOT TUB

Description/ Usage	<p>The optional hot tub should have direct access to the shower and locker spaces and be adjacent to the steam room, if provided. It provides a hot pool of water with powered jets of water for therapy and relaxation.</p> <p>Service Exception: The Army will only provide this option in a facility that includes a pool.</p> <p>May provide separate male and female rooms as part of or adjacent to male and female toilet and shower facilities or provide a single room for use by both men and women.</p>
Min. Ceiling Ht.	3.05 m (10 ft.) minimum.
Finishes	<p>Walls. Water-resistant surface.</p> <p>Floor. Slip-resistant ceramic tile, no larger than 25 x 25 mm (1 x 1 in.) tiles with dark epoxy grout.</p> <p>Ceiling. Water-resistant surface.</p>
Plumbing	Provide a whirlpool tub with a dedicated water supply, hot water heater, and water pump. Provide a floor drain.
HVAC	22 C (72 F) minimum, 26 C (78 F) maximum. Provide six to 10 air changes per hour.
Fire Protection	Provide system per Section 3-5.3.
Power	Provide waterproof outlets. Provide dedicated power for the water pump with a timer-operated pump switch with patron access.
Lighting	Provide waterproof fixtures.
Communication	<p>CCTV. Provide outlets as required for coverage if the facility is shared by men and women.</p> <p>CATV/Internal Video. None required.</p> <p>PA/Audio. Provide a speaker. Provide an emergency call/alarm that sounds at the control counter.</p> <p>Telephone. None required.</p> <p>Data. None required.</p> <p>Security. None required.</p>
Casework/ Built-in Equipment	Provide a chemical storage cabinet.
Furnishings Fixtures & Equip. (FF&E)	<p>Provide CCTV cameras per the outlet count.</p> <p>Provide clothes hooks, seating bench, handrail for entrance/exit of pool, shelving for towels, and a wall clock.</p>
Special Req.	<p>Provide an emergency shut-off control for the whirlpool.</p> <p>Provide an adjacent dry-off/dressing area. Consider aluminum or nonferrous metal for hardware, AC ducts, AC registers, and door frames.</p>
For use during project execution by the appropriate Service agency	
Occupancy	<p>Staff.</p> <p>Customers.</p>
Min. net m² (ft²)	

TABLE 4-19. CONVERTIBLE LOCKER SPACE

Description/ Usage	<p>This optional space provides for locker/dressing space that can be converted to male or female space, as needed, to accommodate tournaments and/or changing demographics. It is a separate room between the male and female locker rooms with double-locked doors into each. The criteria generally follow that in Table 4-11 for the locker/dressing area.</p> <p>This is not additional locker space and will need to be deducted from the overall calculated locker space for the facility.</p> <p>Service Exceptions: The Navy does not support this space. The Marine Corps will only consider this option for Large or Extra Large facilities.</p>
Min. Ceiling Ht.	3.05 m (10 ft.) minimum except where furred down.
Finishes	<p>Walls. Epoxy or enamel painted concrete masonry units (CMU) or moisture-resistant gypsum wall board.</p> <p>Floor. Slip-resistant tile with dark grout.</p> <p>Ceiling. High humidity-rated, ceramic-faced ACP. Provide a corrosion-resistant supporting grid.</p>
Plumbing	None required. Consider providing a water fountain.
HVAC	21 C (70 F) minimum, 26 C (78 F) maximum. Provide for air flow from the dry side of this space (opposite the adjacent toilet/shower wet side) to the exhaust intakes in the wet area. Provide eight to 12 air changes per hour with supply by air dump to decrease air velocities, negative pressure, and 0.50 CFM/ft. ² . Limit relative humidity to under 50% through the use of humidistats. Humidistats may also be used to throttle back air changes as long as temperature and humidity remain within limits.
Fire Protection	Provide system per Section 3-5.3.
Power	Provide outlets per code. Provide counter-height outlets at the vanity area.
Lighting	430 Lux (40 ft. candles). General ambient lighting. Lighting fixtures should have translucent, moisture resistant, nonbreakable, protective covers. Minimize shadowing at face of lockers.
Communication	<p>CCTV. None required.</p> <p>CATV/Internal Video. Consider providing an outlet.</p> <p>PA/Audio. Provide a speaker. Provide an emergency call/alarm.</p> <p>Telephone. Provide one line.</p> <p>Data. Consider providing outlets to support personal fitness tracking devices.</p> <p>Security. None required.</p>
Casework/ Built-in Equipment	<p>Provide lockers and benches. Typically provide a mix of full- and half-sized Z-shaped lockers. However, consider the location's climate when determining the ratio of half- to full-sized lockers: Colder climates will require a higher percentage (or 100%) of full-sized lockers to accommodate bulkier cold weather gear. Provide integral benches (usually part of the locker system) at least 406 mm (16 in.) wide. Solid composite plastic lockers are strongly preferred.</p> <p>Mount lockers at a level above the floor which provides reachable operating hardware.</p> <p>Provide a vanity area with a counter and mirror. Provide wall-mounted hair dryers adjacent to this area. Provide one hair dryer for every two shower heads.</p> <p>Provide shelves and hooks for coats and hats.</p> <p>Provide a full-height wall mirror.</p> <p>Consider providing ceiling fans.</p>
Furnishings Fixtures & Equip. (FF&E)	

TABLE 4-19. CONVERTIBLE LOCKER SPACE

Special Req.	The doors in to the male and female locker/dressing area must be keyed from both sides. Provide dropped gypsum board soffits over lockers or prefabricated metal top closure to preclude the tops of the lockers being used for storage.
For use during project execution by the appropriate Service agency	
Occupancy	Staff. Customers.
Min. net m² (ft²)	

TABLE 4-20. GYMNASIUM/BASKETBALL/VOLLEYBALL COURTS

Description/ Usage	This space is used for team activities and sports competitions such as basketball and volleyball. Multiple court gymnasiums with divider curtains can accommodate simultaneous activities. The gymnasium can also support instructional functions, informal, intramural, and extramural sports as well as community events.
Min. Ceiling Ht.	8.53 m (28 ft.) clear height below structure and lights.
Finishes	<p>Walls. CMU with glazed wall coating or heavy-duty epoxy up to 3.66 m (12 ft.). Above 3.66 m (12 ft.), use semi-gloss enamel and consider acoustic panels.</p> <p>Floor. Multipurpose, resilient, athletic flooring—typically wood. Flooring must meet “DIN” standards for the specified function per ACSM.</p> <p>Ceiling. Exposed, painted structure. Provide acoustical banners.</p>
Plumbing	No plumbing fixtures in the gymnasium. Consider access to nearby drinking fountains.
HVAC	20 C (68 F) minimum, 23 C (74 F) maximum; 20 cfm/person outside air, with CO ₂ sensors or other type of energy conservation system; 10 air changes/hour; less than 50% relative humidity. Provide durable air grill covers and do not place air grills in line with basketball nets.
Fire Protection	Provide system per Section 3-5.3. Provide protection for sprinkler heads, exit signs, manual pull stations, and other exposed components; minimize equipment that protrudes into activity space or raise it above 1.83 m (6 ft.) for safety considerations. Provide 1-hour fire separation from core areas of building.
Power	Provide outlets per code. Provide power for the scoreboard; shot clocks; and a high, wall-mounted clock. Consider power requirements for other functions such as retractable backboards, divider curtain, and stage sound and lighting.
Lighting	Metal halide, 540 Lux (50 ft. candles) minimum, adjustable up to 860 Lux (80 ft. candles). If the program dictates, consider providing up to 1080 Lux (100 ft. candles). Provide perimeter compact fluorescents multi-level switched for non-sport activities. Provide keyed light switches. Provide protection for all fixtures. Do not locate fixtures directly above basketball backboards. Do not install high-pressure sodium lighting.
Communication	<p>CCTV. Provide at least one outlet in each divided space.</p> <p>CATV/Internal Video. None required.</p> <p>PA/Audio. Provide speakers with proper spacing.</p> <p>Telephone. Provide one line with internal two-way communication.</p> <p>Data. Consider providing data outlets in recessed floor boxes, centered under the anticipated scoring table location, but outside the court boundaries.</p> <p>Security. None required.</p>
Casework/ Built-in Equipment	None required.
Furnishings Fixtures & Equip. (FF&E)	<p>Provide CCTV cameras per the outlet count.</p> <p>Provide wrestling mat, exercise mat, protective floor coverings, seating, scoring table, elevated judge's stand, and chairs.</p>

TABLE 4-20. GYMNASIUM/BASKETBALL/VOLLEYBALL COURTS

Special Req.	<p>Provide acoustical control with sound baffles, banners, acoustical materials, etc.</p> <p>Built-in equipment:</p> <ul style="list-style-type: none"> • Provide retractable basketball nets/backboards at two per half court or six per full court. Breakaway rims must be installed on all goals. • Provide volleyball stanchions and net with built-in flush floor insert sleeves. Consider floor inserts for gymnastics standards. • Motor-operated, vertical-acting, divider curtain with manual override. • Electronic scoreboard—provide control for scoreboard and divider curtain on side of room opposite of bleachers. • Bleachers. Use telescoping bleachers to maximize the flexibility of the space and to allow sideline space for gymnasium events. Provide for accessible seating. <p>Service Exception: Navy requires manually-operated bleachers.</p> <ul style="list-style-type: none"> • Provide game lines on flooring for full- and half-court basketball and volleyball. • Provide attached safety padding on all walls to 1830 mm (6 ft.) minimum above finished floor. • Provide one pair of 30-second timing clocks for the main court. <p>Other special requirements:</p> <ul style="list-style-type: none"> • Provide wood entrance doors with vision panels into the gym and ensure visual access from the control counter. • Provide a minimum 3.05 m (10 ft.) unobstructed floor space safety zone between the outer edge of the playing area and any feature or obstruction. • Consider moisture control and prevention of condensation on floor surface. Consider under-floor ventilation requirements, under-slab vapor barrier, estimated dew point occurrence, local water table, and local soil conditions. • Provide exterior double doors with removable latch post for equipment access. • Provide natural light through the use of windows and/or overhead skylights. Mitigate glare on the play and spectator areas. Any glass panels should be a minimum of 5.49 m (18 ft.) above finished floor and 13 mm (.5 in.) thick, tempered, laminated safety glass. • Ensure no glazing or lighting can create glare or distraction on the play areas. Also consider cross-court play.
For use during project execution by the appropriate Service agency	
Occupancy	<p>Staff.</p> <p>Customers.</p> <p>Participants.</p> <p>Spectators.</p>
Min. net m² (ft²)	

TABLE 4-21. GYMNASIUM EQUIPMENT STORAGE

Description/ Usage	A room for the storage of equipment and supplies, e.g., roll-away basketball goals, volleyball standards, gymnasium floor protective covering, and telescopic platform for maintenance/repair, needed for program support. Coordinate with overhead storage.
Min. Ceiling Ht.	3.05 m (10 ft.) minimum
Finishes	Walls. CMU or painted gypsum wall board. Floor. Sealed concrete. Ceiling. None required.
Plumbing	None required. Consider providing a connection for an ice maker and a floor drain. Service Exception: Not supported by Marine Corps.
HVAC	18 C (65 F) minimum, 29 C (85 F) maximum.
Fire Protection	Provide system per Section 3-5.3.
Power	Provide outlets per code.
Lighting	215 Lux (20 ft. candles).
Communication	CCTV. None required. CATV/Internal Video. None required. PA/Audio. None required. Telephone. None required. Data. None required. Security. None required.
Casework/ Built-in Equipment	None required.
Furnishings Fixtures & Equip. (FF&E)	Shelving and storage cabinets.
Special Req.	Area must be accessible from both interior and exterior through lockable double doors with kick-plates. Consider providing "dutch" doors at interior for equipment issue. Service Exception: Navy discourages the use of dutch doors. Provide a vision panel in the door. Provide ramp at exterior door to facilitate equipment issue/delivery, if necessary. The area must be at least 2.44 m (8 ft.) wide. In addition to the gym storage room, a separate storage area accessible from the exterior may be provided for exterior sports and athletic equipment, e.g., bleachers and soccer goals.
For use during project execution by the appropriate Service agency	
Occupancy	Staff. Customers.

TABLE 4-22. ROCK CLIMBING

Description/ Usage	A rock climbing wall is an optional addition, usually to the fitness equipment area or combined with other structured activities. The main uses of climbing walls are threefold: offering instructional programs for new climbers, fitness training or recreation for intermediate through advanced climbers, and climbing competitions. Locate the wall within the facility so that it is a highly visible feature or centerpiece and also serves an advertising function. Ensure direct visual control from the control desk. If the wall serves as a centerpiece, use a wall that has a realistic rock appearance.
Min. Ceiling Ht.	6.1 m (20 ft.) minimum. Accommodate the specific equipment selected.
Finishes	<p>Walls. CMU. Basic wall features should include arêtes, dihedrals, overhanging routes, flakes, chimneys, buttresses, and roof. It's important to consider not only the width and height of climbing walls, but also the depth available to create interesting features.</p> <p>Floor. The flooring beneath the climbing wall should be a soft and resilient surface such as recycled rubber chips or a resilient rubber playground surface. The depth of the material should be specified to attenuate a 3.05 m (10 ft.) fall. Flooring must meet "DIN" standards for the specified function per ACSM.</p> <p>Ceiling. None required.</p>
Plumbing	None required.
HVAC	20 C (68 F) minimum, 26 C (78 F) maximum.
Fire Protection	Provide system per Section 3-5.3.
Power	Provide outlets per code.
Lighting	540 Lux (50 ft. candles). Metal halide, mercury vapor, or fluorescent lights are recommended. Coordinate the location of lights with the design of the climbing wall. Lighting should not impair the wall user, e.g., down-lighting fixtures should not be installed directly above the climbing wall.
Communication	<p>CCTV. If direct LOS is not possible from the control desk, provide an outlet.</p> <p>CATV/Internal Video. None required.</p> <p>PA/Audio. Provide a speaker.</p> <p>Telephone. If direct LOS is not possible from the control desk, provide an emergency call/alarm that sounds at the control counter.</p> <p>Data. None required.</p> <p>Security. None required.</p>
Casework/ Built-in Equip.	None required.
Furnishings Fixtures & Equip. (FF&E)	<p>Provide CCTV cameras per the outlet count.</p> <p>Consider manufactured climbing walls. Select the provider based both on service and product features. Accommodate any specific power requirements.</p>
Special Req.	<p>A bulletin board should be placed in a visible, adjacent area on which appropriate information and materials are posted, e.g., safety and injury guidelines, climbing tips, target heart zone information, and instructions for measuring heart rate.</p> <p>Provide a separate teaching station.</p> <p>Safety: If a manufactured climbing wall is used, comply with the manufacturer's guidelines and safety requirements. Also refer to the following industry groups for more information on safety requirements: Climbing Wall Association and Association for Challenge Course Technology.</p>
For use during project execution by the appropriate Service agency	
Occupancy	<p>Staff.</p> <p>Customers.</p>
Min. net m² (ft²)	

TABLE 4-23. RACQUETBALL COURTS

Description/ Usage	Racquetball courts generally consist of one or more enclosed courts within a larger space that allows circulation, waiting, and spectator viewing. Courts are sized and specified specifically for the game of racquetball (see Special Requirements).
Min. Ceiling Ht.	6.1 m (20 ft.).
Finishes	<p>Walls. 13 mm (.5 in.) thick high density resin core panels over 13 mm (.5 in.) sound cushion layer. Consider providing a shatterproof, tempered glass back wall/door for viewing and officiating. Minimum calculated wall reflectance must be 0.65.</p> <p>Floor. Multipurpose, resilient, wood athletic flooring designed for racquetball courts. Flooring must meet "DIN" standards for the specified function per ACSM.</p> <p>Ceiling. 13 mm (.5 in.) thick high density resin core panels</p>
Plumbing	None Required. Consider access to drinking fountains and bathrooms.
HVAC	16 C (60 F) minimum, 20 C (68 F) maximum; 15 cfm/person outside air, with CO ₂ sensors or other type of energy conservation system; 10 air changes/hour, less than 50% relative humidity. Ventilating ducts must be installed flush with the ceiling or wall surfaces. Supply and return vents should be located in the rear one-third of the ceiling and/or the upper one-third of the back wall.
Fire Protection	Provide system per Section 3-5.3. Any fire suppression or detection equipment must be protected and flush with the wall or ceiling surface.
Power	None required in courts. Provide convenience outlets per code in the waiting/viewing area.
Lighting	970 Lux (70 ft. candles) minimum. Provide 1,076 Lux (100 ft. candles) for competition play. Use translucent, impact resistant, nonbreakable, flush mounted protective covers specifically designed for racquetball courts. Light should be evenly distributed throughout the court. Metal halide fixtures are preferred. For courts with glass walls, the lighting level shall be the same on both sides of the glass wall. This feature will reduce glare and allow players to follow the ball as it plays off the glass wall.
Communication	<p>CCTV. Provide at least one outlet in the waiting/viewing area.</p> <p>CATV/Internal Video. None required.</p> <p>PA/Audio. Provide a speaker in each court (upper end of back wall preferred) and in the waiting/viewing area.</p> <p>Telephone. None required.</p> <p>Data. None required.</p> <p>Security. None required.</p>
Casework/ Built-in Equipment	Provide mounting sockets and netting for wally ball games on 50% of the courts or per local demand. Provide recessed wallet lock boxes in one sidewall of each court. Consider providing a large, recessed walk-off mat outside the entrance to the courts.
Furnishings Fixtures & Equip. (FF&E)	Provide CCTV cameras per the outlet count. If a waiting/viewing area is included, provide seating for spectators.
Special Req.	Court striping and dimensions must comply with U.S. Racquetball Association rules. Consider providing one court with a movable front or rear wall to allow one racquetball court to be converted into a squash court.
For use during project execution by the appropriate Service agency	
Occupancy	<p>Staff.</p> <p>Customers.</p> <p>Participants.</p> <p>Spectators.</p>
Min. net m² (ft²)	

TABLE 4-24. UNIT PT/GROUP EXERCISE ROOM

Description/ Usage	This is typically one large room that is partitionable and can be used for large unit physical training or for multiple smaller classes that require only minimal equipment. Activities/classes include aerobics, martial arts, yoga, etc.
Min. Ceiling Ht.	3.05 m (10 ft.) minimum. Consider a 3.66 m (12 ft.) ceiling for facilities with large martial arts programs.
Finishes	Walls. CMU with glazed wall coating or heavy-duty epoxy. Floor. Multipurpose, resilient, athletic flooring. Wood is preferred for aerobics-type classes; synthetic sports flooring is acceptable for other uses. Flooring must meet "DIN" standards for the specified function per ACSM. Ceiling. None or ACP.
Plumbing	None required. Consider access to drinking fountains and bathrooms.
HVAC	19 C (66 F) minimum, 22 C (72 F) maximum, 12 to 14 air changes/hour, less than 60% relative humidity, negative pressure, 25 cfm/person outside air, with CO ₂ sensors or other type of energy conservation system.
Fire Protection	Provide system per Section 3-5.3.
Power	Provide convenience outlets per code.
Lighting	540 Lux (50 ft. candles) minimum at the floor. 80% indirect and 20% direct. Provide protection for all fixtures and dimming capability.
Communication	CCTV. Provide at least one outlet in each divided space. CATV/Internal Video. Provide outlets for ceiling-mounted monitors. PA/Audio. Provide speakers with proper spacing. Telephone. Provide one line with internal two-way communication. Data. Consider providing data outlets in the walls or in recessed floor boxes. Security. None required.
Casework/ Built-in Equipment	Provide a continuous stretching bar on at least one wall. Provide a continuous toe bar (for sit-ups) on at least one wall (different from wall with stretching bar). Provide a built-in protective box for the telephone. Provide mirrors on at least two walls at a minimum of 450 mm (18 in.) above the floor. Provide a secured sound system for each divided space and wireless headsets for instructors. Provide wall- or ceiling-mounted TV brackets in each divided space. Consider providing ceiling fans. Service Exception: For the Air Force, provide multi-speed ceiling fans.
Furnishings Fixtures & Equip. (FF&E)	Provide CCTV cameras per the outlet count. Accommodate boxing equipment such as punching bags and speed bags. Provide other athletic equipment as needed: stair steps, balls, small dumbbells, etc. Consider providing an AED.

TABLE 4-24. UNIT PT/GROUP EXERCISE ROOM

Special Req.	<p>Design the rooms to allow for flexibility in use. Provide a method of fastening padding on walls for use during combative sports. Provide acoustical separation from the rest of the facility.</p> <p>Provide natural light where appropriate—provide glare and heat-gain protection if exterior glazing is provided.</p> <p>Provide some visual connection to the rest of the facility—Consider providing interior windows to other exercise modules/circulation areas. If windows are provided, also provide blinds for privacy when necessary.</p> <p>Provide secure storage either within the room or with a direct adjacency to store items such as mats, wall padding, punching bags, and other sports equipment.</p> <p>Provide personal effects storage, such as cubbies, for customers in the room.</p> <p>Accommodate queuing of customers in the area immediately outside the entrance.</p>
For use during project execution by the appropriate Service agency	
Occupancy	<p>Staff.</p> <p>Customers.</p>
Min. net m² (ft²)	

TABLE 4-25. FITNESS AREA

Description/ Usage	<p>This area is typically the focal point of the facility. The area is divided into four sections: stretching/warm up/cool down, free/plate-loaded weights, selectorized (machine) equipment, and cardiovascular equipment. The stretching/warm-up/cool-down area is open space within the larger room. It can also serve as transition areas between the other sections. The cardiovascular equipment area can be located in multiple areas throughout the facility. Consider locations such as balconies, alcoves, etc. The criteria in this table will apply regardless of equipment location. This area is adjacent to the equipment repair/receiving area.</p> <p>The free/plate-loaded weights area includes dumbbells, plate racks and plate-loaded equipment, and benches. The selectorized (machine) equipment consists of pin-selected weight equipment. The cardiovascular equipment consists of items such as treadmills, stationary bikes, stair climbers, etc.</p>
Min. Ceiling Ht.	3.66 m (12 ft.) minimum. 4.27 m (14 ft.) is preferred.
Finishes	<p>Walls. CMU with glazed wall coating or heavy-duty epoxy. Provide wall protection up to 18 in. above finished floor in the free weight area.</p> <p>Floor. In the stretching/warm up/cool down and free weights areas use permanently adhered impact flooring with a nonporous, high-density rubber/elastic surface. Composite products such as recycled rubber may be used; however, the top layer should be virgin (unrecycled) material chemically bonded to the sublayers. Avoid the use of interlocking impact flooring tiles.</p> <p>For the selectorized equipment and cardiovascular equipment areas use multipurpose, resilient, athletic flooring.</p> <p>For the circuit training equipment, consider using the impact flooring detailed above. All flooring must meet "DIN" standards for the specified function per ACSM.</p> <p>Ceiling. Exposed, painted structure. Consider providing ACP or other acoustical banners and treatments.</p>
Plumbing	None required. Provide a minimum of two drinking fountains.
HVAC	20 C (68 F) minimum, 23 C (74 F) maximum; 12 to 18 air changes per hour; negative pressure; less than 50% relative humidity; 25 cfm/person outside air, with CO ₂ sensors or other type of energy conservation system. Provide for multi-speed ceiling fans.
Fire Protection	Provide system per Section 3-5.3.
Power	<p>Provide outlets per code.</p> <p>Free weight area: Consider providing outlets for wall- or ceiling-mounted television monitors.</p> <p>Selectorized equipment area: Coordinate equipment outlets with the specific equipment selected. Provide flush-floor outlets for commercial-grade equipment in a grid pattern sized appropriately for equipment spacing and to accommodate fitness tracking systems. Consider providing a raised floor system for power distribution. Consider providing outlets for wall- or ceiling-mounted television monitors.</p> <p>Cardiovascular equipment area: Coordinate equipment outlets with the specific equipment selected. Provide flush-floor outlets for commercial-grade equipment in a grid pattern sized appropriately for equipment spacing and to accommodate fitness tracking systems. Consider providing a raised floor system for power distribution. Provide 220v dedicated circuits for all treadmills. Provide outlets for wall- or ceiling-mounted television monitors.</p>
Lighting	540 Lux (50 ft. candles) uniform lighting. Use 80% indirect and 20% direct. Consider the possibilities for glare affecting equipment users—particularly those using equipment with horizontal benches. Mitigate glare as necessary.

TABLE 4-25. FITNESS AREA

Communication	<p>CCTV. Provide outlets as needed for coverage.</p> <p>CATV/Internal Video. Provide outlets for wall or ceiling mounted television monitors. Mount at proper viewing height for cardiovascular exercise machines. Consider FM broadcast of video monitors.</p> <p>PA/Audio. Provide speakers as needed.</p> <p>Telephone. None required.</p> <p>Data. Consider providing data outlets in recessed floor boxes in the cardiovascular and selectorized equipment areas.</p> <p>Security. None required.</p>
Casework/ Built-in Equipment	<p>Provide 1830 mm (6 ft.) tall mirrors on at least two walls at a minimum of 450 mm (18 in) above the floor. One of the two walls must be in the free weight area.</p> <p>Provide toe bars (for sit-ups) in the stretching area(s).</p> <p>Provide multi-speed ceiling fans. Provide self-serve equipment cleaning supply stations throughout that include disinfectant spray bottles and disposable or reusable towels.</p>
Furnishings Fixtures & Equip. (FF&E)	<p>Provide CCTV cameras per the outlet count.</p> <p>Provide bulletin boards, exercise mats, wall clocks, and trash containers.</p> <p>Sample equipment lists for each area (cardio, free weights, and selectorized) are provided in Appendix C. Address accessibility issues in equipment selection.</p> <p>Consider providing an AED.</p>
Special Req.	<p>Provide storage either within the room or with a direct adjacency to store items such as mats, spare equipment, and other sports equipment.</p> <p>Provide natural light through the use of windows and/or overhead skylights. Mitigate glare.</p> <p>Provide attractive, color coordinated décor that projects a friendly environment. Avoid bland treatments such as a black floor and tan walls. Color selection should coordinate with equipment selected for the space.</p> <p>Consider providing a help desk within this space in larger facilities. If provided, locate it within the space in areas not well served by the Control Counter.</p>
For use during project execution by the appropriate Service agency	
Occupancy	<p>Staff.</p> <p>Customers.</p>
Min. net m² (ft²)	

TABLE 4-26. FITNESS ASSESSMENT ROOM

Description/ Usage	This room provides a space for staff to meet with customers and evaluate the customer's fitness level. It is inside or directly adjacent to the fitness spaces and the program manager's office and should include typical office furnishings and fitness testing equipment.
Min. Ceiling Ht.	2.74 m (9 ft.) minimum.
Finishes	Walls. Painted gypsum wall board or vinyl wall covering. Floor. Carpet with vinyl or rubber base. Ceiling. ACP.
Plumbing	None required.
HVAC	20 C (68 F) minimum, 26 C (78 F) maximum. Provide dedicated controls.
Fire Protection	Provide system per Section 3-5.3.
Power	Provide a minimum of one quad outlet on at least three walls. Gang outlets with data and telephone. Provide additional dedicated outlets to accommodate the fitness equipment.
Lighting	540 Lux (50 ft. candles). General ambient fixtures.
Communication	CCTV. None required. CATV/Internal Video: None required. PA/Audio: Provide a speaker. Telephone. Provide one line. Data. Provide at least one outlet at the desk area and one outlet at the fitness equipment area. Security. None required.
Casework/ Built-in Equipment	None required.
Furnishings Fixtures & Equip. (FF&E)	Office furniture: desk, credenza, filing cabinet, desk chair, two side chairs, computer, printer, and other office equipment as needed. Fitness testing equipment.
Special Req.	Provide side lights with blinds next to the door for supervision and security.
For use during project execution by the appropriate Service agency	
Occupancy	Staff. Customers.
Min. net m² (ft²)	

TABLE 4-27. PHYSICAL THERAPY/REHAB TRAINING

Description/ Usage	This optional office provides a space for staff to meet with customers and rehabilitate injuries. A private office is preferred, but a workstation may be acceptable if it is large enough to accommodate the equipment and private consultation with the customer. Service Exception: The Navy does not support this space. In Air Force facilities, this space should be located in the Health and Wellness Center. In Marine Corps facilities, this space could be adjacent to or combined with the fitness assessment room (see Table 4-26).
Min. Ceiling Ht.	2.74 m (9 ft.) minimum.
Finishes	Walls. Painted gypsum wall board or vinyl wall covering. Floor. Carpet with vinyl or rubber base. Ceiling. ACP.
Plumbing	None required.
HVAC	20 C (68 F) minimum, 26 C (78 F) maximum. Provide dedicated controls.
Fire Protection	Provide system per Section 3-5.3.
Power	Provide a minimum of one quad outlet in closed offices on at least three walls. Gang outlets with data and telephone. Workstations should provide at least one quad outlet per staff. Provide additional dedicated outlet to accommodate the fitness equipment.
Lighting	540 Lux (50 ft. candles). General ambient fixtures.
Communication	CCTV. None required. CATV/Internal Video: None required. PA/Audio: Provide a speaker. Telephone. Provide one line. Data. Provide one outlet at desk and one outlet at the fitness equipment. Security. None required.
Casework/ Built-in Equipment	None required.
Furnishings Fixtures & Equip. (FF&E)	Office furniture: desk, credenza, filing cabinet, desk chair, and two side chairs. Cardiovascular fitness equipment. Provide a height-adjustable physical therapy table for examinations and manipulation.
Special Req.	Locate offices on exterior wall and provide windows for natural light admission. Provide side lights next to the office doors for supervision and security. May provide a separate but adjacent space to contain a stainless steel, therapeutic spa tub for additional rehabilitation functions. Criteria for the spa tub area, particularly flooring, are similar to those for the optional hot tub (see Table 4-18), and that criteria should be used for a spa tub area.
For use during project execution by the appropriate Service agency	
Occupancy	Staff. Customers.
Min. net m² (ft²)	

TABLE 4-28. INDOOR TRACK

Description/ Usage	<p>The indoor track provides space for running, jogging, and walking. It is usually co-located with the gymnasium (see Table 4-20) either surrounding the court safety zone or suspended above the gym area or other high-bay space.</p> <p>Service Exceptions: Indoor track requirements vary by Service:</p> <p>Army. The space is allocated for the track in every Installation. However, in temperate climates and with approval of CFSC, the track space can be added to the cardiovascular equipment space in the fitness area in lieu of building a track.</p> <p>Navy. The indoor track is an option depending upon local climate and facility size.</p> <p>Air Force. The track is required but it can be either indoor or outdoor.</p> <p>Marine Corps. The indoor track is an option.</p>
Min. Ceiling Ht.	3.05 m (10 ft.) minimum. If suspended in a high-bay area, the underside of the track structure should be 4.27 m (14 ft.) minimum above the finished floor.
Finishes	<p>Walls. CMU with semi-gloss enamel paint.</p> <p>Floor. Resilient, cushioned running surface, such as rubber or urethane.</p> <p>Ceiling. Exposed, painted structure.</p>
Plumbing	Provide a drinking fountain in the entrance lobby to the track.
HVAC	The HVAC criteria should match the criteria for the space in which the track is located.
Fire Protection	Provide system per Section 3-5.3.
Power	Provide outlets per code. Provide power to a wall-mounted clock.
Lighting	The lighting criteria should match the criteria for the space in which the track is located.
Communication	<p>CCTV. Provide outlets for adequate coverage.</p> <p>CATV/Internal Video. None required.</p> <p>PA/Audio. Provide a speaker.</p> <p>Telephone. Provide a telephone line or other emergency call system within or adjacent to the running track area.</p> <p>Data. None required.</p> <p>Security. None required.</p>
Casework/ Built-in Equipment	<p>Provide signage to indicate running directions (directions alternate day-to-day).</p> <p>Provide personal effects storage, such as cubbies, for customer use.</p>
Furnishings Fixtures & Equip. (FF&E)	Provide CCTV cameras per the outlet count. Bulletin board and digital clock. Provide storage for towels and personal items.

TABLE 4-28. INDOOR TRACK

Special Req.	<p>The metric unit equivalent for the track distance must be an accurate soft conversion because runners will time themselves based on number of laps; the reference point must be consistent. Track length is based on the inside radius. Lanes are 1067 mm (42 in.) wide.</p> <p>The turns should have a minimum inside radius of 6100 mm (20 ft.) and a minimum outside radius of 9.75 m (32 ft.).</p> <p>Consider using banked curves. The height of banked curves on an indoor track should be 25 mm per 305 mm (1 in. per 1 ft.) of track width.</p> <p>Provide a “lobby” area at the entrance to the track so that the doors do not open onto the track area and to provide space for stretching and warm-up. Provide an exercise mat in this area. Provide vision panels in the doors.</p> <p>Provide for exterior views if possible or, at a minimum, natural light admission. Mitigate glare and prevent direct sunlight on the track or the gymnasium (if suspended above).</p> <p>Service Exceptions: The Services vary as to allowable length and number of lanes:</p> <p>Army. Minimum track distance/size is 115 m (1/14 mile) and two lanes which will fit over the smallest gymnasium option. In facilities with an arena-style gymnasium, use a track distance/size of 130.5 m (1/12.3 mile) in length and three lanes. The preferred distance/size is 146.3 m (1/11 mile) in length and three lanes.</p> <p>Navy. Minimum track distance/size is 115 m (1/14 mile) and two lanes which will fit over the smallest gymnasium option. In larger facilities, the preferred distance/size is 146.3 m (1/11 mile) in length and three lanes. In Extra Large and Jumbo size facilities, the Navy will include a 201.2-m (1/8-mile), four-lane track.</p> <p>Air Force. Minimum track distance/size for new facilities is 201.2 m (1/8 mile) and four lanes. Minimum track distance/size for add/alter facilities is 161 m (1/10 mile) and three lanes.</p> <p>Marine Corps. Minimum track distance/size for new facilities is 201.2 m (1/8 mile) and four lanes. The minimum track distance/size for add/alter facilities is 146.3 m (1/11 mile) in length and three lanes.</p> <p>Typically, the most space and cost effective location for the indoor track is suspended above the gymnasium. Service-specific size and length criteria for the track is given above, but consider the following when sizing the indoor track:</p> <ul style="list-style-type: none"> • Ensure the suspended track does not interfere with gymnasium play below. The track should not encroach into the clear zones of the gym. While decreasing the track turn radii may preclude the track from encroaching on the clear zones, radii smaller than the minimum noted above will make for an awkward running venue and should be avoided. • Ensure that required adjacencies are not affected by the placement of the track. • The facility can be designed to allow the track to extend beyond the gymnasium area and into other high-bay spaces, such as the fitness area. This can make for an interesting architectural feature, but will also have significant cost implications.
For use during project execution by the appropriate Service agency	
Occupancy	<p>Staff.</p> <p>Customers.</p>
Min. net m² (ft²)	

4-2 **HEALTH AND WELLNESS CENTER SPACES.**

Tables 4-29 through 4-35 provide the specific design needs for each Health and Wellness Center functional areas in a standard Functional Data Sheet format.

TABLE 4-29. HEALTH AND WELLNESS CENTER RECEPTION/WAITING AREA

Description/ Usage	Reception and waiting area for customers going to the Health and Wellness Center for testing or consultation. With this space, include an area off to the side which accommodates a resource library and computer lab for use by the customers as well as the staff. Provide seating for eight people.
Min. Ceiling Ht.	2.74 m (9 ft.) minimum.
Finishes	Walls. Use wallboard. Floor. Use carpet or vinyl tile. Ceiling. Use acoustical lay-in.
Plumbing	None required.
HVAC	20 C (68 F) minimum, 26 C (78 F) maximum.
Fire Protection	Provide system per Section 3-5.3.
Power	Provide outlets per code and to power dedicated equipment.
Lighting	160 Lux (15 ft. candles). Fluorescent lighting.
Communication	CCTV. None required. CATV/Internal Video. None required. PA/Audio. Provide a speaker. Telephone. Provide one line at the reception desk. Data. Provide communications and data connections. Security. None required.
Casework/ Built-in Equipment	Provide a 610 mm (24 in.) deep reception counter with built-in cabinets.
Furnishings Fixtures & Equip. (FF&E)	Desk, chairs, file cabinets, book and magazine racks.
Special Req.	
For use during project execution by the appropriate Service agency	
Occupancy	Staff. Customers.
Min. net m² (ft²)	

TABLE 4-30. HEALTH AND WELLNESS CENTER DEMONSTRATION KITCHEN

Description/ Usage	Optional space. Provide a kitchen demonstration island with a range, vegetable sink, and countertop workspace. Service Exception: In Marine Corps facilities, when provided, the demonstration kitchen must be placed directly adjacent to the classroom that is used for health promotions, and the dividing wall between the kitchen and the classroom must be retractable in order to accommodate large class demonstrations.
Min. Ceiling Ht.	3.66 m (12 ft.) minimum.
Finishes	Walls. Use wallboard. Floor. Use vinyl tile. Ceiling. Use acoustical lay-in.
Plumbing	Provide a deep double sink with hot and cold water connections.
HVAC	20 C (68 F) minimum, 26 C (78 F) maximum. Provide appropriate exhaust for range and ovens per code.
Fire Protection	Provide system per Section 3-5.3.
Power	Provide 110-volt and 220-volt electrical outlets for all appliances.
Lighting	540 Lux (50 ft. candles). Fluorescent or incandescent lighting.
Communication	CCTV. None required. CATV/Internal Video. Provide one outlet. PA/Audio. Provide a speaker. Telephone. Provide one outlet. Data. Provide one outlet. Security. None required.
Casework/ Built-in Equipment	Provide countertop workspace with a double sink and upper/lower closed storage cabinets.
Furnishings Fixtures & Equip. (FF&E)	Provide a refrigerator/freezer, dishwasher, double oven, microwave, and miscellaneous equipment to demonstrate new methods of food preparation.
Special Req.	Provide an angled mirror over the demonstration area to facilitate viewing by students.
For use during project execution by the appropriate Service agency	
Occupancy	Staff. Customers.
Min. net m² (ft²)	

TABLE 4-31. HEALTH AND WELLNESS CENTER ADMINISTRATIVE AREA

Description/ Usage	<p>The administrative offices consist of a mix of private and open office space. The quantity and type of offices are facility specific. Generally speaking, the following office spaces are provided: Director's office, Program Managers' offices, and support staff workstations.</p> <p>The offices should be free from frequent distraction, have a professional appearance, and provide a sense of work place.</p>
Min. Ceiling Ht.	2.74 m (9 ft.) minimum.
Finishes	<p>Walls. Painted gypsum wall board or vinyl wall covering.</p> <p>Floor. Carpet with vinyl or rubber base.</p> <p>Ceiling. ACP.</p>
Plumbing	None required.
HVAC	20 C (68 F) minimum, 26 C (78 F) maximum.
Fire Protection	Provide system per Section 3-5.3.
Power	Ensure an adequate number of circuits to power all equipment. Provide a minimum of one quad outlet in closed offices on at least three walls. Gang outlets with data and telephone. Workstations should provide at least one quad outlet per staff. Provide additional outlets as necessary to operate shared equipment such as printers, fax, etc.
Lighting	540 Lux (50 ft. candles). General ambient fixtures.
Communication	<p>CCTV. None required.</p> <p>CATV/Internal Video: None required.</p> <p>PA/Audio: Provide a speaker with adjustable volume.</p> <p>Telephone. Provide one line per staff plus one additional line for fax and copier.</p> <p>Data. Provide one outlet per staff plus one outlet for each printer, copier, scanner, etc.</p> <p>Security. None required.</p>
Casework/ Built-in Equipment	None required.
Furnishings Fixtures & Equip. (FF&E)	<p>Private Offices—provide furniture for 11 m² (120 ft.²) or 9.3 m² (100 ft.²) office: desk, credenza, filing cabinet, desk chair, and two side chairs.</p> <p>Workstations—provide furniture for 6 m² (64 ft.²) workstation: desk chair and side chair for open offices. Workstation systems furniture must provide adequate space for filing and overhead storage.</p> <p>Provide dry-erase boards in select offices and workstations.</p>
Special Req.	<p>Locate offices on exterior wall and provide windows for natural light admission.</p> <p>Provide side lights next to the office doors for supervision and security.</p>
For use during project execution by the appropriate Service agency	
Occupancy	<p>Staff.</p> <p>Customers.</p>
Min. net m² (ft²)	

TABLE 4-32. HEALTH AND WELLNESS CENTER ERGOMETRY/FITNESS TESTING

Description/ Usage	This should be an enclosed room with 2440 by 3050 mm (8 ft. by 10 ft.) testing cubicles; provide one testing station per 1500 active duty assigned personnel. Place room adjacent to the wellness assessment room, if applicable.
Min. Ceiling Ht.	2.74 m (9 ft.) minimum.
Finishes	Walls. Use wallboard. Floor. Use carpet or vinyl tile. Ceiling. Use acoustical lay-in.
Plumbing	Consider access to a hand wash sink with hot and cold water connections. If adjacent sink is not available, provide one.
HVAC	Individually zone room for HVAC.
Fire Protection	Provide system per Section 3-5.3.
Power	Provide a minimum of one quad outlet on at least three walls. Gang outlets with data and telephone. Provide additional dedicated outlets to accommodate the fitness equipment.
Lighting	540 Lux (50 ft. candles). General ambient fixtures.
Communication	CCTV. None required. CATV/Internal Video: None required. PA/Audio: Provide a speaker. Telephone. Provide one line. Data. Provide at least one outlet at desk and one outlet at the fitness equipment. Security. None required.
Casework/ Built-in Equipment	None required.
Furnishings Fixtures & Equip. (FF&E)	Office furniture: desk, credenza, filing cabinet, desk chair, two side chairs, computer, printer, and other office equipment as needed. Fitness testing equipment.
Special Req.	
For use during project execution by the appropriate Service agency	
Occupancy	Staff. Customers.
Min. net m² (ft²)	

TABLE 4-33. HEALTH AND WELLNESS CENTER STORAGE

Description/ Usage	Provide storage for Health and Wellness Center materials and supplies.
Min. Ceiling Ht.	2.74 m (9 ft.) minimum.
Finishes	Walls. Use wallboard. Floor. Use vinyl tile. Ceiling. Use open ceiling.
Plumbing	Provide a floor mop sink with hot and cold water and a hose connection. Provide a floor drain.
HVAC	20 C (68 F) minimum, 26 C (78 F) maximum. Ventilate to the exterior per code. Provide eight to 12 air changes per hour.
Fire Protection	Provide system per Section 3-5.3.
Power	Provide outlets per code.
Lighting	540 Lux (50 ft. candles).
Communication	CCTV. None required. CATV/Internal Video. None required. PA/Audio. Provide a speaker. Telephone. None required. Data. None required. Security. None required.
Casework/ Built-in Equipment	Provide storage for Health and Wellness Center materials and for janitor's supplies such as pails, mops, vacuums, and related cleaning supplies and equipment.
Furnishings Fixtures & Equip. (FF&E)	
Special Req.	Provide a lockable door (which can be opened from the inside) with a vision panel. Provide lockable cabinets for cleaning supplies. Provide exhaust ventilation directly to the outside.
For use during project execution by the appropriate Service agency	
Occupancy	Staff. Customers.
Min. net m² (ft²)	

TABLE 4-34. HEALTH AND WELLNESS CENTER TOILETS/LAVATORIES

Description/ Usage	These toilets are used primarily by Health and Wellness Center visitors and staff. Provide separate rooms for men and women.
Min. Ceiling Ht.	2.74 m (9 ft.) minimum.
Finishes	Walls. Epoxy or enamel painted, moisture-resistant gypsum wall board with a ceramic tile wainscot. Consider full ceramic tile walls with integral patterns. Use a dark-colored epoxy grout. Floor. Non-slip ceramic tile with integral patterns. Use a dark-colored epoxy grout. Ceiling. Epoxy or enamel painted, moisture-resistant gypsum board.
Plumbing	Provide wall-hung water closets, wall-hung urinals, and lavatories based on the applicable code. Provide a floor drain. Provide a keyed hose bibb.
HVAC	20 C (68 F) minimum, 26 C (78 F) maximum. Ventilate to the exterior per code. Provide eight to 12 air changes per hour.
Fire Protection	Provide system per Section 3-5.3.
Power	Provide outlets per code.
Lighting	540 Lux (50 ft. candles).
Communication	CCTV. None required. CATV/Internal Video. None required. PA/Audio. Provide a speaker. Telephone. None required. Data. None required. Security. None required.
Casework/ Built-in Equipment	Solid-surface countertop with either underhung or integral sink. Solid composite toilet and urinal partitions. Consider permanent ceramic-tile partitions. Toilet accessories: toilet paper dispensers, paper towel dispenser with integral trash receptacle, robe hooks, grab bars, sanitary napkin disposal (female water closet stalls), seat cover dispensers, and soap dispensers. Mirror. Provide fold-down diaper changing table/station in the male and female toilets.
Furnishings Fixtures & Equip. (FF&E)	
Special Req.	
For use during project execution by the appropriate Service agency	
Occupancy	Staff. Customers.
Min. net m² (ft²)	

TABLE 4-35. HEALTH AND WELLNESS CENTER RELAXATION ROOM

Description/ Usage	Optional space. Provide acoustic treatment to reduce sound transmission into the room. Provide comfortable lounge seating for 4 to 6 customers.
Min. Ceiling Ht.	2.74 m (9 ft.) minimum.
Finishes	Walls. Use wallboard. Floor. Use carpet. Ceiling. Use acoustical lay-in.
Plumbing	None required.
HVAC	22 C (72 F) minimum, 26 C (78 F) maximum. Provide six to 10 air changes per hour and less than 60% relative humidity. Provide dedicated controls.
Fire Protection	Provide system per Section 3-5.3.
Power	Provide outlets per code. Provide power for the electric massage chairs.
Lighting	540 Lux (50 ft. candles). Use indirect light fixtures and provide dimming capability.
Communication	CCTV. None required. CATV/Internal Video. Provide one outlet. PA/Audio. Provide a speaker. Telephone. Provide one outlet for future use purposes. Data. Provide one outlet. Security. None required.
Casework/ Built-in Equipment	
Furnishings Fixtures & Equip. (FF&E)	Provide one or more electric massage chairs. Provide an audio system.
Special Req.	This room should be located in a remote location within the Health and Wellness Center and be free from noise and distractions.
For use during project execution by the appropriate Service agency	
Occupancy	Staff. Customers.
Min. net m² (ft²)	

APPENDIX A REFERENCES

- 29 CFR 1910.1048, *Formaldehyde Standard*, National Archives and Records Administration (NARA), <http://www.gpoaccess.gov/cfr/index.html>
- ADAAG, *Americans with Disabilities Act Accessibility Guidelines*, United States Access Board, <http://www.access-board.gov/adaag/html/adaag.htm>
- ADA and ABA Accessibility Guidelines for Buildings and Facilities*, July 2004, United States Access Board, <http://www.access-board.gov/ada-aba.htm>
- Air Force Services Facilities Design Guide: Fitness Centers*, HQ United States Air Force, HQ AFSVA/SVPAF, 10100 Reunion Place, Suite 402, San Antonio, TX, 78216-4138, <https://www-r.afsv.af.mil>
- Air Force Sustainable Facilities Guide*, U.S. Air Force Center for Environmental Excellence, HQ AFCEE, 3300 Sidney Brooks, Brooks City-Base, TX, 78235-5112, <http://www.afcee.brooks.af.mil>
- AFH 32-1084, *Facility Requirements*, HQ United States Air Force, HQ AFSVA/SVPAF, 10100 Reunion Place, Suite 402, San Antonio, TX, 78216-4138, <https://www-r.afsv.af.mil>
- AFI 10-248, *Fitness Programs*, HQ United States Air Force, HQ AFSVA/SVPAF, 10100 Reunion Place, Suite 402, San Antonio, TX, 78216-4138, <https://www-r.afsv.af.mil>
- AFI 34-266, *Air Force Fitness and Sports Programs*, HQ United States Air Force, HQ AFSVA/SVPAF, 10100 Reunion Place, Suite 402, San Antonio, TX, 78216-4138, <https://www-r.afsv.af.mil>
- AFI 40-101, *Health Promotions Program*, HQ United States Air Force, HQ AFSVA/SVPAF, 10100 Reunion Place, Suite 402, San Antonio, TX, 78216-4138, <https://www-r.afsv.af.mil>
- Architectural Barriers Act of 1968*, Public Law 90-480, United States Access Board, <http://www.access-board.gov/adaag/html/adaag.htm>
- Army Quantity Questionnaire Spreadsheet*, U.S. Army Corps of Engineers (USACE), USACE Engineering & Support Center, HSV (CEHNC)
- AWI Quality Standards Illustrated*, Architectural Woodwork Institute, 1952 Isaac Newton Square West, Reston, VA 20190, 703-733-0600, <http://www.awinet.org>
- DG 1110-3-122, *Interior Design Guide*, U.S. Army Corps of Engineers, USACE Publications Depot, ATTN: CEIM-IM-PD, 2803 52nd Ave, Hyattsville, MD 20781-1102, <http://www.usace.army.mil/usace-docs/>

Electric Current Abroad, U.S. Department of Commerce, International Trade Administration, 14th & Constitution Ave., NW, Washington, DC, 20230, <http://www.ita.doc.gov>

ETL 03-3, *Engineering Technical Letter: Air Force Carpet Standard*, Air Force Civil Engineer Service Agency, HQ AFCESA/CC, 139 Barnes Dr., Suite 1, Tyndall AFB, FL, 32403-5319, <http://www.afcesa.af.mil>

ETL 04-3, *Engineering Technical Letter: Design Criteria for Prevention*, Air Force Civil Engineer Service Agency, HQ AFCESA/CC, 139 Barnes Dr., Suite 1, Tyndall AFB, FL, 32403-5319, <http://www.afcesa.af.mil>

FED-STD-795, *Uniform Federal Accessibility Standards*, United States Access Board, <http://www.access-board.gov/ufas/ufas-html/ufas.htm>

Health/Fitness Facility Standards and Guidelines, American College of Sports Medicine, 401 West Michigan St., Indianapolis, IN 46202, 317-637-9200, www.acsm.org

ITG FY03-4, *Interim Technical Guidance: NAVFAC Mold Response Manual*, Naval Facilities Engineering Command, Capital Improvements Engineering Criteria and Programs Office, 6506 Hampton Blvd, Norfolk, VA 23508, <http://dod.wbdg.org>

LEED™ Green Building Rating System, United States Green Building Council (USGBC), 1015 18th St., NW, Suite 805, Washington, DC, 20036, www.usgbc.org

NAVFAC P-80, *Facility Planning Criteria for Navy and Marine Corps Shore Installations*, Naval Facilities Engineering Command, Washington Navy Yard, Washington, DC, <http://www.navfac.navy.mil>

NAVFACINST 11010.45D, *Comprehensive Regional Planning Instruction*, Naval Facilities Engineering Command, Washington Navy Yard, Washington, DC, <http://www.navfac.navy.mil>

Navy Fitness Center Standards and Metrics, Commander, Navy Installations, ATTN: N254 (Facilities) or N221 (Program Manager), 5720 Integrity Dr., Millington, TN, 38055, <http://www.mwr.navy.mil>

NFPA 70, *National Electric Code*, 2002, National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy, MA, 02169-7471, 617-770-3000, <http://www.nfpa.org>

NFPA 101, *Life Safety Code*, National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy, MA, 02169-7471, 617-770-3000, <http://www.nfpa.org>

OPNAVINST 11010.20F, *Facilities Projects Manual*, SECNAV/OPNAV Directives Office, N09B15, Washington Navy Yard, Bldg 36, 720 Kennon St., SE, Room 203, Washington Navy Yard, DC, 20374, <http://neds.nebt.daps.mil/usndirs.htm>

UFC 4-740-02
26 September 2006

SPiRiT, *Sustainability Project Rating Tool*, U.S. Army Corps of Engineers, USACE Publications Depot, ATTN: CEIM-IM-PD, 2803 52nd Ave, Hyattsville, MD 20781-1102, <http://www.usace.army.mil/usace-docs/>

UFC 1-200-01, *General Building Requirements*, Unified Facilities Criteria Program, <http://dod.wbdg.org>

UFC 3-210-02, *POV Site Circulation and Parking*, Unified Facilities Criteria Program, <http://dod.wbdg.org>

UFC 3-201-02, *Landscape Requirements*, Unified Facilities Criteria Program, <http://dod.wbdg.org>

UFC 3-400-01, *Energy Conservation*, Unified Facilities Criteria Program, <http://dod.wbdg.org>

UFC 3-410-01FA, *Heating, Ventilating and Air Conditioning*, Unified Facilities Criteria Program, <http://dod.wbdg.org>

UFC 3-410-02A, *Heating, Ventilating, and Air Conditioning (HVAC) Control Systems*, Unified Facilities Criteria Program, <http://dod.wbdg.org>

UFC 3-420-01, *Plumbing*, Unified Facilities Criteria Program, <http://dod.wbdg.org>

UFC 3-520-01, *Interior Electrical Systems*, Unified Facilities Criteria Program, <http://dod.wbdg.org>

UFC 3-530-01, *Interior and Exterior Lighting and Controls*, Unified Facilities Criteria Program, <http://dod.wbdg.org>

UFC 3-600-01, *Fire Protection Engineering For Facilities*, Unified Facilities Criteria Program, <http://dod.wbdg.org>

UFC 4-010-01, *DoD Minimum Antiterrorism Standards for Buildings*, Unified Facilities Criteria Program, <http://dod.wbdg.org>

UFC 4-021-01, *Mass Notification Systems*, Unified Facilities Criteria Program, <http://dod.wbdg.org>

UFC 4-750-07F, *Aquatic Facilities*, Unified Facilities Criteria Program, <http://dod.wbdg.org>

USAF Interior Design Guide, U.S. Air Force Center for Environmental Excellence, HQ AFCEE, 3300 Sidney Brooks, Brooks City-Base, TX, 78235-5112, <http://www.afcee.brooks.af.mil>

USAF Landscape Design Guide, U.S. Air Force Center for Environmental Excellence, HQ AFCEE, 3300 Sidney Brooks, Brooks City-Base, TX, 78235-5112, <http://www.afcee.brooks.af.mil>

UFC 4-740-02
26 September 2006

U.S. Army Physical Fitness Facilities Technical Criteria, U.S. Army Corps of Engineers, USACE Publications Depot, ATTN: CEIM-IM-PD, 2803 52nd Ave, Hyattsville, MD 20781-1102, <http://www.usace.army.mil/usace-docs/>

WHOLE BUILDING DESIGN GUIDE, <http://www.wbdg.org>, National Institute of Building Sciences (NIBS), 1090 Vermont Ave, NW, Suite 700, Washington, DC, 20005-4905

CANCELLED

APPENDIX B SPACE PROGRAM**B-1 SPACE PROGRAM STANDARDS.**

The data in Figure B-1 is the basis for the Space Program Interactive Spreadsheet discussed in Section 2-2 and is provided here for reference only. Do not use this table to program a Fitness Facility. The Interactive Spreadsheet combines this data in the correct manner and incorporates the necessary Service Exceptions—which may not be apparent from this Figure.

CANCELLED

FIGURE B-1. SPACE PROGRAM STANDARDS

Functional Component	Space Allocation Standard			
	m ²	ft. ²	Standard	Description
Fitness Spaces				
Lobby/Reception				
Entry Lobby	9.29	100	Vestibule/Lobby Module(s) (for 2-3 ppl)	Vesibule and/or space for 2 to 3 ppl to queue
Control Counter	11.61	125	Counter Module(s)	Space for counter, space behind, space in front
Equipment issue storage	16.26	175	Storage Module(s)	Equipment storage at/behind gear issue
Vending	1.86	20	Vending Machine(s)	per vending machine
Waiting/Display	8.36	90	Seating/Display Module(s) (for 4 ppl)	Space for seating for 4 ppl and display area
Spectator peak-time circulation	27.87	300	Circulation Module(s)	Per one-side bleachers - driven by gym size
Public restrooms/phones	0.00		Public Restroom(s)	Option - Driven by gym size
Gymnasium				
Basketball/volleyball Court	826.07	8,892	One-court/200-seat Module(s)	NCAA Court + 10' safety + 200 seats (one side)
Two Court Module	1630.95	17,556	Two-court/200-seat Module(s)	Two courts + 10' safety, 16' between cts, + 200 seats
Arena-style Two-Court Module	1708.62	18,392	Arena-style Two-Court Module(s)	Provides space for arena-style seating for center, longitudinal ct.
Additional Spectator seating	84.71	912	Additional 200-seat Module(s)	Four rows of seats (one ea. side) = 200 ppl.
Basic storage/support	65.03	700	Storage Module(s)	Roughly 8% of base gym area
Additional court storage	32.52	350	Additional storage module(s)	Storage space per additional court
Unit PT/Group Exercise				
Partitionable Room(s)	4.65	50	people at 4.6 m ² (50 ft. ²)/person	116.1 m ² (1,250 ft. ²) (25 ppl) minimum size
Storage/support	0.46	5	10% of partitionable room area	11.6 m ² (125 ft. ²) minimum (10% of room area)
Fitness Spaces				
Stretching	4.65	50	people at 4.6 m ² (50 ft. ²)/person	50 sf per person - min. 2 ppl
Cardiovascular Equipment	4.65	50	items at 4.6 m ² (50 ft. ²)/item	50 sf per station
Selectorized (machine) weights	4.65	50	items at 4.6 m ² (50 ft. ²)/item	50 sf per station
Free/Plate-loaded weights	6.04	65	items at 6.0 m ² (65 ft. ²)/item	65 sf per station
Fitness Program Manager's Office	11.61	125	Office	Private office that may include fitness testing equipment
Fitness Assessment Room	11.61	125	Office(s)	1 piece fitness equip for testing, computer desk, chairs, stretching
Structured Activities				
Structured Activity Space	74.32	800	Flexible space Module(s)	Based on size of a single racquetball court
Racquetball Courts	74.32	800	Racquetball Court(s)	Single court size. Minimum of two courts
Spectator/officiating	18.58	200	Spectator/officiating Module(s)	Two rows of 10 seats for one ct. Max of two cts (400 sf)
Structured activity storage	7.43	80	10% of Structured Activity Space	Based on Structured activity space (10% of room area)
Locker Rooms				
Men's Locker Room				
Locker/changing area	0.74	8	Lockers	Per slot (2 double lockers or 1 single locker)
Shower/drying area	2.79	30	Showers	Per shower & integral drying area at 22 lockers/shower
Toilet area	4.18	45	Water closets/lavatory modules	Per wc and lav. at 30 lockers per wc/lav
Woman's Locker Room				
Locker/changing area	0.74	8	Lockers	Per slot (2 double lockers or 1 single locker)
Shower/drying area	2.79	30	Showers	Per shower & integral drying area at 22 lockers/shower
Toilet area	4.18	45	Water closets/lavatory modules	per wc and lav. at 20 lockers per wc/lav
Sauna and cool-down area			M/F (2) Saunas/cool-down area	small = 6 ppl, med = 8-9, lg = 12 ppl (+ cool down space)
Steam Room and cool-down area			M/F (2) Steam Rooms/cool-down area	small = 6-7 ppl, med = 8-9, lg = 12-14 (+ cool down space)
Hot Tub			Unisex Hot Tub	small = 5 ppl, med = 8, lg = 12-14 ppl
Support Areas				
Laundry	18.58	200	Laundry Room	Per one-washer/two-dryer room
Equipment repair and receiving			Repair/receiving Room	Fixed receiving area + variable repair (10% of Fitness)
Storage			Storage Room	Variable lockable storage room (5% of fitness)
Additional Programmatic Storage			sf Additional Storage	To be filled-in by programmer and justified based on item stored.
Core HAWC Spaces				
Lobby/Reception	27.87	300	Lobby/Reception Module(s)	per area
Director's Office	11.15	120	Office	per office
Program Managers' Offices	9.29	100	Office(s)	per office
Support Staff Workstations	5.95	64	Workstation(s)	per workstation
Classrooms/Training rooms	58.53	630	Classroom/Training Module(s)	per room
Resource Room/Computer Lab	23.23	250	Resource/Computer Lab Module(s)	per room
Storage/support	7.43	80	Storage/support Module(s)	per area
Ergometry and Fitness Testing *	7.43	80	Testing Cubicle(s)	per testing cubicles
Wellness Assessment *	13.94	150	Assessment Room(s)	per room
Administrative Spaces (required or optional)				
Director's Office	11.15	120	Office	per office
Program Managers' Offices	9.29	100	Office(s)	per office
Support Staff Workstations	5.95	64	Workstation(s)	per office
Copy/file/work/break Room	7.43	80	Workroom Module(s)	per room
Classroom/Training Room	39.02	420	15-person Classroom/Training Module(s)	small training room (15 ppl)
Classroom/Training Storage	5.57	60	Storage Module(s)	per 15-person Training Room
* Service-specific space.				
¹ If contract service, verify area with contractor.				

FIGURE B-1. SPACE PROGRAM STANDARDS (continued)

Functional Component	Space Allocation Standard			
	m ²	ft. ²	Standard	Description
Optional or Service-specific Program Spaces				
Indoor Track				
Indoor Track			need to include corners	
1/14th-mile Indoor Track	310.01	3,337	1/14th-mile, 2-lane Indoor Track	1/14th-mile, 2-lane Indoor Track (754 linear ft.)
1/12th-mile Indoor Track	523.03	5,630	1/12th-mile, 3-lane Indoor Track	1/12th-mile, 3-lane Indoor Track (1284 linear ft.)
1/11th-mile Indoor Track	556.75	5,993	1/11th-mile, 3-lane Indoor Track	1/11th-mile, 3-lane Indoor Track (1440 linear ft.)
1/8th-mile Indoor Track	989.11	10,647	1/8th-mile, 4-lane Indoor Track	1/8th-mile, 4-lane Indoor Track (2640 linear ft.)
Indoor track lobby	13.38	144	Indoor track lobby(ies)	Access point to lobby from stair/elevator
Additional Group Exercise Room	116.13	1,250	Additional Group Exercise Room	per room
Massage Room	11.15	120	Massage Room(s)	per room
Physical Therapy Training	11.61	125	Physical Therapy Training Room(s)	per room
Expanded Retail ¹	9.29	100	Expanded Retail Module(s)	per area
Expanded Juice Bar ¹	13.94	150	Expanded Juice Bar Module(s)	per area
Expanded Juice Bar Seating	13.94	150	Two-table seating Module(s)	Two 4-top tables and seating area
Family Changing Room	10.22	110	Family Changing Room(s)	per shower, wc, lav, changing, and locker
Male DV Locker Room *	46.45	500	Male DV Locker Room	500, 750, 1000 sf
Female DV Locker Room *	23.23	250	Female DV Locker Room	250, 500, 750
Child Play Area/Parent Child Area *	74.32	800	Parent/child Module(s)	400 sf play area (at 35 sf/child), 400 sf equip (50 sf/equip)
HAWC Demonstration Kitchen	46.45	500	Kitchen Module(s)	per kitchen
HAWC Relaxation Room *	9.29	100	Relaxation Room(s)	per room
Site Spaces				
Staff Parking	41.81	450	Parking Spaces	per space (including circulation)
Loading dock	8.36	90	Loading Dock	Per single-truck dock
Service Drive/trash	69.68	750	Service Drive Module	per area
Customer Parking	41.81	450	Parking Spaces	per space (including circulation)
Bicycle Rack Area	14.86	160	10-bike Rack(s)	per 10-bike Rack
Patio	2.32	25	Patio Module(s)	per patio
* Service-specific space.				
¹ If contract service, verify area with contractor.				

B-2 **SAMPLE INTERACTIVE SPREADSHEETS.**

Figures B-2.1 through B-2.3 illustrate sample interactive spreadsheets completed for hypothetical Army, Navy, and Marine Corps facilities, respectively. The Air Force does not use this tool to program their fitness facilities. See Paragraph 2-1.3 for more information on Air Force size criteria.

**FIGURE B-2.1. SAMPLE INTERACTIVE WORKSHEET FOR AN
ARMY FITNESS FACILITY**

Sample Army Fitness Facility Project			
Select Service Branch: Army			
<div style="display: flex; justify-content: space-between;"> <div style="width: 40%;"> Select size of facility: Army size options are to the right. Check box next to the appropriate size. Refer to UFC Section 2.1 for population criteria. </div> <div style="width: 55%;"> <p style="font-size: small;">Check box next to appropriate facility size.</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> Extra Small Small Medium Large Extra Large </div> <div style="width: 50%;"> <input type="checkbox"/> For populations of 251-1,000 <input type="checkbox"/> For populations of 1,001-3,000 <input type="checkbox"/> For populations of 3,001-6,000 <input checked="" type="checkbox"/> For populations of 6,001-10,000 <input type="checkbox"/> For populations of 10,001-15,000 </div> </div> </div> </div>			
Based on data entered above, facility size basis is: Large For populations of 6,001-10,000			
Confirm facility size basis is correct (yes or no): Yes			
Many of the spaces below are determined by the size and/or population criteria confirmed above. Where appropriate or necessary, modify each space or select the appropriate options to determine the total net facility size.			
Fitness Spaces	Default quantities	m ²	ft. ²
<u>Lobby/Reception</u>			
Entry Lobby	4 Vestibule/Lobby Module(s) (for 2-3 ppl).	37.16	400
Control Counter	4 Counter Module(s).	46.45	500
Equipment issue storage	4 Storage Module(s).	65.03	700
Vending	6 Vending Machine(s).	11.15	120
Waiting/Display	6 Seating/Display Module(s) (for 4 ppl).	50.17	540
Spectator peak-time circulation	For this option, select yes or no: No		
Public restrooms/phones	For this option, select size of restroom: 2 male/ 3 female 2 male/ 3 female Public Restroom(s).	20.90	225

**FIGURE B-2.1. SAMPLE INTERACTIVE WORKSHEET FOR AN
 ARMY FITNESS FACILITY**

Sample Army Fitness Facility Project				
		Default quantities	m ²	ft. ²
Gymnasium				
Basketball/volleyball Court	1 Two-court/200-seat Module(s). and 1 Arena-style Two-Court Module(s).		3339.57	35,948
Additional Spectator seating	0 Additional 200-seat Module(s). 1400 total seats.			
Basic storage/support	1 Storage Module(s).		65.03	700
Additional court storage	2 Additional storage module(s).		65.03	700
Unit PT/Group Exercise				
Partitionable Room(s)	140 people at 4.6 m2 (50 ft.2)/person.		650.30	7,000
Storage/support	10% of partitionable room area.		65.03	700
Fitness Spaces				
Stretching	5 people at 4.6 m2 (50 ft.2)/person.		23.23	250
Cardiovascular Equipment	80 items at 4.6 m2 (50 ft.2)/item.		371.60	4,000
Selectorized (machine) weights	46 items at 4.6 m2 (50 ft.2)/item.		213.67	2,300
Free/Plate-loaded weights	80 items at 6.0 m2 (65 ft.2)/item.		483.08	5,200
Finess Program Manager's Office	1 Office.		11.61	125
Fitness Assessment Room	3 Office(s).		34.84	375
Structured Activities				
Structured Activity Space	3 Flexible space Module(s).		222.96	2,400
Racquetball Courts	2 Racquetball Court(s).		148.64	1,600
Spectator/officiating	2 Spectator/officiating Module(s).		37.16	400
Structured activity storage	10% of Structured Activity Space.		22.30	240
Locker Rooms				
Space criteria for men's and women's locker, shower, and toilet areas are provided at the end of the spreadsheet because they are determined by selections made throughout.				
Sauna and cool-down area	Large M/F (2) Saunas/cool-down area.		26.76	288
Steam Room and cool-down area				
Hot Tub				

UFC 4-740-02
26 September 2006

**FIGURE B-2.1. SAMPLE INTERACTIVE WORKSHEET FOR AN
 ARMY FITNESS FACILITY**

Sample Army Fitness Facility Project			
Fitness Spaces (continued)	Default quantities	m ²	ft. ²
Support Areas			
Laundry	3/6 machine combo Laundry Room.	29.26	315
Equipment repair and receiving	Repair/receiving Room.	123.09	1,325
Storage	Storage Room.	54.58	588
Additional Programmatic Storage	400 sf Additional Storage.	37.16	400
Core HAWC Spaces			
Lobby/Reception			
Director's Office			
Program Managers' Offices			
Support Staff Workstations			
Classrooms/Training rooms			
Resource Room/Computer Lab			
Storage/support			
Ergometry and Fitness Testing *			
Wellness Assessment *			
Administrative Spaces (required or optional)			
Director's Office	1 Office.	11.15	120
Program Managers' Offices	1 Office(s).	9.29	100
Support Staff Workstations	8 Workstation(s).	47.56	512
Copy/file/work/break Room	2 Workroom Module(s).	14.86	160
Classroom/Training Room	1 15-person Classroom/Training Module(s).	39.02	420
Classroom/Training Storage	1 Storage Module(s).	5.57	60

UFC 4-740-02
26 September 2006

**FIGURE B-2.1. SAMPLE INTERACTIVE WORKSHEET FOR AN
 ARMY FITNESS FACILITY**

Sample Army Fitness Facility Project			
Optional or Service-specific Program Spaces	Default quantities	m ²	ft. ²
Indoor Track			
Indoor Track	1/11th-mile, 3-lane Indoor Track	278.37	2,997
Indoor track lobby	1.5 Indoor track lobby(ies).	20.07	216
Additional Group Exercise Room			
Massage Room			
Physical Therapy Training			
Expanded Retail 1			
Expanded Juice Bar 1			
Expanded Juice Bar Seating			
Family Changing Room			
Male DV Locker Room *			
Female DV Locker Room *			
Child Play Area/Parent Child Area *			
HAWC Demonstration Kitchen			
HAWC Relaxation Room *			
Locker Rooms			
The following Locker Room spaces are based on total building occupancy, which is driven by the selections made on this spreadsheet.			
Army allocates the locker area at a 60% Male and 40% Female split.		To change this default split, select new: <input type="text"/>	
Men's Locker Room		321.06	3,456
Locker/changing area	To change default, select new: <input type="text"/>	427 Lockers in 282 slots.	
Army designates 2 spaces (slots) for every 3 lockers (66%). This is 1 full-sized & 2 half-sized lockers for every 3 required. To change this default (with CFSC approval), select new configuration. ALSO: See Women's Locker/changing area.			
Shower/drying area		19 Showers.	
Toilet area		14 Water closets/lavatory modules.	

UFC 4-740-02
26 September 2006

**FIGURE B-2.1. SAMPLE INTERACTIVE WORKSHEET FOR AN
 ARMY FITNESS FACILITY**

Sample Army Fitness Facility Project					
Woman's Locker Room Locker/changing area Shower/drying area Toilet area	To change default, select new: 	285 Lockers in 188 slots. 13 Showers. 14 Water closets/lavatory modules.	<table border="1"> <tr> <td>234.48</td> <td>2,524</td> </tr> </table>	234.48	2,524
234.48	2,524				
Building Totals					
		Subtotal - Total Net Building Area	<table border="1"> <tr> <td>7,237.2</td> <td>77,903</td> </tr> </table>	7,237.2	77,903
7,237.2	77,903				
		Net-to-gross Factor @ 0.2	<table border="1"> <tr> <td>1,447.4</td> <td>15,581</td> </tr> </table>	1,447.4	15,581
1,447.4	15,581				
		TOTAL GROSS BUILDING	<table border="1"> <tr> <td>8,684.6</td> <td>93,484</td> </tr> </table>	8,684.6	93,484
8,684.6	93,484				
Site Spaces					
		Default quantities	<table border="1"> <tr> <td>m²</td> <td>ft.²</td> </tr> </table>	m ²	ft. ²
m ²	ft. ²				
Staff Parking		6 Paking Spaces.	<table border="1"> <tr> <td>250.83</td> <td>2,700</td> </tr> </table>	250.83	2,700
250.83	2,700				
Loading dock		1 Loading Dock.	<table border="1"> <tr> <td>8.36</td> <td>90</td> </tr> </table>	8.36	90
8.36	90				
Service Drive/trash		1 Service Drive Module.	<table border="1"> <tr> <td>69.68</td> <td>750</td> </tr> </table>	69.68	750
69.68	750				
Customer Parking		298 Parking Spaces.	<table border="1"> <tr> <td>12457.89</td> <td>134,100</td> </tr> </table>	12457.89	134,100
12457.89	134,100				
Bicycle Rack Area		5 10-bike Rack(s).	<table border="1"> <tr> <td>74.32</td> <td>800</td> </tr> </table>	74.32	800
74.32	800				
Patio					
		TOTAL GROSS SITE SUPPORT	<table border="1"> <tr> <td>12,861.1</td> <td>138,440</td> </tr> </table>	12,861.1	138,440
12,861.1	138,440				
		TOTAL GROSS FACILITY (BUILDING + SITE SUPPORT)	<table border="1"> <tr> <td>21,545.7</td> <td>231,924</td> </tr> </table>	21,545.7	231,924
21,545.7	231,924				

FIGURE B-2.2. SAMPLE INTERACTIVE WORKSHEET FOR A
NAVY FITNESS FACILITY

Sample Navy Fitness Facility Project			
Select Service Branch: Navy			
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> Select size of facility: Navy size options are to the right. Check box next to appropriate size. Refer to UFC Section 2.1 for population criteria. </div> <div style="width: 50%;"> Check box next to appropriate facility size: <div style="display: flex; flex-direction: column; gap: 5px;"> <div> <input type="checkbox"/> Extra Small For populations of <500 </div> <div> <input type="checkbox"/> Small For populations of 501-3,000 </div> <div> <input type="checkbox"/> Medium For populations of 3,001-7,000 </div> <div> <input type="checkbox"/> Large For populations of 7,001-14,000 </div> <div> <input type="checkbox"/> Extra Large For populations of 14,001-30,000 </div> <div> <input checked="" type="checkbox"/> Jumbo For populations over 30,000, enter 1 here: 1 </div> </div> </div> </div>			
Based on data entered above, facility size basis is: Jumbo For populations of >30,000			
Confirm facility size basis is correct (yes or no): Yes			
Many of the spaces below are determined by the size and/or population criteria confirmed above. Where appropriate or necessary, modify each space or select the appropriate options to determine the total net facility size.			
Fitness Spaces	Default quantities	m ²	ft. ²
Lobby/Reception			
Entry Lobby	6 Vestibule/Lobby Module(s) (for 2-3 ppl).	55.74	600
Control Counter	4 Counter Module(s).	46.45	500
Equipment issue storage	4 Storage Module(s).	65.03	700
Vending	1 Vending Machine(s).	1.86	20
Waiting/Display	5 Seating/Display Module(s) (for 4 ppl).	41.81	450
Spectator peak-time circulation	3 Circulation Module(s).	83.61	900
Public restrooms/phones	2 male/ 3 female Public Restroom(s).	20.90	225

**FIGURE B-2.2. SAMPLE INTERACTIVE WORKSHEET FOR A
 NAVY FITNESS FACILITY**

Sample Navy Fitness Facility Project			
	Default quantities	m ²	ft. ²
Gymnasium			
Basketball/volleyball Court	3 Two-court/200-seat Module(s).	4892.86	52,668
Additional Spectator seating	To change default, enter new quantity: <input type="text"/> 0 Additional 200-seat Module(s). 600 total seats.		
Basic storage/support	5 Storage Module(s).	325.15	3,500
Additional court storage			
Unit PT/Group Exercise			
Partitionable Room(s)	75 people at 4.6 m2 (50 ft.2)/person.	348.38	3,750
Storage/support	10% of partitionable room area.	34.84	375
Fitness Spaces			
Stretching	12 people at 4.6 m2 (50 ft.2)/person.	55.74	600
Cardiovascular Equipment	150 items at 4.6 m2 (50 ft.2)/item.	696.75	7,500
Selectorized (machine) weights	54 items at 4.6 m2 (50 ft.2)/item.	250.83	2,700
Free/Plate-loaded weights	45 items at 6.0 m2 (65 ft.2)/item.	271.73	2,925
Fitness Program Manager's Office			
Fitness Assessment Room	1 Office(s).	11.61	125
Structured Activities			
Structured Activity Space	3 Flexible space Module(s).	222.96	2,400
Racquetball Courts	8 Racquetball Court(s).	594.56	6,400
Spectator/officiating			
Structured activity storage	10% of Structured Activity Space.	22.30	240
Locker Rooms			
Space criteria for men's and women's locker, shower, and toilet areas are provided at the end of the spreadsheet because they are determined by selections made throughout.			
Sauna and cool-down area	Large M/F (2) Saunas/cool-down area.	26.76	288
Steam Room and cool-down area	Large M/F (2) Steam Rooms/cool-down area.	30.66	330
Hot Tub	Large Unisex Hot Tub.	14.86	160

UFC 4-740-02
26 September 2006

**FIGURE B-2.2. SAMPLE INTERACTIVE WORKSHEET FOR A
 NAVY FITNESS FACILITY**

Sample Navy Fitness Facility Project			
Fitness Spaces (continued)	Default quantities	m ²	ft. ²
Support Areas			
Laundry	5/10 machine combo Laundry Room.	44.59	480
Equipment repair and receiving	Repair/receiving Room.	141.44	1,523
Storage	Storage Room.	63.75	686
Additional Programmatic Storage	For this option, enter required sf: <u>200</u> 200 sf Additional Storage.	18.58	200
Core HAWC Spaces			
Lobby/Reception			
Director's Office			
Program Managers' Offices			
Support Staff Workstations			
Classrooms/Training rooms			
Resource Room/Computer Lab			
Storage/support			
Ergometry and Fitness Testing *			
Wellness Assessment *			
Administrative Spaces (required or optional)			
Director's Office	1 Office.	11.15	120
Program Managers' Offices	1 Office(s).	9.29	100
Support Staff Workstations	5 Workstation(s).	29.73	320
Copy/file/work/break Room	3 Workroom Module(s).	22.30	240
Classroom/Training Room	5 15-person Classroom/Training Module(s).	195.09	2,100
Classroom/Training Storage	5 Storage Module(s).	27.87	300

UFC 4-740-02
26 September 2006

**FIGURE B-2.2. SAMPLE INTERACTIVE WORKSHEET FOR A
 NAVY FITNESS FACILITY**

Sample Navy Fitness Facility Project			
Optional or Service-specific Program Spaces	Default quantities	m ²	ft. ²
Indoor Track			
Indoor Track To change default, select new: <input type="text"/>	1/8th-mile, 4-lane Indoor Track	989.11	10,647
To change the default selection (described to the right), choose the size of track desired. The description to the right will then change to reflect the new choice. To return to the default, delete the selection above.			
Indoor track lobby To change default, enter new quantity: <input type="text"/>	1 Indoor track lobby(ies).	13.38	144
Additional Group Exercise Room			
Massage Room			
Physical Therapy Training			
Expanded Retail 1			
Expanded Juice Bar 1			
Expanded Juice Bar Seating			
Family Changing Room Does this facility include a pool (yes/no)? <input checked="" type="checkbox"/> Yes	5 Family Changing Room(s).	51.10	550
Male DV Locker Room *			
Female DV Locker Room *			
Child Play Area/Parent Child Area *			
HAWC Demonstration Kitchen			
HAWC Relaxation Room *			
Locker Rooms			
The following Locker Room spaces are based on total building occupancy, which is driven by the selections made on this spreadsheet.			
Navy allocates the locker area at a 60% Male and 40% Female split.		To change this default split, select new: <input type="text"/>	
Men's Locker Room		382.66	4,119
Locker/changing area To change default, select new: <input type="text"/>	505 Lockers in 333 slots.		
Navy designates 2 spaces (slots) for every 3 lockers (66%). This is 1 full-sized & 2 half-sized lockers for every 3 required. To change this default, select new configuration. ALSO: See Women's Locker/changing area.			
Shower/drying area	23 Showers.		
Toilet area	17 Water closets/lavatory modules.		

UFC 4-740-02
26 September 2006

**FIGURE B-2.2. SAMPLE INTERACTIVE WORKSHEET FOR A
 NAVY FITNESS FACILITY**

Sample Navy Fitness Facility Project					
Woman's Locker Room Locker/changing area Shower/drying area Toilet area	To change default, select new: 	336 Lockers in 222 slots. 15 Showers. 17 Water closets/lavatory modules.	<table border="1"> <tr> <td>277.86</td> <td>2,991</td> </tr> </table>	277.86	2,991
277.86	2,991				
Building Totals					
		Subtotal - Total Net Building Area	<table border="1"> <tr> <td>10,393.3</td> <td>111,876</td> </tr> </table>	10,393.3	111,876
10,393.3	111,876				
		Net-to-gross Factor @ 0.2	<table border="1"> <tr> <td>2,078.7</td> <td>22,375</td> </tr> </table>	2,078.7	22,375
2,078.7	22,375				
		TOTAL GROSS BUILDING	<table border="1"> <tr> <td>12,471.9</td> <td>134,251</td> </tr> </table>	12,471.9	134,251
12,471.9	134,251				
Site Spaces					
		Default quantities	<table border="1"> <tr> <td>m²</td> <td>ft.²</td> </tr> </table>	m ²	ft. ²
m ²	ft. ²				
Staff Parking		15 Paking Spaces.	<table border="1"> <tr> <td>627.08</td> <td>6,750</td> </tr> </table>	627.08	6,750
627.08	6,750				
Loading dock		1 Loading Dock.	<table border="1"> <tr> <td>8.36</td> <td>90</td> </tr> </table>	8.36	90
8.36	90				
Service Drive/trash		1 Service Drive Module.	<table border="1"> <tr> <td>69.68</td> <td>750</td> </tr> </table>	69.68	750
69.68	750				
Customer Parking		500 Parking Spaces.	<table border="1"> <tr> <td>20902.50</td> <td>225,000</td> </tr> </table>	20902.50	225,000
20902.50	225,000				
Bicycle Rack Area		2 10-bike Rack(s).	<table border="1"> <tr> <td>29.73</td> <td>320</td> </tr> </table>	29.73	320
29.73	320				
Patio					
		TOTAL GROSS SITE SUPPORT	<table border="1"> <tr> <td>21,637.4</td> <td>232,910</td> </tr> </table>	21,637.4	232,910
21,637.4	232,910				
		TOTAL GROSS FACILITY (BUILDING + SITE SUPPORT)	<table border="1"> <tr> <td>34,109.3</td> <td>367,161</td> </tr> </table>	34,109.3	367,161
34,109.3	367,161				

**FIGURE B-2.3. SAMPLE INTERACTIVE WORKSHEET FOR A
MARINE CORPS FITNESS FACILITY**

Sample Marine Corps Fitness Facility Project			
Select Service Branch: Marine Corps			
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> Select size of facility: Marine Corps size options are to the right. Check box next to appropriate size. Also enter actual total Installation population size in the space provided. Refer to UFC Section 2.1 for reference to population criteria. </div> <div style="width: 50%;"> Check box next to appropriate facility size. <div style="display: flex; justify-content: space-between;"> <div style="width: 40%;"> Extra Small Small Medium Large Extra Large </div> <div style="width: 60%;"> <input type="checkbox"/> For populations of <500 <input type="checkbox"/> For populations of 501-3,000 <input type="checkbox"/> For populations of 3,001-7,000 <input checked="" type="checkbox"/> For populations of 7,001-14,000 <input type="checkbox"/> For populations of 14,001+ </div> </div> </div> </div> <div style="display: flex; justify-content: flex-end; margin-top: 10px;"> Enter actual total population: 8,500 </div>			
Based on data entered above, facility size basis is: <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 5px;"> <div style="border: 1px solid black; padding: 2px 10px;">Large</div> <div style="font-size: small;">For populations of 7,001-14,000</div> </div> <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 5px;"> Total Installation population is <div style="border: 1px solid black; padding: 2px 20px;">8,500</div> </div>			
Confirm facility size basis is correct (yes or no): Yes			
Many of the spaces below are determined by the size and/or population criteria confirmed above. Where appropriate or necessary, modify each space or select the appropriate options to determine the total net facility size.			
Fitness Spaces	Default quantities	m²	ft.²
Lobby/Reception			
Entry Lobby	4 Vestibule/Lobby Module(s) (for 2-3 ppl).	37.16	400
Control Counter	4 Counter Module(s).	46.45	500
Equipment issue storage	4 Storage Module(s).	65.03	700
Vending	6 Vending Machine(s).	11.15	120
Waiting/Display	6 Seating/Display Module(s) (for 4 ppl).	50.17	540
Spectator peak-time circulation	For this option, select yes or no: No		
Public restrooms/phones	For this option, select size of restroom: 1 male/ 1 female	8.92	96

**FIGURE B-2.3. SAMPLE INTERACTIVE WORKSHEET FOR A
MARINE CORPS FITNESS FACILITY**

Sample Marine Corps Fitness Facility Project					
			Default quantities	m ²	ft. ²
Gymnasium					
Basketball/volleyball Court	Select size: <u>Arena-style</u>	1 Arena-style Two-Court Module(s)		1708.62	18,392
<i>Select the Basketball/volleyball Court size. The selected size will be described to the right.</i>					
Additional Spectator seating	To change default, enter new quantity: <u> </u>	0 Additional 200-seat Module(s). 1200 total seats.			
Basic storage/support					
Additional court storage					
Unit PT/Group Exercise					
Partitionable Room(s)	To change default, enter new quantity of ppl: <u> </u>	140 people at 4.6 m2 (50 ft.2)/person.		650.30	7,000
Storage/support		10% of partitionable room area.		65.03	700
Fitness Spaces					
Stretching		5 people at 4.6 m2 (50 ft.2)/person.		23.23	250
Cardiovascular Equipment		For Medium and larger facilities, this number includes area for cardio, selectorized, and free weights.		1252.54	13,483
Selectorized (machine) weights		See above.			
Free/Plate-loaded weights		See above.			
Fitness Program Manager's Office					
Fitness Assessment Room		4 Office(s).		46.45	500
Structured Activities					
Structured Activity Space		3 Flexible space Module(s).		222.96	2,400
Racquetball Courts		4 Racquetball Court(s).		297.28	3,200
Spectator/officiating					
Structured activity storage		10% of Structured Activity Space.		22.30	240
Locker Rooms					
<i>Space criteria for men's and women's locker, shower, and toilet areas are provided at the end of the spreadsheet because they are determined by selections made throughout.</i>					
Sauna and cool-down area	To change default, select new: <u> </u>				
Steam Room and cool-down area					
Hot Tub	To change default, select new: <u> </u>				

UFC 4-740-02
26 September 2006

**FIGURE B-2.3. SAMPLE INTERACTIVE WORKSHEET FOR A
MARINE CORPS FITNESS FACILITY**

Sample Marine Corps Fitness Facility Project				
Fitness Spaces (continued)		Default quantities	m ²	ft. ²
Support Areas				
Laundry	To change default, select new: <u>2/4 machine</u>	2/4 machine combo Laundry Room.	21.37	230
Equipment repair and receiving		Repair/receiving Room.	141.51	1,523
Storage		Storage Room.	63.79	687
Additional Programmatic Storage	For this option, enter required sf: <u>100</u>	100 sf Additional Storage.	9.29	100
Core HAWC Spaces				
Lobby/Reception				
Director's Office				
Program Managers' Offices		1 Office(s).	9.29	100
Support Staff Workstations		1 Workstation(s).	5.95	64
Classrooms/Training rooms		2 Classroom/Training Module(s).	117.05	1,260
Resource Room/Computer Lab		1 Resource/Computer Lab Module(s).	23.23	250
Storage/support		1 Storage/support Module(s).	7.43	80
Ergometry and Fitness Testing *				
Wellness Assessment *				
Administrative Spaces (required or optional)				
Director's Office		1 Office.	11.15	120
Program Managers' Offices		2 Office(s).	18.58	200
Support Staff Workstations		8 Workstation(s).	47.56	512
Copy/file/work/break Room		2 Workroom Module(s).	14.86	160
Classroom/Training Room				
Classroom/Training Storage				

UFC 4-740-02
26 September 2006

**FIGURE B-2.3. SAMPLE INTERACTIVE WORKSHEET FOR A
MARINE CORPS FITNESS FACILITY**

Sample Marine Corps Fitness Facility Project			
Optional or Service-specific Program Spaces	Default quantities	m ²	ft. ²
Indoor Track			
Indoor Track	To change default, select new: 		
To change the default selection (described to the right), choose the size of track desired. The description to the right will then change to reflect the new choice. To return to the default, delete the selection above.			
Indoor track lobby	To change default, enter new quantity: 		
Additional Group Exercise Room			
Massage Room			
Physical Therapy Training			
Expanded Retail 1			
Expanded Juice Bar 1			
Expanded Juice Bar Seating			
Family Changing Room			
Male DV Locker Room *			
Female DV Locker Room *			
Child Play Area/Parent Child Area *	For this option, select yes or no: Yes	0.5 Parent/child Module(s).	37.16 400
HAWC Demonstration Kitchen		1 Kitchen Module(s).	46.45 500
HAWC Relaxation Room *			
Locker Rooms			
The following Locker Room spaces are based on total building occupancy, which is driven by the selections made on this spreadsheet.			
Marine Corps allocates the locker area at a 80% Male and 20% Female split.		To change this default split, select new: 	
Men's Locker Room		337.69	3,635
Locker/changing area	To change default, select new: 	447 Lockers in 295 slots.	
Marine Corps designates 2 spaces (slots) for every 3 lockers (66%). This is 1 full-sized & 2 half-sized lockers for every 3 required. To change this default, select new configuration. ALSO: See Women's Locker/changing area.			
Shower/drying area		20 Showers.	
Toilet area		15 Water closets/lavatory modules.	

UFC 4-740-02
26 September 2006

**FIGURE B-2.3. SAMPLE INTERACTIVE WORKSHEET FOR A
MARINE CORPS FITNESS FACILITY**

Sample Marine Corps Fitness Facility Project			
Woman's Locker Room Locker/changing area Shower/drying area Toilet area	To change default, select new: <input type="text"/>	112 Lockers in 74 slots. 5 Showers. 6 Water closets/lavatory modules.	<div>94.01</div> <div>1,012</div>
Building Totals			
		Subtotal - Total Net Building Area	<div>5,513.9</div> <div>59,354</div>
		Net-to-gross Factor @ 0.2	<div>1,102.8</div> <div>11,871</div>
		TOTAL GROSS BUILDING	<div>6,616.7</div> <div>71,224</div>
Site Spaces			
		Default quantities	<div>m²</div> <div>ft.²</div>
Staff Parking		12 Paking Spaces.	<div>501.66</div> <div>5,400</div>
Loading dock	For this option, select yes or no: <input checked="" type="radio"/> Yes	1 Loading Dock.	<div>8.36</div> <div>90</div>
Service Drive/trash		1 Service Drive Module.	<div>69.68</div> <div>750</div>
Customer Parking		160 Parking Spaces.	<div>6688.80</div> <div>72,000</div>
Bicycle Rack Area		3 10-bike Rack(s).	<div>44.59</div> <div>480</div>
Patio	For this option, select yes or no: <input type="radio"/> No		
		TOTAL GROSS SITE SUPPORT	<div>7,313.1</div> <div>78,720</div>
		TOTAL GROSS FACILITY (BUILDING + SITE SUPPORT)	<div>13,929.8</div> <div>149,944</div>

APPENDIX C EQUIPMENT LISTS

C-1 FITNESS EQUIPMENT LISTS.

The following lists contain sample equipment for the fitness areas and are broken down into three categories: free weights, selectorized equipment, and cardiovascular equipment.

C-1.1 Free/plate-loaded Weights.

The following are samples of commercial-grade, plate-loaded or free weight equipment and benches:

- Leg Extension
- Leg Curl (Seated)
- Leg Curl (Horizontal/Prone)
- Leg Curl (Standing/Kneeling)
- Squat Press (Seated/45deg/Hip)
- Squat Press (Vertical/Hack)
- Squat Press (Horizontal/Supine)
- Squat Press (Jammer/Ground Based)
- Calf Raise (Seated)
- Calf Raise (Standing)
- Calf Raise (45deg)
- Rotary Calf
- Tibia Dorsi Flexion
- Abduction
- Adduction
- Glute Isolation
- Chest Press (Seated)
- Chest Press (Horizontal/Supine)

- Wide Chest Press
- Incline Press
- Decline Press
- Military/Shoulder Press
- Lat Pulldown
- Lat Pullover
- Low Row
- High Row
- Rear Deltoid (Seated)
- Rear Deltoid (Horizontal/Prone)
- Back Extension
- T-Bar/Lever Row
- Lateral/Deltoid Raise
- Shoulder Press
- Shrug
- Bicep Curl
- Tricep Extension
- Tricep Dip Extension
- Wrist Curl
- Hand Grip Isolation
- Neck Isolation
- Smith Machine
- Ab Crunch
- Rotary Torso
- Dumbbell Sets (10pr)

- Dumbbell Rack-1 Tier/5pr
- Dumbbell Rack-2 Tier/10pr
- Fixed Barbell Set (10 Assorted)
- Fixed Barbell Rack
- Weights (Assorted 2.5#-45#)
- Weight Tree/Rack
- Bars (Assorted/Loose)
- Bar Rack
- Benches (Assorted)
- Squat Rack (F) & Bar
- Bench Press (F) & Bar
- Incline Press (F) & Bar
- Decline Press (F) & Bar
- Military/Shoulder Press (F) & Bar
- Dead Lift Platform/Rack (F) & Bar
- Power Cage/Rack (F) w/ Bar
- Curl Bench (Seated)
- Curl Bench (Standing)
- Leg Raise/Dip
- Chin-Up/Dip
- Back Extension
- Abdominal Board

C-1.2 Selectorized (Machine) Equipment.

The following are samples of selectorized equipment:

- Multi-Station (Ex. 6 stations)

- Leg Extension
- Leg Curl (Seated)
- Leg Curl (Horizontal/Prone)
- Leg Curl (Standing/Kneeling)
- Leg Press (Seated/45deg)
- Leg Press (Horizontal/Supine)
- Leg Press (Lunge)
- Calf Raise (Seated)
- Calf Raise (Standing/Donkey)
- Calf Raise (45deg)
- Rotary Calf
- Abductor
- Adductor
- Multi-Hip Machine (Rotary Hip)
- Hip Extension
- Glute Isolation
- Bent Arm/Pectoral Fly
- Straight Arm Fly/Rear Delt
- Chest Press (Seated)
- Chest Press (Horizontal/Supine)
- Incline Press
- Decline Press
- Lat Pulldown
- Lat Pullover
- Low Row

- High Row
- Rear Deltoid (Seated)
- Rear Deltoid (Horizontal/Prone)
- Back Extension
- Lateral/Deltoid Raise
- Shoulder/Overhead Press
- Bicep Curl
- Tricep Extension
- Tricep Dip Extension (Press)
- Wrist Curl
- Neck Isolation
- Smith Machine (H)
- Cable Crossover w/ Chin-up Bar
- Cable Station (2 sided)
- Ab Crunch
- Rotary Torso
- Pull-up/Dip Assist

C-1.3 Cardiovascular Equipment.

The following are samples of commercial-grade, electronically controlled cardiovascular equipment:

- Treadmill
- Elliptical Trainer
- Cross Trainer/Hiker
- Stationary Bike (Upright)
- Stationary Bike (Recumbent)

UFC 4-740-02
26 September 2006

- Stairclimber/Stepper
- Rowing Machine
- Skier
- Kayak Machine
- Skate Machine

CANCELLED