



## DoD SPACE PLANNING CRITERIA

### CHAPTER 313: OPHTHALMOLOGY / OPTOMETRY CLINIC JULY 1, 2017

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

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**Releasability:** No Restrictions

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

# ***SUMMARY of CHANGE***

This revision, dated July 1, 2017 includes the following:

- On page 18, section 4.10. FA10: OPTOMETTRY CLINIC SUPPORT, corrected room numbering sequence to read “1 – 4” instead of 9 - 12.
- On page 18, section 4.10. FA10: OPTOMETTRY CLINIC SUPPORT, room 4, Alcove, Wheelchair Storage (SRLW1), changed the criteria statement to read “Provide one for Optometry Clinic”.

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

### **1.1.**

This chapter outlines space planning criteria for services and programs provided in the Outpatient Ophthalmology and Optometry Clinics within the Military Health System (MHS). Outpatient clinics include both freestanding community-based facilities, as well as ambulatory clinics in or directly adjacent to hospital-based services.

Ophthalmology and Optometry Clinics shall be collocated to provide efficient and effective patient care, as these services have a close working relationship.

Space planning criteria for a laser eye center is included in this chapter. A laser eye center may be collocated with the Ophthalmology Clinic or it may be located separately in a freestanding facility.

An operating room (OR) dedicated to Ophthalmology is not included in this chapter. If a specialty OR of this type is required, the planner must coordinate with surgical services.

The space planning criteria in this chapter apply to all Military Medical Treatment Facilities (MTFs) and are based on current DoD policies and directives, established and/or anticipated best practices, industry guidelines and standards, and input from DoD Subject Matter Experts (SME) and Defense Health Agency (DHA) Service contacts. As directed by the DHA, these space criteria are primarily workload driven; additional drivers are staffing and mission. Room Codes (RC's) in this document are based on the latest version of DoD UFC 4-510-01, Appendix B.

## **SECTION 2: OPERATING RATIONALE AND BASIS OF CRITERIA**

### **2.1.**

A. Workload projections and planned services / modalities for a specific MHS facility project shall be sought by the planner in order to develop a project based on these Criteria. Healthcare and clinical planners working on military hospitals, medical centers and clinics shall utilize and apply the workload based criteria set forth herein for identified services and modalities to determine space requirements for the project.

B. Space planning criteria have been developed on the basis of an understanding of the activities involved in the functional areas required for the Ophthalmology Clinic and the Optometry Clinic and its relationship with other services of a medical facility. These criteria are predicated on established and/or anticipated best practice standards, as adapted to provide environments supporting the highest quality health care for Service Members and their dependents.

C. These criteria are subject to modification relative to equipment, medical practice, vendor requirements, and subsequent planning and design. The final selection of the size and type of medical equipment is determined during the design process.

D. Calculation of the number and -in some cases- the area (NSF) of rooms is performed in one of the following methods:

1. Directly workload-driven
2. Indirectly workload-driven
3. Mission or Staffing-driven

The directly workload-driven rooms are based on workload projections entered in response to the Workload Input Data Statements (IDSs) included in Section 4. The directly workload driven rooms in this chapter are: the Ophthalmology Eye Lanes, Ophthalmology Visual Fields Rooms, Ophthalmology Diagnostic Technology (OCT) Rooms, Ophthalmology Exam Rooms, PRK / Lasik Procedure Rooms, and Optometry Eye Lanes.

The indirectly workload-driven rooms are derived from the preceding group. They are typically in the Reception and Support Functional Areas. Examples are Waiting, or the number of clean or soiled utility rooms.

The mission / staffing-driven rooms are created based on Boolean 'yes/no' or numeric responses to the Mission and Staffing Input Data Statements (IDSs).

E. The Net Square Feet (NSF) and Room Code (RC) for each room in Section 4: Space Planning Criteria of this chapter was provided by or approved by the Defense Health Agency (DHA) Template Board.

F. Section 3: Input Data Statements and Section 4: Space Planning Criteria have been implemented and tested in the Space and Equipment Planning System (SEPS). To gain access to SEPS planner should contact a Defense Health Agency (DHA) representative; access to SEPS is provided via a 16-hour hands-on training session.

G. Calculation of each of the directly workload-driven room types is implemented in SEPS based on the following formulae:

Formula 1: Annual Room Workload Capacity

$$\frac{(\text{Operating Days per year})(\text{Hours of Operation per Day})}{\frac{\text{Average Length of Encounter (ALOE) in Minutes}}{60 \text{ Minutes}}}$$

Where:

- a. Operating Days per Year is a fixed value: 240 days
- b. Hours of Operation per Day is a fixed value: 8 hours
- c. Average Length of Encounter (ALOE) is a fixed value based each encounter type; refer to Table 1 below.

Formula 2: Project-Based Annual Room Workload Capacity:

$$(\text{Annual Room Workload Capacity})(\text{Utilization Factor})$$

Where:

1. Utilization Factor is a fixed value: 80%

Typically, a workload value 20% above the Project-based Annual Room Workload Capacity generates an additional Room.

Formula 3: Number of directly workload-driven rooms:

$$\frac{(\text{Number of Projected Annual Encounters})}{(\text{Project} - \text{Based Annual Workload Capacity})}$$

Example: Calculation the number of Ophthalmology Visual Fields Rooms:

- a. Operating Days per Year: 240
- b. Hours of Operation per Day: 8

- c. Average Length of Encounter: 30 minutes
- d. Utilization Factor: 80%
- e. Projected workload: 14,250 annual Ophthalmology Visual Fields encounters

**Step 1:** Ophthalmology Visual Fields Workload Capacity:

$$\frac{(240)(8)}{\frac{30}{60}} = 3,072 \text{ Encounters}$$

**Step 2:** Project-based Ophthalmology Visual Fields Workload Capacity:

$$(3,840)(0.80) = 3,072 \text{ Encounters}$$

**Step 3:** Number of Ophthalmology Visual Fields Rooms:

$$\frac{14,250}{3,072} = 5 \text{ Rooms}$$

TABLE 1: WORKLOAD PARAMETER CALCULATION – OPHTHALMOLOGY

<b>OPHTHALMOLOGY CLINIC</b>				
<b>CLINICAL ENCOUNTERS</b>	<b>AVERAGE LENGTH OF CLINIC ENCOUNTER (minutes)</b>	<b>UTILIZATION RATE</b>	<b>ANNUAL WORKLOAD PER EXAM / TREATMENT ROOM (*)</b>	<b>MINIMUM ANNUAL WORKLOAD TO GENERATE ONE ROOM (20%)</b>
Ophthalmology Eye Lane	40	80%	2,304	461
Ophthalmology Visual Fields	30	80%	3,072	614
Diagnostic Technology / OCT	30	80%	3,072	614
Ophthalmology Laser Exam	30	80%	3,072	614
PRK / Lasik Procedure	30	80%	3,072	614

TABLE 2: WORKLOAD PARAMETER CALCULATION – OPTOMETRY

<b>OPTOMETRY CLINIC</b>				
<b>CLINICAL ENCOUNTERS</b>	<b>AVERAGE LENGTH OF CLINIC ENCOUNTER (minutes)</b>	<b>UTILIZATION RATE</b>	<b>ANNUAL WORKLOAD PER EXAM / TREATMENT ROOM (*)</b>	<b>MINIMUM ANNUAL WORKLOAD TO GENERATE ONE ROOM (20%)</b>
<b>Optometry Eye Lane</b>	40	80%	2,304	461

### SECTION 3: PROGRAM DATA REQUIRED

**3.1. INPUT DATA STATEMENTS.** Input Data Statements are based on questions about Workload (W), Mission (M), Staffing (S) and Miscellaneous (Misc) information.

1. Is an Ophthalmology Vision Screening Room authorized? (M)
2. Is an Electroretinography Room authorized? (M)
3. How many annual Ophthalmology Eye Lane encounters are projected? (W)
4. How many annual Ophthalmology Visual Fields encounters are projected? (W)
5. How many Ophthalmology Full Eye Lanes are authorized? (Misc)
6. Is an additional Laser Room for Ophthalmology authorized? (M)
7. Is a Laser Eye Center authorized? (M)
  - a. How many annual Ophthalmology Laser Exam encounters are projected? (W)
  - b. How many annual Ophthalmology PRK / Lasik procedures are projected? (W)
  - c. Is the Patient Classroom authorized to have more than 25 seats? (Misc)
  - d. How many Laser Eye Center Male FTE positions are authorized? (S)
  - e. How many Laser Eye Center Female FTE positions are authorized? (S)
8. How many annual Diagnostic Technology / OCT encounters are projected? (W)
9. Is an Ophthalmology PACS Viewing Consultation Room authorized? (M)
10. Is a Sub-Waiting in the Ophthalmology Staff and Administration authorized? (Misc)
11. Is an Ophthalmology Graduate Medical Education (GME) program authorized? (M)
  - a. How many Ophthalmology Resident / Student FTE positions are authorized? (S)
12. How many Ophthalmology Clinic FTE positions are authorized? (S)
  - a. How many Ophthalmology Clinic FTE positions are authorized to have a private office? (Misc)
  - b. How many Ophthalmology Clinic FTE positions are authorized to have a shared office? (Misc)
  - c. How many Ophthalmology Clinic FTE positions are authorized to have a cubicle? (Misc)
13. How many Ophthalmology Clinic FTE's will work on peak shift? (Misc)
14. Is a Patient Education Room for the Optometry Clinic authorized? (M)
15. Is a minimal Optical Fabrication function for the Optometry Clinic authorized? (M)



16. Is an Optometry Education / Training program authorized? (M)
  - a. How many Optometry Extern FTE positions are authorized? (S)
17. How many annual Optometry Eye Lane encounters are projected? (W)
18. How many Optometry Clinic FTE positions are authorized? (S)
  - a. How many Optometry Clinic FTE positions are authorized to have a private office? (Misc)
  - b. How many Optometry Clinic FTE positions are authorized to have a shared office? (Misc)
  - c. How many Optometry Clinic FTE positions are authorized to have a cubicle? (Misc)
19. How many Optometry Full Eye Lanes, greater than one, are authorized? (Misc)
20. How many Optometry Visual Fields Rooms, greater than one, are authorized? (Misc)
21. How many Optometry Photography Rooms, greater than one, are authorized? (Misc)
22. How many Eye Glass Fitting Stations, greater than two, are authorized? (Misc)
23. How many Contact Lens Fitting Stations, greater than two, are authorized? (Misc)
24. How many Optometry Clinic FTE's will work on peak shift? (Misc).

## **SECTION 4: SPACE PLANNING CRITERIA**

For calculation of the number of Vending Machine areas, Public Toilets, Communication Closets, and Janitor Closets for this Chapter, please refer to DoD Space Planning Criteria Chapter 610: Common Areas

### **4.1. FA1: OPHTHALMOLOGY CLINIC RECEPTION.**

1. **Waiting (WRC01)** **120 NSF**  
Minimum NSF; provide an additional 60 NSF for every increment of four Full Eye Lane, Electronic Folded Eye Lane, Visual Fields, Vision Screening, Ophthalmology Photography, and Diagnostic Technology / OCT Rooms greater than four.
2. **Playroom (PLAY1)** **120 NSF**  
Provide one for Ophthalmology Clinic.  
  
This space is provided to accommodate children's play activities, may be an opened or an enclosed area and should be included within or adjacent to Waiting.
3. **Reception (RECP3)** **60 NSF**  
Provide one for Ophthalmology Clinic.
4. **Kiosk, Patient Check-in (CLSC1)** **30 NSF**  
Provide one for Ophthalmology Clinic.
5. **Patient Education (CLSC3)** **120 NSF**  
Provide one for Ophthalmology Clinic

### **4.2. FA2: OPHTHALMOLOGY CLINIC PATIENT AREA.**

1. **Sub-Waiting, Dilation (WRC03)** **60 NSF**  
Minimum NSF; provide an additional 30 NSF per each Full Eye Lane, Electronic Folded Eye Lane, and Ophthalmic Photography Rooms greater than eight.
2. **Ophthalmology Eye Lane, Full (EYEL1)** **240 NSF**  
Provide one per each Full Ophthalmology Eye Lane authorized.
3. **Ophthalmology Eye Lane, Electronic Folded (EYEL2)** **120 NSF**  
Minimum two; provide an additional one for every increment of 2,304 encounters greater than 4,608; the minimum workload to generate an additional Electronic Folded Ophthalmology Eye Lane is 461; deduct the total number of Full Ophthalmology Eye Lanes authorized. (Refer to Table 1)

4. **Visual Fields Room (EYVF1)** **120 NSF**  
Minimum one if the projected number of annual Ophthalmology Visual Fields encounters is between 614 and 3,072; provide an additional one for every increment of 3,072 encounters greater than 3,072; the minimum workload to generate an additional Visual Fields Room is 614. (Refer to Table 1)

5. **Vision Screening Room (EYVS1)** **120 NSF**  
Minimum one if Vision Screening Rooms are authorized; provide an additional one for every increment of three Electronic Folded and Full Eye Lanes greater than three.

6. **Procedure Room, Ophthalmology (TREY1)** **180 NSF**  
Provide one for Ophthalmology Clinic.

This is the procedure room for any treatment that requires surgical intervention that is deemed “an office procedure”.

7. **Toilet, Patient (TLTU1)** **60 NSF**  
Provide one for Ophthalmology Clinic.

8. **Photography Room, Ophthalmology (EYFC1)** **120 NSF**  
Provide one for Ophthalmology Clinic.

Allocated NSF provides space to perform the following imaging tests: Fluorescein Angiograms, ICG Angiography, Fundus Photos, external eye photos, Slit-Lamp and gonio photos.

9. **Diagnostic Technology / OCT Room (EYCT1)** **180 NSF**  
Minimum one if the projected number of annual Diagnostic Technology / OCT encounters is between 614 and 3,072; provide an additional one for every increment of 3,072 encounters greater than 3,072; the minimum workload to generate an additional Diagnostic Technology / OCT Room is 614. (Refer to Table 1)

Allocated NSF provides space to perform Optical Coherence Tomography (OCT). This room may accommodate ultrasound technology as well as Endothelial Cell Counts, Corneal Topography (PAR system).

10. **Laser Room (TREY2)** **180 NSF**  
Provide one for Ophthalmology Clinic; provide an additional one if Laser Room greater than one is authorized.

The Laser Room accommodates space for laser instruments, a laser cart, a slit lamp delivery system and safety equipment. The Laser Room may include more than one laser system. (e.g. YAG Laser, SLT Laser, Tunable dye laser (red, blue, green and yellow wavelengths), PDT).

11. **Electroretinography Room (EYER1)** **120 NSF**  
Provide one if an Electroretinography Room is authorized.

Allocated NSF accommodates visual digitized equipment for conducting electro-oculographic (EOG), electroretinographic (ERG), and visual evoked cortical potential testing of retina (VER), optic nerve and visual pathway functioning with analysis.

12. **Ophthalmic Laboratory / Pathology Reading Room (LBDE1)** **120 NSF**  
Provide one for Ophthalmology Clinic if a GME Education / Training program for Ophthalmology Clinic is authorized.

Allocated NSF provides space that is required in GME programs for Ophthalmology residents to perform gross examinations of tissues under the microscope.

#### **4.3. FA3: OPHTHALMOLOGY CLINIC SUPPORT.**

1. **Utility Room, Clean (UCCL1)** **120 NSF**  
Minimum NSF; provide an additional 30 NSF for every increment of eight Full Eye Lane, Electronic Folded Eye Lane, Visual Fields, Vision Screening, Ophthalmic Photography, and Diagnostic Technology / OCT Rooms greater than eight.
2. **Utility Room, Soiled (USCL1)** **90 NSF**  
Minimum NSF; provide an additional 30 NSF for every increment of eight Full Eye Lane, Folded Eye Lane, Visual Fields, Vision Screening, Ophthalmic Photography, and Diagnostic Technology / OCT Rooms greater than eight.
3. **Storage, Equipment (SRSE1)** **120 NSF**  
Provide one for Ophthalmology Clinic.
4. **PACS Viewing, Consultation (XVC01)** **120 NSF**  
Provide one if an Ophthalmology PACS Viewing Consultation Room is authorized.
5. **Alcove, Wheelchair (SRLW1)** **30 NSF**  
Provide one for Ophthalmology Clinic

#### **4.4. FA4: LASER EYE CENTER.**

1. **Waiting (WRC01)** **120 NSF**  
Minimum NSF; provide an additional 30 NSF for every increment of one PRK / LASIK Procedure Rooms greater than one if a Laser Eye Center is authorized.
2. **Reception (RECP3)** **60 NSF**  
Provide one if a Laser Eye Center is authorized.

3. **Kiosk, Patient Check-in (CLSC1)** **30 NSF**  
Provide one if a Laser Eye Center is authorized.
  
4. **Alcove, Wheelchair (SRLW1)** **30 NSF**  
Provide one if a Laser Eye Center is authorized.
  
5. **Patient Classroom (CLR02)** **360 NSF**  
Minimum NSF; provide an additional 240 NSF if classroom is authorized to have more than 25 seats; maximum 600 NSF.
  
6. **Discharge Lounge (WRF01)** **120 NSF**  
Minimum NSF; provide an additional 60 NSF per each PRK / LASIK Procedure room greater than two.
  
7. **Toilet, Patient (TLTU1)** **60 NSF**  
Provide one if a Laser Eye Center is authorized.  
  
Locate adjacent to the Discharge Lounge.
  
8. **Nurse Station, Discharge Lounge (NSTA3)** **60 NSF**  
Provide one if a Laser Eye Center is authorized.  
  
The purpose of this Nurse Station is for the observation and monitoring of patients post-procedure. Locate adjacent to the Discharge Lounge.
  
9. **Consult Room (OFDC2)** **120 NSF**  
Provide one if a Laser Eye Center is authorized.
  
10. **Exam Room, Ophthalmology Laser (EYOT2)** **150 NSF**  
Minimum one if the projected number of Ophthalmology Laser Exam encounters is between 614 and 3,072; provide an additional one for every increment of 3,072 Ophthalmology Laser Exam encounters greater than 3,072 if a Laser Eye Center is authorized; the minimum workload to generate an additional Exam Room is 614. (Refer to Table 1)
  
11. **Diagnostic Technology / OCT Room (EYCT1)** **180 NSF**  
Provide one if a Laser Eye Center is authorized.  
  
Allocated NSF provides space to perform Optical Coherence Tomography (OCT). This room may accommodate ultrasound technology as well as Endothelial Cell Counts, Corneal Topography (PAR system).
  
12. **Procedure Room, PRK / LASIK (TREY3)** **360 NSF**  
Minimum one if the projected number of annual PRK / LASIK procedures is between 614 and 3,072; provide an additional one for every increment of 3,072 encounters

greater than 3,072 if a Laser Eye Center is authorized; the minimum workload to generate an additional PRK / LASIK Procedure Room is 614. (Refer to Table 1)

- |  |                |
|--|----------------|
| 13. <b>Ophthalmology Instrument Decontamination (CSDE1)</b>  | <b>120 NSF</b> |
| Provide one if a Laser Eye Center is authorized.   |                |
| This room, as part of a two-room suite, is utilized for initial decontamination. There should be a pass-back window between Decontamination and Sterilization. |                |
| 14. <b>Ophthalmology Instrument Sterilization (CSSS4)</b>  | <b>120 NSF</b> |
| Provide one if a Laser Eye Center is authorized.   |                |
| This room, as part of a two-room suite with the Instrument Decontamination Room, is utilized for Instrument Sterilization.                                     |                |
| 15. <b>Medication Room (MEDP1)</b>   | <b>120 NSF</b> |
| Provide one if a Laser Eye Center is authorized.   |                |
| 16. <b>Utility Room, Clean (UCCL1)</b>   | <b>120 NSF</b> |
| Provide one if a Laser Eye Center is authorized.   |                |
| 17. <b>Utility Room, Soiled (USCL1)</b>  | <b>90 NSF</b>  |
| Provide one if a Laser Eye Center is authorized.   |                |
| 18. <b>Storage, Equipment (SRSE1)</b>  | <b>120 NSF</b> |
| Provide one if a Laser Eye Center is authorized.   |                |
| 19. <b>Alcove, Crash Cart (RCA01)</b>  | <b>30 NSF</b>  |
| Provide one if a Laser Eye Center is authorized.   |                |
| 20. <b>Locker / Changing, Male Staff (LR002)</b>   | <b>120 NSF</b> |
| Minimum NSF; provide an additional 10 NSF for every increment of two Laser Eye Center male FTE positions authorized greater than twelve.                       |                |
| 21. <b>Locker / Changing, Female Staff (LR002)</b>   | <b>120 NSF</b> |
| Minimum NSF; provide an additional 10 NSF for every increment of two Laser Eye Center female FTE positions authorized greater than twelve.                     |                |
| 22. <b>Toilet / Shower, Laser Eye Center Staff (TLTS1)</b>   | <b>60 NSF</b>  |
| Provide two if a Laser Eye Center is authorized.   |                |

#### **4.5. FA5: OPHTHALMOLOGY CLINIC STAFF AND ADMINISTRATION.**

- |   |                |
|---|----------------|
| 1. <b>Office, Department / Clinic Chief (OFA04)</b> | <b>120 NSF</b> |
| Provide one for Ophthalmology Clinic.               |                |

2. **Sub-Waiting (WRC03)** **60 NSF**  
Provide one for Ophthalmology Clinic if authorized.
3. **Office, NCOIC / LCPO / LPO (OFA04)** **120 NSF**  
Provide one for Ophthalmology Clinic.
4. **Office, Private (OFA04)** **120 NSF**  
Provide one per each Ophthalmology Clinic FTE position authorized to have a private office.
5. **Office, Shared (OFA05)** **120 NSF**  
Provide one for every increment of two Ophthalmology Clinic FTE positions authorized to have a shared office.
6. **Cubicle (OFA03)** **60 NSF**  
Provide one per each Ophthalmology Clinic FTE position authorized to have a cubicle.  
  
These cubicles may be collocated in a shared space or dispersed as required.
7. **Conference Room (CRA01)** **240 NSF**  
Minimum NSF if a Conference Room for the Ophthalmology Staff and Administration is authorized; provide an additional 60 NSF if the total number of FTE positions authorized is greater than ten.  
  
Planner must determine adequacy and availability of existing Conference Room space and the ability to optimize resources by sharing Conference Room space with other departments.
8. **Copy / Office Supply (RPR01)** **120 NSF**  
Provide one for Ophthalmology Clinic.
9. **Lounge, Staff (SL001)** **120 NSF**  
Minimum NSF; provide an additional 60 NSF for every increment of five Ophthalmology Clinic FTEs plus the total Laser Eye Center FTEs working on peak shift greater than ten; maximum 360 NSF.
10. **Toilet, Staff (TLTU1)** **60 NSF**  
Minimum one; provide an additional one for every increment of fifteen total Ophthalmology FTE positions working on peak shift greater than fifteen.
11. **Lockers, Personal Property (LR001)** **30 NSF**  
Minimum NSF; provide an additional 30 NSF for every increment of four Ophthalmology FTE positions not assigned a private office, a shared office or a cubicle greater than eight.

#### **4.6. FA6: OPHTHALMOLOGY GRADUATE MEDICAL EDUCATION (GME) / TRAINING.**

1. **Office, Residency Program Director (OFA04)** **120 NSF**  
Provide one if an Ophthalmology GME program is authorized.
  
2. **Resident Collaboration Room (WKTM1)** **240 NSF**  
Minimum NSF if an Ophthalmology GME program is authorized; provide an additional 60 NSF per each Ophthalmology Resident / Student FTE position authorized greater than two.  
  
Minimum NSF accommodates two residents, and a collaboration / reference area.
  
3. **Conference / Classroom (CRA01)** **240 NSF**  
Provide one if the total number of Ophthalmology Resident / Student FTE positions authorized is greater than five.

#### **4.7. FA7: OPTOMETRY CLINIC RECEPTION.**

1. **Waiting (WRC01)** **120 NSF**  
Minimum NSF; provide an additional 60 NSF for every increment of four Full Eye Lane, Electronic Folded Eye Lane, Visual Fields, Vision Screening, Photography, and Optical Coherence Tomography (OCT) Rooms greater than four.
  
2. **Playroom (PLAY1)** **120 NSF**  
Provide one for Optometry Clinic.  
  
This space is provided to accommodate children's play activities; it may be an open or enclosed area. It may be included within or adjacent to waiting.
  
3. **Reception (RECP3)** **60 NSF**  
Provide one for Optometry Clinic.
  
4. **Kiosk, Patient Check-in (CLSC1)** **30 NSF**  
Provide one for Optometry Clinic.
  
5. **Patient Education (CLSC3)** **120 NSF**  
Provide one if a Patient Education room for the Optometry Clinic is authorized.

#### **4.8. FA8: OPTICAL FITTING.**

1. **Fitting and Dispensing Area, Eye Glass (EYFD1)** **120 NSF**  
Minimum NSF; provide an additional 30 NSF for each Eye Glass Fitting Station authorized greater than two.



2. **Storage, Contact Lens and Frames (SRS01)** **90 NSF**  
Provide one for Optical Fitting Area.
3. **Fitting and Dispensing Area, Contact Lens (EYCL1)** **120 NSF**  
Minimum NSF; provide an additional 30 NSF for each Contact Lens Fitting Station authorized greater than two.
4. **Optical Fabrication (EYOF1)** **180 NSF**  
Provide one if a minimal Optical Fabrication function for the Optometry Clinic is authorized.

#### **4.9. FA9: OPTOMETRY CLINIC PATIENT AREA.**

1. **Sub-Waiting, Dilation (WRC03)** **60 NSF**  
Minimum NSF; provide an additional 30 NSF for every increment of two Full Eye Lanes and Electronic Folded Eye Lanes greater than four.
2. **Optometry Eye Lane, Full (EYEL1)** **240 NSF**  
Minimum one; provide an additional one per each Full Optometry Eye Lane authorized greater than one.
3. **Optometry Eye Lane, Electronic Folded (EYEL2)** **120 NSF**  
Minimum one; provide an additional one for every increment of 2,304 encounters greater than 2,304; the minimum workload to generate an additional Electronic Folded Ophthalmology Eye Lane is 461; deduct the number of Full Optometry Eye Lanes authorized greater than one (Refer to Table 2).
4. **Visual Fields Room (EYVF1)** **120 NSF**  
Minimum one; provide an additional one per each Visual Fields Room authorized greater than one.
5. **Vision Screening Room (EYVS1)** **120 NSF**  
Minimum one; provide an additional one for every increment of three Full Eye Lanes and Electronic Folded Eye Lanes greater than three.
6. **Toilet, Patient (TLTU1)** **60 NSF**  
Provide one for the Optometry Clinic Patient Area.
7. **Photography Room, Optometry (EYFC1)** **120 NSF**  
Minimum one; provide an additional rooms one per each Optometry Photography Room authorized greater than one.

Allocated NSF provides space to perform the following imaging tests: Fundus Photos, External Eye Photos, Slit-Lamp and, Corneal Topography (PAR system).

8. **Optical Coherence Tomography (OCT) Room (EYCT2)** **120 NSF**  
Provide one for the Optometry Clinic Patient Area.

Allocated NSF provides space to perform Optical Coherence Tomography (OCT) this room may accommodate ultrasound technology as well.

#### **4.10. FA10: OPTOMETRY CLINIC SUPPORT.**

1. **Utility Room, Clean (UCCL1)** **120 NSF**  
Provide one for Optometry Clinic.
2. **Utility Room, Soiled (USCL1)** **90 NSF**  
Provide one for Optometry Clinic.
3. **Storage, Equipment (SRE01)** **120 NSF**  
Provide one for Optometry Clinic.
4. **Alcove, Wheelchair (SRLW1)** **30 NSF**  
Provide one for Optometry Clinic.

#### **4.11. FA11: OPTOMETRY CLINIC STAFF AND ADMINISTRATION.**

1. **Office, Department / Clinic Chief (OFA04)** **120 NSF**  
Provide one for Optometry Clinic.
2. **Office, NCOIC / LCPO / LPO (OFA04)** **120 NSF**  
Provide one for Optometry Clinic.
3. **Office, Private (OFA04)** **120 NSF**  
Provide one per each Optometry Clinic FTE position authorized to have a private office.
4. **Office, Shared (OFA05)** **120 NSF**  
Provide one for every increment of two Optometry Clinic FTE positions authorized to have a shared office.
5. **Cubicle (OFA03)** **60 NSF**  
Provide one per each Optometry Clinic FTE position authorized to have a cubicle.

These cubicles may be collocated in a shared space or dispersed as required.

6. **Conference Room (CRA01)** **240 NSF**  
Provide one for Optometry Clinic.

Planner must determine adequacy and availability of Conference Room space and the ability to optimize resources by sharing Conference Room space with other departments.

7. **Copy / Office Supply (RPR01)** **120 NSF**  
Provide one for Optometry Clinic.
  
8. **Lounge, Staff (SL001)** **120 NSF**  
Minimum NSF, provide an additional 60 NSF for every increment of five Optometry Clinic FTEs working on peak shift greater than ten; maximum 360 NSF.
  
9. **Toilet, Staff (TLTU1)** **60 NSF**  
Minimum one; Provide an additional one for every increment of fifteen Optometry FTE positions working on peak shift greater than fifteen.
  
10. **Lockers, Personal Property (LR001)** **30 NSF**  
Minimum NSF; provide an additional 30 NSF for every increment of four FTE positions not assigned a private office, a shared office or a cubicle greater than eight.

#### **4.12. FA12: OPTOMETRY EDUCATION / TRAINING.**

1. **Office, Externship Program Director (OFA04)** **120 NSF**  
Provide one if an Optometry Education program is authorized.
  
2. **Extern Collaboration Room (WKTMI)** **240 NSF**  
Minimum NSF if an Optometry Education program is authorized; provide an additional 60 NSF per each Optometry Extern FTE position authorized greater than two.  
  
Minimum NSF accommodates two Externs, and a collaboration / reference area.
  
3. **Conference / Classroom (CRA01)** **240 NSF**  
Provide one if the total number of Optometry Extern FTE positions authorized is greater than five.

## **SECTION 5: PLANNING AND DESIGN CONSIDERATIONS**

The following design considerations are intended to provide planners and designers with guidance on how to follow world-class and evidence-based design strategies for new and renovation of existing healthcare facilities. For a more comprehensive list, refer to the World Class Checklist (<https://facilities.health.mil/home/>). Also refer to Part 3: Outpatient Facilities of the FGI Guidelines for Design and Construction of Hospitals and Outpatient Facilities by the Facility Guidelines Institute (FGI Guidelines) for additional information.

**5.1. NET-TO-DEPARTMENT GROSS FACTOR.** The net-to-department gross factor (NTDG) for the Ophthalmology / Optometry Clinic is 1.35. This number when multiplied by the programmed net square foot (NSF) area determines the departmental gross square feet. This factor accounts for the space occupied by internal department circulation and interior partitions and other construction elements not defined by the net square foot area. Refer to UFC 4-510-01, Section 2-3.4.2.2 and DoD Space Planning Criteria Chapter 130: Net to Gross Conversion Factors.

### **5.2. GENERAL DESIGN CONSIDERATIONS.**

- a. Ideally, Ophthalmology and the Laser Eye Center should be collocated, and the sharing of the common spaces such as Reception, Waiting, can be combined in the design. See Functional Diagram Intradepartmental Ophthalmology.
- b. Consider technology requirements early on in design. Technology can be leveraged for safety and efficiency.
- c. Locate the Ophthalmology and Optometry Clinics on the ground floor near the primary building entry and parking for convenient patient access, when possible.
- d. Provide glare-free finishes for flooring.
- e. Provide simple, repeating floor patterns with high contrast between flooring and base molding for patients with low vision.
- f. Keep signage simple and minimize the amount of signs.
- g. Consider natural light and dimmable light fixtures. Soft light reduces glare and produces a soothing atmosphere.

### **5.3. RECEPTION.**

1. Waiting:
  - a. Seating should be comfortable with adequate space for patients with wheelchairs and walking aids.

- b. Consideration should be given to special needs of specific patient groups in a shared / general waiting area. For example, adolescent and geriatric patients may require different seating options and environments. Consider the needs of bariatric patients.
- c. The playroom (or play area) for children shall be constructed of surfaces and materials that are easy to clean and durable (nonporous and smooth).

#### **5.4. PATIENT EXAM AND TREATMENT.**

- a. Provide acoustic privacy by controlling sound transmission between eye lanes, exam rooms, procedure rooms and wherever else patient information is exchanged.
- b. Do not locate exam rooms, testing and procedure rooms, and post-dilation sub-waiting areas at the building exterior with windows.
- c. Provide natural light at patient waiting areas and provider offices, whenever possible. Do not provide natural light in sub-waiting or other areas where dilated patients wait.
- d. Provide dimmable specialty lighting in eye lanes, exam rooms, and procedure rooms.
- e. Layout the eye lanes identically with casework, furniture, and equipment in the same orientation and as similar as possible.

#### **5.5. SUPPORT.**

- a. Optimize staff efficiency and performance by providing decentralized support spaces (e.g. charting, supplies, medications and equipment). Keep staff travel distances to a minimum.
- b. In all equipment storage rooms, assure adequate power is provided for all equipment housed within these rooms.

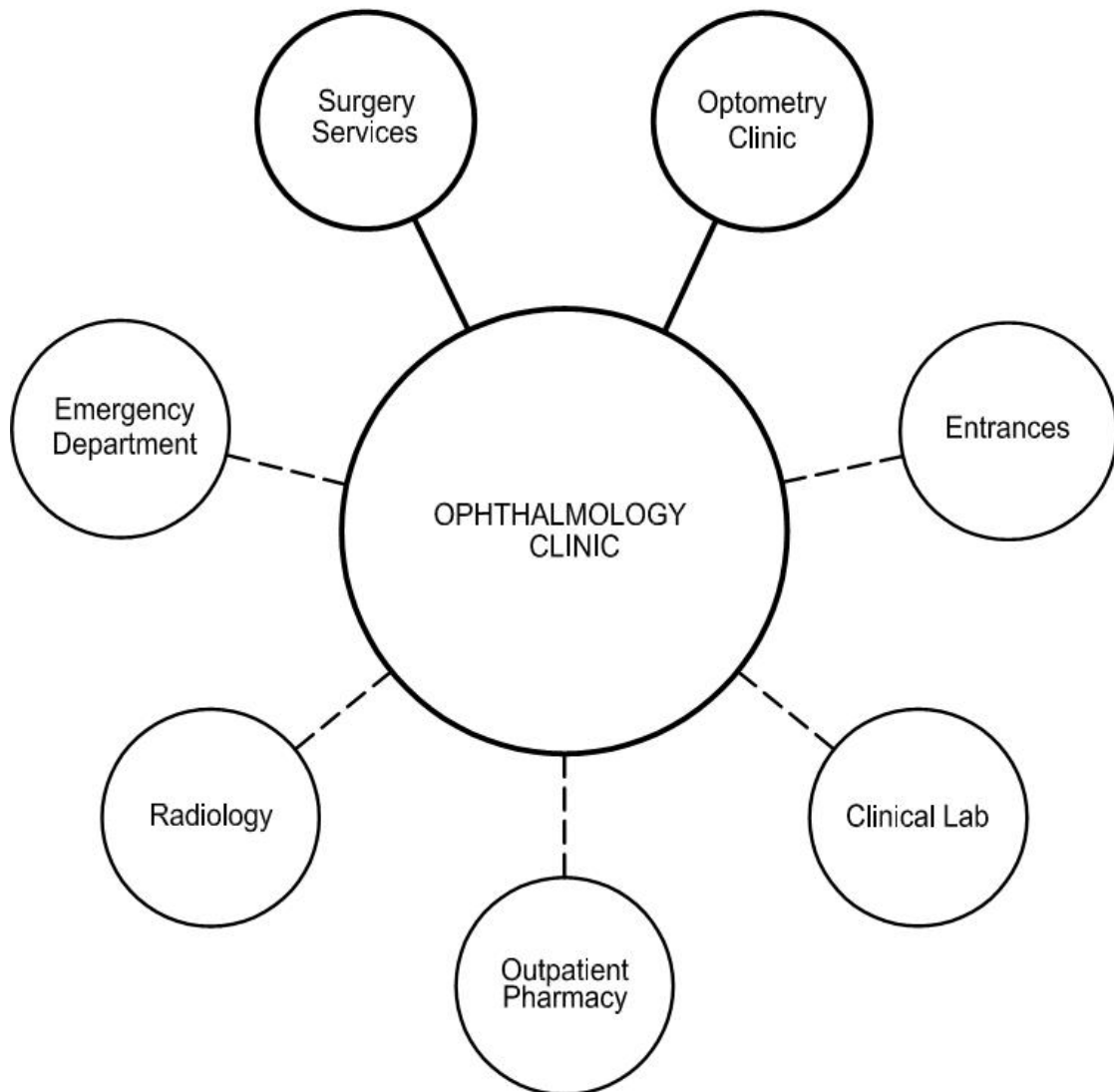
#### **5.6. STAFF AND ADMINISTRATION.**

- a. Team collaboration rooms and staff areas should be located so staff members may have conversations regarding patients and clinical matters without being heard by patients or visitors.

## SECTION 6: FUNCTIONAL RELATIONSHIPS (INTERDEPARTMENTAL): OPHTHALMOLOGY CLINIC

### 6.1.

The Ophthalmology Clinic will rely on a number of other services in a Military Treatment Facility (MTF) for patient care and support functions. The diagram below represents desirable relationships based on efficiency and functional considerations.

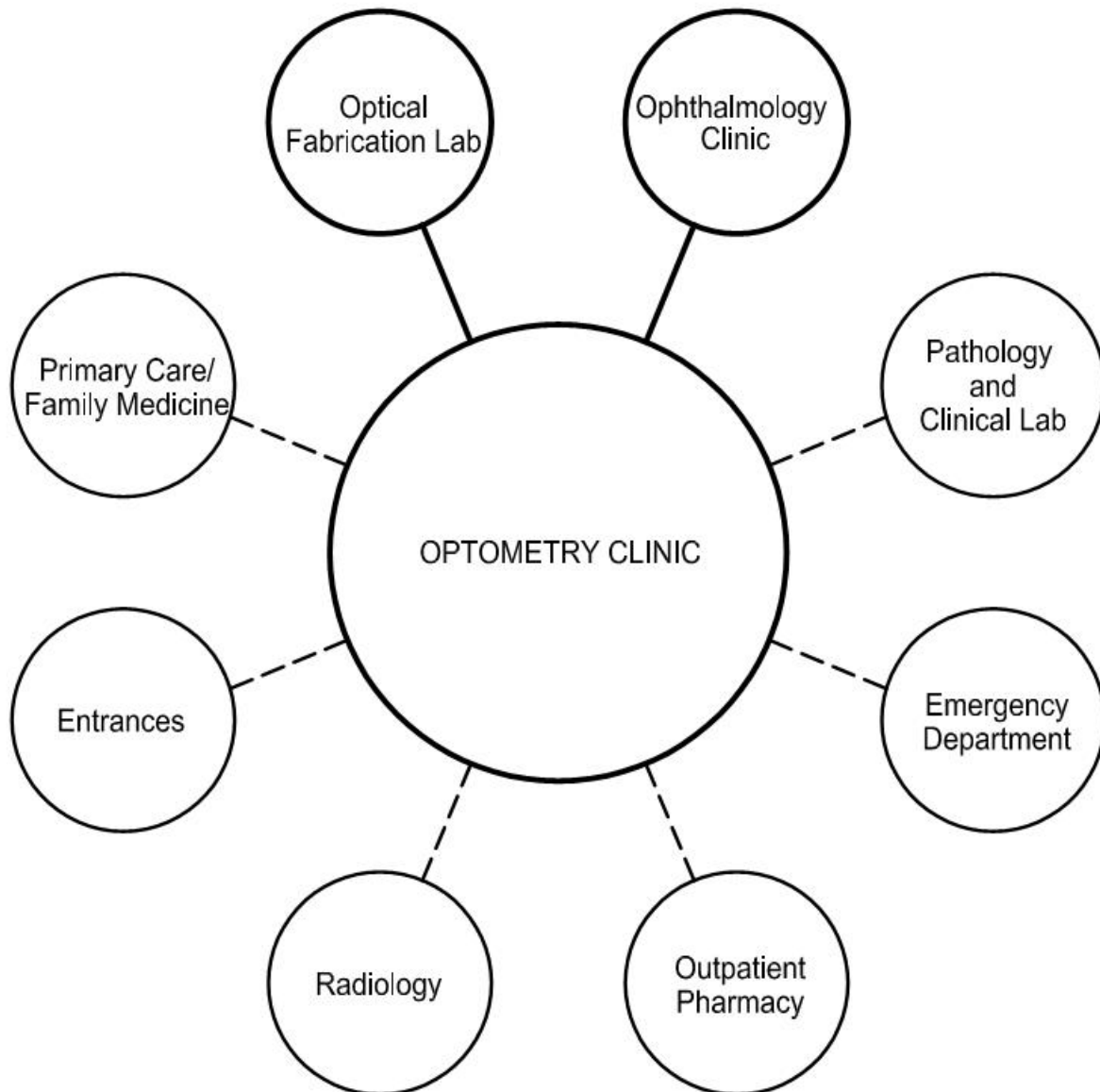


#### LEGEND

- Most Critical Adjacency
- - - - - Less Critical Adjacency

## SECTION 7: FUNCTIONAL RELATIONSHIPS (INTERDEPARTMENTAL): OPTOMETRY CLINIC

**7.1. FUNCTIONAL RELATIONSHIPS.** The Optometry Clinic will rely on a number of other services in a Military Treatment Facility (MTF) for patient care and support functions. The diagram below represents desirable relationships based on efficiency and functional considerations.

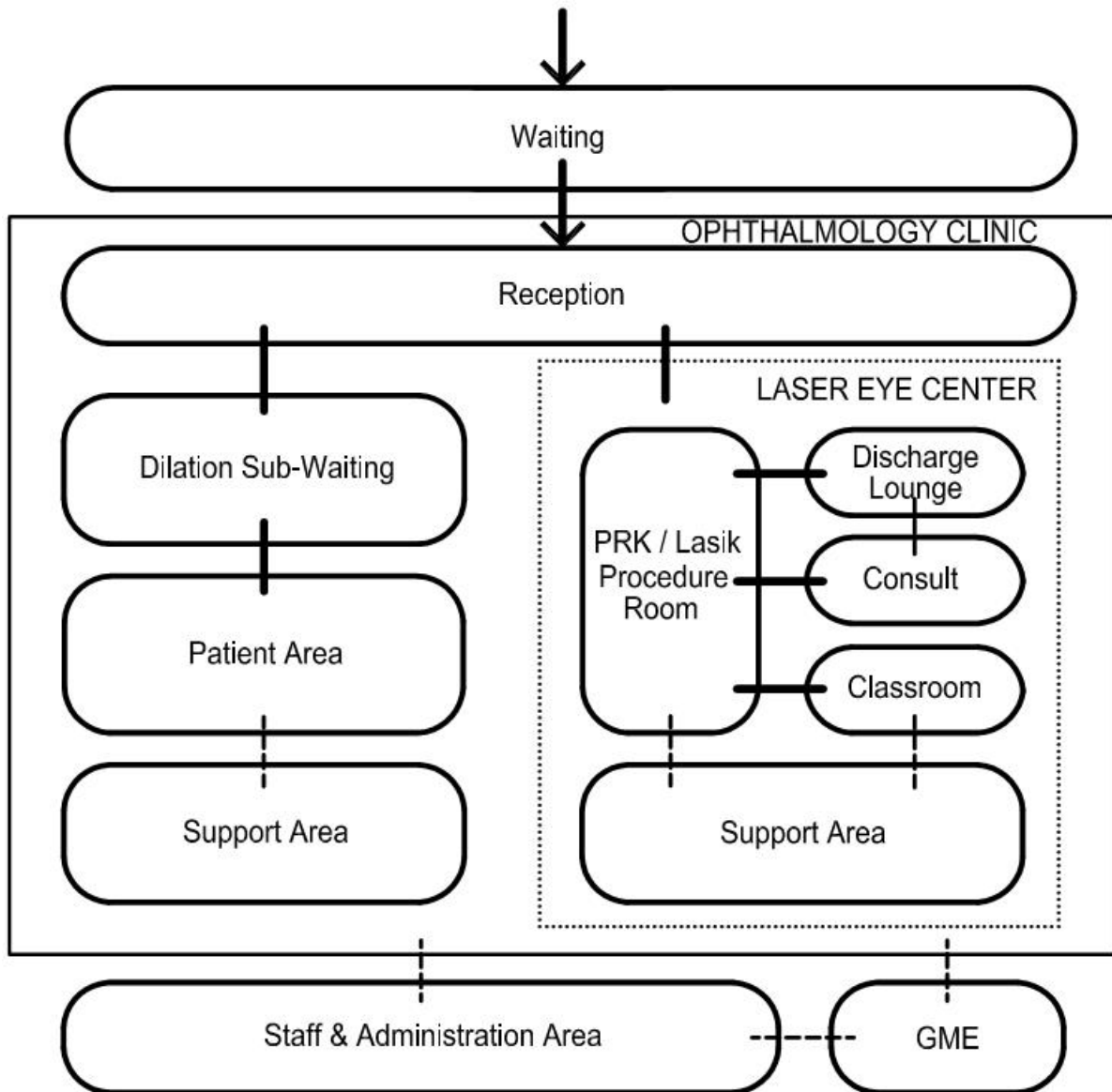


### LEGEND

- Most Critical Adjacency
- - - - - Less Critical Adjacency

## SECTION 8: FUNCTIONAL DIAGRAM (INTRADPARTMENTAL): OPHTHALMOLOGY CLINIC

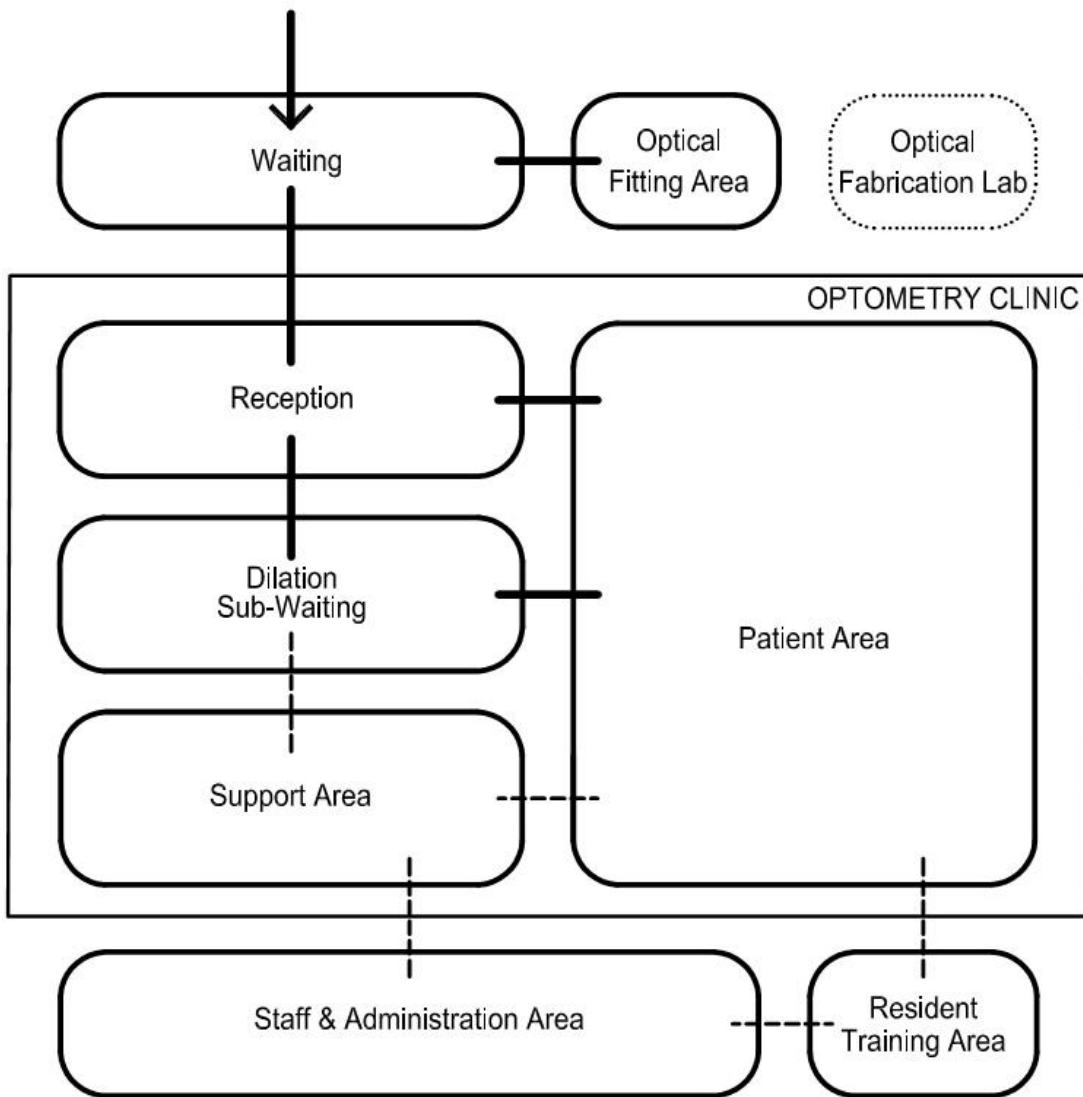
**8.1. FUNCTIONAL DIAGRAM.** The diagram below illustrates intradepartmental relationships among key areas / spaces within the Ophthalmology Clinic. The diagram is necessarily generic. The planner shall use this as a basis for design only and shall consider project-specific requirements for each Military Treatment Facility.





## SECTION 9: FUNCTIONAL DIAGRAM (INTRADPARTMENTAL): OPTOMETRY CLINIC

**9.1. FUNCTIONAL DIAGRAM.** The diagram below illustrates intradepartmental relationships among key areas / spaces within the Optometry Clinic. The diagram is necessarily generic. The planner shall use this as a basis for design only and shall consider project-specific requirements for each Military Treatment Facility.



NOTE: Size and shapes of spaces do not reflect actual configuration or square foot area of departments.

## **GLOSSARY**

### **G.1. DEFINITIONS**

**Authorized:** This document uses the term “authorized” to indicate that, during a project’s space plan development, a planner shall seek approval from the appropriate official in the chain of command to activate certain spaces or certain groups of spaces. Typical components that may require authorization are certain programs or services that activate Functional Areas (e.g., GME); office spaces (e.g., FTE position); specialized rooms (e.g., Hybrid OR) or other spaces (e.g., On-Call Room). Typically, Mission, Staffing and Miscellaneous Input Data Statements require authorization, while directly and indirectly workload driven rooms / spaces do not.

**Average Length of Encounter (ALOE):** In these space criteria, an encounter is defined as a face-to-face professional contact between a patient and a provider vested with responsibility for diagnosing, evaluating, and treating the patient’s condition. The Length of Encounter is the time between set-up and clean-up of an Exam / Treatment Room. The Average Length of Encounter is used to capture variations in Length of Encounter among similar clinical encounters that will take place in an Exam / Treatment Room.

**Clean Utility Room:** This room is used for the storage and holding of clean and sterile supplies. Clean linen may be stored in a designated area in the clean utility room if space is not provided in a separate room or in an alcove.

**Consult Room:** This is a consultation room for family members to meet with physicians or other providers privately and is ideally located near the waiting room.

**Cubicle:** A cubicle is a partially enclosed workspace, separated from neighboring workspaces by partitions. Managers and other staff with no supervisory responsibilities as well as part-time, seasonal, and job-sharing staff may qualify for a cubicle.

**Diagnostic Technology / OCT Room:** This room is for evaluating eye health using various diagnostic technologies. Examples are optical coherence topography (OCT), which provides a high-definition, three-dimensional scan of the retina, and optical ultrasound scanners. The Ophthalmology Clinic and the Laser Eye Center have the potential to utilize more diagnostic equipment than the Optometry Clinic; therefore, this room is sized larger in the Ophthalmology Clinic to accommodate more equipment and is named ‘Diagnostic Technology / OCT Room’. In the Optometry Clinic, this room is named ‘OCT Room’; it is sized smaller and utilizes a different Room Code.

**Electroretinography Room:** This room is for performing electrophysiology testing which includes a battery of tests (e.g., Electroretinography), that can be used to provide information about the visual system beyond the standard clinical examination of the eye. Information obtained from these diagnostic tests in conjunction with the clinical exam and other tests helps establish the correct diagnosis or may rule out related ophthalmic diseases.

Encounter: A contact between an eligible beneficiary and a credentialed provider. An encounter may consist of examination, diagnosis, treatment, evaluation, consultation or counseling or a combination of the above. The encounter may take place in a clinic, by telephone, computer, or in other treatment or observation areas. Encounter volume used to generate exam room requirements should not include telephone encounters.

Eye Lane: This is the basic exam room, also called a refraction room or refraction lane. Standard refraction distance is 20 feet or equivalent from eye to chart. This can be achieved with either a full eye lane (i.e., “long room”) or an electronic “folded” eye lane. With the digital screen, the rooms can be shorter or longer and the digital screen adapted to obtain the correct refractive distance. A full eye lane is typically used in pediatrics and in military aviation testing.

Full-Time Equivalent (FTE): A staffing parameter equal to the amount of time assigned to one full time employee. It may be composed of several part-time employees whose total time commitment equals that of a full-time employee. One FTE equals a 40-hour per week workload. The FTE measure may also be used for specific workload staffing parameters such as a clinical FTE; the amount of time assigned to an employee providing clinical care. For example, a 0.5 clinical FTE for a healthcare worker would indicate that the healthcare worker provides clinical care half of the time per a 40-hour work week.

Functional Area (FA): The grouping of rooms and spaces based on their function within a clinical service. Typical Functional Areas are Reception Area, Patient Area, Support Area, Staff and Administrative Area, and Education Area.

Graduate Medical Education (GME): After a physician completes 4 years of medical school, they must then complete an internship (also called PGY1 or Post Graduate Year 1) and then a residency (also termed GME or Graduate Medical Education). An internship typically lasts one year, and a residency can last from three to seven years depending on the specialty that is chosen.

Hours of Operation per Day: These are the hours of operation within a department. For example, a hospital nursing unit and an emergency department will operate 24 hours per day; whereas a clinic may be operational 8 hours or more, depending on the clinic.

Input Data Statement: A set of questions designed to elicit information about the healthcare project in order to create a Program for Design (PFD) (see definition below); based on the space criteria parameters (refer to Section 4) set forth in this document. Input Data Statements are defined as Mission, Workload, Staffing or Miscellaneous.

Laser Eye Center: A service that is approved, staffed and equipped to correct vision (i.e. nearsightedness, farsightedness and astigmatism) via surgical procedures, often using lasers.

LASIK: The acronym for Laser-Assisted In-Situ Keratomileusis. A laser eye surgery procedure whereby a laser is used to reshape the cornea (the clear covering in the front of the eye) without invading adjacent cell layers.

Laser Room: A room specially equipped with laser instruments, a laser cart, a slit lamp delivery system and safety equipment. The Laser Room may include more than one laser system. (e.g. Excimer laser, YAG Laser, SLT Laser, Tuneable dye laser (red, blue, green and yellow wavelengths), PDT)

Net-to-Department Gross Factor (NTDG): A parameter used to calculate the Department Gross Square Foot (DGSF) area based on the programmed Net Square Foot (NSF) area. Refer to DoD Chapter 130 for the NTDG factors for all Space Planning Criteria chapters.

Office, Private: A single occupancy office provided for confidential communication.

Office, Shared: An office that accommodates two workstations.

Operating Days per Year: The number of days per calendar year a facility is operational for patient care (refer to Section 2).

Ophthalmologist: A physician who specializes in the comprehensive care of the eyes and visual system. An Ophthalmologist is medically trained and qualified to diagnose and treat all eye and visual system problems. A major portion of the practice is eye surgery, which may be inpatient or outpatient based.

Ophthalmology Lab / Pathology Reading Room: This is a lab that is required in GME programs for ophthalmology residents to perform gross examinations of tissues under the microscope.

Ophthalmology Services: Ophthalmology services are rendered by a physician who provides care dealing with the structure, functions and diseases of the eye, the performing of certain surgical procedures; and the counseling of patients regarding their surgical alternatives and vision needs as related to their occupations, avocations and lifestyle.

Optical Coherence Tomography (OCT): OCT is a type of imaging technology used for taking cross-sectional pictures of the retina.

Optical Fabrication Lab: This is where an optical laboratory specialist will fabricate and dispense prescription military eyewear. Repairs will also be made in this lab.

Optical Fitting Area: An area adjacent to the waiting room of the Optometry Clinic which is used to display and fit eyeglass frames and provided contact lens fitting.

Optometrist: Doctors of Optometry are independent providers who examine, diagnose, treat and manage diseases and disorders of the visual system, the eye and associated structures, as well as diagnose related systemic conditions.

Optometry Services: These services are provided by an optometrist who provides comprehensive eye health and vision examinations; diagnosis and treatment of eye diseases and vision disorders, the detection of general health problems; the prescribing of glasses, contact lenses, low vision rehabilitation, vision therapy, and medications; the performing of certain

surgical procedures; and the counseling of patients regarding their treatment alternatives and vision needs as related to their occupations, avocations and lifestyle.

Personal Property Lockers: This is a small-sized locker, commonly called purse or cell phone locker, and is generally used to secure purses and smaller valuables. Staff members who do not have an office or cubicle space where they can safely store belongings will be assigned these lockers.

Photography Room: Room where medical photography of the eye takes place. Specialized cameras are used to document and diagnose disease conditions of the eye. Upon completion of the photography session, the patient will either return to the doctor to go over the photos, discuss treatment (which can include laser eye treatment), or go home.

Playroom: This space is provided to accommodate children's play activities; it shall be outfitted with appropriate furniture and accessories and included within the General Waiting.

Procedure Room, Ophthalmology: The Procedure Room is designed for any treatment that requires surgical intervention that is deemed "an office procedure". Procedures commonly performed in this space are chalazion excisions, tarsorrhaphy, biopsy, eyelid tumors, suture external eyelid lacerations, and pterygium removal.

Program for Design (PFD): A listing of all of the rooms / spaces generated based on answers to the Input Data Statements (see Section 3) and the space planning criteria outlined in this document (Section 4) in SEPS. The list is organized by Functional Area and includes the Room Quantity, Room Code, Room Name and generated Net Square Feet (NSF), Construction Phase and Construction Type.

Project Room Contents (PRC): A listing of the assigned contents (medical equipment, FF&E, etc.) for each room in a PFD generated by SEPS.

Provider: A medical professional, such as a physician, nurse practitioner, or physician assistant, who examines, diagnoses, treats, prescribes medications, and manages the care of patients within the scope of their practice as established by the governing body of a healthcare organization.

PRK: The acronym for Photorefractive Keratectomy. A laser eye surgery procedure intended to correct a person's vision.

PRK / LASIK Procedure Room: Room where laser eye surgery for vision correction is performed.

Resident Collaboration Room: This room is provided for the Residents. It will contain one cubicle per Resident, a table with chairs for collaboration space and bookcases.

Room Efficiency factor: A factor that provides flexibility in the utilization of a room to account for patient delays, scheduling conflicts, and equipment maintenance. Common factors are in the 80 to 85% range. A room with 80% room efficiency provides a buffer to assume that

this room would be available 20% of the time beyond the planned operational practices of the room. This factor may be adjusted based on the actual and/or anticipated operations and processes of the room / department.

Space and Equipment Planning System (SEPS): A digital tool developed by the Department of Defense (DoD) and the Department of Veterans Affairs to generate a Program for Design (PFD) and a Project Room Contents list (PRC) for a DoD healthcare project based on approved Space Planning Criteria, the chapter and specific project-related Mission, Workload and Staffing information entered in response to the Program Data Required - Input Data Statements (IDSs).

Soiled Utility Room: This space provides an area for cleanup of medical equipment and instruments, and for disposal of medical waste material. It provides temporary holding for material that will be picked up by Central Sterile or similar service. It should be readily accessible to staff.

Sub-Waiting, Dilation: Prior to an eye examination, the patient may receive eye drops to dilate the pupil. This is a secondary waiting area for patients who are waiting for their eyes to dilate, and it should be located adjacent to the eye lanes.

Team Collaboration Room: This space provides staff with an environment conducive to collaboration. Room contains touchdown computer workstations for documentation and a table with chairs to hold team meetings.

Utilization Factor: Also known as capacity utilization rate, this factor provides flexibility in the utilization of a room to account for patient delays, scheduling conflicts and equipment maintenance. A room with an 80% utilization factor provides a buffer to assume that this room would be available 20% of the time beyond the planned operational practices for this room.

Visual Fields: Tests for determining the extent of peripheral vision and blind spots within a patient's field of vision.

Visual Screening: This is the general eye examination before refraction.

Workload: Space Planning Criteria per DHA Policy shall be workload driven. Workload projections divided by the throughput determined in this document for each workload driven room determines the quantity of rooms needed to satisfy the projected workload demand.