

**THE NATIONAL CANCER CENTER**  
ESTABLISHMENT PROJECT IN THE KINGDOM OF SAUDI ARABIA

FINAL BASIC DESIGN P  
[ VOLUME II ; P

JICA JAPAN INTERNATIONAL COOPERATION

# THE NATIONAL CANCER CENTER

ESTABLISHMENT PROJECT IN THE KINGDOM OF SAUDI ARABIA

FINAL BASIC DESIGN REPORT

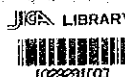
[ VOLUME II ; PART-3 ]

OCTOBER 1983

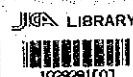
 JAPAN INTERNATIONAL COOPERATION AGENCY

国際協力事業団		
加入 月日	84.6.20	L312
登録No.	10420	98
		SPS

	<b>ARCHITECTURAL</b>		25	UTILITIES CENTER	25	16	UTILITIES CENTER : FRAMING PLAN FRAMING ELEVATIONS	48	06	MEDICAL GAS SUPPLY
01	LIST OF DRAWINGS	1	26	HOUSING : VILLAS PARAMEDICAL & SERVICE STAFF	26	17	MEMBER LIST	49	07	CENTRAL VACUUM CL DIAGRAM
02	TABLES OF FLOOR SPACES	2	27	MARRIED DOCTORS	27	18	HOUSING : FEMALE MARRIED DOCTORS	50	08	SEWAGE TREATMENT AND LA TREATMENT DIAGRAM
03	SITE PLAN : GROUND LEVEL	3	28	SINGLE MALE	28	19	PARAMEDICAL & SERVICE STAFF OVERNIGHT ACCOMODATION	51	09	RADIOACTIVE WASTE WATER TRI SUPPLY SYSTEM DIAGRAM
04	1st LEVEL	4	29	SENIOR NURSES	29	20	JUNIOR NURSES	52		
05	HOSPITAL : BASEMENT FLOOR PLAN	5	30	JUNIOR NURSES	30	21	SINGLE MALE SENIOR NURSES	53		
06	GROUND FLOOR PLAN	6	31	FEMALE PARAMEDICAL	31	22	MEMBER LIST.	54		
07	1st FLOOR PLAN	7	32	RECREATION CENTER & MOSQUE	32	23	RECREATION CENTER	55		<b>ELECTRIC</b>
08	2nd FLOOR PLAN	8				24	MOSQUE & MINARET (1)	56	01	POWER & TELEPHONE
09	3rd FLOOR PLAN	9		<b>STRUCTURAL</b>		25	MOSQUE & MINARET (2)	57	02	POWER DISTRIBUTION DIAGRAM
10	4th FLOOR PLAN	10	01	HOSPITAL : BASEMENT FLOOR FRAMING PLAN & FOUNDATION PLAN	33				03	POWER DISTRIBUTION
11	5th FLOOR PLAN	11	02	GROUND FLOOR FRAMING PLAN	34		<b>AIR CONDITIONING &amp; VENTILATION</b>		04	EMERGENCY GENERATO
12	6th FLOOR PLAN	12	03	1st FLOOR FRAMING PLAN	35				05	TELEPHONE & INTER-C
13	PENTHOUSE FLOOR PLAN	13	04	2nd FLOOR FRAMING PLAN	36	01	REFRIGERATION SYSTEM DIAGRAM	58	06	E. P. A. B. X. SYSTEM D
14	ROOF PLAN	14	05	3rd FLOOR FRAMING PLAN	37	02	AIR HANDLING SYSTEM DIAGRAM	59	07	PAGING SYSTEM DIAGR
15	GENERAL CLINIC	15	06	4th & PENTHOUSE FLOOR FRAMING PLAN	38	03	CHILLED WATER SUPPLY AND DISTRIBUTION SYSTEM DIAGRAM	60	08	NURSE-CALL SYSTEM E
16	ELEVATIONS SOUTH & WEST	16	07	5th FLOOR FRAMING PLAN	39	04	VENTILATING AND SMOKE EXHAUSTING SYSTEM DIAGRAM	61	09	TELEVISION SYSTEMS
17	ELEVATIONS NORTH & EAST	17	08	6th FLOOR FRAMING PLAN	40	05	UTILITIES CENTER EQUIPMENT LAYOUT PLANS	62	10	C. C. TV & SECURITY S
18	SECTIONS	18	09	ROOF FLOOR FRAMING PLAN	41				11	SOUND REINFORCEMEN
19	WALL-SECTIONS	19	10	MEMBER LIST (1)	42		<b>PLUMBING</b>		12	ELECTRIC CLOCK SYST
20	TYPICAL ROOMS	20	11	MEMBER LIST (2)	43	01	SITE PLAN	63	13	FIRE SAFETY SYSTEM D
21	OVERNIGHT ACCOMODATIONS	21	12	PARKING : BASEMENT FLOOR FRAMING PLAN	44	02	STEAM-GENERATING SYSTEM DIAGRAM	64	14	GROUNDING SYSTEM O
22	PARKING : GROUND & 1st FLOOR PLAN	22	13	GROUND & 1st FLOOR FRAMING PLAN	45	03	DOMESTIC WATER, HOT WATER AND RECYCLED WATER SUPPLY SYSTEM DIAGRAM	65	15	AUTOMATIC CONTROL
23	BASEMENT 1st & 2nd FLOOR PLAN	23	14	MEMBER LIST	46	04	DRAINAGE SYSTEM DIAGRAM	66	16	TYPICAL LIGHTING PLA
24	BASEMENT 3rd FLOOR PLAN & SECTIONS	24	15	GENERAL CLINIC FRAMING PLAN & MEMBER LIST	47	05	FIRE PROTECTION SYSTEM DIAGRAM	67		



<b>ARCHITECTURAL</b>	25	UTILITIES CENTER	25	16	UTILITIES CENTER FRAMING PLAN	48	06	MEDICAL GAS SUPPLY SYSTEM DIAGRAM	68
LIST OF DRAWINGS	1	HOUSING : VILLAS PARAMEDICAL & SERVICE STAFF	26	17	FRAMING ELEVATIONS	49	07	CENTRAL VACUUM CLEANING SYSTEM DIAGRAM	69
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FLOOR PLAN : GROUND LEVEL	3	SINGLE MALE	28	19	PARAMEDICAL & SERVICE STAFF OVERNIGHT ACCOMODATION	51	09	RADIOACTIVE WASTE WATER TREATMENT AND RECYCLED WATER SUPPLY SYSTEM DIAGRAM	71
1st LEVEL	4	SENIOR NURSES	29	20	JUNIOR NURSES	52			
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1st FLOOR PLAN	7	RECREATION CENTER & MOSQUE	32	23	RECREATION CENTER	55		<b>ELECTRICAL</b>	
2nd FLOOR PLAN	8			24	MOSQUE & MINARET (1)	56	01	POWER & TELEPHONE INTAKE SYSTEM PLAN	72
3rd FLOOR PLAN	9	<b>STRUCTURAL</b>		25	MOSQUE & MINARET (2)	57	02	POWER DISTRIBUTION SYSTEM SKELETON DIAGRAM	73
4th FLOOR PLAN	10	HOSPITAL : BASEMENT FLOOR FRAMING PLAN & FOUNDATION PLAN	33				03	POWER DISTRIBUTION SYSTEM DIAGRAM	74
5th FLOOR PLAN	11	GROUND FLOOR FRAMING PLAN	34		<b>AIR CONDITIONING &amp; VENTILATION</b>		04	EMERGENCY GENERATOR SYSTEM DIAGRAM	75
6th FLOOR PLAN	12	1st FLOOR FRAMING PLAN	35				05	TELEPHONE & INTER-COM SYSTEM DIAGRAM	76
PENTHOUSE FLOOR PLAN	13	2nd FLOOR FRAMING PLAN	36	01	REFRIGERATION SYSTEM DIAGRAM	58	06	E. P. A. B. X. SYSTEM DIAGRAM	77
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SECTIONS	18	ROOF FLOOR FRAMING PLAN	41				11	SOUND REINFORCEMENT SYSTEM DIAGRAM	82
WALL-SECTIONS	19	MEMBER LIST (1)	42		<b>PLUMBING</b>		12	ELECTRIC CLOCK SYSTEM DIAGRAM	83
TYPICAL ROOMS	20	MEMBER LIST (2)	43	01	SITE PLAN	63	13	FIRE SAFETY SYSTEM DIAGRAM	84
OVERNIGHT ACCOMODATIONS	21	PARKING : BASEMENT FLOOR FRAMING PLAN	44	02	STEAM-GENERATING SYSTEM DIAGRAM	64	14	GROUNDING SYSTEM OF MEDICAL EQUIPMENT	85
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BUILDING AREA & FLOOR SPACE OF EACH ZONE

ZONE	SITE AREA (M <sup>2</sup> ) (A)	TOTAL BUILDING AREA (M <sup>2</sup> ) (B)	TOTAL FLOOR SPACE (M <sup>2</sup> ) (C)	(B)/(A) (%)	(C)/(A) (%)
HOSPITAL	89,866	55,470	202,270	61.7	225.1
HOUSING	48,837	11,280	53,520	23.1	109.6
TOTAL	138,703	66,750	255,790	48.1	184.4

BUILDING AREA & FLOOR SPACE OF EACH BUILDING

ZONE	BUILDING	BUILDING AREA (M <sup>2</sup> )	FLOOR SPACE (M <sup>2</sup> )
HOSPITAL	HOSPITAL	26,430	92,010
	GENERAL CLINIC	2,920	3,240
	UTILITIES CENTER	3,720	6,100
	WAREHOUSE	980	980
	SUB TOTAL	34,050	102,330
	PARKING BUILDING	19,700	95,800
	MOSQUE	1,100	1,100
	OVERNIGHT ACCOMMODATIONS	490	2,910
	GUARD HOUSES	130	130
	TOTAL	55,470	202,270
HOUSING	HOUSING	10,530	52,450
	RECREATION CENTER BUILDING	720	1,040
	GUARD HOUSE	30	30
	TOTAL	11,280	53,520
GRAND TOTAL		66,750	255,790

HOSPITAL

FLOOR	CANCER CENTER AND JOINT-USE* (M <sup>2</sup> )	GENERAL HOSPITAL (M <sup>2</sup> )	TOTAL (M <sup>2</sup> )	REMARKS
PENTHOUSE FL.	530	890	1,420	
6TH FL.	2,540	2,630	5,170	
5TH FL.	3,500	4,060	7,560	
4TH FL.	2,540	4,020	6,560	
3RD FL.	9,720	5,230	14,950	
2ND FL.	7,690	5,750	13,440	
1ST FL.	14,780	3,180	17,960	
GROUND FL.	16,730	2,570	19,300	BUILDING AREA: 26,430 M <sup>2</sup>
BASEMENT FL.	5,650	0	5,650	
TOTAL	53,680	28,330	92,010	

\* GENERAL CLINIC NOT INCLUDED IN THIS TABLE  
 \*\* OTHER BUILDING SPACE SUCH AS THE PILLOR PARKING, THE BALCONY, OPEN CORRIDOR.....16,800 M<sup>2</sup>

GENERAL CLINIC

FLOOR	FLOOR SPACE (M <sup>2</sup> )	REMARKS
2ND FL.	1,210	OVER-BRIDGE NOT INCLUDED
1ST FL.	2,030	BUILDING AREA: 2,920 M <sup>2</sup>
TOTAL	3,240	

\*OTHER BUILDING SPACE SUCH AS THE OPEN CORRIDOR THE OVER BRIDGE AND THE PASSAGE WAY : 2,790 M<sup>2</sup>

UTILITIES CENTER

FLOOR	FLOOR SPACE (M <sup>2</sup> )	REMARKS
1ST FL.	1,790	
GROUND FL.	3,720	BUILDING AREA: 3,720 M <sup>2</sup>
BASEMENT FL.	590	
TOTAL	6,100	

\*OTHER FLOOR SPACE FOR THE UNDERGROUND WATER TANKS: 3,140 M<sup>2</sup>

WAREHOUSE

FLOOR	FLOOR SPACE (M <sup>2</sup> )	REMARKS
GROUND FL.	980	BUILDING AREA: 980 M <sup>2</sup>
TOTAL	980	

PARKING BUILDING

FLOOR	FLOOR SPACE (M <sup>2</sup> )	REMARKS
GROUND FL.	19,700	BUILDING AREA: 19,700 M <sup>2</sup>
BASEMENT 1ST FL.	19,700	
2ND FL.	36,700	INCLUDE HOSPITAL BASEMENT FLOOR SPACE: 17,000 M <sup>2</sup>
3RD FL.	19,700	
TOTAL	95,800	

\*OTHER BUILDING SPACE FOR THE DRP AREA: 750 M<sup>2</sup>

MOSQUE

FLOOR	FLOOR SPACE (M <sup>2</sup> )	REMARKS
GROUND FL.	1,100	BUILDING AREA: 1,100 M <sup>2</sup>
TOTAL	1,100	

OVERNIGHT ACCOMMODATIONS

FLOOR	FLOOR SPACE (M <sup>2</sup> )	
5TH FL.	485	
4TH FL.	485	
3RD FL.	485	
2ND FL.	485	
1ST FL.	485	
GROUND FL.	485	BUILDING
TOTAL	2,910	

HOUSING

ZONE	QUANTITY	STORIES	FLOOR SPACE (M <sup>2</sup> )	
VILLA	12	2F	5,300	BUILDING
MARRIED	3	8F	16,700	
	1	8F	3,900	
MALLE	1	8F	6,700	
FEMALE	2	7F	4,400	
	1	7F	10,850	
	1	7F	4,600	
TOTAL			52,450	TOTAL BUILDING AREA

RECREATION CENTER BUILDING

FLOOR	FLOOR SPACE (M <sup>2</sup> )	
1ST FL.	580	
GROUND FL.	460	BUILDING
TOTAL	1,040	

GUARD HOUSES

BUILDING	FLOOR SPACE (M <sup>2</sup> )	
GUARD HOUSE 1	70	
2	30	
3	30	
4	30	HOUSING
TOTAL	160	

AREA & FLOOR SPACE OF EACH ZONE

	SITE AREA (A) (M <sup>2</sup> )	TOTAL BUILDING AREA (B)	TOTAL FLOOR SPACE (C)	(B)/(A) (%)	(C)/(A) (%)
	89.866	55.470	202.270	61.7	225.1
	48.837	11.280	53.520	23.1	109.6
	138.703	66.750	255.790	48.1	184.4

AREA & FLOOR SPACE OF EACH BUILDING

BUILDING	BUILDING AREA (M <sup>2</sup> )	FLOOR SPACE (M <sup>2</sup> )
HOSPITAL	HOSPITAL	92,010
	GENERAL CLINIC	3,240
	UTILITIES CENTER	6,100
	WAREHOUSE	980
	SUB TOTAL	102,330
PARKING BUILDING	19,700	95,800
MOSQUE	1,100	1,100
OVERNIGHT ACCOMMODATIONS	490	2,910
GUARD HOUSES	130	130
TOTAL	55,470	202,270
HOUSING	10,530	52,450
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	CANCER CENTER AND JOINT-USE* (M <sup>2</sup> )	GENERAL HOSPITAL (M <sup>2</sup> )	TOTAL (M <sup>2</sup> )	REMARKS
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	3,500	4,060	7,560	
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	9,720	5,230	14,950	
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	14,780	3,180	17,960	
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FL.	5,650	0	5,650	
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FLOOR	FLOOR SPACE (M <sup>2</sup> )	REMARKS
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1ST FL.	2,030	BUILDING AREA: 2,920 M <sup>2</sup>
TOTAL	3,240	

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UTILITIES CENTER

FLOOR	FLOOR SPACE (M <sup>2</sup> )	REMARKS
1ST FL.	1,790	
GROUND FL.	3,720	BUILDING AREA: 3,720 M <sup>2</sup>
BASEMENT FL.	590	
TOTAL	6,100	

\* OTHER FLOOR SPACE FOR THE UNDERGROUND WATER TANKS: 3,140 M<sup>2</sup>

WAREHOUSE

FLOOR	FLOOR SPACE (M <sup>2</sup> )	REMARKS
GROUND FL.	980	BUILDING AREA: 980 M <sup>2</sup>
TOTAL	980	

PARKING BUILDING

FLOOR	FLOOR SPACE (M <sup>2</sup> )	REMARKS
GROUND FL.	19,700	BUILDING AREA: 19,700 M <sup>2</sup>
BASEMENT 1ST FL.	19,700	
2ND FL.	36,700	INCLUDE HOSPITAL BASEMENT FLOOR SPACE: 12,000 M <sup>2</sup>
3RD FL.	19,700	
TOTAL	95,800	

\* OTHER BUILDING SPACE FOR THE DRY AREA : 750 M<sup>2</sup>

MOSQUE

FLOOR	FLOOR SPACE (M <sup>2</sup> )	REMARKS
GROUND FL.	1,100	BUILDING AREA 1,100 M <sup>2</sup>
TOTAL	1,100	

OVERNIGHT ACCOMMODATIONS

FLOOR	FLOOR SPACE (M <sup>2</sup> )	REMARKS
5TH FL.	485	
4TH FL.	485	
3RD FL.	485	
2ND FL.	485	
1ST FL.	485	
GROUND FL.	485	BUILDING AREA: 490 M <sup>2</sup>
TOTAL	2,910	

HOUSING

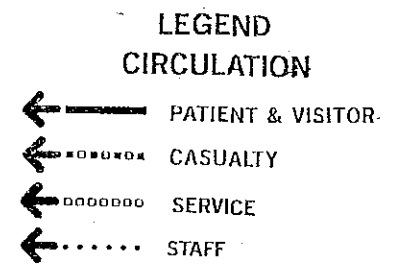
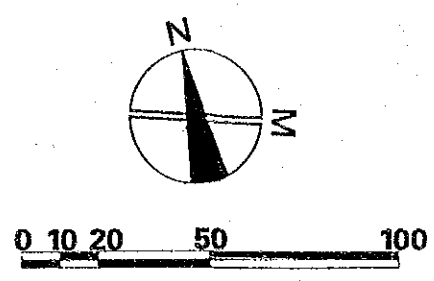
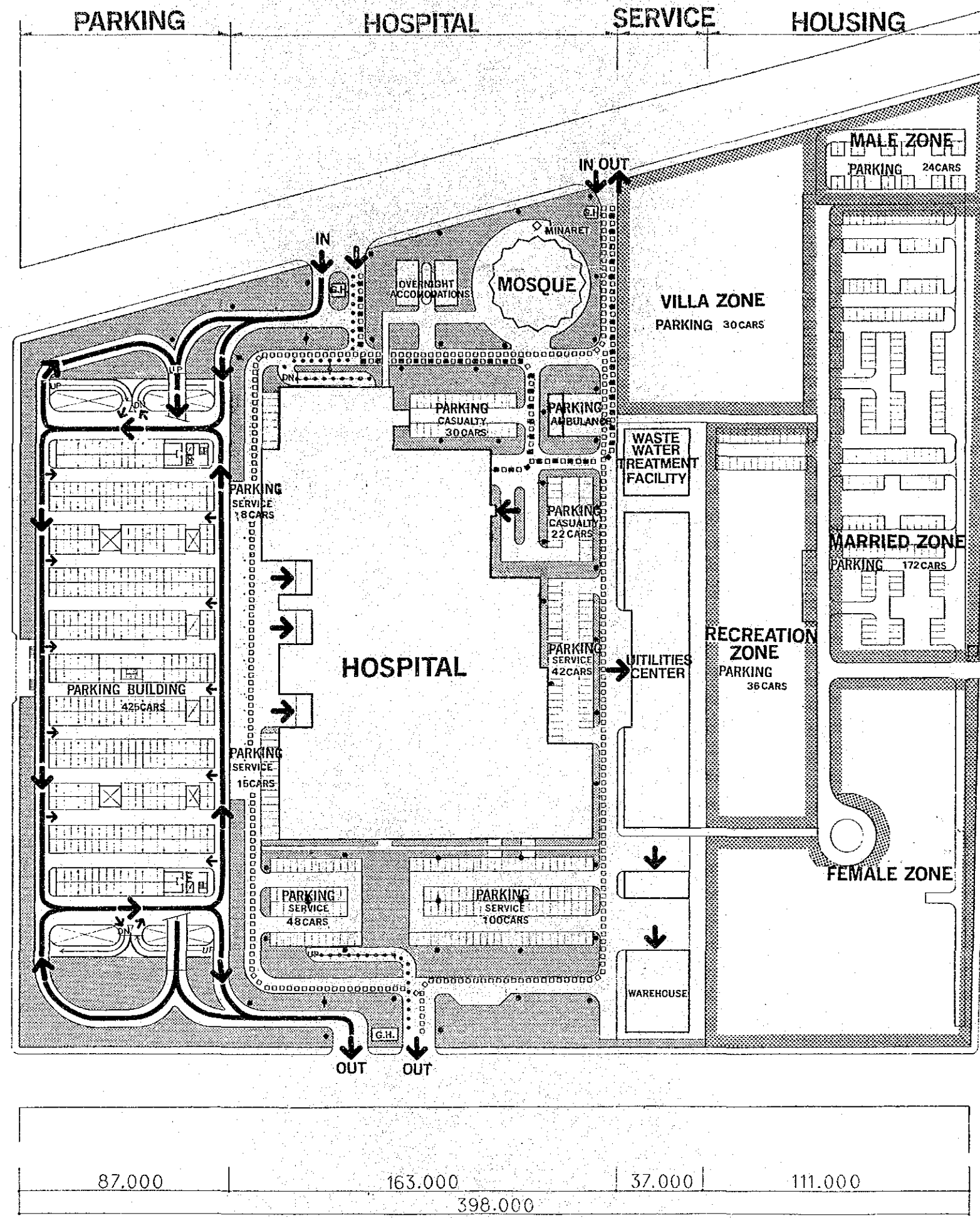
ZONE	QUANTITY	STORIES	FLOOR SPACE (M <sup>2</sup> )	REMARKS
VILLA	12	2F	5,300	BUILDING AREA: 2,500
MARRIED	3	8F	16,700	2,500
	1	8F	3,900	550
MALLE	1	8F	6,700	1,130
FEMALE	2	7F	4,400	1,310
	1	7F	10,850	1,780
	1	7F	4,600	760
TOTAL			52,450	TOTAL BUILDING AREA : 10,530

RECREATION CENTER BUILDING

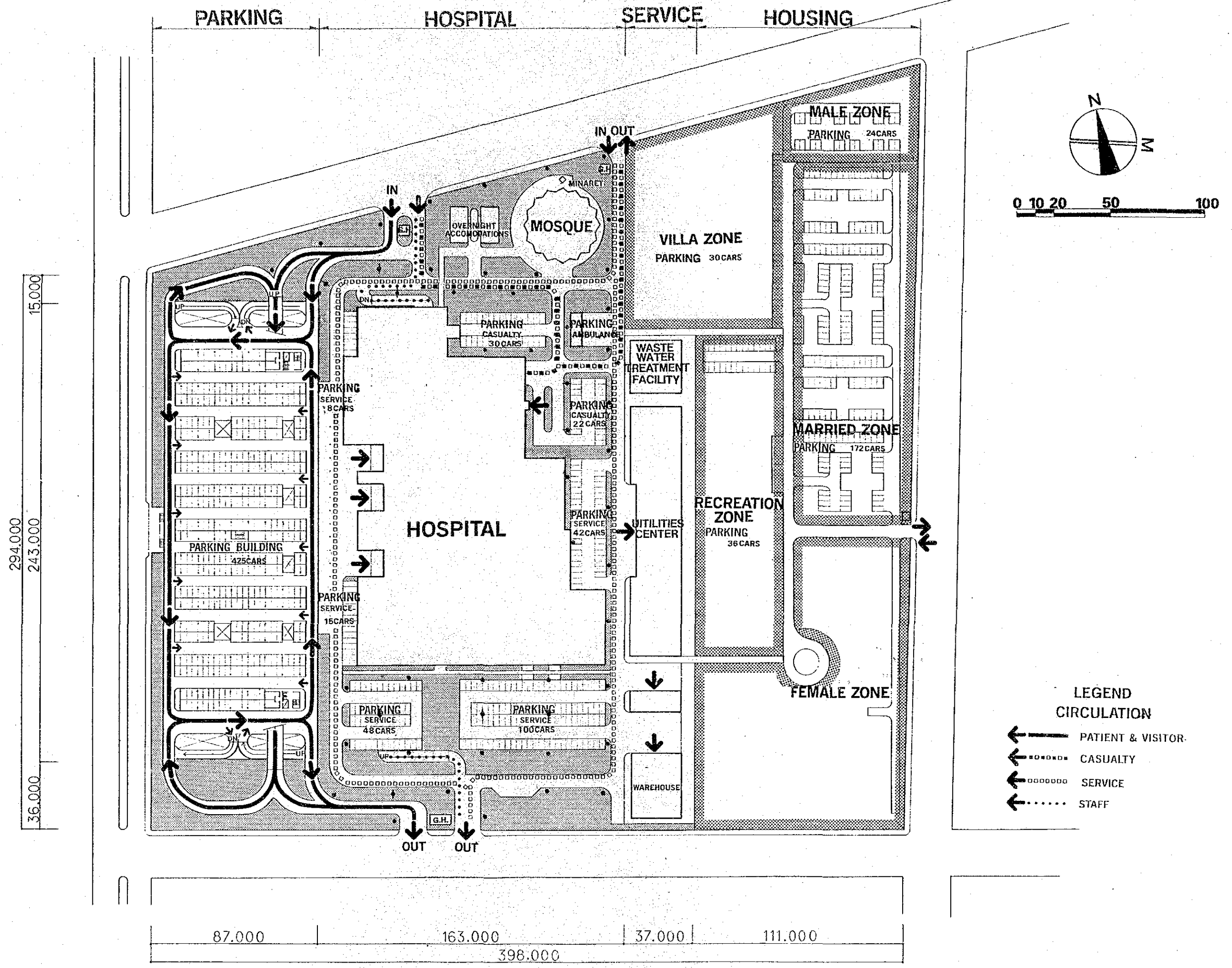
FLOOR	FLOOR SPACE (M <sup>2</sup> )	REMARKS
1ST FL.	580	
GROUND FL.	460	BUILDING AREA: 720 M <sup>2</sup>
TOTAL	1,040	

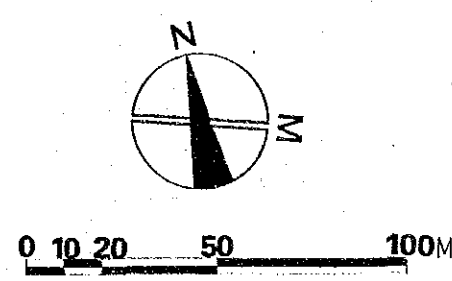
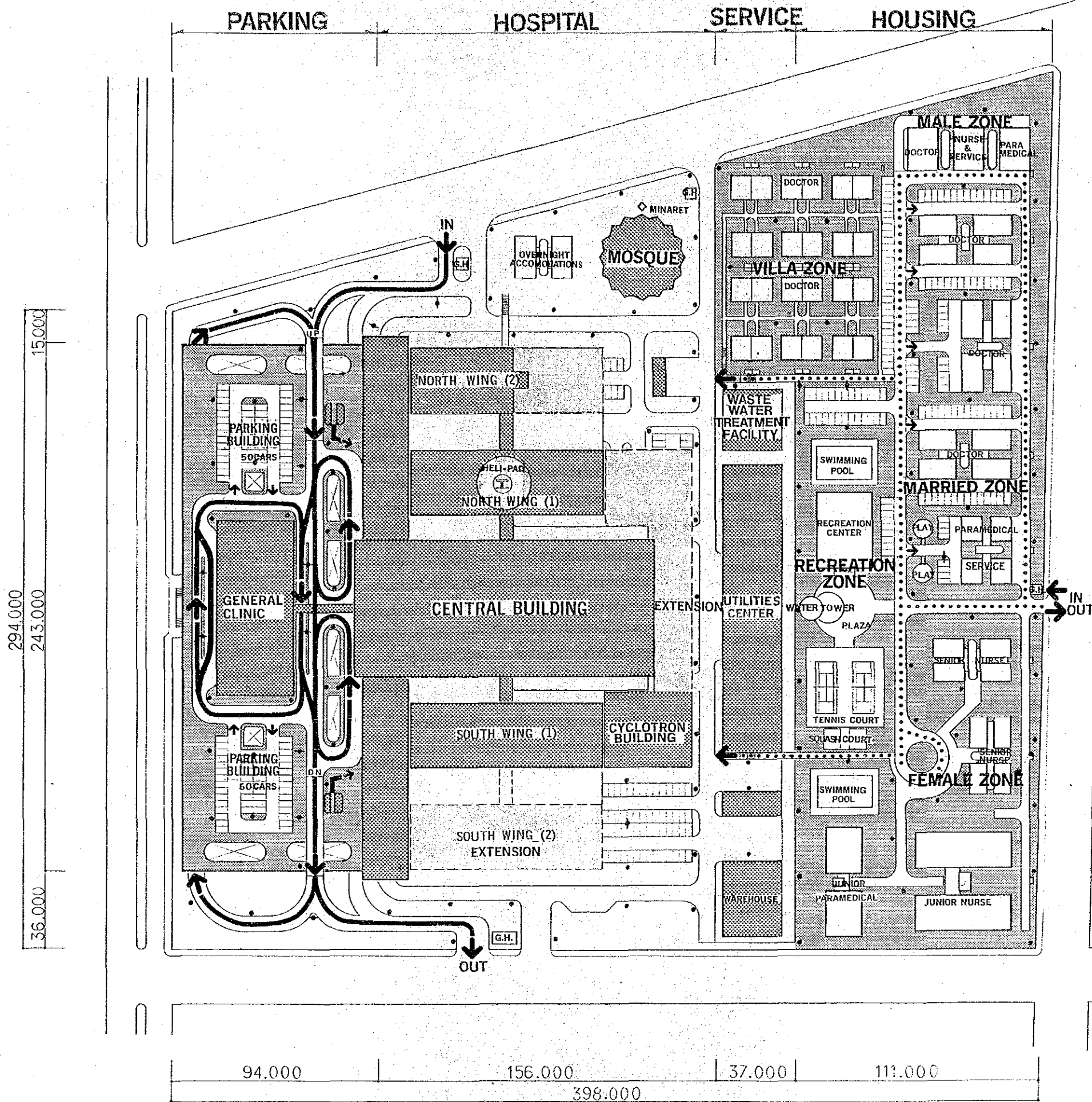
GUARD HOUSES

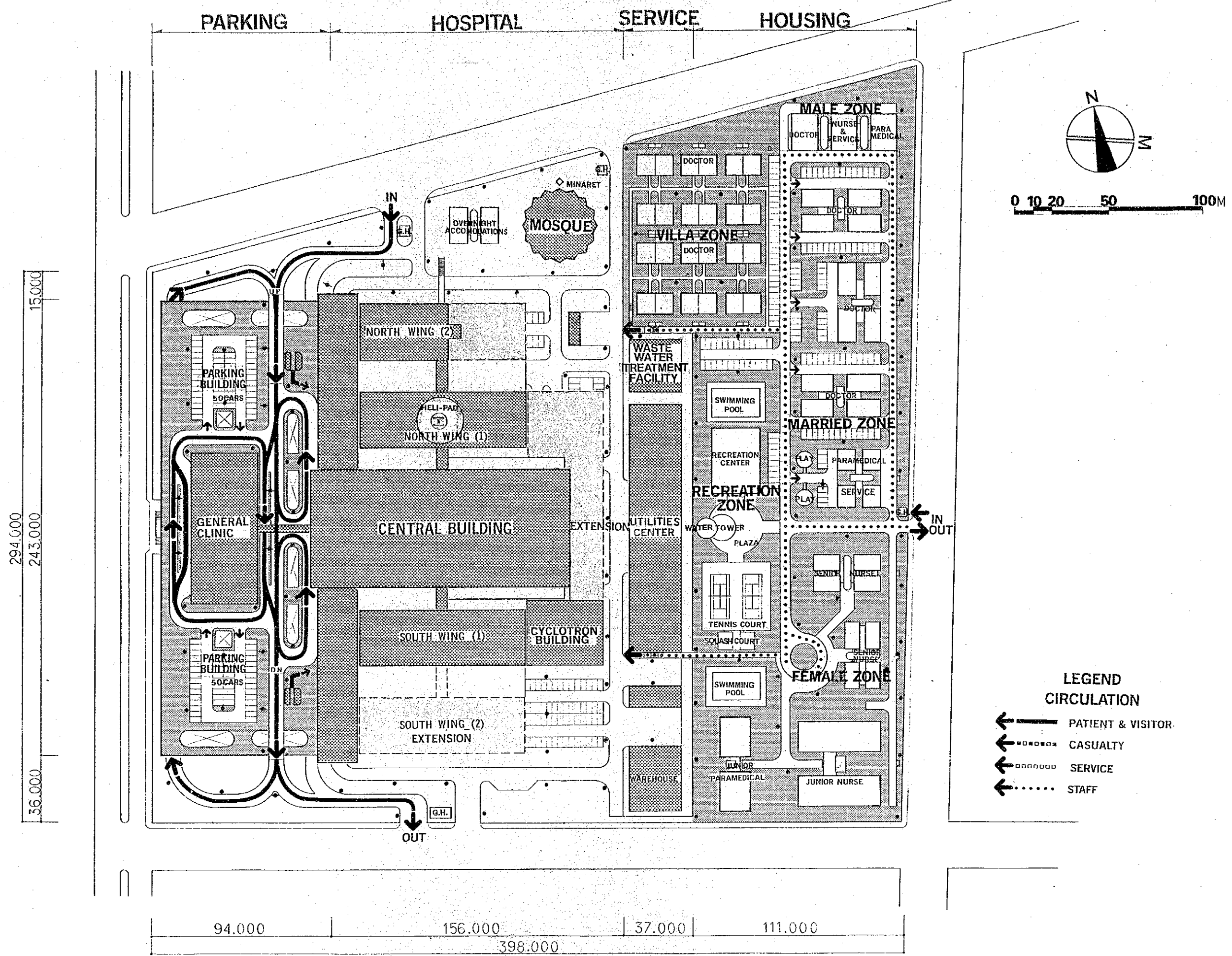
BUILDING	FLOOR SPACE (M <sup>2</sup> )	REMARKS
GUARD HOUSE 1	70	
2	30	
3	30	
4	30	HOUSING ZONE
TOTAL	160	





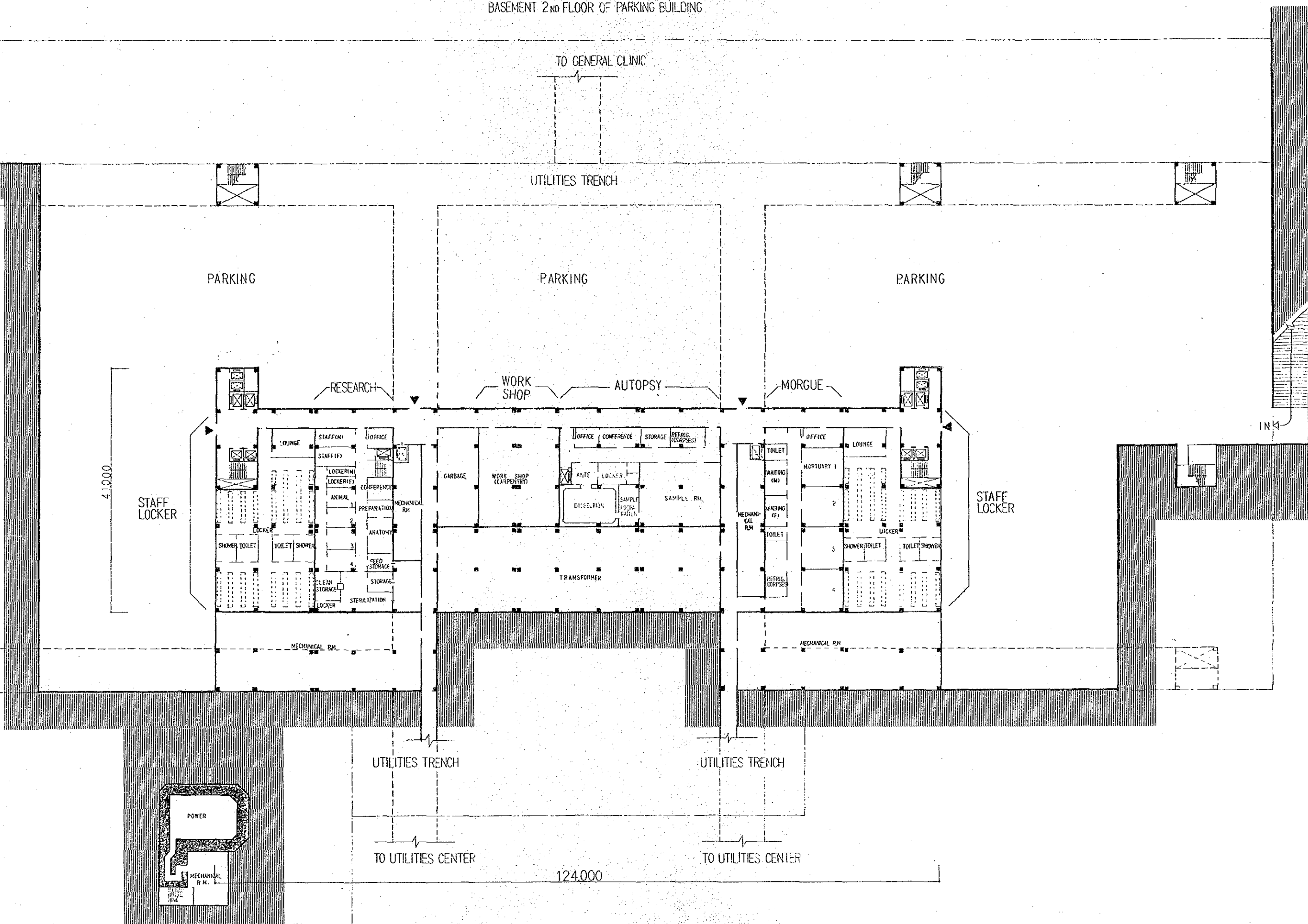
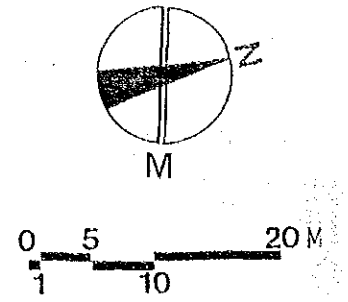


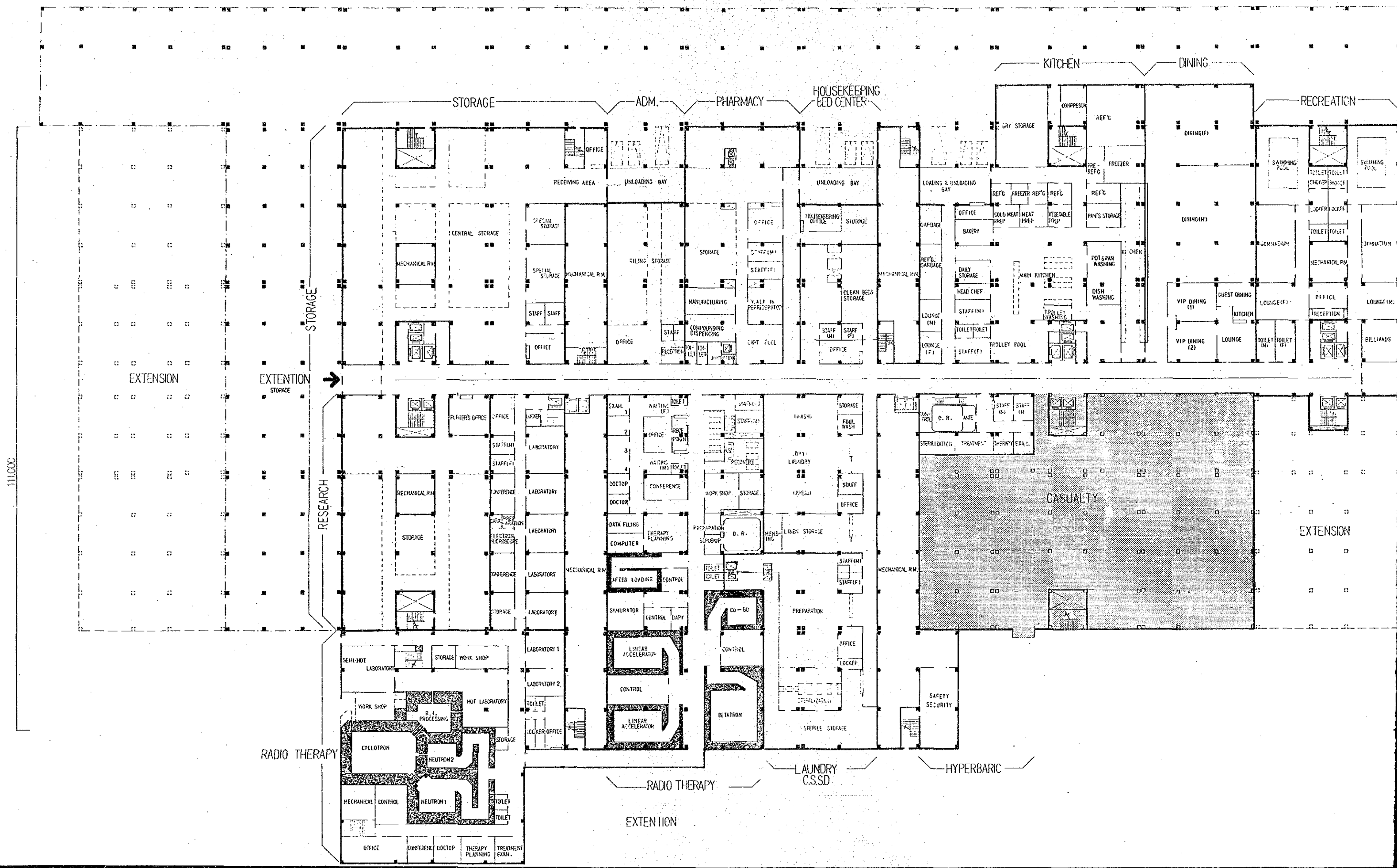






BASEMENT 2ND FLOOR OF PARKING BUILDING





111.000

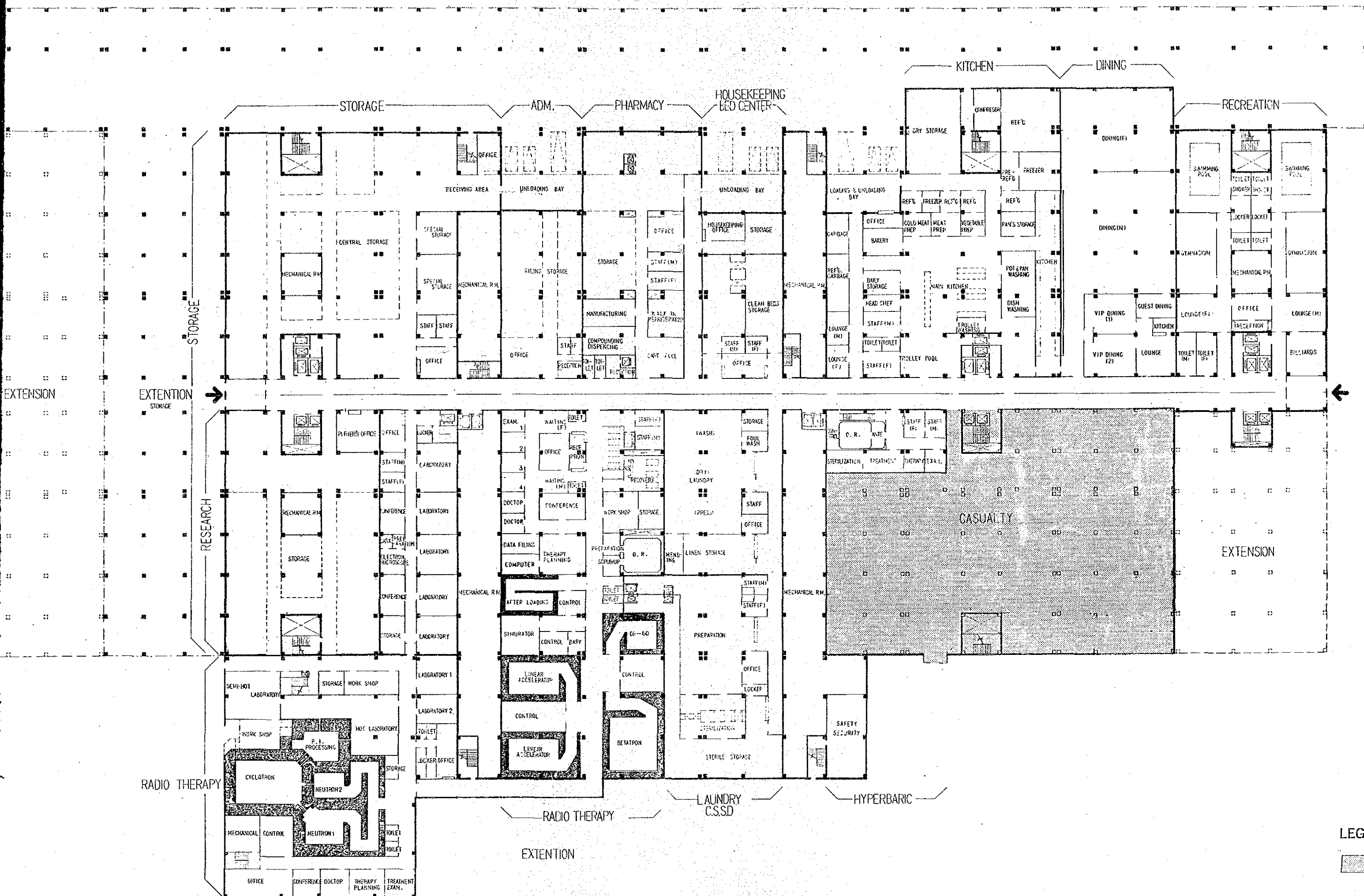
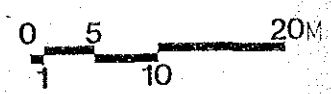
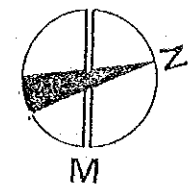
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ESTABLISHMENT PROJECT IN THE KINGDOM OF SAUDI ARABIA

**BASIC DESIGN**

JAPAN INTERNATIONAL  
COOPERATION AGENCY

ARCHITECTURAL

HOSPITAL GROUND FLOOR P

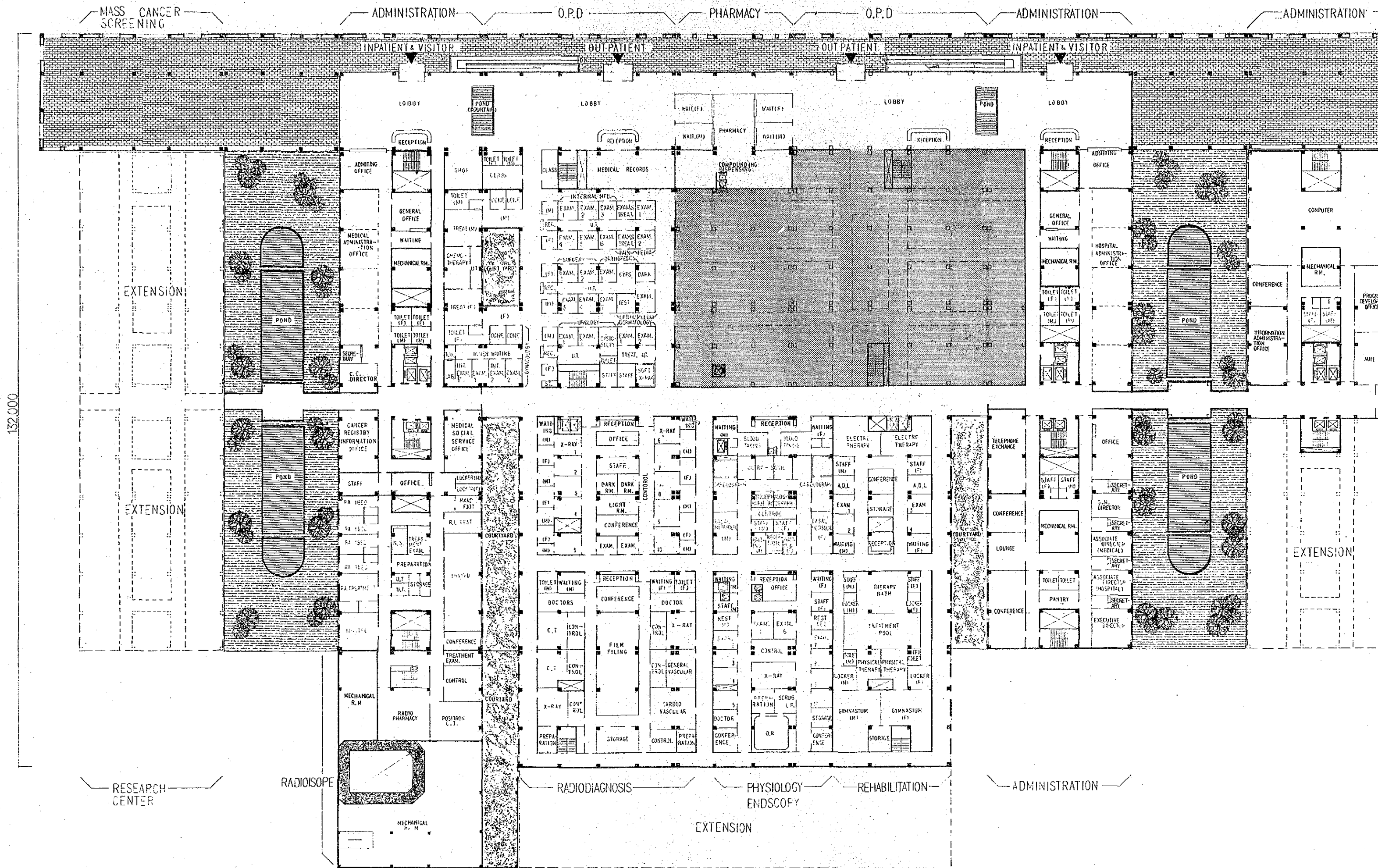


42,000  
6,000  
10,000  
42,000

LEGEND



6  
GENERAL  
HOSPITAL



132,000

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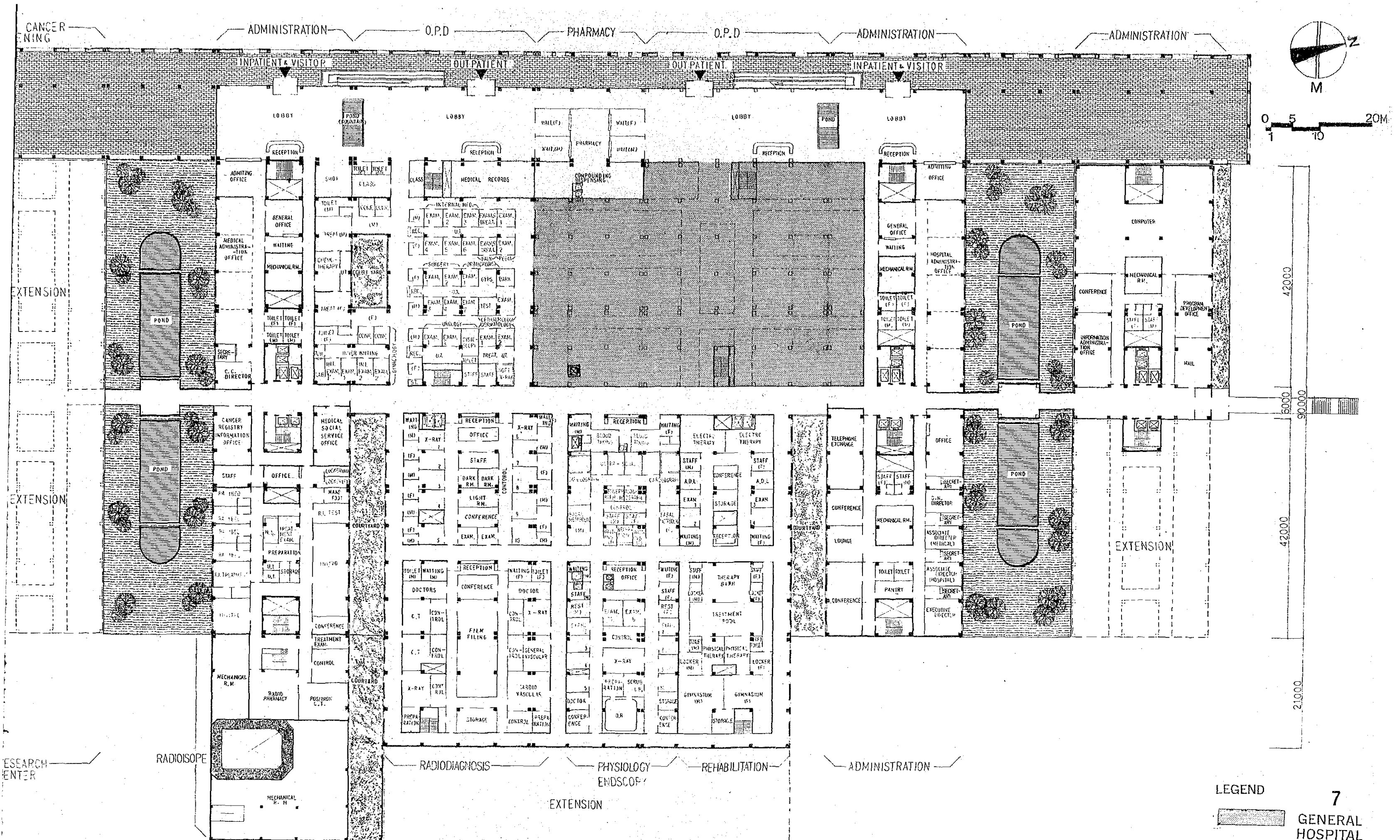
**BASIC DESIGN**

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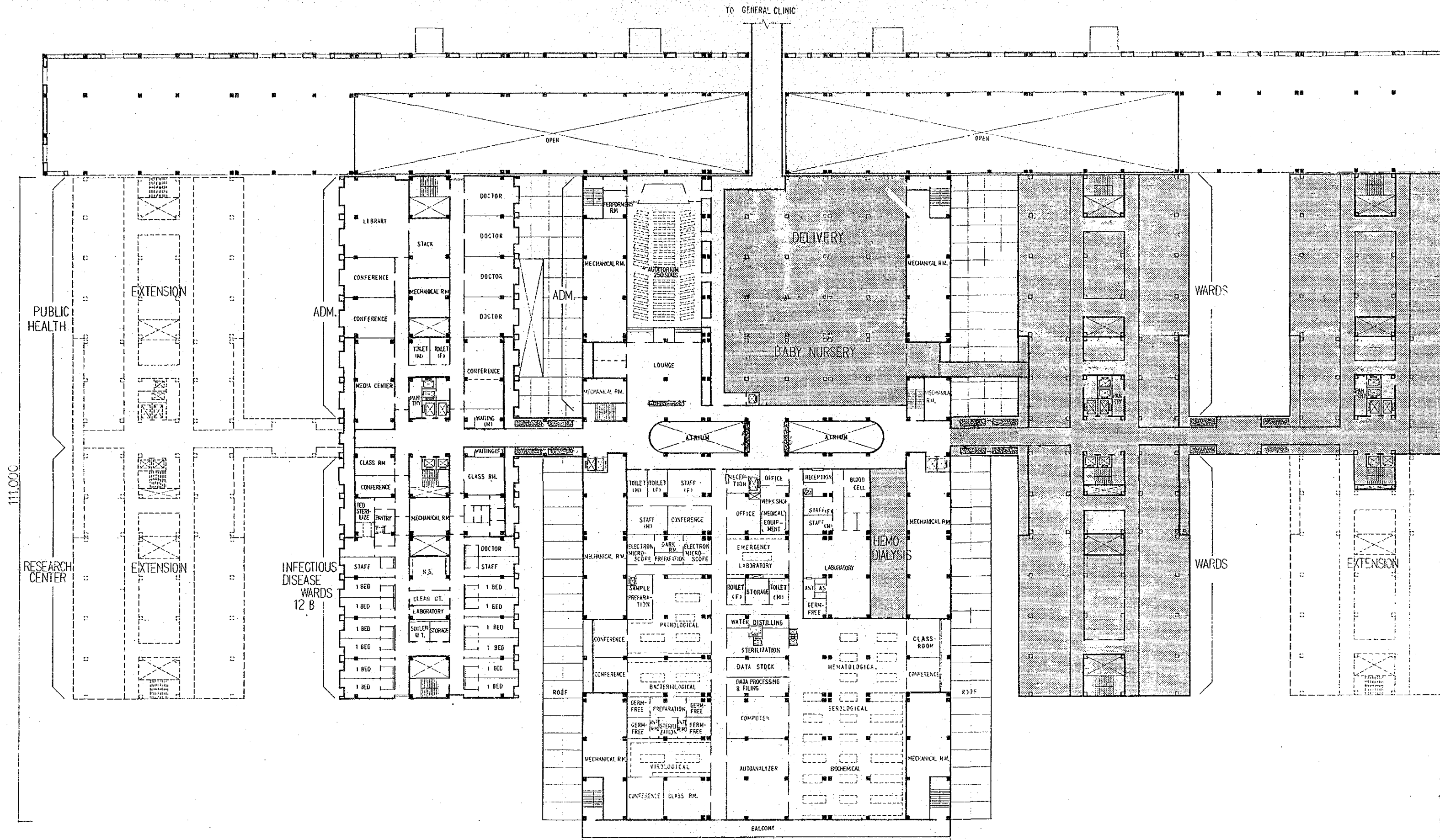
ARCHITECTURAL

**HOSPITAL 1st FLOOR PLAN**





LEGEND  
 7  
 GENERAL HOSPITAL



1800 | 9500 | 7000 | 9500 | 1800 | 1800 | 9500 | 7000 | 9500 | 1800  
 29600 | 17400 | 29600 | 12200

CLINICAL LABORATORY  
 BLOOD BANK  
 7m x 9 SPANS = 63,000  
 240,600

1800 | 9500 | 7000 | 9500 | 1800 | 1800 | 9500 | 7000 | 9500  
 12200 | 29600 | 17400 | 29600

EXTENSION

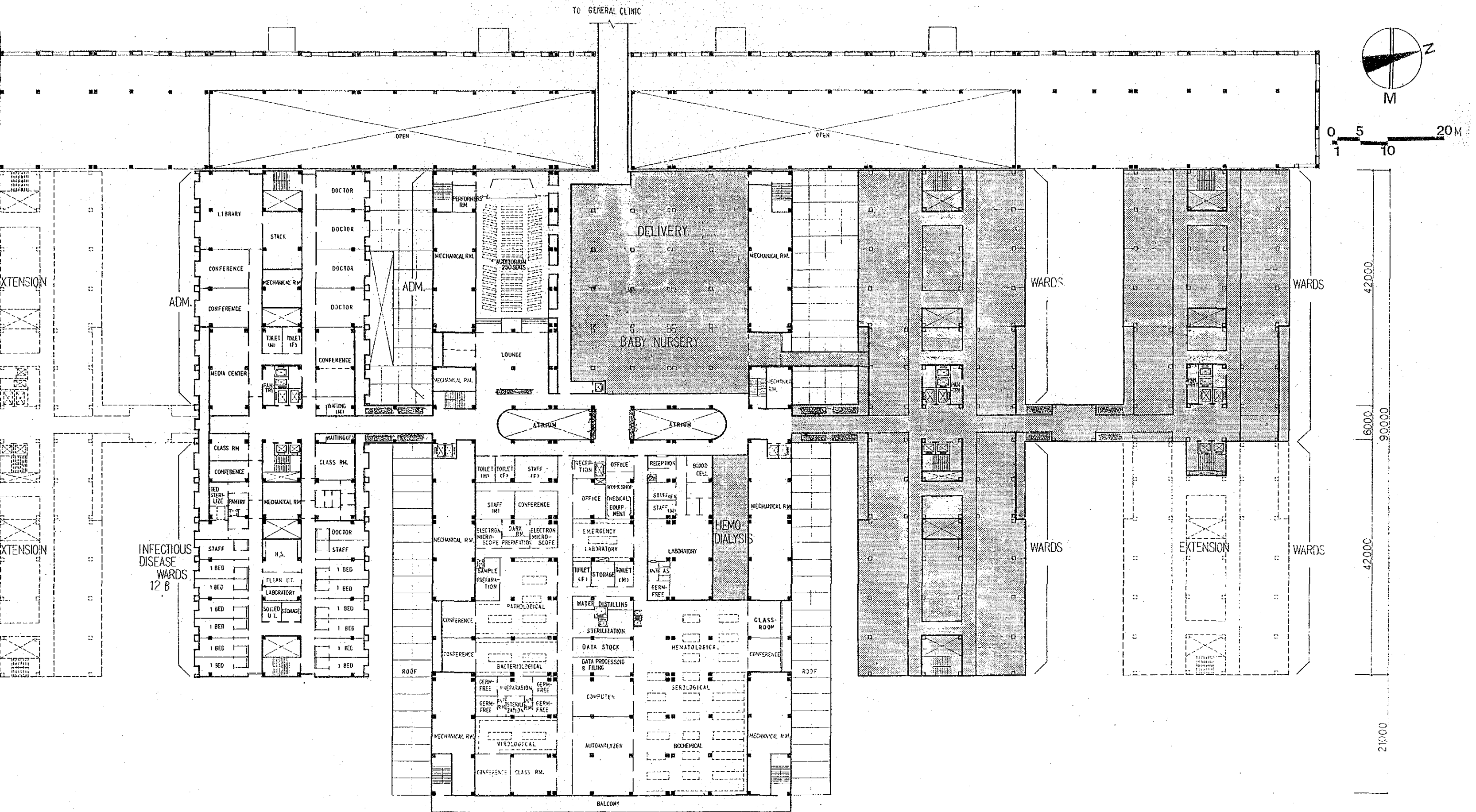
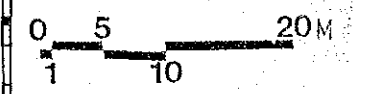
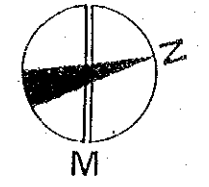
**THE NATIONAL CANCER CENTER**  
 ESTABLISHMENT PROJECT IN THE KINGDOM OF SAUDI ARABIA

**BASIC DESIGN**

JAPAN INTERNATIONAL  
 COOPERATION AGENCY

ARCHITECTURAL

**HOSPITAL 2nd FLOOR PLAN**



7000	9500	1800	1800	9500	7000	9500	1800
29600	17400			29600	12200		

CLINICAL LABORATORY  
 BLOOD BANK  
 7M x 9 SPANS = 63,000  
 240,600  
 EXTENSION

1800	9500	7000	9500	1800	1800	9500	7000	9500	1800
12200	29600			17400		29600			

LEGEND  
 8 GENERAL HOSPITAL

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**08**