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SCALES OF ACCOMMODATION SRI LANKA ARMY

SCALES OF ACCOMMODATION FOR SRI LANKA ARMY

- Part I - General Provisions and Authorization
- Part II - General Scales
- Part III - Specialized Scales
- Part IV - Electrical and Mechanical Services

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PART-I (GENERAL PROVISIONS & AUTHORISATION)

CHAPTER NO. 1 MAIN INTRODUCTORY NOTES

1.1 This publication has been prepared to define authorized Scales of Accommodation, fittings and associated services applicable for long term requirements of the Sri Lanka Army. It has been prepared for the information and guidance of all concerned with the planning of accommodation and Works Services for the Sri Lanka Army.

1.2 Part I contains general provisions and authorization of scales and they have been laid down on a numerical criteria irrespective of any particular unit (regiment, battalion etc.). The scales and percentages (numerical criteria), wherever applicable are given in this Part and the requirement should be assessed based on the authorised establishment.

1.3 Part II deals with general scales together with fittings which are common to units or establishment comprising of accommodation for living, working, training, recreational, messes and other miscellaneous facilities.

1.4 Part III gives the specialized accommodation and special fittings required for various formations and units of the Sri Lanka Army. No attempt has been made to deal with specialized requirements of special units such as particular requirements of training schools, centers, base workshops, special communication projects, etc. which are to be treated as special works and may be determined on individual need basis by the board of officers for approval of Directorate of Engineer Services.

1.5 Part IV lays down the scales for Electrical and Mechanical Services.

1.6 The scales specified herein are applicable to all new permanent constructions. These may also be applied for renovation and re-construction of existing permanent structures in which cases these will be regarded as a guide.

1.7 The Electrical and Mechanical (E&M) services authorized are based on the accepted standards and practices necessary for providing essential working and living environment. The provision of the essential E & M services in the existing buildings and establishments can be made with the approval of the Directorate of Engineer Services.

1.8 Building designs should take into consideration the ground condition, conditions of climate, availability of material, etc. Specifications, design features, external finishes and normal building practices may be suitably adopted to cater for such requirements. Any marginal increase in the authorized area or cost resulting purely due to adoption of these measures shall be permissible.

1.9 The scales of floor area may be varied or marginally exceeded by Garrison Engineers, where imperative, for reasons such as convenience of design and need to evolve an efficient and viable modular plan. Such an increase must be kept to the minimum essential and effort should be made to adjust such increase within the overall admissible plinth area.

1.10 Due to the shortage of land in Sri Lanka Army and the difficulty of acquiring additional land, it is necessary to ensure maximum use of available land. Also with the difficulty in provisioning of infrastructure particularly for living accommodation, large units and installations such as hospitals, regimental centers, training institutions etc; while planning the construction of multi-storied buildings, design of foundations where necessary should allow for the construction of additional storied at a future date. Each such case shall however be decided on merits with the approval of Cabinet of Ministers, Department of National Planning, Ministry of Defence, through Commander of Army and through Directorate of Engineer Services.

1.11 Scales given herein for accommodation are in terms of floor area for each facility except where specially indicated otherwise. This is the actual floor area within the finished containing walls. Staircases and lift lobbies wherever provided will be authorized additional area on as required basis.

1.12 The area mentioned in scales make no allowance for circulation space, viz entrance halls, lobbies, passages, verandahs, etc. Unless otherwise specified. These are catered according to the recommendation of Directorate of Engineer Services.

1.13 It is the responsibility of the administrative officials to lay down general type of accommodation required. The Directorate of Engineer Services/respective ESR units will be responsible for the designs and specifications and will be guided by the following principles: -

- a. Economy of engineer effort in all its aspects is of paramount importance and involves simplicity of design, economy in material, plant, movement and labour.
- b. Structures must be technically sound, suitable for the purpose for which they are required and provide comfort conditions for living as well as working wherever built for the purpose.

1.14 The setting and layout of accommodation is the responsibility of Board of Officers convened for the purpose, but it is the duty of the Garrison Engineer/respective ESR unit to advise the Board so that maximum economy in essential services such as drainage, sewage disposal, water supply and electricity distribution is achieved and that individual buildings are oriented in an economical as well as efficient manner.

CHAPTER NO. 2 ACCOMMODATION AUTHORISED FOR ALL UNITS

2.1 Accommodation that is generally common and authorised to all units of the Services provided their establishment justifies it as per laid down rules under General Provisions. Authorisations and Scale, is given in Parts I and II. The specialized accommodation authorised to various units in addition to the common items listed below and E & M scales are contained in parts III & IV respectively.

2.2 Thus for example, if total accommodation for an Infantry battalion is to be determined, it would be obtained from the list given below for common items and for specialised items from the relevant section for Infantry units in Part III.

2.3 Electrical and Mechanical items as are given in Part IV shall be applicable.

2.4 Accommodation common to all units as authorised is given below :-

TABLE 2.1 ACCOMMODATION COMMON TO ALL UNIT

S.N.	Items	Scale/ Reference
1	Living Accommodation. (For officers, Officers, WOs & Sgt and OR)	Part II – Single Living Accommodation
2	Accommodation for Messes and Clubs. (For officers, WOs & Sgt and OR)	Part II – Accommodation for Messes and Clubs.
3	Stores	Part I – General Authorisation
	(a) Armouries	
	(b) Clothing	Part I – General Authorisation
	(c) Equipment	Part I – General Authorisation
	(d) Explosive	Part I – General Authorisation for units
		equipped with small quantities of miscellaneous explosives which, as per Regulations of SLAOC, are not to be stored together or with small arms ammunition
	(e) Ration Store-cum-Ration Stand	Part I –General Authorisation.
	(f) Small Arms Ammunition.	Part I – General Authorisation Normally attached to Guard Houses.
	(g) Sports	Part I – General Authorisation
4	Water closets, Latrine	Part I – General Authorisation.
5	Unit Shops	Part I – General Authorisation
6	Laundry	Part I – General Authorisation
7	Drying and Ironing Room	Part I – General Authorisation
8	Fire Stations	Part I – General Authorisation
9	Guard House and Ancillaries	Part II – Administrative and Working Accommodation.
10	Incinerators	Part I – General Authorisation
11	Parade Ground	Part II – Training and Recreational Facilities.
12	Recreation Grounds and Courts	Part I – General Authorisation
13	Walls, Gates and Fences	Part I – General Authorisation
14	Sentry Boxes	Part I – General Authorisation

CHAPTER NO. 3 GENERAL PROVISIONS

3.0 Due consideration should be given to by-laws of the local civil authority wherever any accommodation is built in the areas covered by civil jurisdiction. Also, any accommodation and related facilities provided for industrial workers wherever built, should conform to the prevailing laws under the Factory Ordinance Act Sri Lanka. Accommodation for explosives, shells and ammunition, etc should be as per existing Regulations and any other instructions issued for the purpose by the Army Headquarters.

3.1 Ceiling and Lining. - Ceilings should be provided in living accommodations, messes, offices, amenity buildings, MI rooms, stores where perishable articles are stored and where required to serve a specific purpose. For other living accommodation ceilings are authorized where climatically considered necessary by the Formation Commander. However, in rooms to be air-conditioned, ceiling may be provided if considered necessary by the Garrison Engineer.

3.2 Ceiling Height - Ceiling heights should be 3m. These will be taken as average ceiling heights where sloping roofs or ceilings are provided and due care being taken that ceiling height is not less than 3.00 m at the point where ceiling fan is to be fixed. These may be suitably increased as per functional requirements in cookhouses, large size halls, technical and storage accommodation etc, wherever required.

3.3 Colour in Buildings -

3.3.1 External finish: Weather Shield exterior paint is authorized for all new permanent buildings which must be planned and co-coordinated to achieve overall harmony in stations. Existing permanent buildings may also be authorized Weather Shield exterior paint. Any other type of finishes (Fair face rubble, wire cut bricks, stone chips/grit, etc.) for buildings such as officers messes, welfare centers, auditoriums can be provided with the recommendation of project architect and the approval of Directorate of Engineer Services

3.3.2 Internal Finish: Emulsion interior paint is authorized for all new permanent buildings.

3.4 Fire Precautions. Occupational fire prevention, the maintenance and / or replacement of portable fire equipment is not the responsibility of the Engineer Services Regiment. However, structural planning and design aspects of important buildings will be coordinated with the fire department at the design stage to ensure adherence to existing Safety Regulations. Suitable provision for housing portable fire equipment in the buildings should be made and glazed in-built cupboards or niches provided as necessary. Suitable plinths with covers should be provided wherever fire points are established in the unit areas.

3.5 Floors

3.5.1 Hard-wearing and easy to maintain floors will be provided in the following accommodations as shown against each:-

- a. Sanitary annexe in all living accommodation – Non skid ceramic tiles/porcelain tiles/Cement Render.
- b. Officers living accommodation rooms. – Non skid ceramic/porcelain tiles.

- c. SNCOs living accommodation rooms. – Non skid ceramic/porcelain tiles.
- d. ORs living accommodation rooms. – Cement Render.
- e. Officers Mess - Non-skid ceramic/porcelain tiles.
- f. Kitchen in all accommodations cook houses and cafeteria – Non-skid ceramic/ Porcelain tile.
- g. MI rooms – Non-skid ceramic/Porcelain tile.
- h. Main entrance halls and staircases – Non-skid ceramic/Porcelain tile.
- i. Offices – Non-skid ceramic/Porcelain tile.

3.5.2 Wherever sound absorption and other special type of flooring is required or specified in the scales, suitable flooring of PVC tiles, Timber flooring or of any other suitable material will be provided.

3.6 Hygienic Works. Works of hygienic nature, such as fly proofing etc. are authorized where considered necessary on hygienic grounds. Ration and grain stores will be rat proofed.

3.7 Iron bars or Grills to Windows and Ventilators. Iron bars or Grills to windows and ventilators will be provided on as required basis as a measure of security where considered essential. *In coastal areas guard bars or grills of aluminum /non-corrosive material suitably treated/ coated against corrosion may be provided in lieu of iron due to high corrosion.*

3.8 Mosquito Proofing. Mosquito proofing is authorized to be provided in all living accommodation. Mosquito proofing may also be provided in other buildings, advised by medical authority.

3.9 Refuse Disposal. Refuse bin enclosures may be provided on as required basis. The site for the refuse bin enclosure to individual buildings must be compatible with the method of local collection of refuse and must conform to the requirements of the local authority for bulk removal. A suitable vehicle access should be provided to the bins where applicable.

3.10 Sewerage and Sewage Disposal.

3.10.1 Provision of water borne sanitation and all connected sewage disposal works are authorized.

3.10.2 Where municipality schemes facilities for sewerage and sewage disposal are already exist, arrangement shall be made for linking with the same. In stations where such facilities are not available, independent and adequate arrangements with technically complete systems for sewerage and sewage disposal may be provided. Soil and other technical investigations necessary for this purpose are also authorized.

3.11 Computer Room in Major Units. Computer room will be provided where recommended by Formation Commander in each battalion and other major installations of 15 m² size with facility of air-conditioning. Also, a computer center of suitable size be authorized in SFHQs, Div HQs, BDE HQs, Regimental Centers, etc.

CHAPTER NO. 4 GENERAL AUTHORIZATION

4.0 The items of accommodation listed in this section are authorized.

4.1 Storage Accommodation. Storage accommodation, as given here-under is per person or animal for large or small unit. Suitable shelving or racks will be provided as required. Counters may be provided in all stores where issues are made. Windows and ventilators will be barred wherever considered necessary. Stores may be divided into compartments to suit the organization of the unit :-

- a) Armouries - Accommodation for weapons which do not form part of vehicles equipment will be provided at the rate of :-
 - i) Rifles - 1 SM for 5 Rifles.
 - ii) Pistols- 0.75 SM per 16 Pistols
 - iii) LMGs-1 SM per 4 LMGs.
 - iv) MMGs/HMGs-1.5 SM per Gun.
 - v) 60 mm or 2" Mor -1 SM per Mor.
 - vi) 81mm Mor-5 SM per Mor
 - vii) 106/57mm RCL Guns-16 SM per Gun.
 - viii) Rocket Launcher -1 SM per RL.
- b) Clothing Store -1 SM per 10 men.
- c) Company Store -19 SM
- d) Equipment Store -1 SM per 10 men or animals (minimum 9 SM).
- e) Explosive Store - Storage accommodation for the units holding explosives in small quantities (as defined by Dte of Ord Svcs) shall be provided in compartments of 2.4 SM for each category or compatible categories of explosives requiring separate storage as per regulations.
- f) Ration store - For ration store 1 SM per 15 persons (minimum 9 SM).
- g) Sports Store.
 - i) Large Unit - 19 SM
 - ii) Small Unit - 9 SM.

4.2 Water Closet or Squatting pan, Urinals, Bath and Wash Basins.

4.2.1 Each toilet or bath room or WC will normally comprise of fittings and fixtures given below. Additions or deletions shall be made if indicated in the table of scales : -

Unit	Area	Fixtures and Fittings
(a) Toilet	3.0 m ²	WC, WB, urinal, mirror, towel rail, toilet paper rack and ablution tap.
(b) Toilet with Shower	4.0 m ²	All as above (without urinal) with Bath shower, soap holder
(c) Bath Room	2.0 m ²	Shower, towel rail, soap holder
(d) Water Closet	1.5 m ²	Toilet paper holders, WC, ablution tap
(e) Wash basin	1.0 m ²	With mirror and soap holder
(f) Urinal	1.0 m ²	

4.2.2 Toilet facilities as authorized for various types of buildings are given in the respective tables in terms of numbers. Floor area for these facilities will be in addition to the total authorized floor area for the building unless otherwise specified.

4.3 Laundry Package type mechanical laundry will be authorized for major units. The specification of package type mechanical laundry is issued by the Directorate of Electrical and Mechanical Engineers (Dte of EME) according to the strength.

4.4 Drying and Ironing Room. Drying room will be provided where recommended by station medical authority at a scale of 2.4 SM per 10 pers with cloth lines. Ironing room will be provided at a scale of 1.0 SM per 12 persons. Minimum room size will not be less than 9.0 m² in each case.

4.5 Sentry Boxes. Sentry boxes will be provided on as required basis if not covered in the tables of scales. The floor area for each sentry box shall not exceed 2.5 m².

4.6 Telephone Exchange. Accommodation for Telephone Exchange should be provided as per the technical requirements of the exchange equipment wherever this is authorized to be installed.

4.7 Unit Shops. Unit shops may be provided for trades such as tailor, cobbler, barber and grocer etc. The floor area for unit shops of a large unit shall be 60.0 m².

4.8 External Lighting or Perimeter Lighting. These should be provided in security areas, depots and installations where valuable stores, equipment, vehicles and machinery are parked or stored. These may also be provided at other places where essential subject to specific approval of Formation cmd or equivalent.

4.9 Walls, Gates and Fences.

a) These will be provided on as required basis. Maximum heights of security walls and fencing should be as specified below :-

- | | | |
|------|--------------------|---------|
| i) | High Security Wall | - 3.0 m |
| ii) | Security fencing | - 2.7 m |
| iii) | Low Security wall | - 2.1 m |

4.10 Incinerators. These should be provided as required.

4.11 Obstacle Course. Obstacle course may be provided for any unit at the discretion of Formation cmd. One course should serve as many units as possible. The standard design should be based on training instructions issued by Army Headquarters.

4.12 Boxing Rings. Boxing rings of inside dimensions 6.1 m x 6.1 m platform and extended 0.5 m outside the ropes along with steps to be provided at the scale of one per Regimental Training Centre or similar training establishment of other services. The ring should be complete with ropes, padded corners, posts, seats and floor covering of suitable material, etc. conforming to specifications under boxing rules.

4.13 Verandahs. Verandahs are required to serve as circulation space in buildings. These will be provided as required to meet such functional and climate requirements. The clear width should normally not exceed 2.1 m.

4.14 Wells. Wells may be provided where conditions render it necessary.

PART-II (GENERAL SCALES)

CHAPTER NO. 5 SINGLE LIVING ACCOMMODATION

5.1 Officers accommodation. Scales of single living accommodation for Officers are contained in Table 5.1

5.2 WOS', SGTS' & ORS'

5.2.1 Scale of single living accommodation for WOS', SGTS' & ORS' are contained in Table 5.2.

5.2.2 The accommodation for WOS' & SGTS' will normally be provided in self-contained blocks comprising of rooms with common sanitary facility. The accommodation for ORS' will normally be provided in self-contained blocks without rooms (dometry) with common sanitary facility.

5.2.3 Central entrances, lobby, passages and staircases will be provided as required.

TABLE 5.1 SCALES OF SINGLE LIVING ACCOMMODATION FOR SERVICE OFFICERS

S.N.	Description of Items	floor Area (m ²)/ Scale	Special Facilities	Planning Notes
1	Main Unit of Accommodation :-			
	(a) General	43.00 (467.10 ft ²)		Bed room with attached bathroom
	(b) Brigadier	36.00 (392.10 ft ²)		Bed room with attached bathroom
	(c) Lieutenant Colonel / Colonel	27.00 (286.90 ft ²)		Bed room with attached bathroom
	(d) Major	16.00 (171.40 ft ²)		Bed room with attached bathroom
	(e) Captain and below	7.50 (82.60 ft ²)		Bed room with shared bathroom for Two Officers

Note: -

(a) Staircase of 5 m² to be provided for double or multi story construction.

TABLE 5.2 SCALES OF SINGLE LIVING ACCOMMODATION FOR WOS' & SGTS' AND ORs

S.N.	Description of Items	Floor Area (m ²) / Scale	Special Facilities	Planning Notes
Single Living Accommodation per WOS'				
1	Living Accommodation WOS'	13.00	Internal finishes shall be as per para 3.3.2 of chapter 3 - one coat in every two years or two coats in every four years. Sanitary annexure as S.N. 09	Staircase of 5 m ² to be provided for double or multistory construction.
2	Living Accommodation SGTS'	7.50	Internal finishes shall be as per para 3.3.2 of chapter 3 - one coat in every two years or two coats in every four years. Sanitary annexure as S.N. 09	Staircase of 5 m ² to be provided for double or multistory construction.
Single Living Accommodation ORs				
3	Living Accommodation per OR	4.00	<p>a) Notice board in entrance hall or verandah.</p> <p>b) Full length mirror in verandah.</p> <p>c) Clothes lines for hanging clothes to be provided outside the barracks.</p> <p>d) A writing shelf with chair and in-built book shelf- one per 2 OR.</p> <p>e) Internal finishes shall be as per para 2.4.2 of chapter 2 - one coat in every two years or two coats in every four years.</p> <p><i>f) Lines for mosquito nets may be provided as required.</i></p>	
4	Common Room	0.50 per person	Pelmet with curtain rods or curtain runners.	To be provided at company or equivalent level.
5	Store Room	0.25 per person		

6	Sanitary Block - a) Baths	<i>12.50 percent of authorized strength.</i>	a) White glazed tiles lining inside and outside of trough WB up to a height of 6 ft.	<i>Min. 03 Nos</i>
	b) WCs	<i>20 percent of authorized strength.</i>	b) One mirror over each trough WB subject to a maximum of three mirrors in each toilet.	<i>Min 04 Nos</i>
	c) Trough type WB	<i>20 percent of authorized strength.</i>	c) White glazed tiles in dado near trough WB and urinal up to a height of 6 ft.	<i>Min 03 Nos</i>
	d) Urinals	<i>5 percent of authorized strength.</i>		<i>Min 02 Nos</i>

CHAPTER NO. 6 ACCOMMODATION FOR MESSES AND CLUBS

6.1 Messes for Officers.

6.1.1 Scales of accommodation for Officers' Messes are contained in Table 6.1.

6.1.2 As a general principle, separate Officers' messes should be provided on regimental basis. Combined messes may be constructed if so required to meet the specific requirement of the Services. In the case of small units, however, a separate mess will only be provided where other mess is not conveniently accessible at the station.

6.1.3 Mess should not be provided for less than 5 members.

6.1.4 The following scale will be adopted for messes having strength beyond 40 officers: -

(a) officers	41 to 50	- Floor area admissible for 40 officers plus 7.5 m ² per additional officer beyond 40.
(b) officers	51 to 100	- Floor area admissible for 50 officers plus 6.3m ² per additional officer beyond 50.
(c) beyond	101 and	- Floor area admissible for 100 officers plus 5.3 m ² per additional officer beyond 100.

6.1.5 For messes of strength beyond 40 officers, minor staff quarters will be provided as for Messes of 29 to 40 officers plus one additional servant quarter for every 5 officers in excess of 40.

6.1.6 The verandah, porch, lobby, entrance hall and toilets would be provided and area found out of area additions.

6.1.7 Reception counter, letter racks and telephone booth may be provided as required. Pelmet and curtain rods or curtain runners should be provided in all main rooms (except stores) and in other rooms viz guest rooms, offices and cloak room.

6.1.8 The scales indicated against each item are intended to serve as a guideline and Service headquarters will be at liberty to place the accommodation for various purposes in any manner they choose, so long as the overall permissible floor area is not exceeded.

6.2 Messes for WOS' & SGTS'.

6.2.1 Scales for Messes for WOS' & SGTS' are contained in Table 6.III. Messes (clubs) are not authorized for less than 5 members. Messes (clubs) will normally be provided at unit level, however, combined messes may be provided for smaller units if conveniently accessible.

6.2.2 Scale for messes (clubs) having strength beyond 60 SNCOs and equivalents will be adopted at floor area admissible for 60 SNCOs plus 4 m² per additional SNCOs. Library and reading room may be provided from within the authorized floor area in messes (clubs) having strength 61 and above of SNCOs or their equivalents in other Services.

6.2.3 Pelmet with curtain rods or curtain runners will be provided in mess room, club room, recreation and TV room family room and card room.

6.2.4 A lavatory with WC, urinal, WB and bath shall be provided for use by the staff and suitably located in case one is not available within reasonable distance of the mess (club). The verandah, lobby and cloak room for gents and ladies to be provided out of area addition.

6.3 Dining Halls and Cook houses for OR and their Equivalents.

6.3.1 Scales for dining halls and cook houses for OR and their equivalents are given in Table 6.3. The number of cook houses and dining halls provided should be the minimum compatible with the organization of the unit and should be constructed in as few blocks as practicable. In small cook houses it may be considered desirable to combine some accommodation to provide well-proportioned room for working convenience.

6.3.2 Dining halls should be so designed as to provide accommodation for NCOs separate from that for the men. Suitable arrangements in the form of folding or sliding shutters may be provided where considered essential to close the gap over the serving counter when the same is not in use so as to isolate the cook house area from that of the dining hall.

6.3.3 Where adequate latrines, urinals and ablution facilities do not exist within easy reach of cook houses and dining halls these may be provided at a scale of 1 percent WC, 2 percent urinals and 2 percent through type wash hand basins of dining strength in addition to those authorized in the unit lines.

6.3.4 Height of kitchen shall be 700 mm higher than the rest of accommodation to cater for adequate ventilation. Exhaust fans are to be provided in the cook houses as authorized.

Table 6.1 SCALES OF MESSES FOR OFFICERS

S.N.	Description of Items	Floor Area (m ²)/Scale Strength of Officers		Special Facilities	Planning Notes
		19 to 28	29 to 40		
Main Rooms					
1	Mess Room	58.00	70.00	-	The mess room should preferably be planned adjoining the ante room and separated by sliding or folding doors.
2	Ante Room	48.00	55.00	Display and other shelves.	Includes bar with counter for 5-10 officers.
3	Bar	16.00	18.00	Bar counter with lockable sliding shutter to be Provided.	-
4	Library	26.00	30.00	Cupboard and book racks.	-
5	TV Room	24.00	26.83	-	-
6	Billiards and Indoor Games Room	46.50	46.50	Cupboards.	-

7	Kitchen	56.00	66.00	a) Towel rails. b) Hot closet and serving counter. c) Sinks.	-
8	Ration Store	14.00	16.00	Meat hooks and rail.	-
9	NCOS' Room	10.20	10.20	-	-
10	Cooks Room	6.50	6.50	-	-
	Other Rooms				
1	Secretary's Office	11.00	11.00	-	-
2	Mess Office	11.00	11.00	-	-
3	Visitor Room(s)	34.00	60.00	-	With attached toilets
4	Wine Store	9.00	9.00	-	-
5	WC and Bath for ORS'	1 No. each	1 No. each	-	-
6	WC for Mess Staff	1 No	1 No.	-	-
7	<i>Urinal for Mess staff</i>	<i>1 No</i>	<i>2 Nos</i>	-	-

TABLE 6.2 SCALES OF MESSES FOR WOS' & SGTS'

S.N.	Description of Items	Floor Area (m ²)/ Scale Strength of Officers and Equivalents					Special Facilities	Planning Notes
		5 - 10	11 - 15	16 - 20	21 - 40	41 to 60		
1	Mess Room	20	25	30	44	60		
2	Bar	20	25	37	40	50	Display or other shelving and racks.	a) Bar room should adjoin the mess room so that combined use of these rooms is available. b) Bar.
3	Kitchen	13	13	13	15.6	20	a) Cup boards. b) Serving platform. c) Towel rails. d) Glazed tiles dado up to lintel level.	-
4	Store	11	11	13	13	13	a) Cupboards b) Meat hooks on rail.	Suitable partition may be provided for storage of fuel.
5	Pantry	-	-	9	9	11	a) Hot closet and serving counter. b) Towel rail.	-
6	Pan Wash/Kitchen yard	5	5	5	5	8	a) Sinks. b) Towel rail.	-
7	Cooks Room	6.5	6.5	6.5	8	9	a) Cupboard. b) Pegs set.	-
8	Recreation and TV Room	-	20	20	20	28	Cupboards.	-
9	Visitor Room	-	-	12	15	18	Cupboards.	-

TABLE 6.3 SCALES OF ORS' MESS & KITCHEN

S.N.	Description of Items	Floor Area (m ²) / Scale Strength of ORS'					Special Facilities	Planning Notes
		up to 20	21-50	51-75	76-100	101-150		
1	Dining Hall	1.87 m ² per man					a) Curtain rods or rails to be provided. b) Notice and menu boards - two per dining hall. c) Hat and coat pegs in verandah. d) One in built shelf per dining hall. e) One mirror over each trough WB subjects to maximum of two per dining hall. f) Colour finish distemper up to lintel level – one coat in every two years or two coats in every four years. g) White glazed tiles lining of trough WB. h) White glazed tiles dado near trough WB up to a height of 6 ft. j) Easy Chairs 10 per dining hall in a mess of at least 100 OR.	Scale includes floor area for passage
	Cook Houses							
2	Kitchen	18.50	18.50	30.50	39.00	39.00	a) Cooking range for soft coke and chullah. b) Trough type WB. c) Tank for warming water by flue gases with requisite pipes and outlet connections.	a) Glazed tiles up to window sill level. b) Where cooking is carried out exclusively by the use of cooking gas. c) Three power points for modern cooking equipment. (i) Area authorized against kitchen will be reduced by 20 percent for strength beyond 51. (ii) Suitable cooking platform to be provided. (iii) Suitable separate covered and secure enclosure for gas cylinders.

3	Meat Preparation and Meat Store	- 7 7 7 10 4.02	a) Trough type WB. b) Meat hooks on rail.	Glazed tiles dado up to lintel level
4	Dry Store	8 8 8 8 10 8.87	a) Shelving b) Cupboards	Suitably partitioned for storage of fuel if required.
5	Fresh Stores	14 14 14 7 10 7.70		-
6	Gas Store	- - - 7 10 8	-	-
7	Pan Wash	10 10 10 10 10 7.64	a) Water tap b) Shelving c) Cupboards	Glazed tiles dado up to lintel level.
8	Serving area	7 9 12 13 18 25.70	Combined hot closet and serving counter as required.	-
9	Cooks Room	7 7 7 7 10 6.54	-	-

CHAPTER NO. 7 ADMINISTRATIVE AND WORKING ACCOMMODATION

7.1 Guard House and Ancillaries.

7.1.1 Scales for Guard Houses for units are given in Table 7.1. Accommodation will be provided as per the authorized strength of units and establishments.

7.1.2 Guard houses should generally be located at main road entrance or approach or vantage point in the unit area so as to give a clear view of the entrance to the unit.

7.1.3 Guard houses are normally planned in conjunction with armorer's shop and small arms & ammunition stores due to inter-related function of each to the other. The guard room may be suitably sub-divided as per the requirements, viz; office, rest and dining space for guards.

7.1.4 Whenever possible night picket should be accommodated in the guard room. When this is not possible, accommodation may be constructed for the picket, excluding those actually posted as sentries, as per scale authorized for single accommodation.

7.1.5 All windows and ventilators should be barred. Suitable security fencing and perimeter lights should be provided all around the guard houses. One sentry box per guard house may also be provided.

7.2 Office and Administrative Accommodation.

7.2.1 The scales for Office accommodation are contained in Table 7.3. These also cover the specialized administrative accommodation requirements of headquarters, stations and units. Office accommodation for the technical personal who are required to work in the specialized accommodation may be constructed within the technical buildings as authorized wherever applicable.

7.2.2 While planning administrative blocks for formations and headquarters, a provision of suitable entrance hall should normally be made. Rooms for duty officer should be planned close to the entrance to enable locking up of the main administrative block separately during off duty hours.

7.2.3 The doors to all offices will be provided with secure locking arrangement. Guard bars or grills for windows and ventilators and security fencing is to be provided as required.

7.2.4 Pelmet boxes with curtain rods for officers' offices and curtain rods for others shall be provided.

TABLE 7.1 SCALES OF GUARD HOUSE AND ANCILLARIES

S.N.	Description of Items	Floor Area (m ²)/ Scale		Special Facilities	Planning Notes
		Establishment of units in rank and file			
		Under 100	100-350		
1	Guard Room	27	62.28	a) duplicate key board. b) Full size mirror. c) Glazed show case for trophies. d) Display and notice board. e) Safe in-built (Regimental Treasury Chest).	Verandah 2.10 m will be provided for full length of block containing guard rooms.
2	Guard Detention Rooms	10	10.87	Attached urinal - 1 No.	Not to be provided if establishment of unit is less than 50.
3	Single Detention Rooms (8.68 m ² each).	1 No	2 Nos	-	a) One additional single detention room may be provided for every 300 men over 600. b) Window sills to be provided at least 2.1 m above floor level for security reasons.
4	Toilets	2 Nos	2 Nos	-	One toilet with bath within the enclosure of single detention rooms.

TABLE 7.2 SCALES OF OFFICE AND ADMINISTRATIVE ACCOMMODATION

S.N.	Description of Items	Floor Area (m ²) / SCALE	Special Facilities	Planning Notes
1	General	61		-
2	Brigadier	24		-
3	Lieutenant Colonel / Colonel	14.6		-
4	Major	11		-
5	Captain and below	9	-	-
6	Office cum Rest Room for a) Duty Officer	18		a) Shall be provided for formation and station HQ and establishments required to maintain duty officers and clerks outside office hours. b) Attached toilet with shower.
7	WOs (Chief Clerk)	10		a) Separate room for RSM
8	S/SGT, SGT	8		
9	CPL & below	4		
10	Stationery Room	11	- Built in shelves	
11	Duplicator Room (Photocopy)	9	-	Authorized for large units only. To be provided for all formation headquarters of bde, division, area and sub area.
12	Planning-cum- Briefing Room	32	-	
13	Visitors Room	20	a) Cooking platform. b) Sink. c) Cupboard small.	Authorized for large units and formation headquarters where separate cafeteria is not authorized.
14	Pantry	7.5		2 percent additional WC's for female staff for offices with establishment below 50.
15	Sanitary Annexes (WC's, WB and Urinals)	5 percent each		
16	Record Room		Built in wooden racks	
	a) Large Units	15	Built in wooden racks -	-
	b) Formation Headquarters and other units.	1 for 220 recorded files	-	Subject to a minimum of 22 m ² and maximum of 44 m ² .
17	Conference Room	As required		
18	Telephone Exchange	As required	-	
19	Reception	11		

CHAPTER NO. 8 TRAINING AND RECREATIONAL FACILITIES

8.1 Auditorium.

8.1.1 Auditoriums-cum-Cinema Halls will be provided on station basis. Sizes of halls to cater for the strengths indicated below shall be provided : -

- | | | |
|----|------------------------|------------------------------------|
| a) | One hall of 400 seats | - troop strength 3000 to 5000. |
| b) | One hall of 600 seats | - troop strength 5001 to 7500. |
| c) | One hall of 900 seats | - troop strength 7501 to 10,000. |
| d) | One hall of 1200 seats | - troop strength 10,001 to 15,000. |

8.1.2 The stations with strength of troops above 1000 but less than 3000, the requirement of 300 seater hall will be determined on merit by the comd of the Army.

8.1.3 The design should combine facilities for its use as theatre, and Lecture hall as well. Suitable acoustic measures are to be provided.

8.1.4 These halls may be suitably air-conditioned / air cooled if climatic conditions so warrant with the prior approval of comd of Army.

8.1.5 The scales laid down in table 8.1 are in addition to the various educational and instructional buildings authorized elsewhere in the scales.

8.1.6 The scales indicated against each item are intended to serve as a guide line. Army headquarters may, however, where necessary vary actual utilization of authorized floor area to evolve functionally efficient and aesthetic architectural designs for this building provided neither the authorized floor areas nor the overall permissible plinth areas are exceeded.

8.1.7 Adequate firefighting arrangement shall be provided as per the existing orders.

8.2 Gymnasium.

8.2.1 Scales of Gymnasias are given in Table 8.2.

8.2.2 Gymnasias should be provided on station basis according to the strength of troops as below :-

1000	- 2500	Class II
2501	- 5000	Class I

For numbers over 5000 one or more additional gymnasias may be provided according to strength of the station.

8.2.3 All training centers will be provided with a Class I gymnasium. In stations where training centers are located no separate gymnasias shall however be provided for other troops in the station up to total strength of 5000 for each gymnasium and the same facility shall be utilized as station facility by other station personnel also.

8.2.4 Gymnastic apparatus are classified as furniture.

8.3 Parade Grounds.

8.3.1 Parade grounds shall be provided for all units. The scale for units, schools and training establishments are given in Table 8.3. For other static units parade grounds of appropriate size, based on the strength of combatant personnel, may be provided. Parade ground for small units may be provided when located independently.

8.4 Recreation Grounds and Courts.

8.4.1 The scale of Recreation Grounds and Courts covered in Table 8.4 are to meet the normal requirements of military stations and units.

8.4.2 Sports grounds are to be normally of the size stipulated by Ministry of Sports. The sports grounds shall be levelled. Where soil conditions are not suitable, necessary improvement be carried out to provide adequate playing surface.

8.4.3 Water points for watering of grounds and courts should be provided. Screens, nets, seats, etc will be provided by the user units.

8.4.4 Wherever possible, sports grounds should be sited adjacent to swimming pools, gymnasiums stadia, etc. so that the changing and toilet facilities provided can be fully utilized.

8.4.5 Provision of football and hockey grounds, basket ball and volley ball courts be also provided for each training battalion or regiments or equivalent sub units of the training centers as per scale as for a large unit.

8.4.6 Combined strength of officers in a station shall be considered for assessing authorization of scale for squash, tennis and badminton courts. One covered badminton court to be provided for each SFHQs/Regiment. Provision of indoor badminton courts at other places will be treated as special.

8.5 Swimming Pools.

8.5.1 The scales for the provision of Swimming Pools for stations up to strength of 8000 personnel are given in Table 8.5. For stations where the strength of all ranks exceeds 8000, two pools of sizes as indicated be provided. For stations with strength above 20,000, swimming pools of large size may be provided in lieu of small size pools.

8.5.2 A separate diving pool of size 16 m x 16 m may be provided with swimming pool of large size subject to a maximum of one in a station or camp for purpose of diving training.

8.5.3 Filtration and chlorination plant shall be provided in all swimming pools.

8.5.4 Spectator gallery with sanitary annexes as required may be provided at selected swimming pools with the prior approval of comd of the Army.

8.5.5 Perimeter wall and lighting may be provided as required. Facilities for night swimming training such as under water lights may be provided if required with the approval of the comd of the Army.

TABLE 8.1 SCALES OF AUDITORIUMS

S.N.	Description of Items	Floor Area (m ²)/ Scale Strength of JCOs and Equivalents			Special Facilities	Planning Notes
		300 seats	400 seats	600 seats		
1	Auditorium	220	283	441	Emergency lights.	Balcony may be provided in auditorium of size 900 and 1200 seats.
2	Lobby	-	14.86	132	-	Area to be provided out of the area additions.
3	Stage	90	72	110	a) Appropriate flooring for stage. b) Supplementary stage lighting. c) Curtain fixing and lifting arrangement.	-
4	Dressing Room (Gents)	15	16.83	20	a) Two built-in cupboards. b) Two dressing mirrors. c) Coat pegs as required.	-
5	Dressing Room (Ladies)	12	16.83	12	a) Two built in cupboards b) Two dressing mirrors. c) Coat pegs as required.	-
6	Stage Toilet (Ladies)	1 No	1 No	1 No	-	Without urinal.
7	Stage Toilet (Gents)	1 No	1 No	1 No	-	-
8	Equipment Room	18	8	30	-	-
9	Control Room	11	13	11	-	-
10	General Toilet :- a) Ladies b) Gents	WC-2 WB-1 WC-2 Urinal 8 WB-1	WC-2 WB-3 WC-3 WB-3	WC-4 WB-1 WC-5 Urinal 15 WB-2	Mirror to be provided over each WB. Mirror to be provided over each WB.	- -
11	Passage Behind Stage	1.5 m wide	1.5 m wide	1.5 m wide	-	-

TABLE 8.2 SCALES OF GYMNASIUM

S.N.	Description of Items	Floor Area (m ²) / Scale		Special Facilities	Planning Notes
		Class I	Class II		
1	Hall	656.55 (30.3m x 21.6m)	416 (26m x 16m)	a) Wooden flooring b) Beams fixed on side walls with stay, pulleys, runners for rope climbing. c) Wall bars fixed on the walls. d) Hooks & fixtures on floor and wall for gymnastic apparatus.	The hall to be provided with a clear height of 7 m.
2	Gallery	365	75	Fixed tiered seating	To be provided on sides over entrance lobby and other ancillary rooms.
3	Officers Dressing Room	17.81	18	Fixed seats	Sanitary annexes consisting of following facilities will be attached :- Class I Class II WC 1 1 Urinals 2 1 WB 2 1
4	Dressing Room (General)	21.56	25	Fixed Seats	Sanitary annexes consisting of following facilities will be attached :- Class I Class II WC 2 1 Urinals 3 2 WB 3 2
5	Store	34.94	18	Cupboard and shelving	-

TABLE 8.3 SCALES OF PARADE GROUNDS

S.N.	Description of Items	Floor Area (m ²) / Scale	Special Facilities	Planning Notes
1	Parade Grounds – Units and Stations a) Battalion	5350 (73 m x 73 m) approx.		To be provided for Company or equivalent.
	b) Regimental Center	12500 (137 m x 91 m) approx.	Saluting base with flag mast.	To be provided for Battalions or Regiments.
2	Parade Grounds- Schools and Training Establishments a) 300 Trainees	6700 (82 m x 82 m) approx.	a) Saluting base with flag mast.	
	b) Up to 1000 Trainees	12500 (137m x 91 m) approx.		

TABLE 8.4 SCALES OF SWIMMING POOLS

S.N.	Description of Items	For 1000 to 2000 pers scales (m ²)	For 2001 to 5000 pers scales (m ²)	Special Facilities	Planning Notes
1	Swimming Pool	One No 26.69x23.27m (Small)	One No 50x21m (Large)	-	<p>(a) For Stations with 5001 to 8000 personnel (i) One No of 50m x 21m (Large) (ii) One No of 25m x 13.5m (Small)</p> <p>(b) For Stations from 8001 to 14000 personnel (i) Two Nos of 50m x 21m (Large) (ii) One No of 25m x 13.5m (Small)</p> <p>(c) For Stations from 14001 to 20000 personnel – (i) Two Nos of 50m x 21m (Large) (ii) One No of 25m x 13.5m (Small)</p>
2	Changing Room	52.74	100	a) Benches. b) Hooks for hanging clothes. c) Foot mats d) Shelves with shutters of size 23 cm x 15 cm each to be provided as follows:- (i) Pool size 50m x 21m – 50 Nos. (ii) Pool size 25m x 13.5 m – 30 Nos.	a) The area of changing room to be suitably divided to make separate changing rooms for officers, ladies and other ranks. b) Partition walls in dressing room upto man's height with provision of curtain to form cubicles for changing on as required basis. c) To be provided with curtain runners or rods only.
3	Sanitary Annexes				
	a) Shower	6 Nos	10 Nos		
	b) WCs	10 Nos	8 Nos		
	c) Urinals	-	6 Nos		
	d) WB with mirror	14 Nos	6 Nos		
4	Store Room	28	20		

PART-III (SPECIALIZED SCALES)

CHAPTER NO. 9 FIELD FORMATION HEADQUARTERS

9.1 Specialized accommodation required for Formation Headquarters. Division and brigade level will be provided as given in the Table 9.1. The scales contained herein apply also to the brigades of the supporting arms.

9.2 Offices and additional accommodation for centralized educational and technical training will be provided as per the scales given elsewhere.

9.3 Accommodation for field computers and electronic warfare systems shall be provided, wherever such equipment is authorized, to suit the technical requirements of the equipment.

9.4 For functioning of headquarters during operations, wherever the same is envisaged from permanent location, minimum essential additional underground accommodation may be provided as indicated in the Table 10.1, subject to the approval of comd of the Army. All underground accommodation shall be air conditioned. Stand by power supply arrangement will also be provided.

9.5 Suitable security wall or fencing with security lights will be provided all around the formation head-quarters on as required basis. Security bars or grills should be provided on all windows and ventilators. Accommodation for night pickets shall also be provided.

TABLE 9.1 SCALES OF FIELD FORMATION HEADQUARTERS

S.N	Description of Items	Floor Area (m ²) / Scale			Special Facilities	Planning Notes
		SF HQ	Div HQ	Bde HQ		
1	Operations Room	65	50	45	a) Sliding map boards with roller shutters and locking arrangements. b) Wall boards for charts. c) Double door, outer door of iron bars. d) Lighting for wall boards and sliding map boards.	
2	Conference Room	80	60	40		
3	Visitor's Room	18	12	12	-	-
4	Training Store	As required	80	50	Racking and shelving	a) Size of training stores at Corps HQ to be decided based on the assessed requirement.
5	Office for Signal Communication Technical Staff	12	10	10	-	-
6	Room for Reception and Security Staff.	15	10	10	Counter	

7	Cafeteria	45	30	20	a) Racking and shelving with inbuilt cupboards in store and pantry. b) Sink	a) Includes space for refreshment room, store and pantry and kitchenette. b) Attached toilet.
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CHAPTER NO. 10 INFANTRY UNIT

10.1 Scales of specialized accommodation in respect of Infantry Units are given in Table 10.1.

10.2 Instructional accommodation for practical training of specialist sub units of infantry battalions will be provided on centralized basis as per scales given in Table 10.2. Instruction rooms for infantry battalions shall normally be provided on brigade basis. Where the infantry battalions of a brigade are located in different stations, the accommodation may be provided on station basis, depending on merits, to serve maximum possible infantry battalions in the station. Additional accommodation as necessary may be provided for specialized training models or aids when authorized, as per technical requirements of the equipment.

TABLE 10.1 SCALES OF INFANTRY BATTALIONS

S.N	Description of Items	Floor Area (m ²) / Scale	Special Facilities	Planning Notes
1	General Store	56	Racking and shelving	
2	Signal Eqpt Store	28	a) Racking and shelving b) Non-dust emitting floor. c) Inbuilt cupboards	
3	Training Store	45	Racking and shelving	To be suitably subdivided as required.
4	Drums and Music Instruments Store	19	a) Racking and shelving b) Inbuilt almirah.	
5	Intelligence and Map Room	28	a) Racking and shelving b) Inbuilt almirah.	
6	Instruction Room for Tactical Training	110	a) Sand model pit with wooden covering b) Glass black boards – 02 Nos c) Stepped up platforms for seating.	
7	Instruction Room for Telephone Exchange	20	Glass black board	
8	Training Shed	140	-	a) Open shed with adequate side cover from weather. b) To be provided only in hot and dry regions and areas of heavy rainfall, subject to prior approval of GOC-in- C.

9	Explosive Store	76	Water tank of suitable size along with WP ammunition store.	<p>a) Caters for all explosive and ammunition other than small arms ammunition.</p> <p>b) May be subdivided into rooms or small compartments as per regulations for storage of explosives.</p> <p>c) Verandah or platform to be provided.</p> <p>d) Earth traverse or other safety arrangements as per technical regulations.</p>
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PART IV (ELECTRICAL AND MECHANICAL SERVICES)

CHAPTER NO. 11 ELECTRIC SUPPLY

11.1 Electric Supply.

11.1.1 Corps of Engineering Services will be responsible for supply of electricity to all Army establishments either by obtaining from outside sources or through own generation. All Services for receipt of power supply, its transformation and distribution, etc are authorized.

11.1.2 Stabilized power supply at standard Light Level shall be provided as specified in the Tables of Scales and for precision equipment requiring the same. Voltage stabilizers, of appropriate size, preferably inbuilt, are also authorized for water coolers, refrigerators and air-conditioners.

11.1.3 Provision of underground electric supply cables for Army stations and establishments shall be provided based on merit.

11.2 Electric Lighting.

11.2.1 All CFL/Tube lights to be replaced by LED lights as and when the changeover is due. All new works to incorporate LED lights only.

11.2.2 Provision of electric lighting is authorized in permanent and temporary buildings and all Sri Lanka Army assets including tented and hutted accommodation and wherever authorized in Table 30.I.

11.2.3 General lighting standard in other accommodation not specifically listed in the Table shall be provided as per the illumination level indicated for similar type of buildings. Supplementary lighting may also be provided in addition to general lighting where it is necessary to provide adequate light for precision work.

11.2.4 Requirement of providing spot illumination over the black boards, display boards, mirror of the wash basin, dressing tables, mirrors of guard room, offices, messes and barracks and other areas should be catered from within the stipulated scale.

11.2.5 Small lights shall be provided as required in entrances, passages, lifts, stables and accessory buildings etc.

TABLE NO. 11.1

SCALES OF ELECTRIC LIGHTING

S.N	Description of Items	Scale in Lux	Special Facilities	Planning Notes
1	INTERNAL Living Accommodation Domestic Accommodation Officers, and OR			Light on cooking platform.
	a) Living Room and Barracks.	50		
	b) Bed Room	50		
	c) Kitchen	500		
	d) Study Room	300		
	e) Civilians Accommodation	50		
2	Messes, Clubs & Institutes			Supplementary special lighting on the table as required.
	a) Mess Room	300		
	b) Ante Room	300		
	c) Billiard Room	100		
	d) Preparation of Pantry	300		
	e) Kitchen and Cook houses	500		
	f) Dining Hall	150-200		
3	Amenity Buildings			Supplementary stage lighting as required Top pool -500
	a) Lecture hall	500		
	(i) Auditorium and Gallery.	150-200		
	(ii) Stage			
	b) Swimming pool, Dressing and Bath Places.	100		
e) Gymnasium Hall.	500			
4	Offices and Administrative Buildings			Gate lights may be provided in all unit and office complexes and VIP bungalows
	a) Offices, Operation rooms and Control rooms.	300-500		
	b) Library	300		
	c) Guard Room –			
	(i) Guard Room.	100		
	(ii) Detention Room.	50		
	d) Armouries.	300		
e) Conference room	750			

5	<p>Technical and Working Accommodation.</p> <p>a) Technical Buildings, Armourer's, Laboratories, and Technical Stores, etc.</p> <p>b) Signal Installations and Telephone Exchange. 300</p> <p>c) MT Accommodation –</p> <p> (i) Garages for Vehicles, Guns and Equivalent. 100</p> <p> (ii) Repair Bays. 30</p> <p>d) Workshops –</p> <p> (i) Workshops. 500</p> <p> (ii) Specialized Repair Shop and Testing Rooms. 750</p> <p> (iii) Fuel Injection Equipment. 300</p> <p>e) Storage Sheds</p> <p> (i) General Storage Sheds. 300</p> <p> (ii) Receipt and Issue Areas. 300</p> <p>f) Fire Station. 300</p> <p>g) Laboratory 500</p> <p>h) Dog Kennels. 50</p> <p>(i) MI Room 150</p> <p>(j) Misc. Buildings</p> <p> (i) Bakeries. 200</p> <p> (ii) Butcheries. 500</p> <p> (iii) Sanitary Annexes. 100</p> <p> (iv) Toilets. 100</p> <p> (v) Change Room, Dressing Room and Other Rooms. 150</p> <p> (vi) Verandahs. 100</p> <p> (vii) General Store Room and other Ancillary Rooms. 300</p>		<p>Supplementary lighting over machines and work benches as required.</p> <p>Supplementary lighting if required</p> <p>Consultant room and treatment areas- 500</p>	
6	<p>External Lighting</p> <p>General</p>	<p>a) As required in location where there is a danger to security of stores from theft or sabotage. Food lights may be provided if considered</p>		

		essential. b) Storage shed, technical buildings, armouries as well as garages will be provided water tight brackets with 100 W LED at each corner and in addition one light per 15 Metres length or width of long buildings.		
7	Perimeter and Watch Tower	a) All stores depot, installations where valuable stores, equipment, vehicles and machinery are stocked. b) Important and Main E & M installations where outdoor equipment is installed. c) Ground level water supply sumps and storage tanks in the main water supply installation.		
8	Street Lighting and Sodium Vapour.	To be designed for – a) 6 Lux on road surface. b) 15 Lux at road intersection.		
9	Garden Lighting Post Top.	Dull lighting as required.		

Note: 1 lux = 1 lumen / m²

TABLE NO. 11.2

SCALES OF LIGHT AND POWER SOCKET OUTLETS

S.N	Description of Items	Scale	Special Facilities	Planning Notes
SOCKET OUTLETS (5 Amps)				
1	Offices Messes, Institutes, Technical Buildings.	As required		
2	Officer Cadets.	Two plug socket		
3	Single Officers Accommodation.	Three plug socket		
4	Single OR Accommodation			
5	MT Repair Bays and Vehicle Inspection Pits.	One plug socket each.		One 60 Watts inspection lamp for each inspection pit.
6	Tradesmen Shops including Barber Shop	One plug socket for each work bench or one per 11 m ² . Extra plug sockets may be provided if required.		
7	Single NCOs and OR and equivalent Ranks Study Rooms and Common Room.	Two plug sockets per room and extra plug socket may be provided if required		
8	MI Room	Two plug sockets per Room. Extra plug sockets may be provided if required.		
9	Class Room	Two plug sockets per Room. Extra plug sockets may be provided if required.		
SOCKET OUTLETS (15 Amps):				
10	Offices, Messes, Institutes, Kitchenettes, Education Buildings, MI Room and Other Buildings in which Authorized Power Consuming Apparatus is used.	As required		
11	Washing and Ironing Room	As required		
SOCKET OUTLETS (20/32 Amps):				
12	Offices, Messes, Institutes, Education Buildings, MI Rooms etc.	As required		
CABLE CONNECTION:				
13	TV Rooms of all Messes, clubs, institutes, instruction rooms etc.	One socket outlet (with multipurpose cable in conduit)		
14	Single living Accommodation (Officers)	- do -		

TELEPHONE WIRING :				
15	All Offices	As required		
16	Guest rooms, suites of inspection bungalows, all messes, bar rooms of officers mess.	One Number per room		
17	Single living accommodation (Officers)	One Number		

CHAPTER NO. 12 LIFTS

12.1 Electric Lifts as given in Table 31.I are authorized for administrative buildings and accommodation buildings having four or more storeys. Lifts with automatic doors or gates shall be provided.

12.2 Electric lifts for movement of luggage stores, etc are authorized for technical buildings. Each case will, however, be considered on its merits by Directorate of Engineer Services for determining the number and capacity of lifts to be provided.

TABLE NO. 12.1

SCALES OF LIFTS

S.N	Description of Items	4 and 6 Storied		7 and 10 Storied		11 and 12 Storied		Above 12 Storied	
		No. of Lifts	Capacity (Passenger)	No. of Lifts	Capacity (Passenger)	No. of Lifts	Capacity (Passenger)	No. of Lifts	Capacity (Passenger)
1.	Single Living Accommodation	1	8	2	8	2	8	2	8
2.	Admin Accommodation								
	a) upto 50 personnel per floor	2	13	3	13	3	13	4	13
	(b) 51 to 100 personnel	3	13	4	13	4	13	4	13

CHAPTER NO. 13 VENTILATION

13.1. Fans are authorized as per the scales laid down in Table 32.I. These shall be provided in living and administrative accommodation at all stations based on the approval of the Directorate of Engineer Services. Fans shall also be provided in specialized accommodation wherever authorized in Tables of Scales. The entitlement will be worked out as per this Table and where no fan size has been mentioned a 1200 mm ceiling fan shall be provided. Cabin fans of sizes 450 mm or 600 mm may be provided in small rooms or low ceiling areas. For other accommodation, a minimum of one 1200 mm fan shall be provided in the entitled accommodation. Provision of fans in storage accommodation shall be decided on merits, except, however, for office space for technical staff such as store man, etc where same is provided as part of storage accommodation for which fans shall be provided as authorized.

13.2. Fans of suitable types are also authorized in air-conditioned spaces. In other than technical air-conditioned accommodation, the provision will be limited to half the normal scale subject to a minimum of one fan. In case of air-conditioned accommodation in technical buildings, the number and size of the fans will be provided based on technical considerations as decided Directorate of Engineer Services.

13.3. The area to be ventilated by each fan as given in the Table has been based on the fan height of 2.6 metres above floor level. In technical buildings where the fan height has to be increased due to technical or functional requirements, the authorization of fans should be increased by 25 percent for fan height at 3.6 metres and by 50 percent for fan height of 4.6 metres. The mounting height of the fans should not exceed 4.6 metres.

13.4. Table fans and pedestal fans may be provided in technical accommodation in lieu of ceiling or cabin fans, where considered necessary.

TABLE 13.1

SCALES OF VENTILATION

S.N	Description of Items	Scale	Special Facilities	Planning Notes
1	Domestic Accommodation			
	a) Messes, Hostels, Institutes, Amenity, Welfare Buildings, Clubs, Cinemas and Bungalows.	One 1500 mm dia sweep ceiling fan per 22 m ² or OR One 1400 mm dia sweep ceiling fan per 18 m ² or OR One 1200 mm dia sweep ceiling fan per 14 m ² .		
	b) Dining hall of NCOs and OR and Equivalent.	One 1500 mm dia sweep ceiling fan per 22 m ² or OR One 1400 mm dia sweep ceiling fan per 18 m ² or OR One 1200 mm dia sweep ceiling fan per 14 m ² .		
	c) Guard Room	One 1500 mm dia sweep ceiling fan per 22 m ² OR One 1400 mm dia sweep ceiling fan per 18 m ² OR One 1200 mm dia sweep ceiling fan per 14 m ² .		
	d) Bar Shop	- do -		
	e) Garages			
	(i) Garage area	Nil		
	(ii) Repair area	One 1500 mm sweep ceiling fan per 22 m ² and one plug socket per bay (in addition to plug socket for lighting) one		

	<p>f) Dog Kennels</p> <p>g) Veterinary Buildings</p>	<p>cabin fan per bay in which an inspection pit occurs.</p> <p>One 1500 mm <i>sweep</i> ceiling fan per 22 m²</p> <p>OR</p> <p>One 1400 mm sweep ceiling fan per 18 m²</p> <p>OR</p> <p>One 1200 mm sweep ceiling fan per 14 m².</p>		
2	<p>Administrative and Technical Buildings</p> <p>a) Office accommodation, educational buildings instructional rooms and library.</p> <p>b) Technical buildings such as signal installations, instrument repair shops, workshops, laboratories, technical stores, drawing offices, mobilization store rooms and ops rooms, MI-rooms, technical bays and tradesmen shops.</p>	<p>One 1500 mm <i>sweep</i> ceiling fan per 22 m²</p> <p>OR</p> <p>One 1400 mm sweep ceiling fan per 18 m²OR</p> <p>One 1200 mm sweep ceiling fan per 14 m².</p> <p>- do -</p>		<p>To meet the functional requirements where it is not desirable to provide ceiling fans, Air-circulators in lieu may be provided.</p>
3	<p>Accommodation Requiring Exhaust Fans</p> <p>a) Cook houses of <i>Officers/NCOs</i> and OR.</p> <p>b) <i>Dining hall of Officers/NCOs and OR.</i></p> <p>c) <i>Kitchen of Officers messes</i></p> <p>d) <i>Toilets of Office Accommodation</i></p> <p>e) Workshops</p> <p>f) Common users toilets (WCs and Urinals)</p> <p>g) Technical Accommodation</p> <p>i) Laboratories and dark rooms</p> <p>ii) POL Storage</p> <p>iii) <i>Paint stores and ration stores</i></p>	<p>20 Air changes per hour</p> <p>10 Air Changes per hour</p> <p>10 Air changes per hour</p> <p>4 Air changes per hour</p> <p>Exhaust and fume extraction as required.</p> <p>8 Air changes per hour</p> <p>8 Air changes per hour</p> <p>As required</p> <p>As required by the service HQ.</p>		<p>To be provided when attached with main buildings and if users are more than 25. One exhaust fan in each toilet of single men barracks meant for 15 to 20 men.</p> <p>Should be flameproof.</p>

CHAPTER NO. 14 AUXILIARY POWER

14.1. Auxiliary power will provide through the generators and authorized capacities as per the scales laid down in Table 33.I. In the outage of utility power, the generators will power main areas including Headquarter building, Kitchens, Pump Houses and any other important areas in the establishments. Establishment with utility power will be provided with one generator of respective capacity and Establishment without utility power will be provided with two generators with respective capacities with the basis of standby. All the Auxiliary Power will use for four hours and fuel will be issued accordingly. The respective Garrison Engineers will carry out monthly inspection and services.

TABLE 14.1

SCALES OF GENERATOR CAPACITIES

SER	FMNS	UTILITY SUPPLY NOT AVAL	UTILITY SUPPLY AVAL
1	SFHQ	02 X 250 KVA	01 X 250 KVA
2	RHQ	02 X 100 KVA	01 X 100 KVA
3	DIV	02 X 100 KVA	01 X 100 KVA
4	FMA	02 X 35 KVA	01 X 35 KVA
5	BDE	02 X 35 KVA	01 X 35 KVA
6	INF/SP ARMS BN	02 X 15 KVA+ 01 X 5 KVA	01 X 15 KVA+ 01 X 5 KVA
7	SVC REGT	02 X 75 KVA+ 01 X 5 KVA	01 X 75 KVA+ 01 X 5 KVA
8	BASE HOSP	02 X 150 KVA	01 X 150 KVA
9	FD HOSP	02 X 80 KVA	01 X 80 KVA
10	TRANSIT CAMP	02 X 150 KVA	01 X 150 KVA
11	COY/DET	02 X 5 KVA	01 X 5 KVA
12	TRG SCH/ INDEP SUB UNIT/INSTALLATION	TO BE DECIDED ON REQUIREMENTS	

CHAPTER NO. 15 WATER PUMP

15.1. Providing enough quality water is essential. Required water facility will be provided by the National Water Supply and Drainage Board (NWS & DB) or within the water resources in the establishment. When there are restrictions for water supply system utilizing potential energy (gravity) for delivery, Overhead tank with adequate capacity will be used with or without a Sump. In that case, authorized number of the water pumps as per the scales laid down in Table 34.I. If any establishment with NWS & DB supply and with no any restrictions for water supply system utilizing potential energy (gravity) for delivery will not provided with water pumps other than the special requirement like Agriculture. Submersible pumps will be provided as per the requirement only. The respective Garrison Engineers will carry out monthly inspection and services of the water pumps in addition to the authorized representative from the establishment.

TABLE 15.1

SCALES OF WATER PUMPS

SER	FMNS	NWS&DB SUPPLY AVAL (With Sump and Overhead Tank)	NWS&DB SUPPLY NOT AVAL (With Sump/Well and Overhead Tank)
		2" WATER PUMP (FUEL/ELECTRIC)	2" WATER PUMP (FUEL/ELECTRIC)
1	SFHQ	2	3
2	RHQ	2	3
3	DIV	2	2
4	FMA	2	2
5	BDE	2	2
6	INF/SP ARMS BN	2	6
7	SVC REGT	2	3
8	BASE HOSP	2	2
9	FD HOSP	2	2
10	TRANSIT CAMPS	2	5
11	COY/DET	1	2
12	TRG SCH/ INDEP SUB UNIT/INSTALLATION	TO BE DECIDED ON REQUIREMENTS	