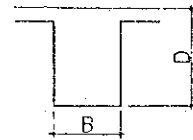
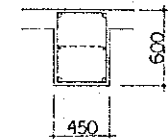


GIRDER



REMARKS



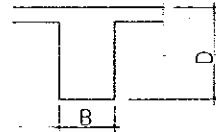
SUPPLEMENTARY --- 2-#4
 SUPPLEMENTARY TIE --- #3 @ 600

COLUMN

	C1
7FL 4FL	
BARS	12-#8
HOOPS	#3 @ 200
3FL G.FL	
BARS	12-#8
HOOPS	#3 @ 200

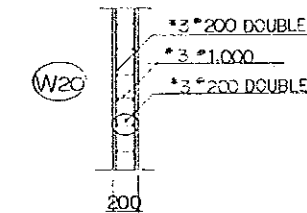
	G1		G2		G3		G4		G5		G6		G7		G8		G9		G10		
MARKS	EXT. END	CTR.	INT. END	END	CTR.	END	CTR.	ALL SEC.	EXT. END	CTR.	INT. END	END	CTR.	END	CTR.	END	CTR.	EXT. END	CTR.	INT. END	
RFL	450 X 500		450 X 500		450 X 500		450 X 500		450 X 500		450 X 500		450 X 500		450 X 500		450 X 500		450 X 500		
TOP BARS	4-#8	3-#8	5-#8	5-#8	3-#8	6-#8	3-#8	4-#8	4-#8	3-#8	4-#8	3-#8	4-#8	3-#8	5-#8	3-#8	4-#8	3-#8	4-#8	3-#8	5-#8
BOTT. BARS	4-#8	3-#8	5-#8	4-#8	3-#8	4-#8	5-#8	4-#8	4-#8	3-#8	4-#8	3-#8	4-#8	3-#8	4-#8	4-#8	3-#8	4-#8	3-#8	4-#8	3-#8
STIRRUPS	#3 @ 200		#3 @ 200		#3 @ 200		#3 @ 200		#3 @ 200		#3 @ 200		#3 @ 200		#3 @ 200		#3 @ 200		#3 @ 200		
7FL	450 X 500		450 X 500		450 X 500		450 X 500		450 X 500		450 X 500		450 X 500		450 X 500		450 X 500		450 X 500		
TOP BARS	8-#8	4-#8	7-#8	7-#8	4-#8	8-#8	3-#8	5-#8	7-#8	3-#8	6-#8	4-#8	3-#8	6-#8	3-#8	6-#8	3-#8	4-#8	3-#8	5-#8	6-#8
BOTT. BARS	4-#8	4-#8	4-#8	4-#8	4-#8	5-#8	5-#8	4-#8	4-#8	3-#8	4-#8	4-#8	3-#8	4-#8	3-#8	4-#8	4-#8	4-#8	3-#8	4-#8	4-#8
STIRRUPS	#3 @ 200		#3 @ 200		#3 @ 200		#3 @ 200		#3 @ 200		#3 @ 200		#3 @ 200		#3 @ 200		#3 @ 200		#3 @ 200		
5FL	450 X 500		450 X 500		450 X 500		450 X 500		450 X 500		450 X 500		450 X 500		450 X 500		450 X 500		450 X 500		
TOP BARS	8-#8	4-#8	7-#8	7-#8	4-#8	8-#8	3-#8	5-#8	7-#8	3-#8	6-#8	4-#8	3-#8	6-#8	3-#8	6-#8	3-#8	4-#8	3-#8	5-#8	6-#8
BOTT. BARS	4-#8	4-#8	4-#8	4-#8	4-#8	5-#8	5-#8	4-#8	4-#8	3-#8	4-#8	4-#8	3-#8	4-#8	3-#8	4-#8	4-#8	4-#8	3-#8	4-#8	4-#8
STIRRUPS	#3 @ 200		#3 @ 200		#3 @ 200		#3 @ 200		#3 @ 200		#3 @ 200		#3 @ 200		#3 @ 200		#3 @ 200		#3 @ 200		
4FL	450 X 600		450 X 600		450 X 600		450 X 600		450 X 600		450 X 600		450 X 600		450 X 600		450 X 600		450 X 600		
TOP BARS	7-#8	4-#8	7-#8	4-#8	7-#8	3-#8	3-#8	6-#8	6-#8	3-#8	5-#8	4-#8	3-#8	5-#8	3-#8	5-#8	3-#8	4-#8	3-#8	4-#8	5-#8
BOTT. BARS	4-#8	4-#8	4-#8	4-#8	4-#8	5-#8	5-#8	5-#8	4-#8	3-#8	3-#8	3-#8	3-#8	3-#8	3-#8	3-#8	3-#8	4-#8	3-#8	4-#8	4-#8
STIRRUPS	#3 @ 200		#3 @ 200		#3 @ 200		#3 @ 200		#3 @ 200		#3 @ 200		#3 @ 200		#3 @ 200		#3 @ 200		#3 @ 200		
1FL	450 X 600		450 X 600		450 X 600		450 X 600		450 X 600		450 X 600		450 X 600		450 X 600		450 X 600		450 X 600		
TOP BARS	7-#8	4-#8	7-#8	4-#8	7-#8	3-#8	3-#8	6-#8	6-#8	3-#8	5-#8	4-#8	3-#8	5-#8	3-#8	5-#8	3-#8	4-#8	3-#8	4-#8	5-#8
BOTT. BARS	4-#8	4-#8	4-#8	4-#8	4-#8	5-#8	5-#8	5-#8	4-#8	3-#8	3-#8	3-#8	3-#8	3-#8	3-#8	3-#8	3-#8	4-#8	3-#8	4-#8	4-#8
STIRRUPS	#3 @ 200		#3 @ 200		#3 @ 200		#3 @ 200		#3 @ 200		#3 @ 200		#3 @ 200		#3 @ 200		#3 @ 200		#3 @ 200		

BEAM



	b1		b2		b3		b4		b5		b6		b7			
MARKS	EXT. END	CTR.	INT. END	END	CTR.	END	CTR.	END	CTR.	END	CTR.	EXT. END	CTR.	INT. END		
POSITION	400 X 500		400 X 500		400 X 500		400 X 500		400 X 500		400 X 500		300 X 400			
B x D	400 X 500		400 X 500		400 X 500		400 X 500		400 X 500		400 X 500		300 X 400			
TOP BARS	2-#8	3-#8	4-#8	4-#8	3-#8	2-#8	3-#8	2-#8	2-#8	2-#8	3-#8	3-#8	3-#8	5-#8	3-#8	2-#8
BOTT. BARS	2-#8	4-#8	3-#8	3-#8	3-#8	2-#8	6-#8	2-#8	3-#8	2-#8	3-#8	3-#8	4-#8	3-#8	2-#8	2-#8
STIRRUPS	#3 @ 200		#3 @ 200		#3 @ 200		#3 @ 200		#3 @ 200		#3 @ 200		#3 @ 200			

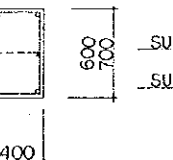
WALL



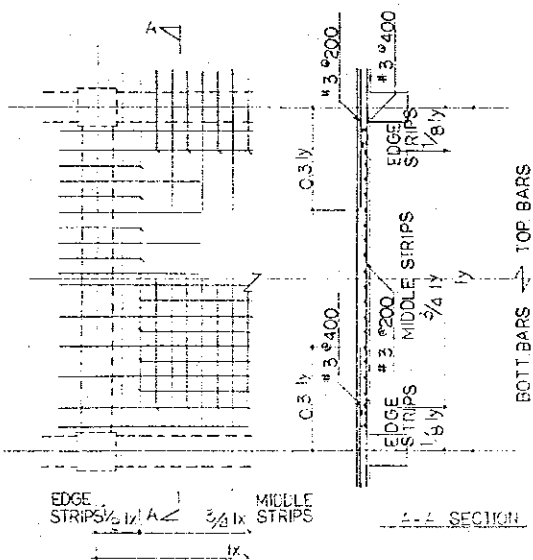
FOUNDATION GIRDER AND

	FG1	Fb1	F
MARKS	FG1	Fb1	F
POSITION	ALL SEC.		
B x D	400 X 700		
TOP BARS	3-#8		
BOTT. BARS	3-#8		
STIRRUPS	#3 @ 250		

REMARKS



SLAB

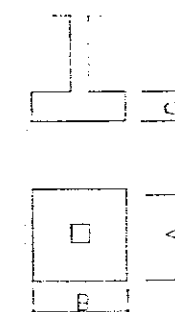


ARRANGEMENT OF BARS (TYPE S1)

MARKS	THICKNESS	TOP OF BOTT.	MAIN BARS DIRECTION			DISTRIBUTING BARS DIRECTION			REMARKS
			MIDDLE STRIPS	EDGE STRIPS	END	MIDDLE STRIPS	EDGE STRIPS	END	
S1	150	TOP	#3 @ 200	#3 @ 250	#3 @ 200	#3 @ 250	#3 @ 200	#3 @ 250	
		BOTT.	#3 @ 400	#3 @ 250	#3 @ 400	#3 @ 250	#3 @ 400	#3 @ 250	
S2	150	TOP	#3 @ 200	#3 @ 250	#3 @ 250	#3 @ 250	#3 @ 250	#3 @ 250	
		BOTT.	#3 @ 400	#3 @ 200	#3 @ 250	#3 @ 500	#3 @ 250	#3 @ 250	
S3	150	TOP	#3 @ 150	#3 @ 250	#3 @ 200	#3 @ 250	#3 @ 200	#3 @ 250	
		BOTT.	#3 @ 300	#3 @ 150	#3 @ 250	#3 @ 400	#3 @ 200	#3 @ 200	#3 @ 250
S4	150	TOP	#3 @ 200	#3 @ 400	#3 @ 250	#3 @ 200	#3 @ 400	#3 @ 250	
		BOTT.	#3 @ 400	#3 @ 200	#3 @ 250	#3 @ 400	#3 @ 200	#3 @ 250	
S5	150	TOP	#3 @ 200	#3 @ 400	#3 @ 250	#3 @ 250	#3 @ 500	#3 @ 250	
		BOTT.	#3 @ 400	#3 @ 200	#3 @ 250	#3 @ 500	#3 @ 250	#3 @ 250	
S6	150	TOP	#3 @ 150	#3 @ 300	#3 @ 250	#3 @ 200	#3 @ 400	#3 @ 250	
		BOTT.	#3 @ 300	#3 @ 150	#3 @ 250	#3 @ 400	#3 @ 200	#3 @ 250	

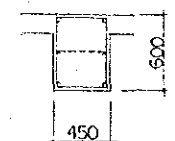
GROUND FLOOR PAVEMENT

FOOTING



MARKS	F1	F2	F3	F4
SIZE	A: 3900 B: 3900 C: 1200	3600 3600 1200	3300 3300 1200	3000 3000 1000
BARS	17-#6	17-#6	12-#6	11-#6
MARKS	F6	F7	MARKS	F8
SIZE	A: 2400 B: 2400 C: 800	1500 1500 800	SIZE	A: 3000 B: 6000 C: 1000
BARS	9-#6	6-#6	LONG DIRECTION SHORT DIRECTION	16-#6 49-#6

REMARKS

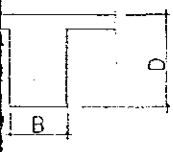


SUPPLEMENTARY --- 2-#4
 SUPPLEMENTARY TIE --- 3-#600

G1		G2		G3		G4		G5		G6		G7		G8		G9		G10			
T.D.	CTR.	INT. END	END	CTR.	END	CTR.	ALL SEC.	END	CTR.	END	CTR.	END	CTR.	END	CTR.	END	CTR.	EXT. END	CTR.	INT. END	
450 X 500			450 X 500		450 X 500		450 X 500		450 X 500		450 X 500		450 X 500		450 X 500		450 X 500		450 X 500		450 X 500
#8	3-#8	5-#8	5-#8	3-#8	6-#8	5-#8	4-#8	4-#8	3-#8	4-#8	3-#8	4-#8	3-#8	5-#8	3-#8	4-#8	3-#8	4-#8	3-#8	5-#8	4-#8
#8	3-#8	5-#8	4-#8	3-#8	4-#8	5-#8	4-#8	4-#8	3-#8	4-#8	3-#8	4-#8	3-#8	4-#8	3-#8	4-#8	3-#8	4-#8	3-#8	4-#8	3-#8
*3 #200		*3 #200		*3 #200		*3 #200		*3 #200		*3 #200		*3 #200		*3 #200		*3 #200		*3 #200		*3 #200	

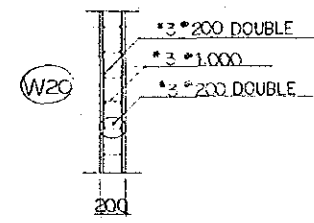
COLUMN

	C1	C2
7FL 4FL		
BARS	12-#8	
HOOPS	*3 #200	
3FL G.FL		
BARS	12-#8	8-#8
HOOPS	*3 #200	*3 #200



b1		b2		b3		b4		b5		b6		b7	
T.D.	CTR.	INT. END	END	CTR.	END	CTR.	END	CTR.	EXT. END	CTR.	INT. END	END	CTR.
100 X 500			400 X 500		400 X 500		400 X 500		400 X 500		400 X 500		300 X 400
#8	3-#8	4-#8	4-#8	3-#8	2-#8	3-#8	2-#8	2-#8	2-#8	3-#8	3-#8	5-#8	3-#8
#8	4-#8	3-#8	3-#8	3-#8	2-#8	5-#8	2-#8	3-#8	3-#8	4-#8	3-#8	2-#8	2-#8
*3 #200		*3 #200		*3 #200		*3 #200		*3 #200		*3 #200		*3 #200	

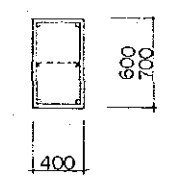
WALL



FOUNDATION GIRDER AND BEAM

MARKS	FG1, Fd1	FG2, Fd2
POSITION	ALL SEC	ALL SEC
B x D	400 X 700	400 X 600
TOP BARS	3-#8	3-#8
BOTT. BARS	3-#8	3-#8
STIRRUPS	*3 #250	3 #250

REMARKS

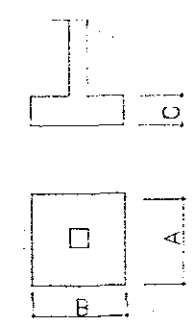


SUPPLEMENTARY --- 2-#4
 SUPPLEMENTARY TIE --- 3-#600

SLAB

MARKS	THICKNESS	TOP OF BOTT.	MAIN BARS DIRECTION				DISTRIBUTING BARS DIRECTION				REMARKS
			MIDDLE STRIPS		EDGE STRIPS		MIDDLE STRIPS		EDGE STRIPS		
			END	CTR.	END	CTR.	END	CTR.	END	CTR.	
S1	150	TOP	*3 #200	*3 #250	*3 #200	*3 #250	*3 #200	*3 #250	*3 #200	*3 #250	
S2	150	TOP	*3 #200	*3 #250	*3 #200	*3 #250	*3 #200	*3 #250	*3 #200	*3 #250	
S3	150	TOP	*3 #150	*3 #250	*3 #200	*3 #250	*3 #200	*3 #250	*3 #200	*3 #250	
S4	150	TOP	*3 #200	*3 #250	*3 #200	*3 #250	*3 #200	*3 #250	*3 #200	*3 #250	
S5	150	TOP	*3 #200	*3 #250	*3 #200	*3 #250	*3 #200	*3 #250	*3 #200	*3 #250	
S6	150	TOP	*3 #150	*3 #250	*3 #200	*3 #250	*3 #200	*3 #250	*3 #200	*3 #250	

FOOTING

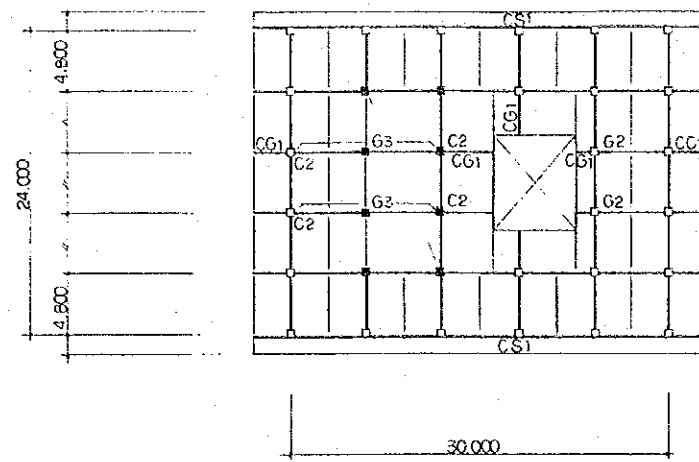


MARKS	F1	F2	F3	F4	F5
SIZE	A: 3,900	B: 3,600	C: 1,200	A: 3,000	B: 2,700
BARS	17-#6	17-#6	12-#6	11-#6	10-#6

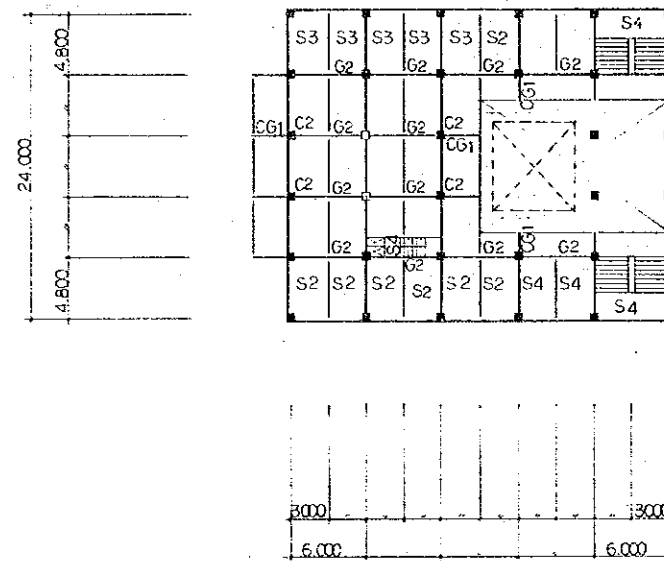
MARKS	F6	F7	MARKS	F8	F9
SIZE	A: 2,400	B: 1,500	SIZE	A: 3,000	B: 2,000
BARS	9-#6	6-#5	SIZE	B: 6,000	C: 1,000

TOP OF BARS (TYPE S1)

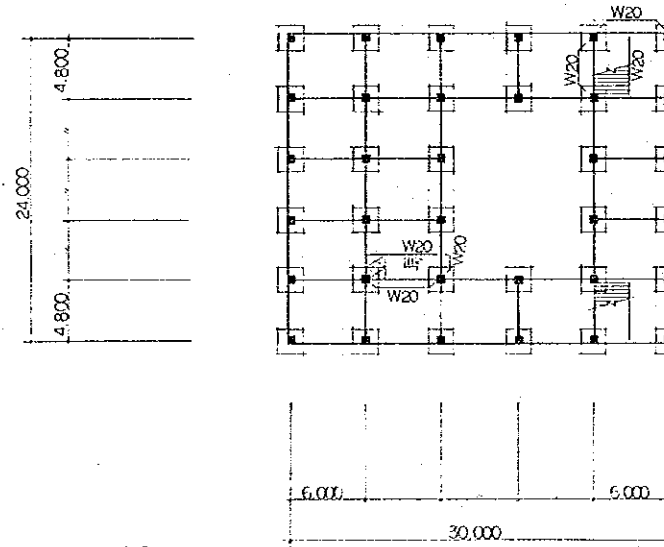
GROUND FLOOR PAVEMENT



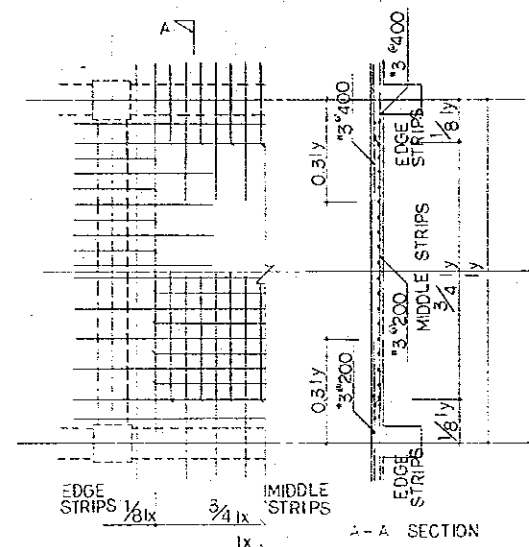
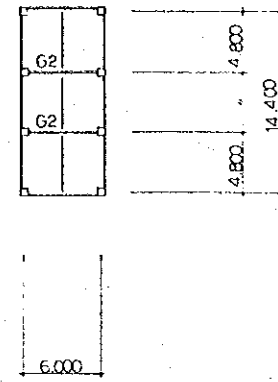
ROOF FLOOR



1st FLOOR



GROUND FLOOR

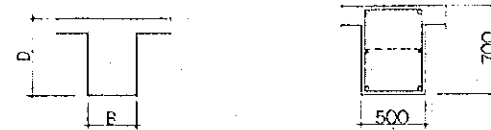


ARRANGEMENT OF BARS (TYPE S1)

- UNLESS OTHERWISE NOTED
- FOOTING - F1
 - GIRDER - G1
 - COLUMN - C1
 - SLAB - RFL - S5
 - 1FL - S1
 - BEAM - D1
 - FOUNDATION GIRDER - FG1
 - FOUNDATION BEAM - FB1

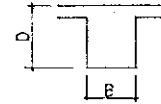


GIRDER



MARKS	G1	G2	G3	CG1
POSITION	ALL SEC.	END	C.T.R	END
B x D	450 x 500	450 x 500	500 x 700	500 x 700
TOP BARS	3-#8	5-#8	3-#8	5-#8
BOTT. BARS	3-#8	5-#8	5-#8	5-#8
STIRRUPS	*3-#200	*3-#200	*3-#200	*3-#200

BEAM



MARKS	D1
POSITION	END
B x D	300 x 400
TOP BARS	3-#8
BOTT. BARS	2-#8
STIRRUPS	*3-#200

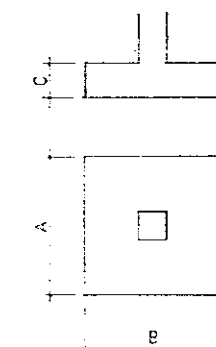
COLUMN

MARKS	C1	C2
G. FL		
1 FL		
BARS	8-#8	16-#8
HOOPS	*3-#200	*3-#200

SLAB

MARKS	THICKNESS	TOP or BOTT.	MAIN BARS DIRECTION			DISTRIBUTING BARS DIRECTION			REMARKS
			END	CTR.	EDGE STRIPS	END	CTR.	EDGE STRIPS	
S1	150	TOP	*3-#200	*3-#250	*3-#200	*3-#200	*3-#250		
S2	150	TOP	*3-#150		*3-#200				
S3	150	TOP	*3-#200	*3-#250	*3-#200	*3-#200	*3-#250		
S4	150	TOP	*3-#200		*3-#200				
S5	150	TOP	*3-#200	*3-#400	*3-#250	*3-#200	*3-#400		
CS1	150	TOP	*3-#200	*3-#200	*3-#250	*3-#400	*3-#200		

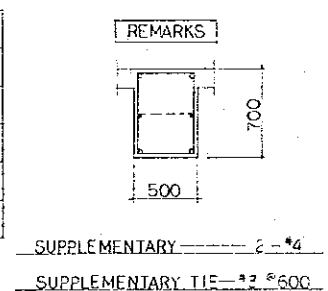
FOOTING



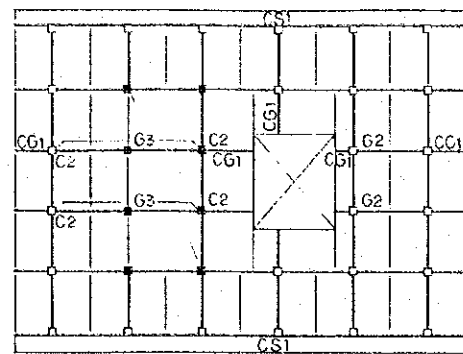
MARKS	F1
SIZE A	1.800
SIZE B	1.800
SIZE C	800
BARS	7-#6

FOUNDATION GIRDER AND BEAM

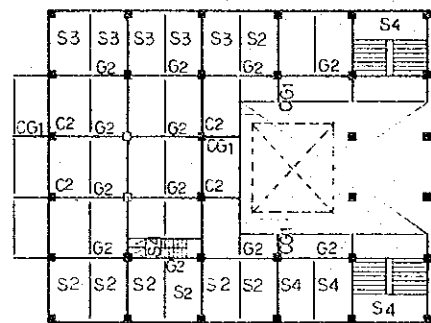
MARKS	FG1	FB1
POSITION	ALL SEC.	
E x D	500 x 700	
TOP BARS	3-#8	
BOTT. BARS	3-#8	
STIRRUPS	*4-#200	



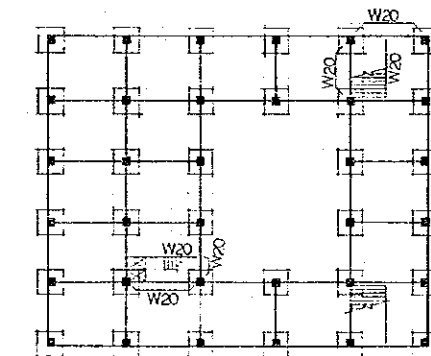
- GENERAL NOTE
- CONCRETE $f_c = 4,000 \text{ psi}$ (COMPRESSIVE STRENGTH)
 - REINFORCEMENT Gr 60 ($f_y = 60,000 \text{ psi}$)
 - STRUCTURAL STEEL Gr 36
 - SOIL BEARING CAPACITY $8,200 \text{ psi}$ (40 T/M^2)



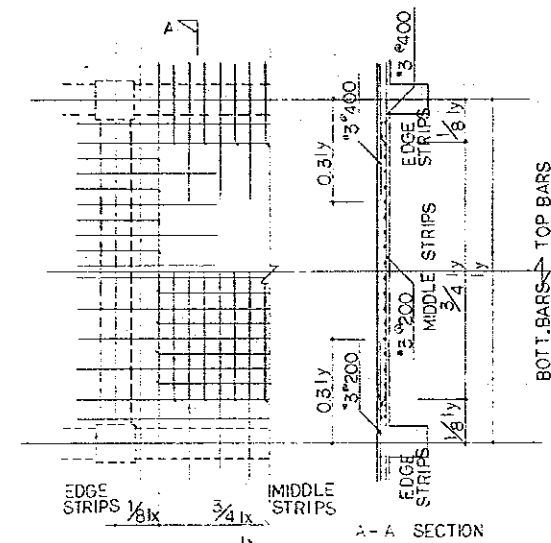
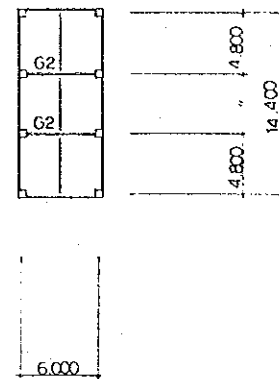
ROOF FLOOR



1st FLOOR



GROUND FLOOR



ARRANGEMENT OF BARS (TYPE S1)

- UNLESS OTHERWISE NOTED
- FOOTING - F1
 - GIRDER - G1
 - COLUMN - C1
 - SLAB - RFL - S5
 - 1 FL - S1
 - BEAM - B1
 - FOUNDATION GIRDER - FG1
 - FOUNDATION BEAM - FB1

REMARKS

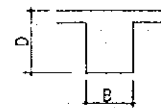
GIRDER



SUPPLEMENTARY --- 2-#4
SUPPLEMENTARY TIE --- #3 @ 600

MARKS	G1	G2	G3	CG1
POSITION	ALL SEC.	END C.T.R.	END C.T.R.	ALL SEC.
B x D	450 x 500	450 x 500	500 x 700	500 x 700
TOP BARS	3-#8	5-#8	3-#8	9-#8
BOTT. BARS	3-#8	5-#8	3-#8	5-#8
STIRRUPS	#3 @ 200	#3 @ 200	#3 @ 200	#3 @ 200

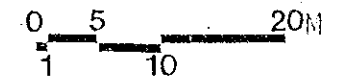
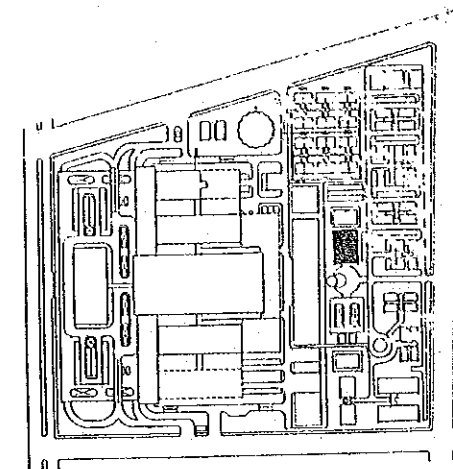
BEAM



MARKS	B1
POSITION	END C.T.R.
B x D	300 x 400
TOP BARS	3-#8
BOTT. BARS	2-#8
STIRRUPS	#3 @ 200

COLUMN

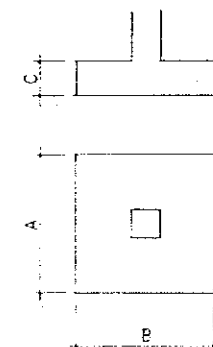
MARKS	C1	C2
G. FL		
1 FL		
BARS	8-#8	16-#8
HOOPS	#3 @ 200	#3 @ 200



SLAB

MARKS	THICKNESS, TOP or BOTT.	MAIN BARS DIRECTION			DISTRIBUTING BARS DIRECTION			REMARKS
		MIDDLE STRIPS	EDGE STRIPS	MIDDLE STRIPS	EDGE STRIPS			
S1	TOP	#3 @ 200	#3 @ 250	#3 @ 200	#3 @ 250			
	BOTT.	#3 @ 400	#3 @ 250	#3 @ 400	#3 @ 200			
S2	TOP	#3 @ 150		#3 @ 200				
	BOTT.	#3 @ 150		#3 @ 200				
S3	TOP	#3 @ 200	#3 @ 250	#3 @ 200	#3 @ 250			
	BOTT.	#3 @ 400	#3 @ 200	#3 @ 400	#3 @ 200			
S4	TOP	#3 @ 200		#3 @ 200				
	BOTT.	#3 @ 200		#3 @ 200				
S5	TOP	#3 @ 200	#3 @ 400	#3 @ 200	#3 @ 400			
	BOTT.	#3 @ 400	#3 @ 200	#3 @ 400	#3 @ 200			
CS1	TOP	#3 @ 200		#3 @ 250				
	BOTT.	#3 @ 200		#3 @ 250				

FOOTING

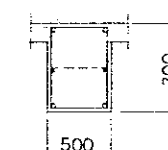


MARKS	F1
A	1.800
B	1.800
C	600
BARS	7-#6

FOUNDATION GIRDER AND BEAM

MARKS	FG1	FB1
POSITION	ALL SEC.	
B x D	500 x 700	
TOP BARS	3-#8	
BOTT. BARS	3-#8	
STIRRUPS	#4 @ 200	

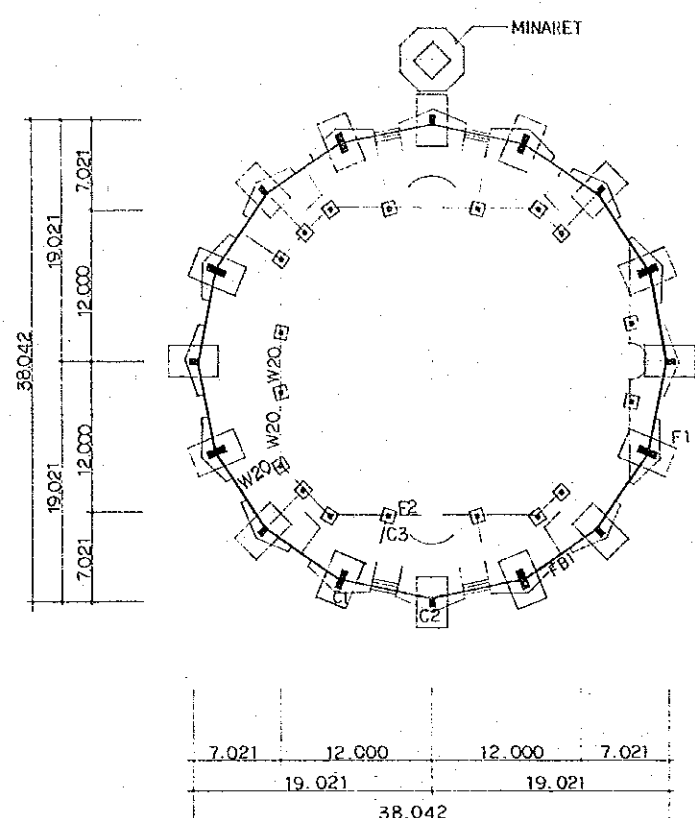
REMARKS



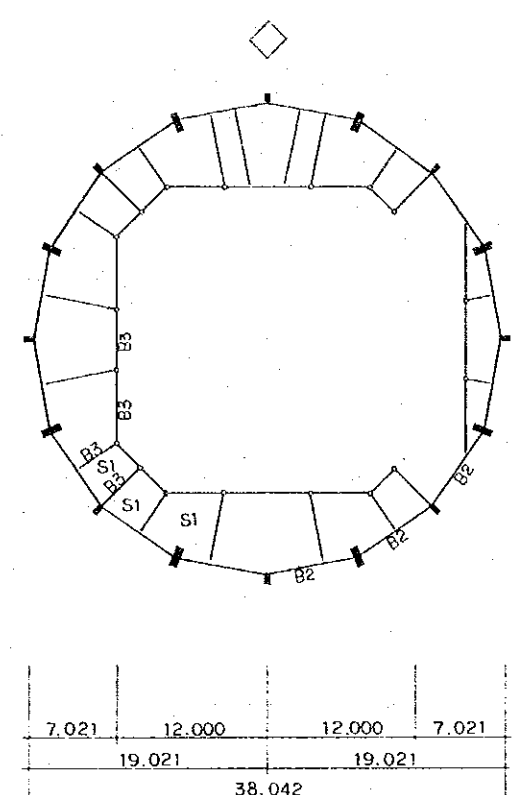
SUPPLEMENTARY --- 2-#4
SUPPLEMENTARY TIE --- #2 @ 600

GENERAL NOTE

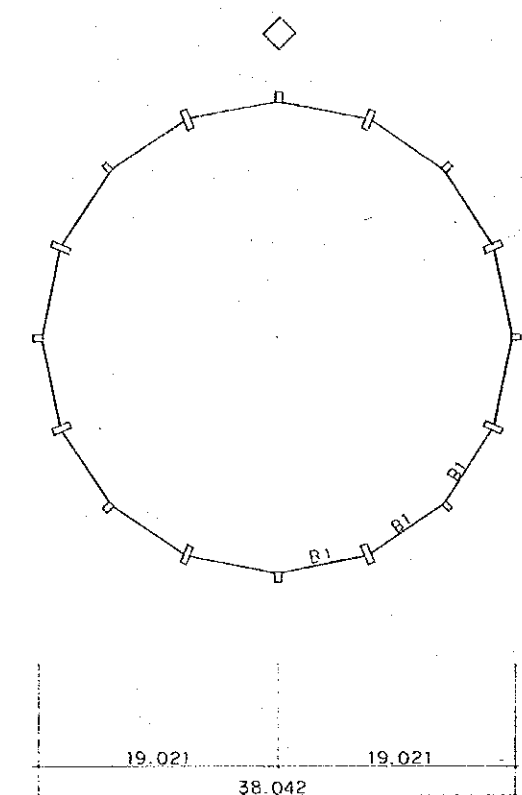
- CONCRETE: $f_c = 4000 \text{ PSI}$ (COMPRESSIVE STRENGTH AT 28 DAYS)
- REINFORCEMENT: Gr 60 ($f_y = 60,000 \text{ PSI}$)
- STRUCTURAL STEEL: Gr 36
- SOIL BEARING CAPACITY: 8,200 PSI (40 T/M^2)



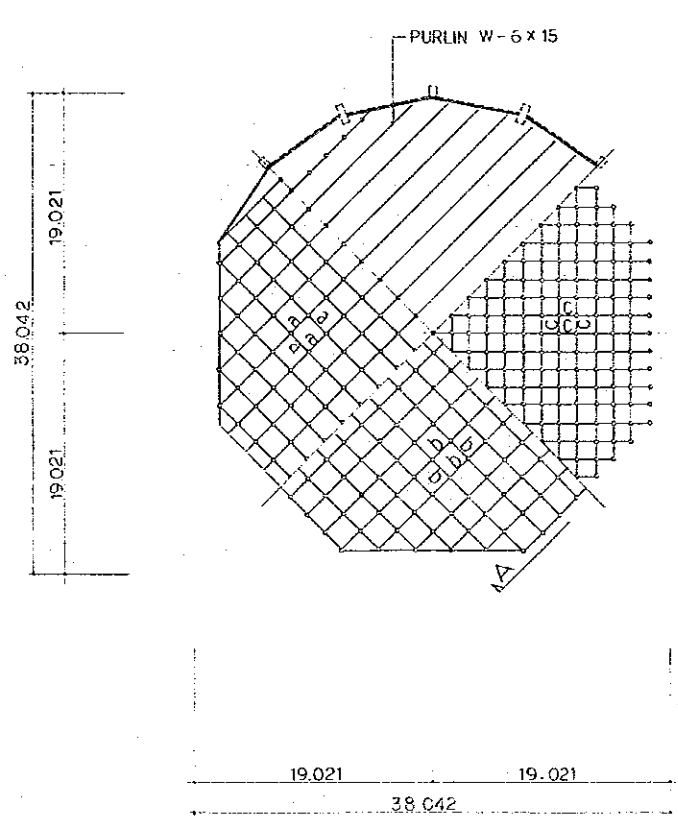
**BASEMENT FLOOR
(GROUND FLOOR)**



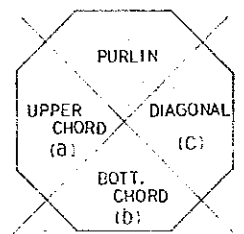
1st FLOOR



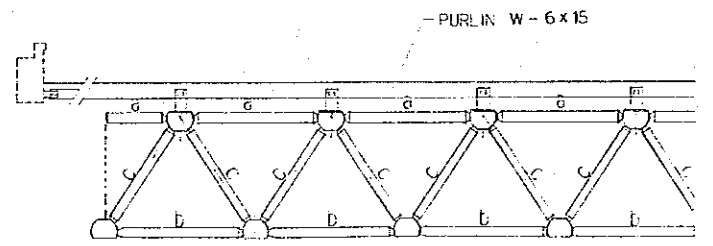
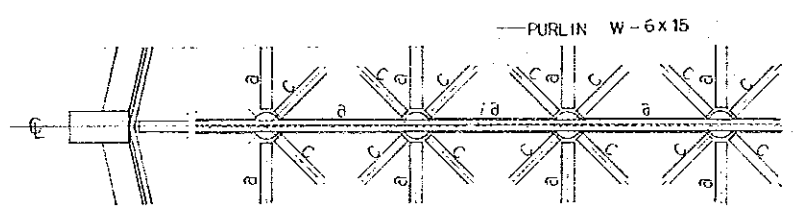
ROOF FLOOR



ROOF FRAMING PLAN



PIPE MEMBER AND BOLT SCHEDULE			
MARKS	PIPE SIZE	APPLICATION	BOLT SIZE
a	φ-6" x 0.280	CHORD	M52
b	φ-6" x 0.280	DITTC	DITTC
c	φ-5" x 0.375	DIAGONAL	M33

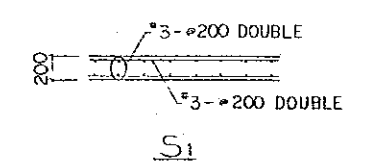


SECTION A

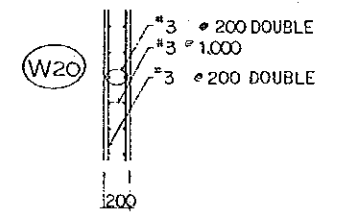
GIRDER AND BEAM

MARKS	B1		B2	
	ALL SEC.	END	CTR.	
POSITION	350 x 650	350 x 650		
B x D	350 x 650	350 x 650		
TOP. BARS	2 - #8	6 - #8	2 - #8	
BOTT. BARS	2 - #8	2 - #8	4 - #8	
STIRRUPS	#3 - φ250	#3 - φ250		

SLAB



WALL

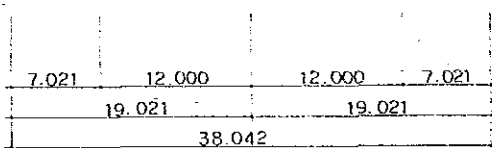
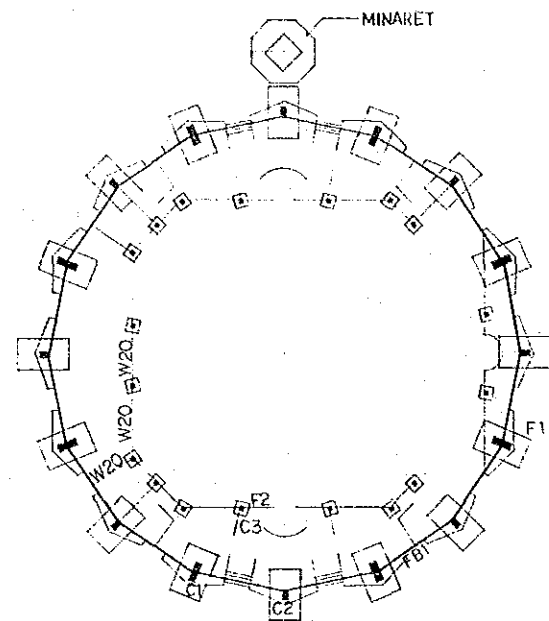


FOUNDATION GIRDER

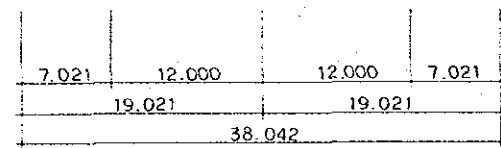
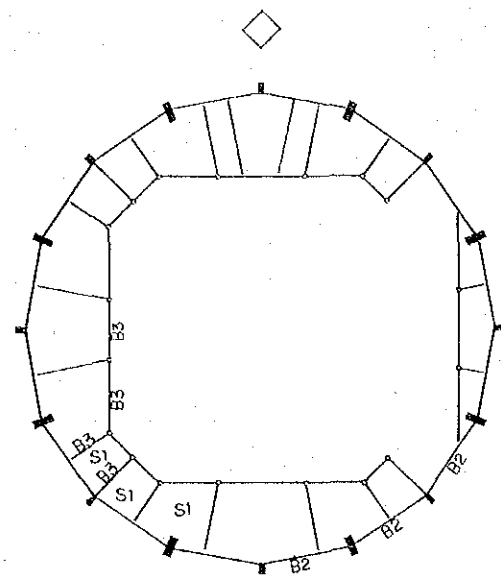
MARKS	FB1	
	ALL SEC.	REMARKS
POSITION	ALL SEC.	
B x D	350 x 870	
TOP. BARS	3 - #8	
BOTT. BARS	3 - #8	
STIRRUPS	#3 - φ250	

FOOTING

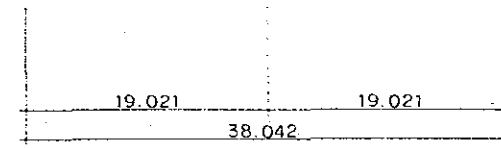
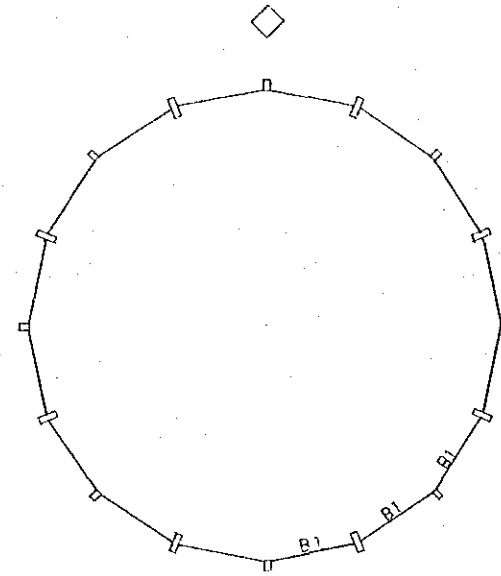
MARKS	F1		F2	
	SIZE	REMARKS	SIZE	REMARKS
A	4.000		1.000	
B	2.500		1.000	
C	1.100		500	
MAIN BARS	#7 - φ200		#6 - φ200	
DISTRIBUTING BARS	#5 - φ200		#6 - φ200	



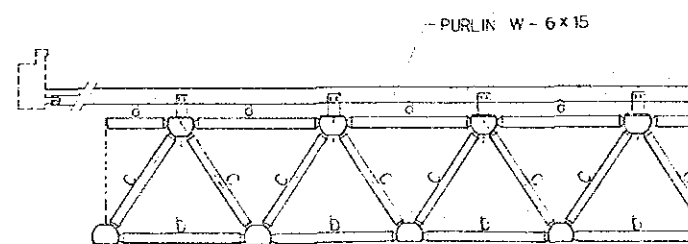
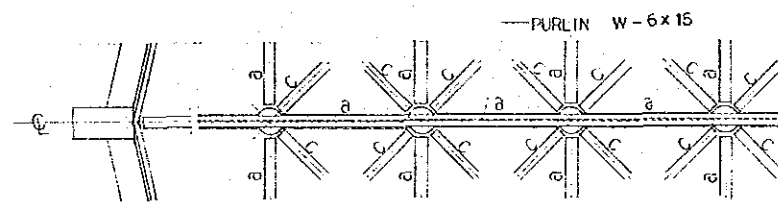
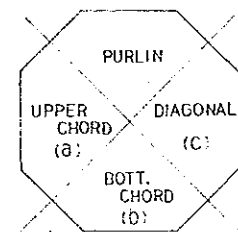
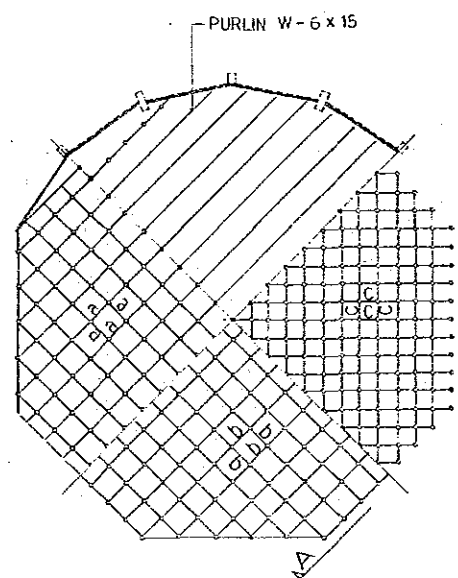
BASEMENT FLOOR
(GROUND FLOOR)



1st FLOOR

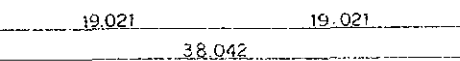


ROOF FLOOR



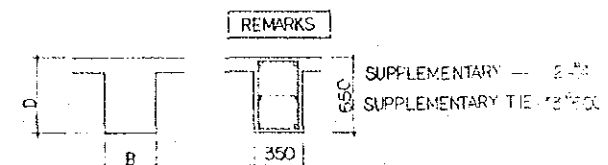
SECTION A

PIPE MEMBER AND BOLT SCHEDULE			
MARKS	PIPE SIZE	APPLICATION	BOLT SIZE
a	φ-6" x 0.280	CHORD	M52
b	φ-6" x 0.280	DITTO	DITTO
c	φ-5" x 0.375	DIAGONAL	M33



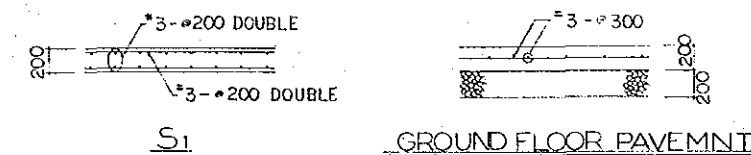
ROOF FRAMING PLAN

GIRDER AND BEAM

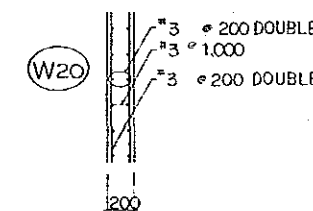


MARKS	B1	B2	B3
POSITION	ALL SEC.	END	C.T.R.
E x D	350 x 650	350 x 650	250 x 350
TOP. BARS	2 - #8	6 - #8	2 - #8
BOTT. BARS	2 - #8	2 - #8	4 - #8
STIRRUPS	#3 - φ250	#3 - φ250	#3 - φ250

SLAB

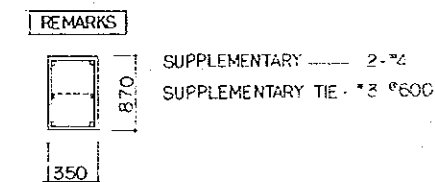


WALL



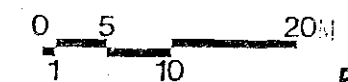
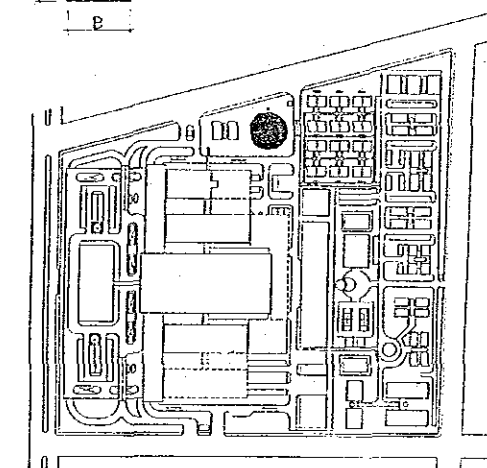
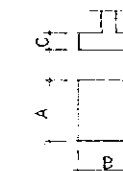
FOUNDATION GIRDER

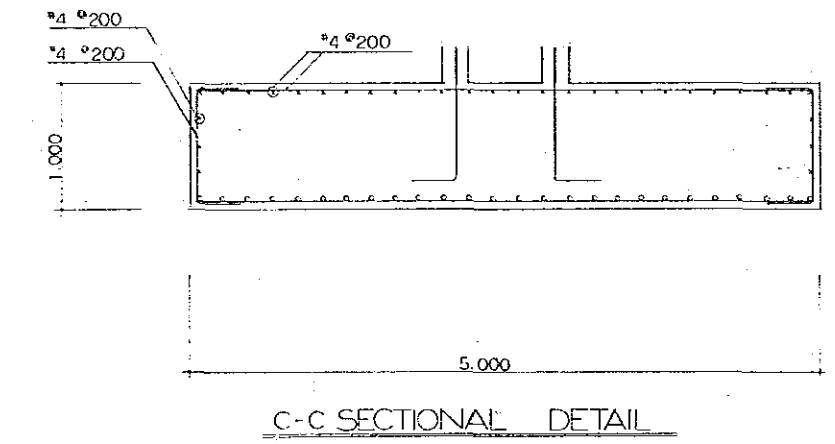
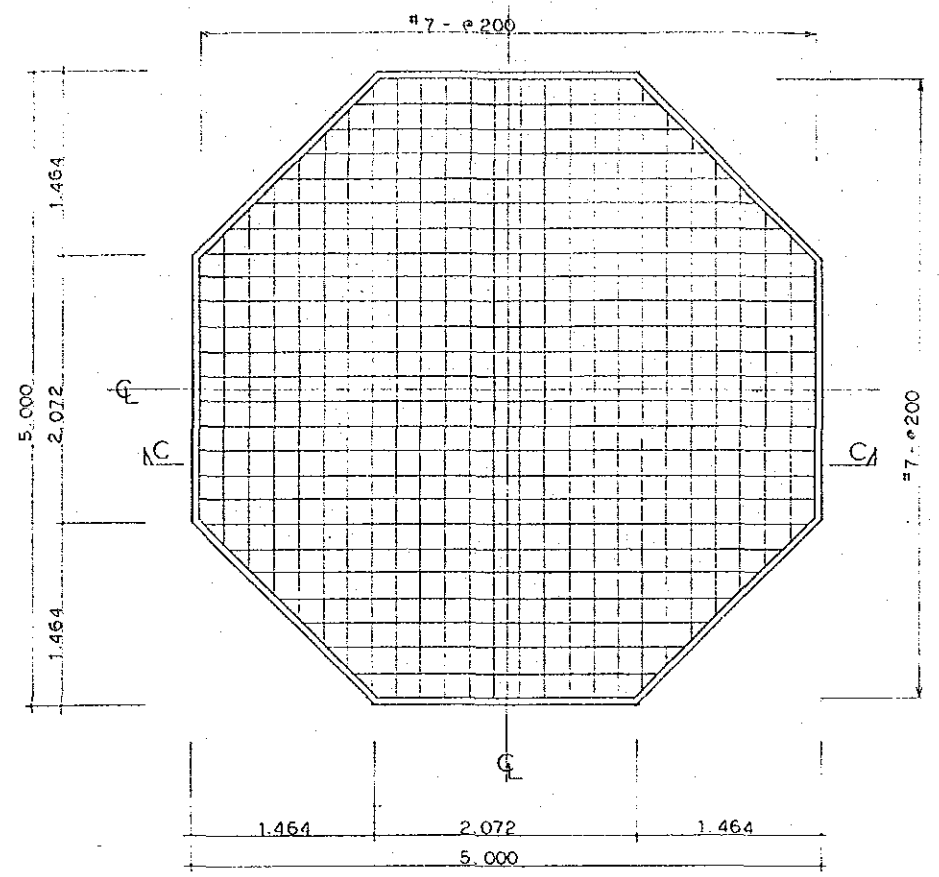
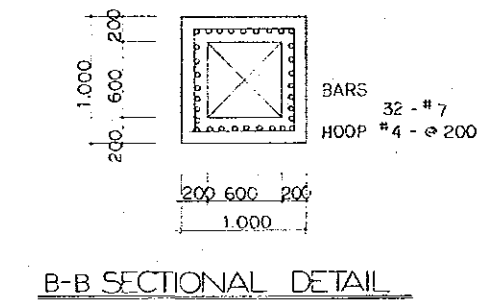
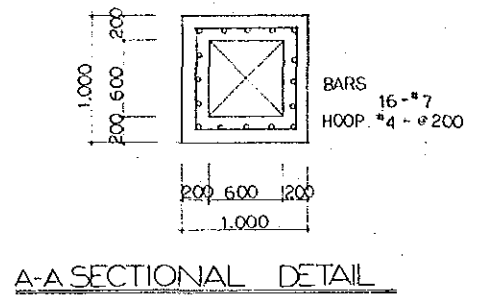
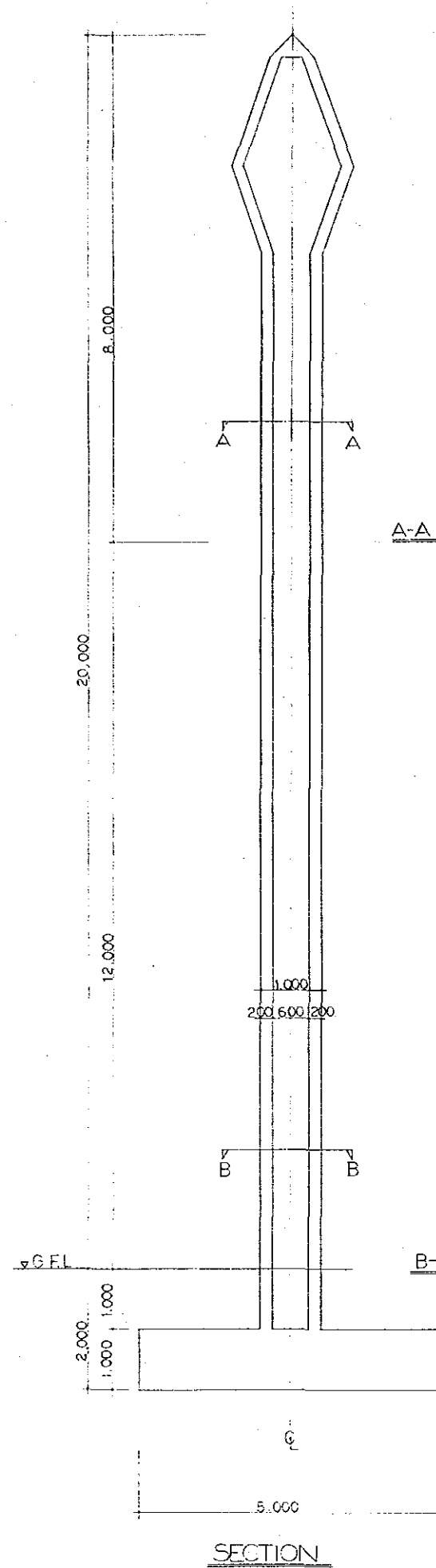
MARKS	FB1
POSITION	ALL SEC.
B x D	350 x 870
TOP. BARS	3 - #8
BOTT. BARS	3 - #8
STIRRUPS	#3 - φ250



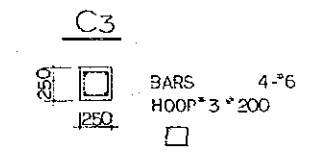
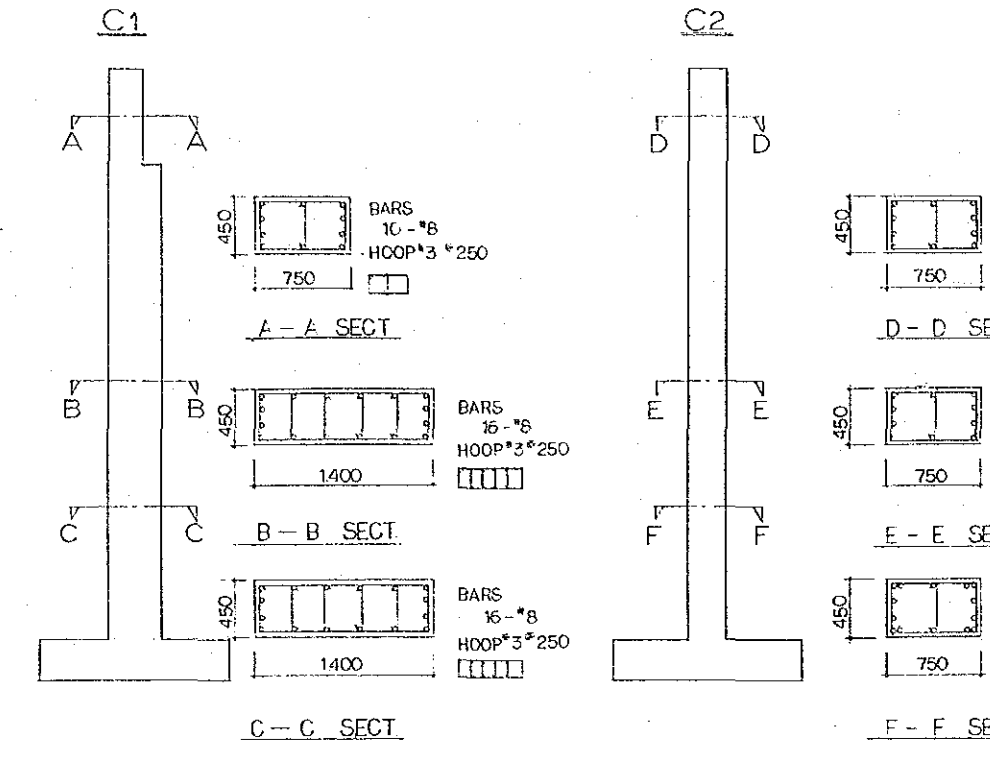
FOOTING

MARKS	F1	F2
SIZE	A: 4.000	1.000
	B: 2.500	1.000
	C: 1.100	500
MAIN BARS	#7 - φ200	#6 - φ200
DISTRIBUTING BARS	#5 - φ200	#6 - φ200





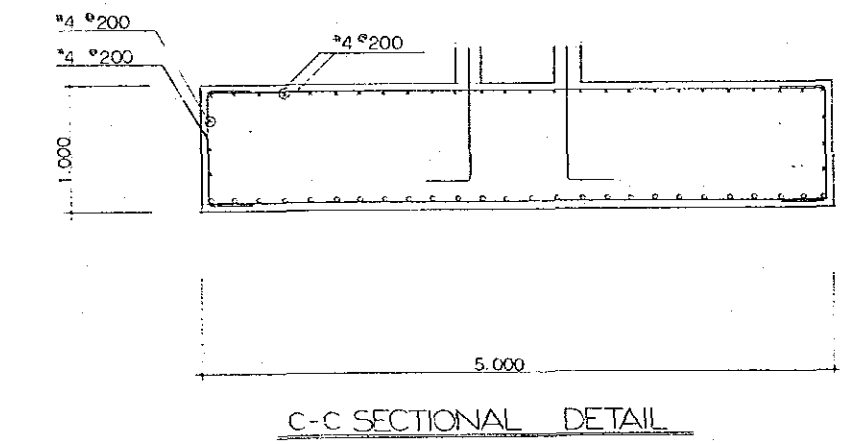
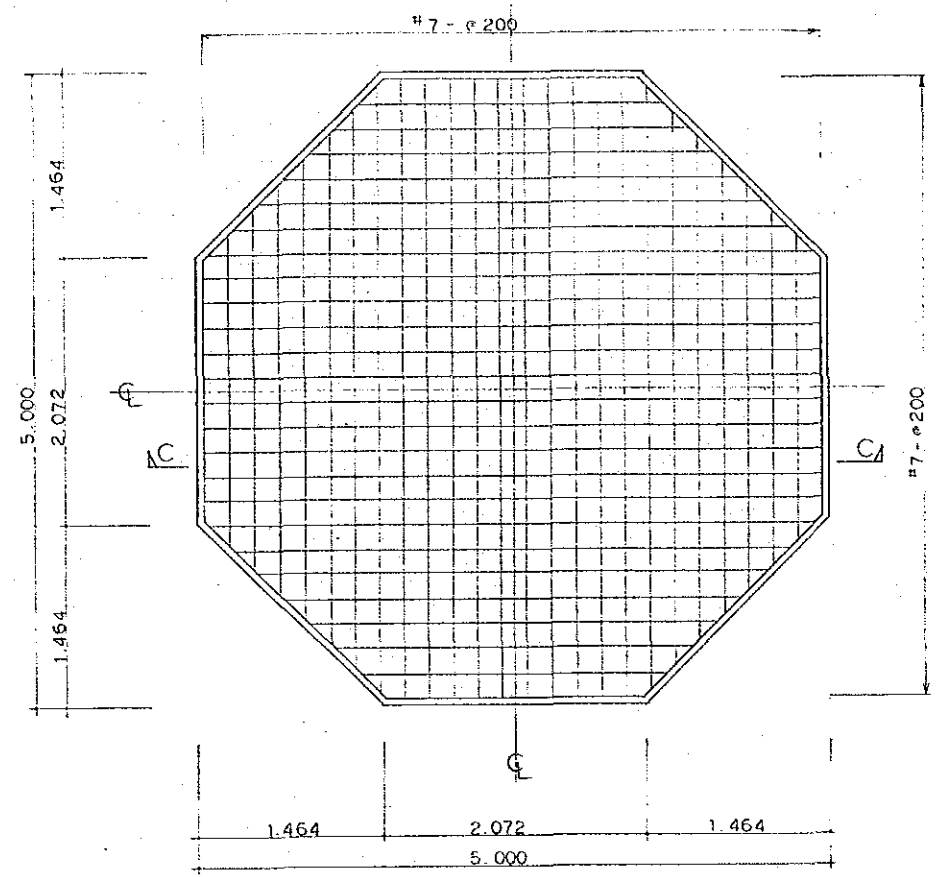
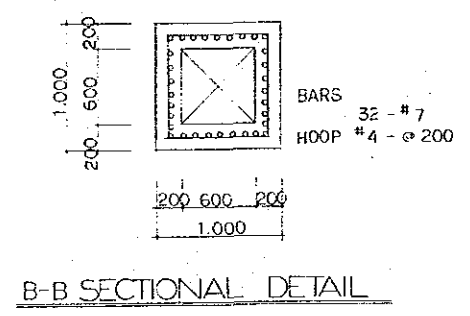
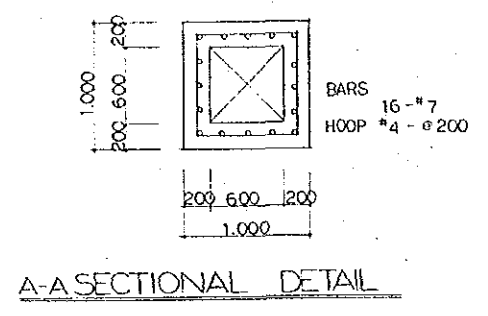
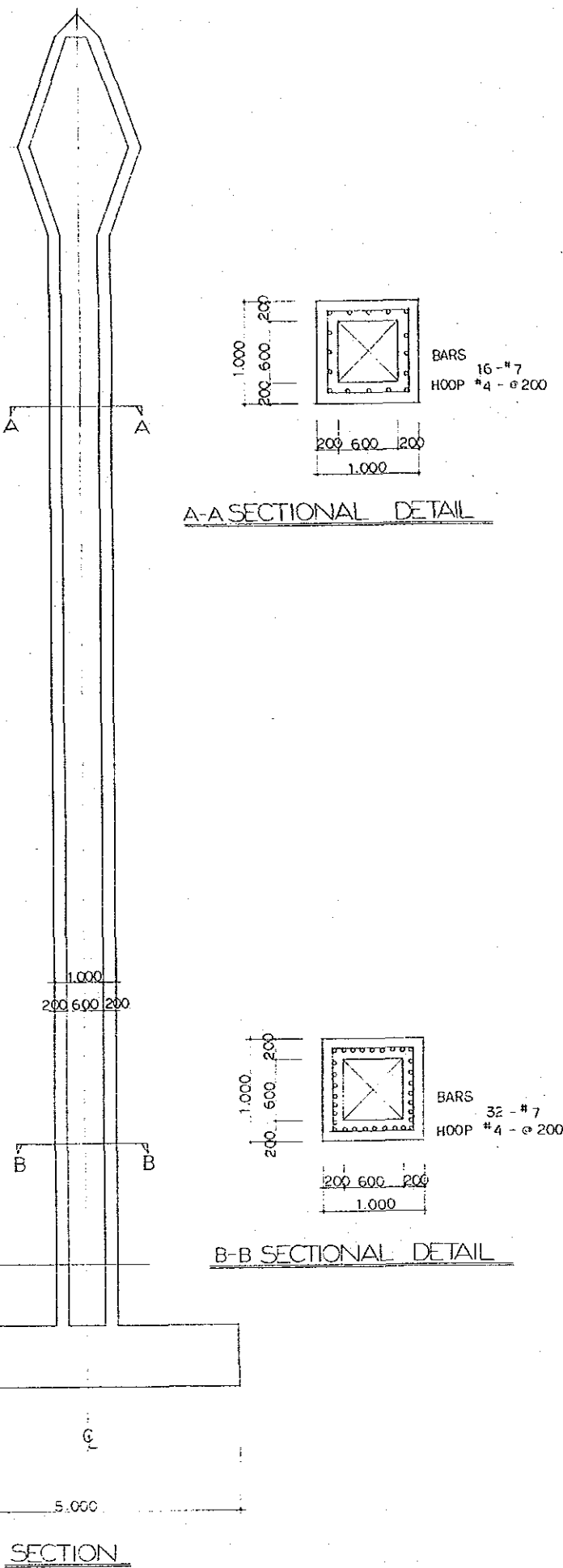
DETAIL OF MINARET



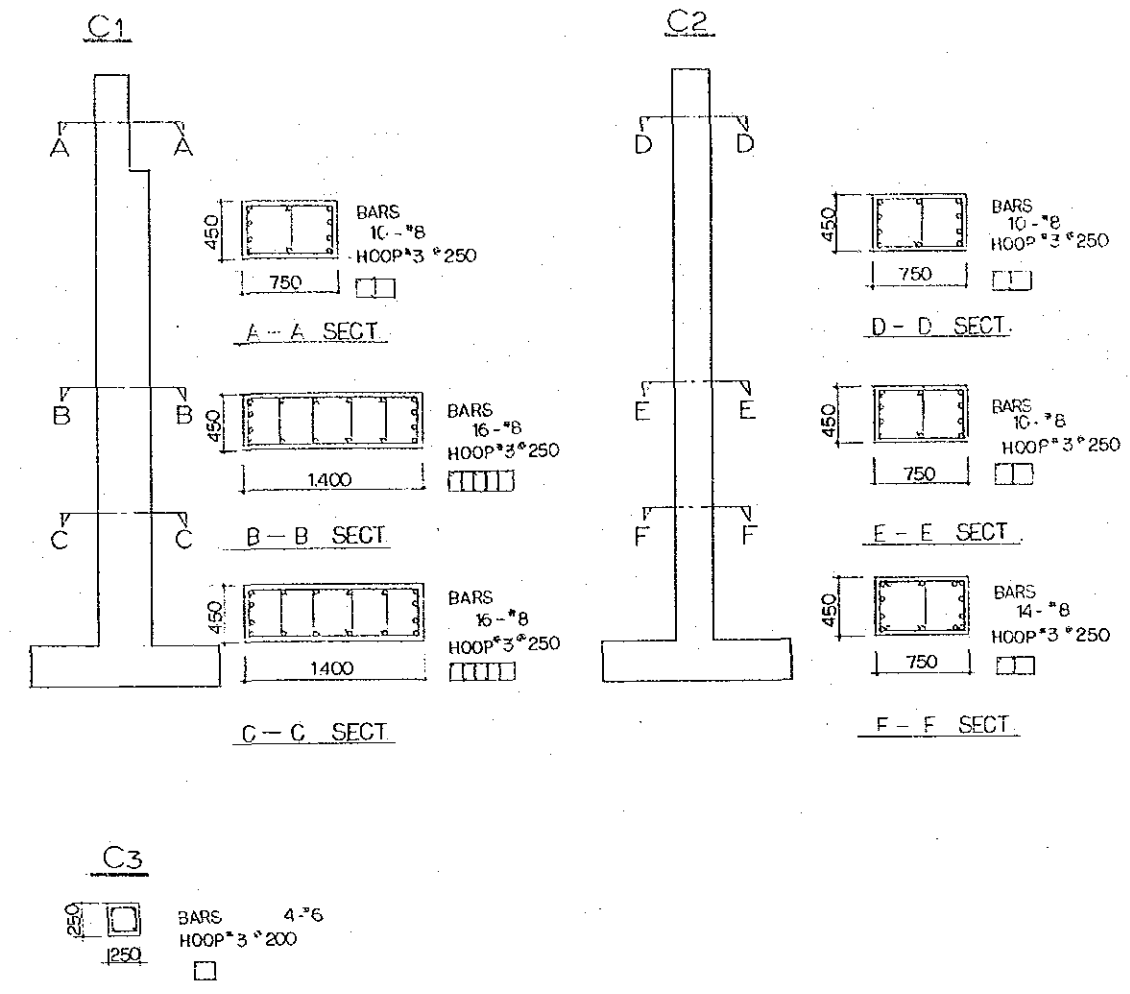
COLUMN OF MOSQUE

GENERAL NOTE

CONCRETE	MOSQUE	$f_c = 3,000 \text{ psi}$	(COMPRESSIVE STRENGTH)
	MINARET	$f_c = 4,000 \text{ psi}$	
REINFORCEMENT	MOSQUE	$G_r = 40$	($f_y = 40,000 \text{ psi}$)
	MINARET	$G_r = 60$	($f_y = 60,000 \text{ psi}$)
STRUCTURAL STEEL		$G_r = 36$	
SOIL BEARING CAPACITY		8,200 psi	(40 t/m^2)



DETAIL OF MINARET

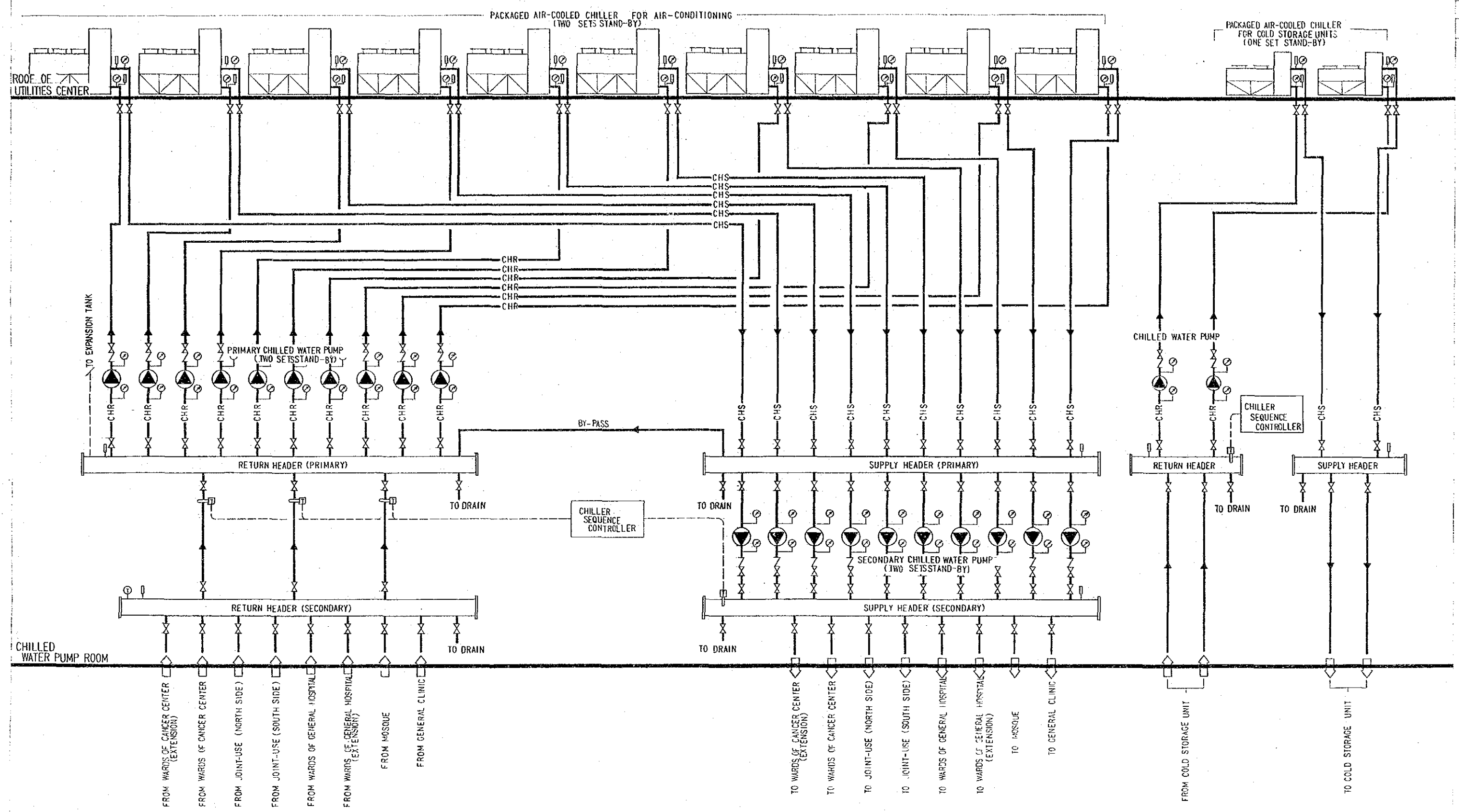


COLUMN OF MOSQUE

GENERAL NOTE

CONCRETE	MOSQUE	$f_c = 3,000 \text{ psi}$	(COMPRESSIVE STRENGTH AT 28 DAYS)
	MINARET	$f_c = 4,000 \text{ psi}$	
REINFORCEMENT	MOSQUE	$G_r = 40$	($f_y = 40,000 \text{ psi}$)
	MINARET	$G_r = 60$	($f_y = 60,000 \text{ psi}$)
STRUCTURAL STEEL		$G_r = 36$	
SOIL BEARING CAPACITY		8,200 psf	(40 t/m^2)

SYMBOLS	
	CHS
	CHR



REFRIGERATION SYSTEM DIAGRAM

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

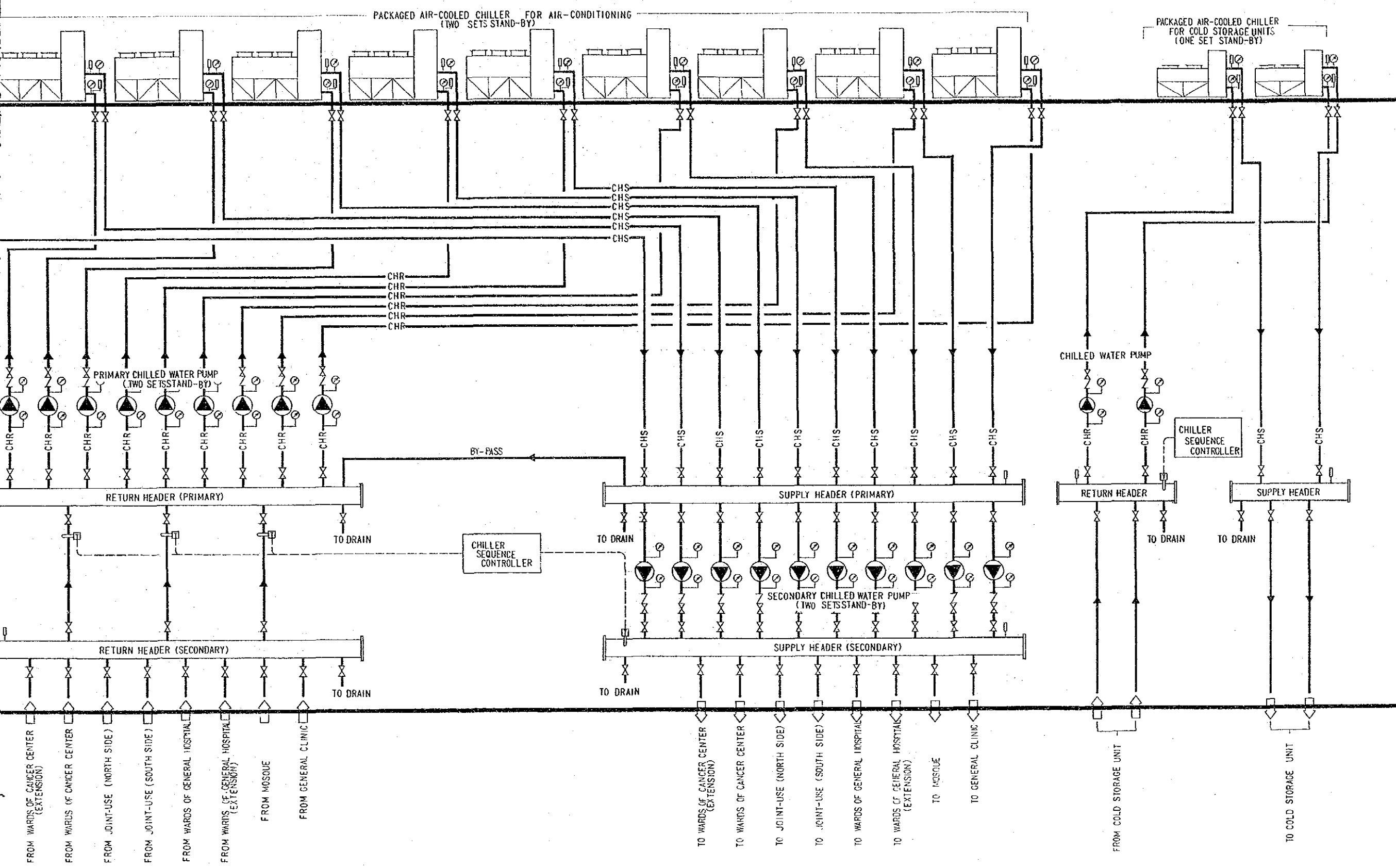
BASIC DESIGN

JAPAN INTERNATIONAL
COOPERATION AGENCY

AIR CONDITIONING
&
VENTILATION

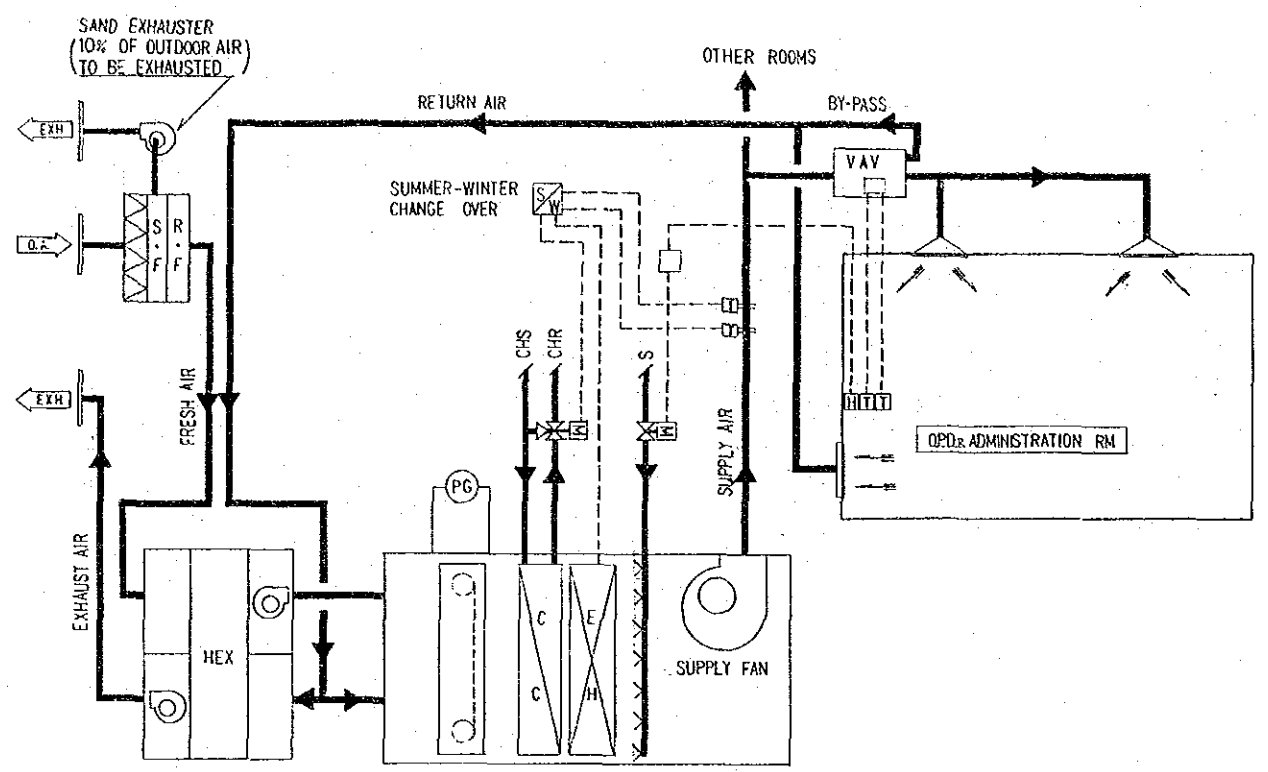
REFRIGERATION SYSTEM DIA

SYMBOLS	
	PRESSURE GAUGE
	THERMOMETER
	GATE VALVE
	CHECK VALVE
	CHILLED WATER SUPPLY
	CHILLED WATER RETURN
	THERMOSTAT

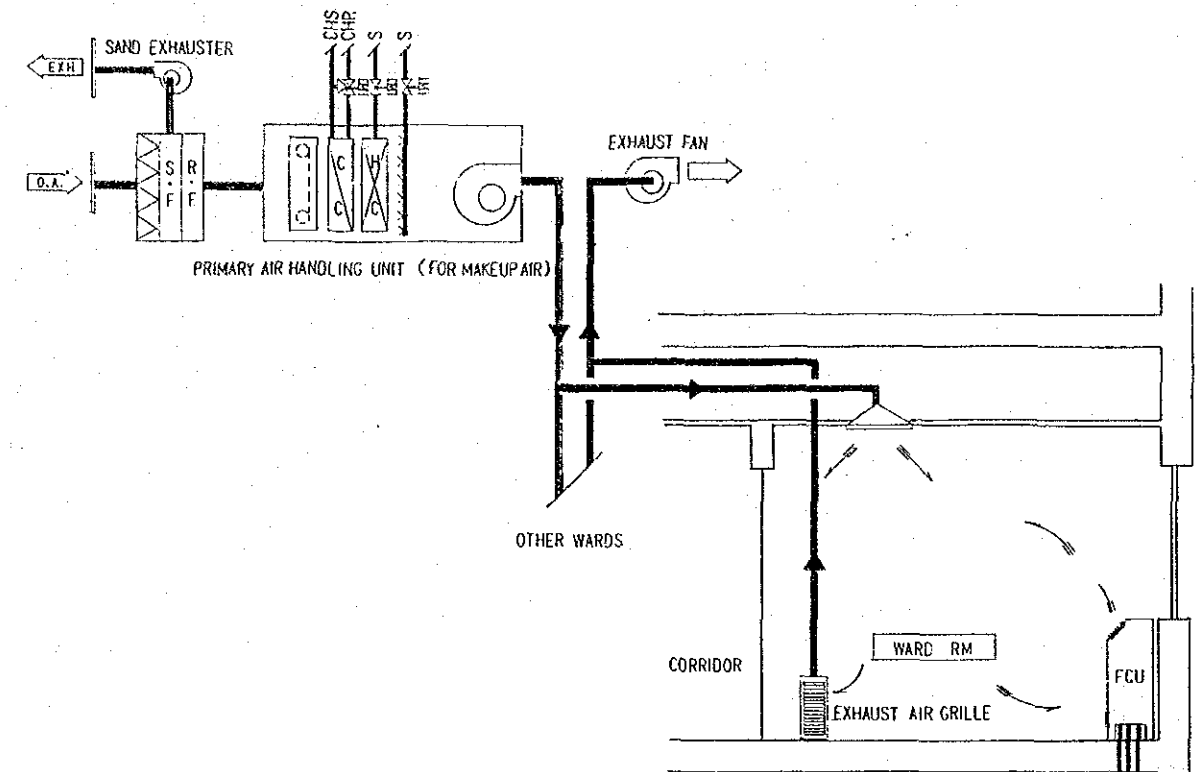


REFRIGERATION SYSTEM DIAGRAM

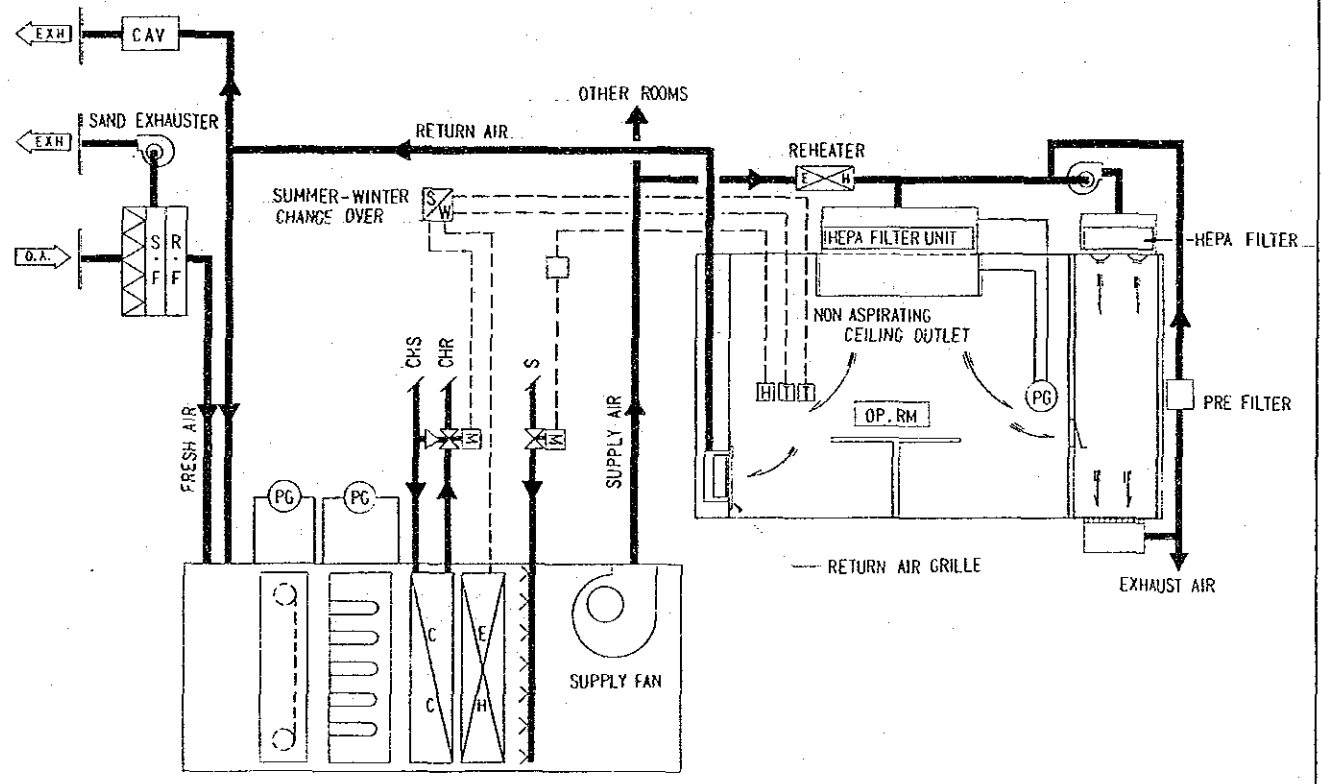
SYMBOLS & ABB	
	EXH
	O.A.
	FRESH AIR
	RETURN AIR
	SUPPLY AIR
	VAV
	CAV
	FAN
	FILTER
	HEPA FILTER
	PRE FILTER
	REHEATER
	SUMMER-WINTER CHANGE OVER
	CHS
	CHR
	DRAIN
	EXHAUST AIR GRILLE
	RETURN AIR GRILLE
	NON-ASPIRATING CEILING OUTLET
	SAND EXHAUSTER
	SAND EXHAUSTER (10% OF OUTDOOR AIR TO BE EXHAUSTED)
	FCU



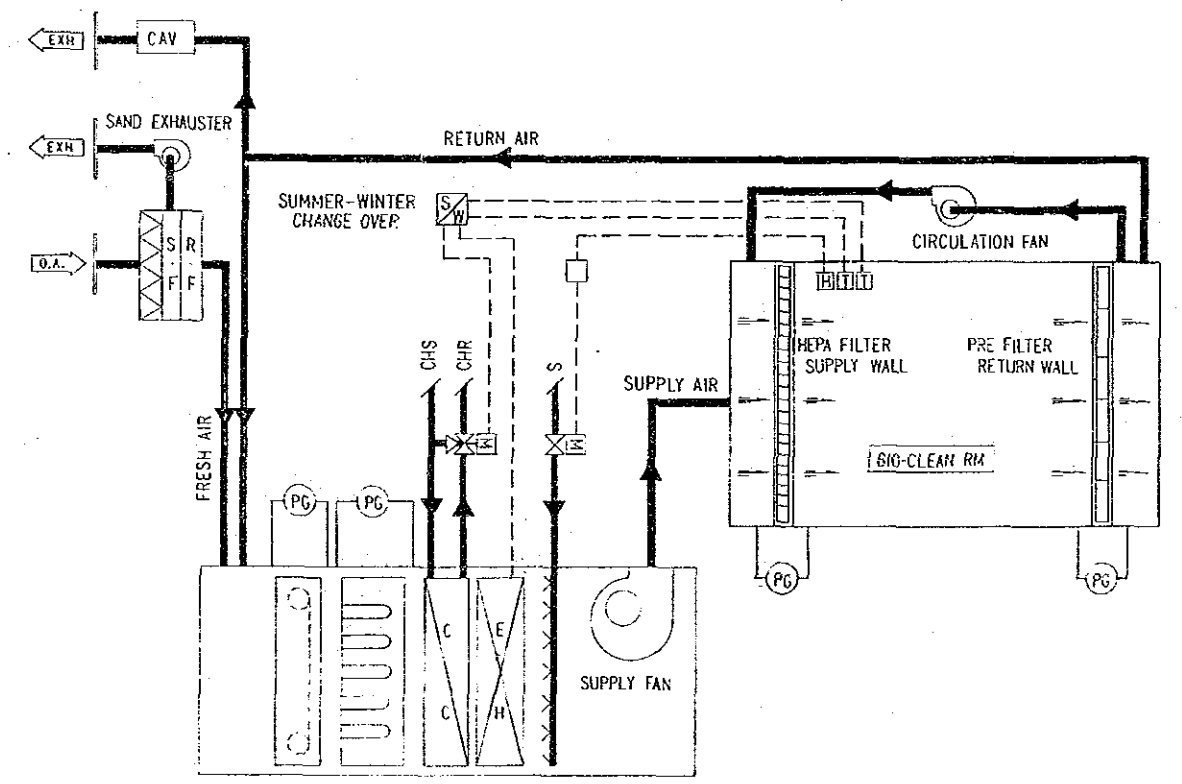
O.P.D. & ADMINISTRATION



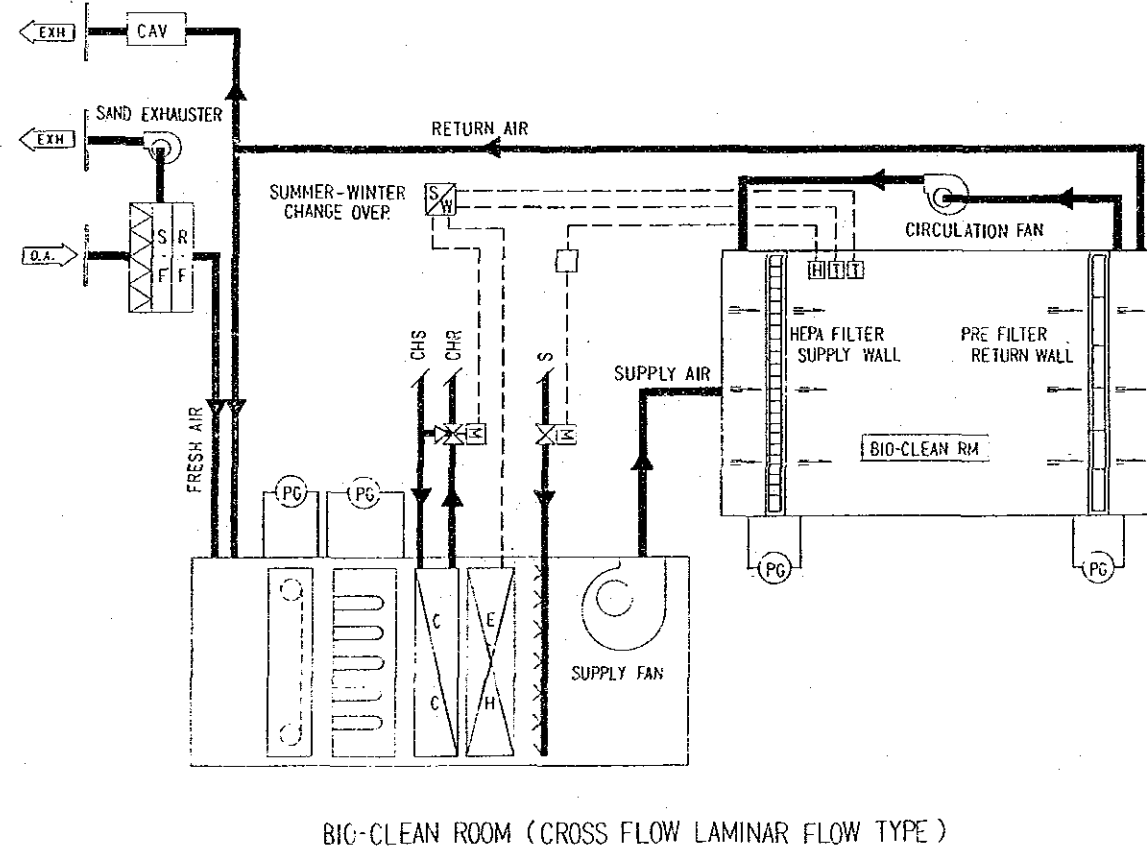
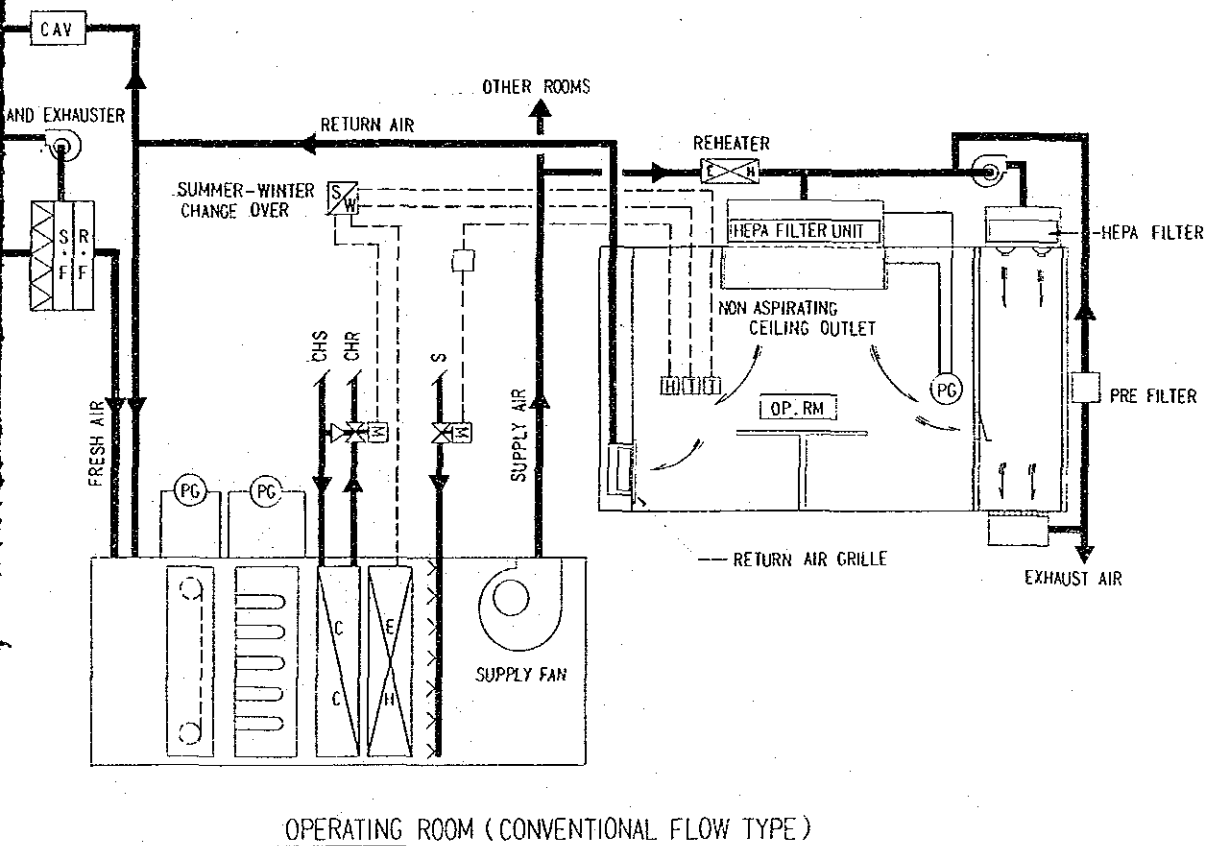
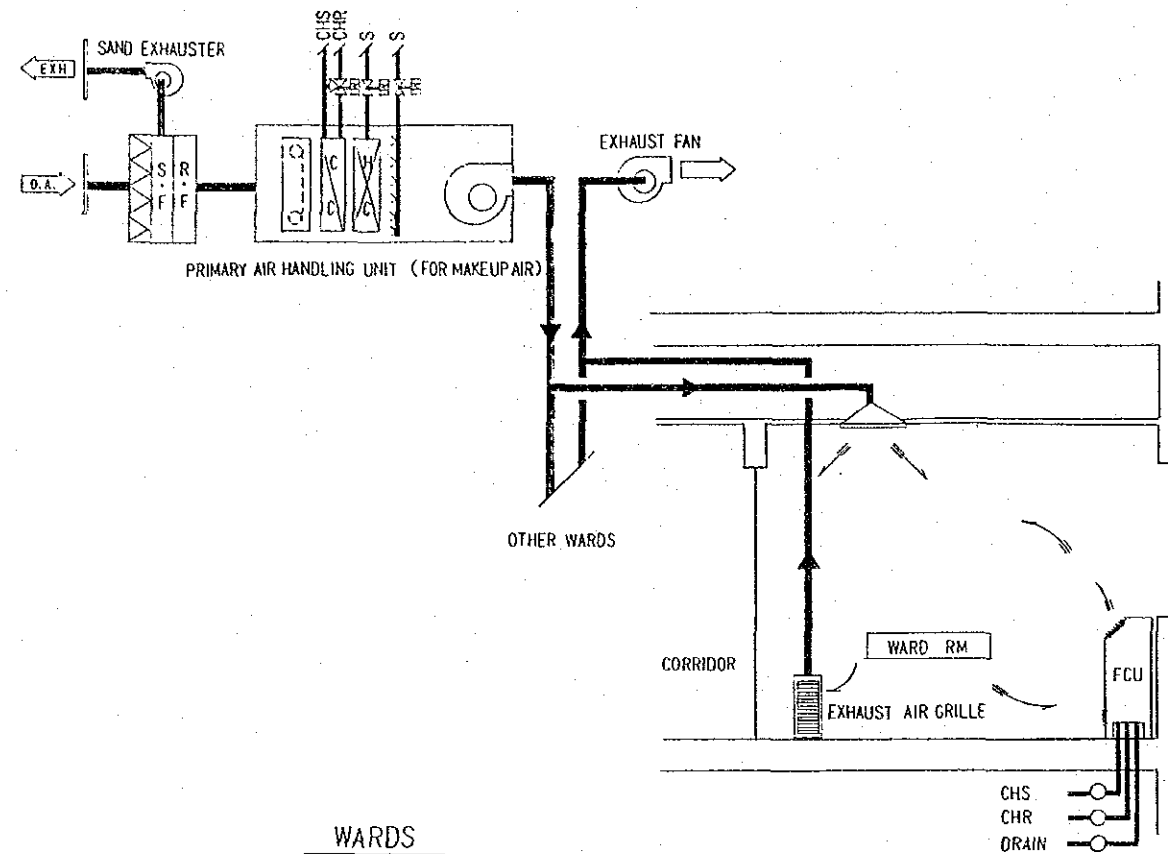
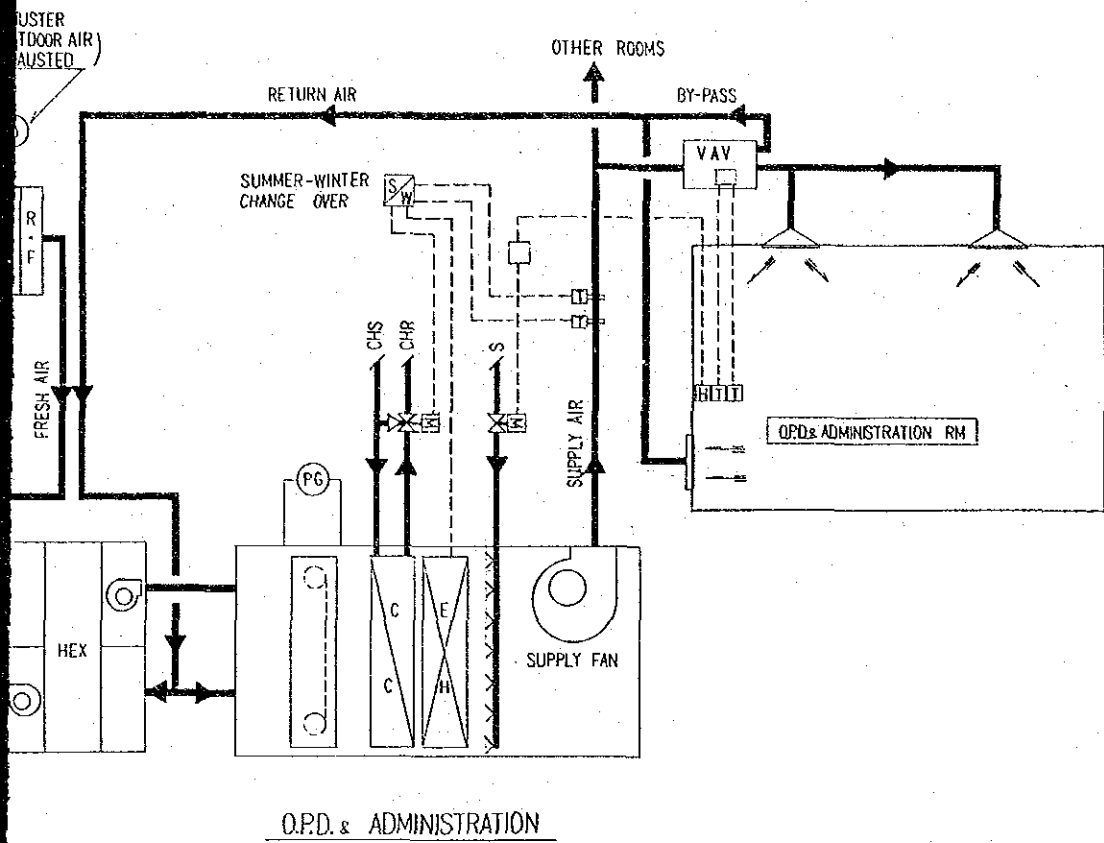
WARDS



OPERATING ROOM (CONVENTIONAL FLOW TYPE)



BIO-CLEAN ROOM (CROSS FLOW LAMINAR FLOW TYPE)

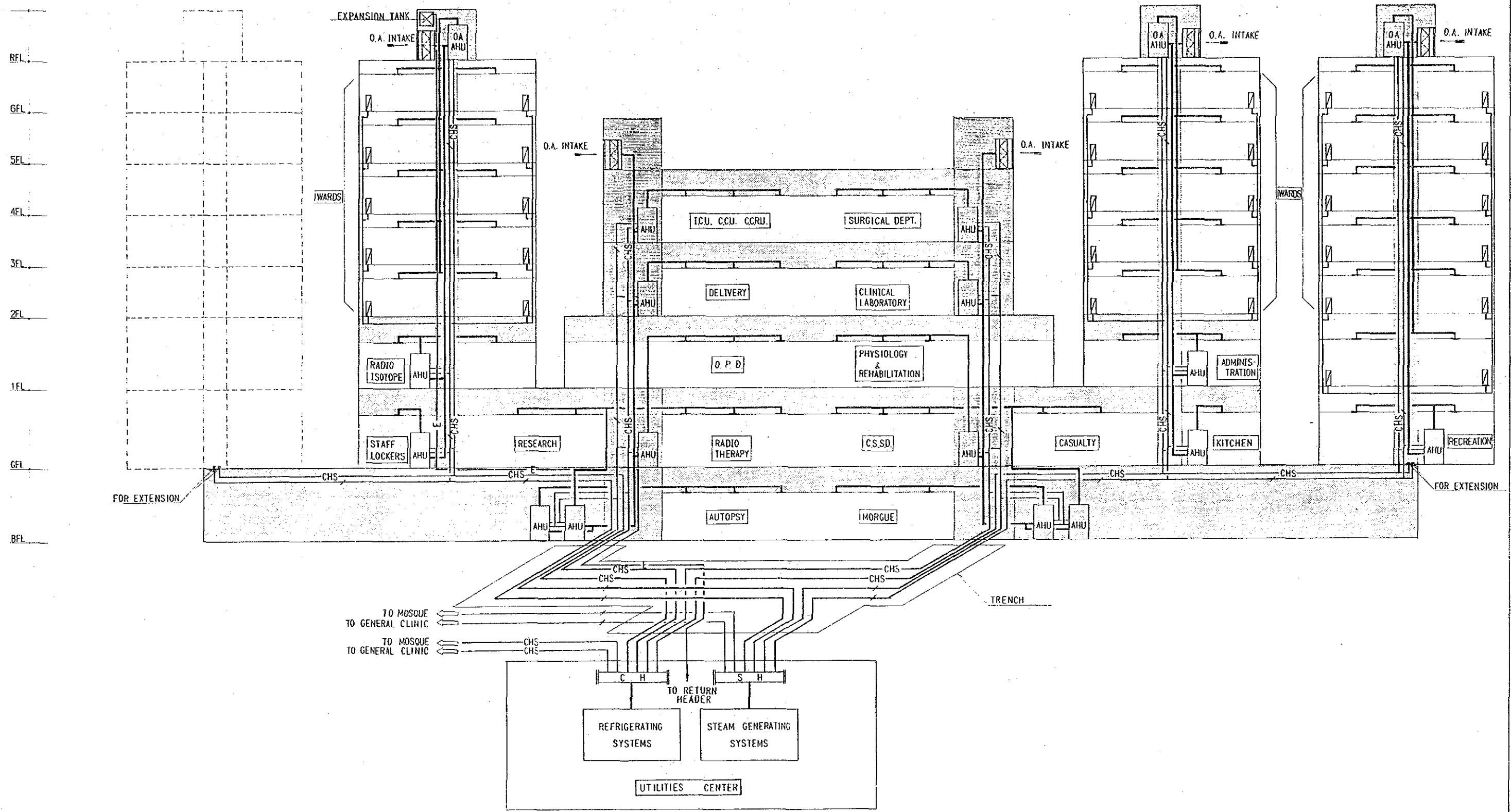


SYMBOLS & ABBREVIATION	
	OUTDOOR AIR TREATMENT UNIT (WITH SAND FILTER)
	HEAT EXCHANGER (AIR SOURCE TYPE WITH FAN)
	ROLL FILTER (AUTOMATIC DRIVE TYPE)
	INTERMEDIATE FILTER
	CHILLED WATER COIL
	HEATING COIL (STEAM)
	ELECTRIC HEATER
	STEAM SPRAY NOZZLE (USE DRY STEAM)
	TWO-WAY VALVE
	THREE-WAY VALVE
	VARIABLE AIR VOLUME CONTROL SYSTEM (BY-PASS TYPE)
	CONSTANT AIR VOLUME CONTROL SYSTEM
	PRESSURE GAUGE
	THERMOSTAT
	HUMIDISTAT
	THERMOSTAT (DUCT INSERT TYPE)
	SUPPLY OUTLET CEILING DIFFUSER
	EXHAUSTED AIR GRILLE
	OUTDOOR AIR
	EXHAUSTED AIR
	FAN COIL UNIT

SOUTH WING
<CANCER CENTER>

CENTRAL BUILDING
<JOINT USE>

NORTH WING
<GENERAL HOSPITAL>



SYMBOLS

CHS	CHILLED WATER SUPPLY
CHS	CHILLED WATER RETURN
OA	OUTDOOR AIR INTAKE
AHU	AIR HANDLING UNIT
E	EXPANSION TANK

CHILLED WATER SUPPLY AND AIR DISTRIBUTION SYSTEM DIAGRAM

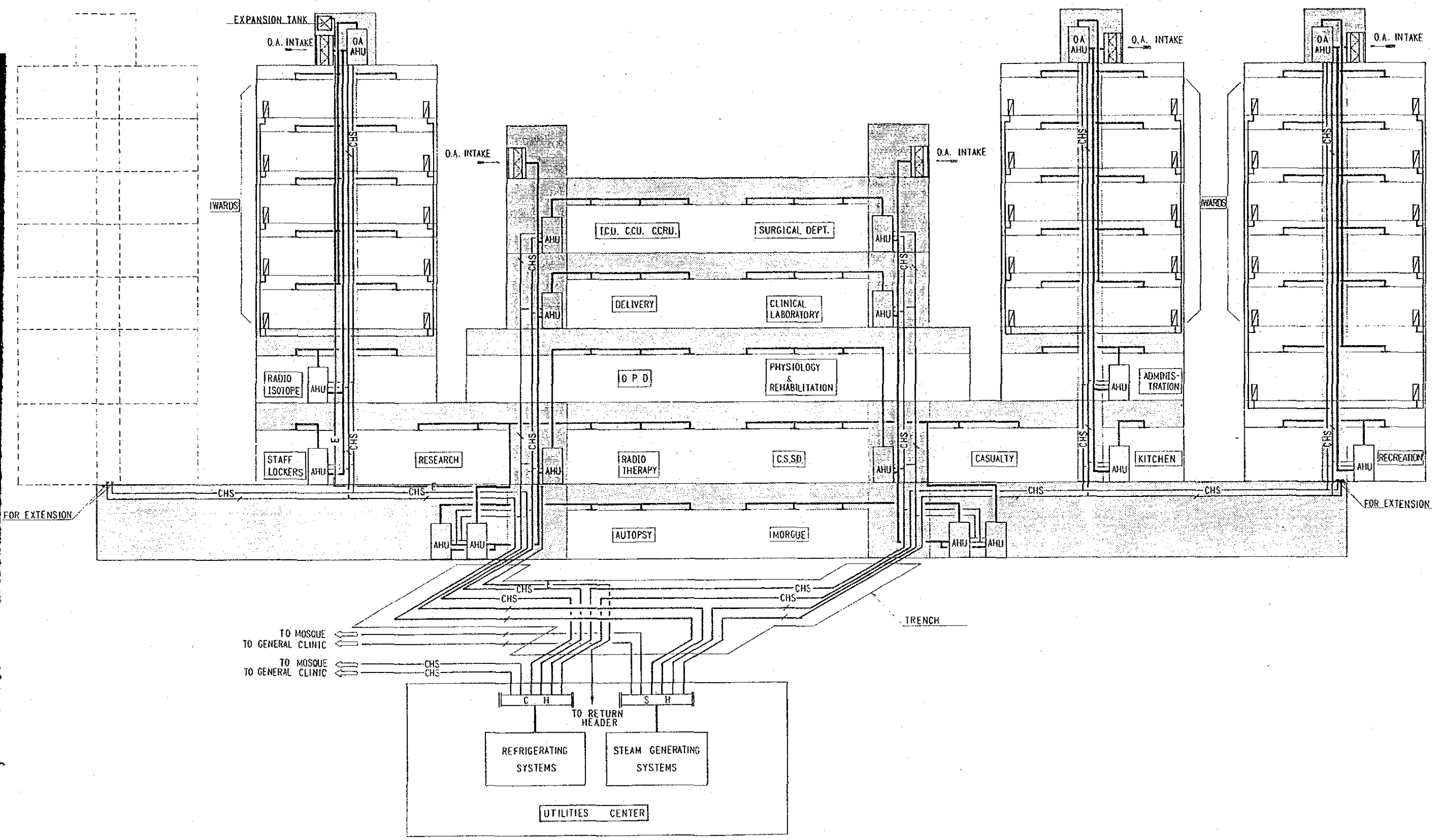
SOUTH WING
<CANCER CENTER>

CENTRAL BUILDING
<JOINT USE>

NORTH WING
<GENERAL HOSPITAL>

SYMBOLS

-CHS-	CHILLED WATER SUPPLY
—	STEAM SUPPLY
—	AIR DUCT
—	CHILLED WATER SUPPLY HEADER
—	STEAM SUPPLY HEADER
—	OUTDOOR AIR TREATMENT UNIT (WITH SAND FILTER)
—	PRIMARY AIR HANDLING UNIT
—	AIR HANDLING UNIT
—	FAN COIL UNIT
-E-	EXPANSION



CHILLED WATER SUPPLY AND AIR DISTRIBUTION SYSTEM DIAGRAM

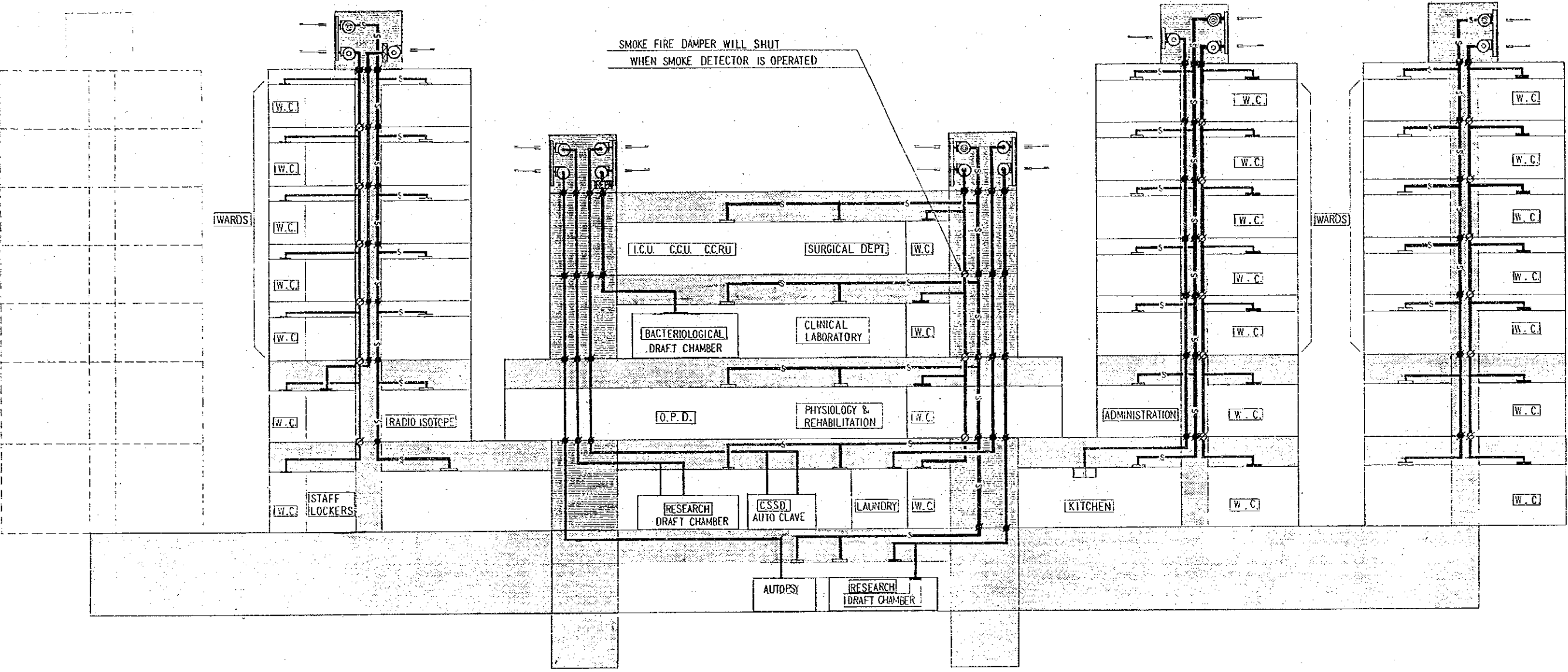
SOUTH WING
<CANCER CENTER>

CENTRAL BUILDING
<JOINT USE>

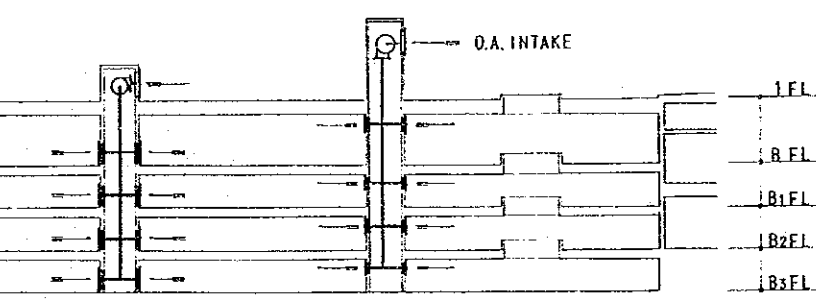
NORTH WING
<GENERAL HOSPITAL>

SYMBOLS

	DUCT (VENTILATION)
	DUCT (SMOKE EXHAUST)
	GRILLE
	SMOKE EXHAUST GRILLE
	FIRE DAMPER
	SMOKE FIRE DAMPER
	CENTRIFUGAL FAN (FOR VENTILATION)
	CENTRIFUGAL FAN (FOR SMOKE EXHAUST)
	CHARCOAL FILTER
	HEPA FILTER
	WATER CLOSET



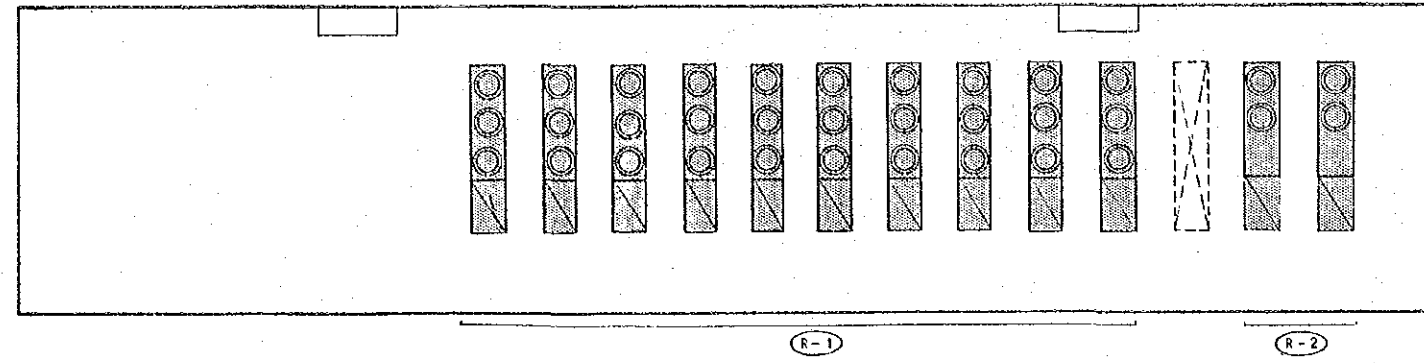
SMOKE FIRE DAMPER WILL SHUT
WHEN SMOKE DETECTOR IS OPERATED



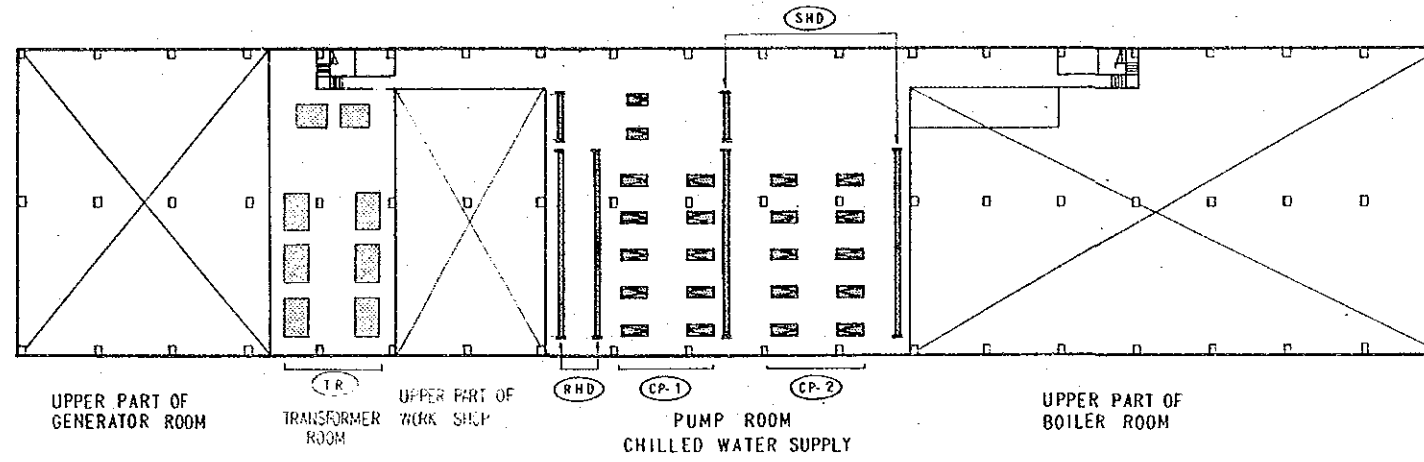
PARKING BUILDING

VENTILATING AND SMOKE EXHAUSTING SYSTEM DIAGRAM

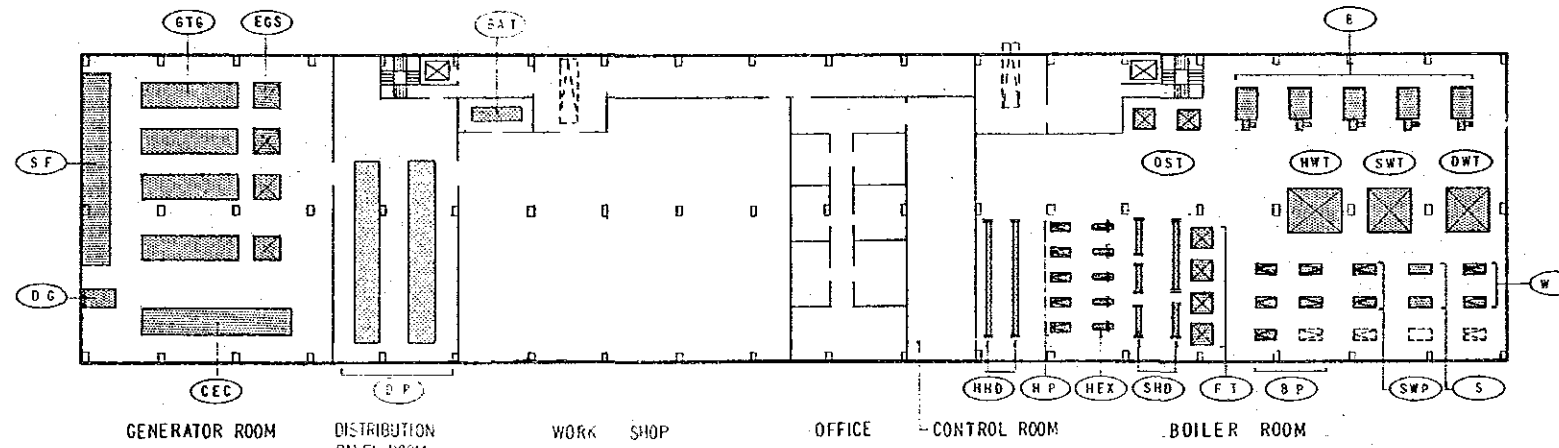
ROOF PLAN



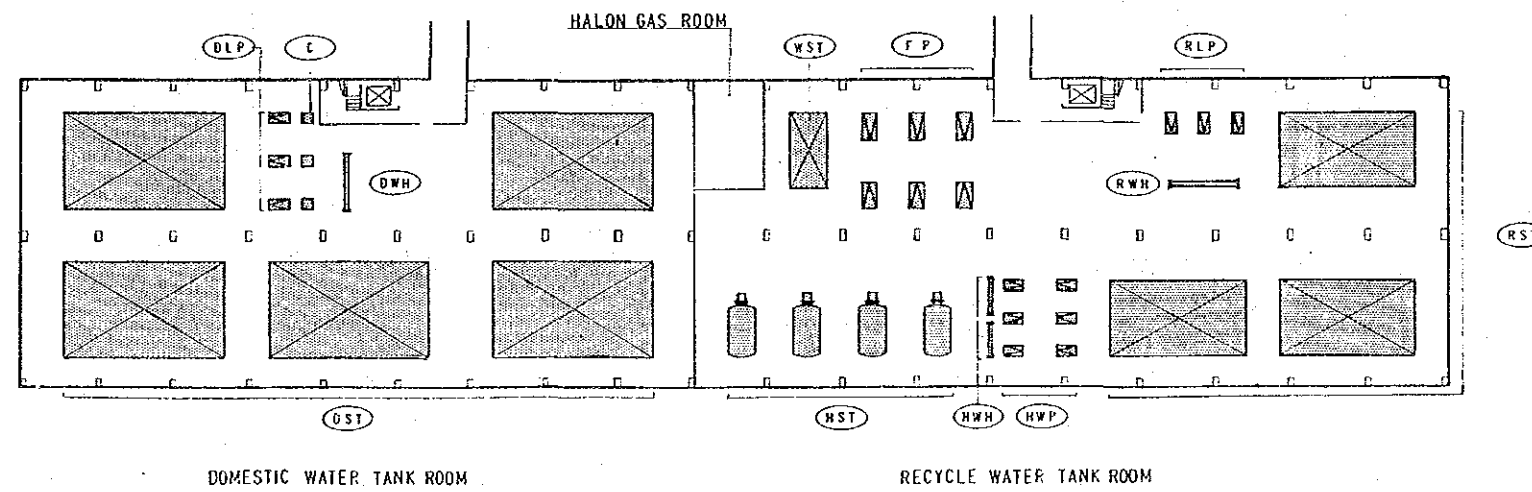
1ST FLOOR PLAN



GROUND FLOOR PLAN

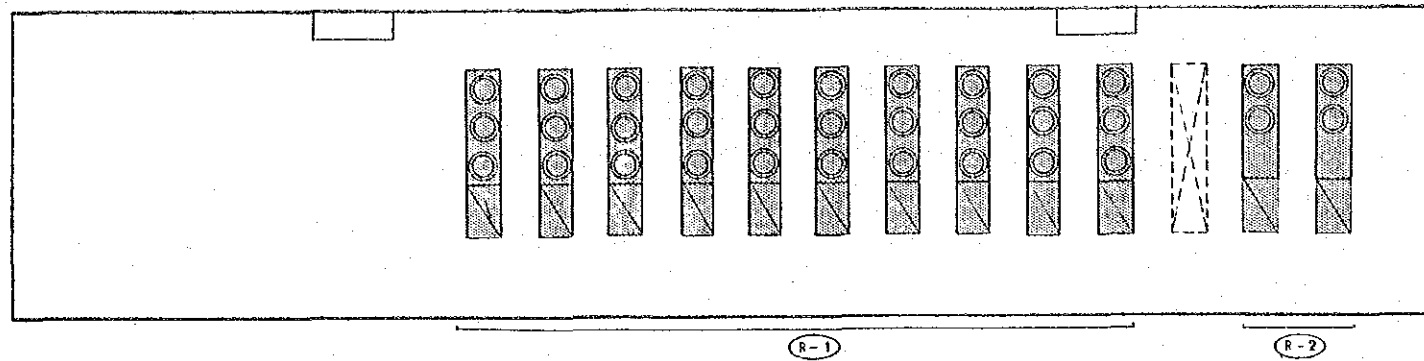


BASEMENT 1ST FLOOR PLAN

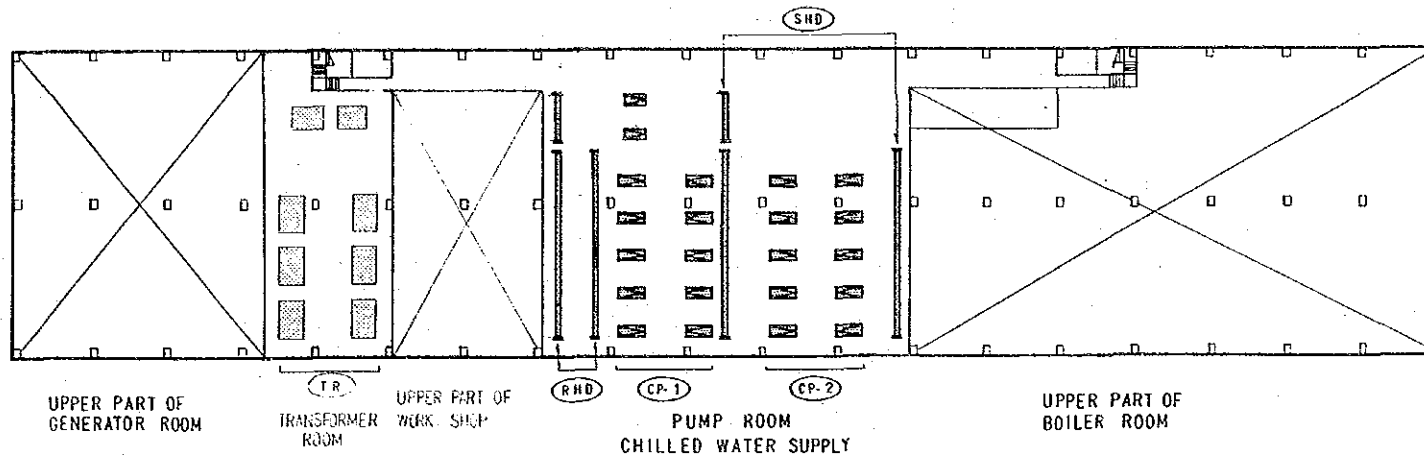


SYMBOLS	
(R-1)	
(R-2)	
(CP-1)	
(CP-2)	
(CP-3)	
(SHD) (RHD)	
(B)	
(DST)	
(HWT) (FT)	
(SWT)	
(DWT)	
(HHD) (SHD)	
(HP)	
(HEX)	
(BP)	
(SWP)	
(S)	
(WP)	
(DST) (RST)	
(WST)	
(HST)	
(DLP) (RLP)	
(FP)	
(HWP)	
(DWH) (RWH)	
(HWH)	
(C)	
(TR)	
(BAT)	
(GTC)	
(DG)	
(DP)	
(CEC)	
(EGS)	
(SF)	

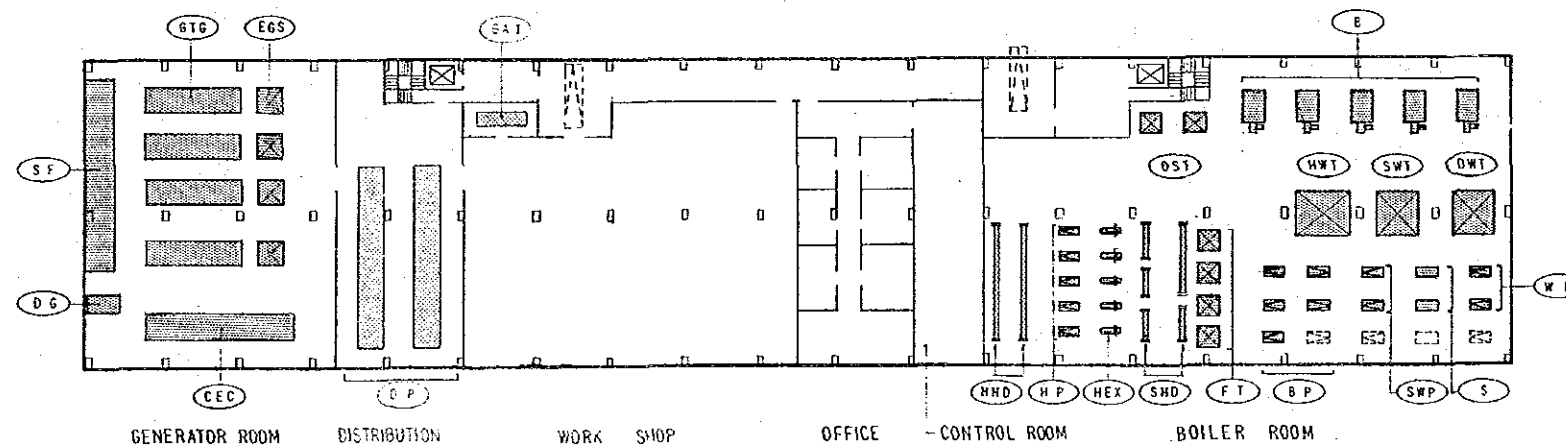
ROOF PLAN



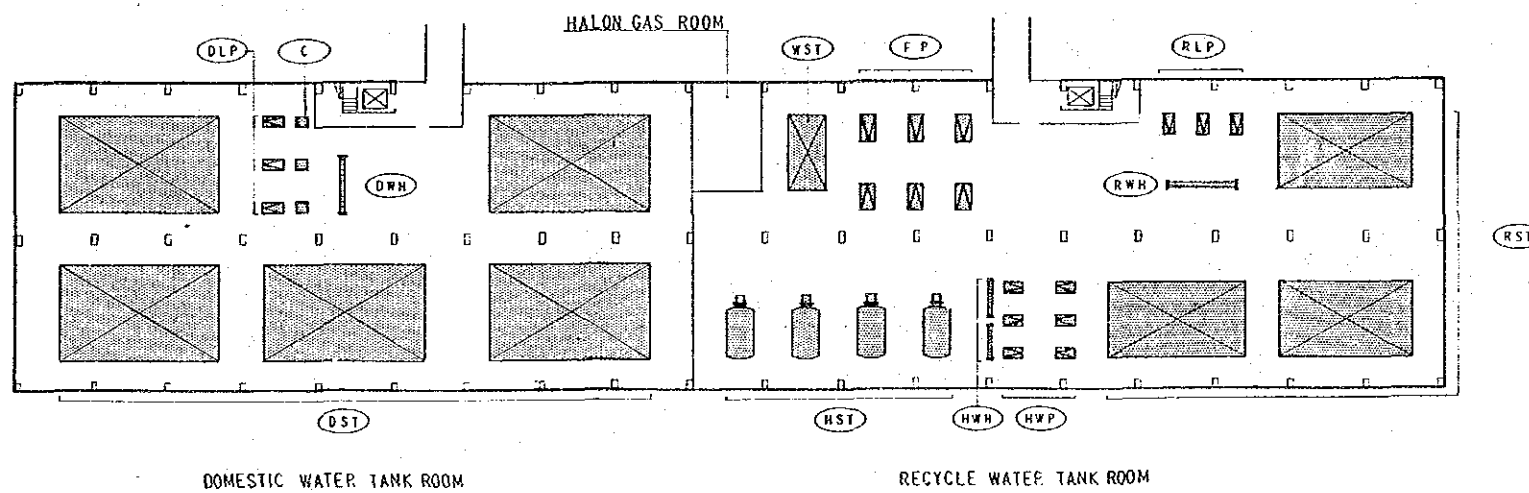
1ST FLOOR PLAN



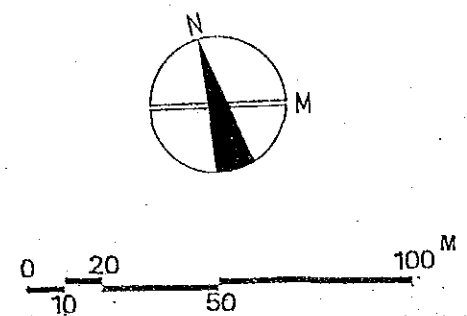
GROUND FLOOR PLAN



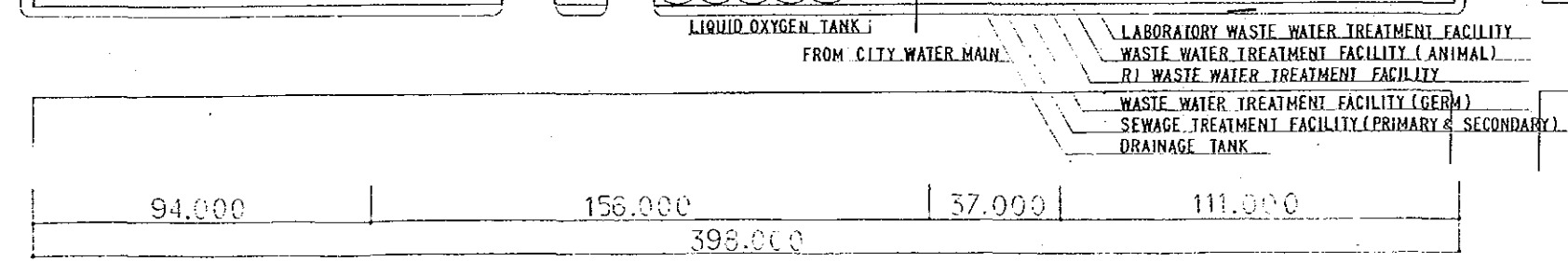
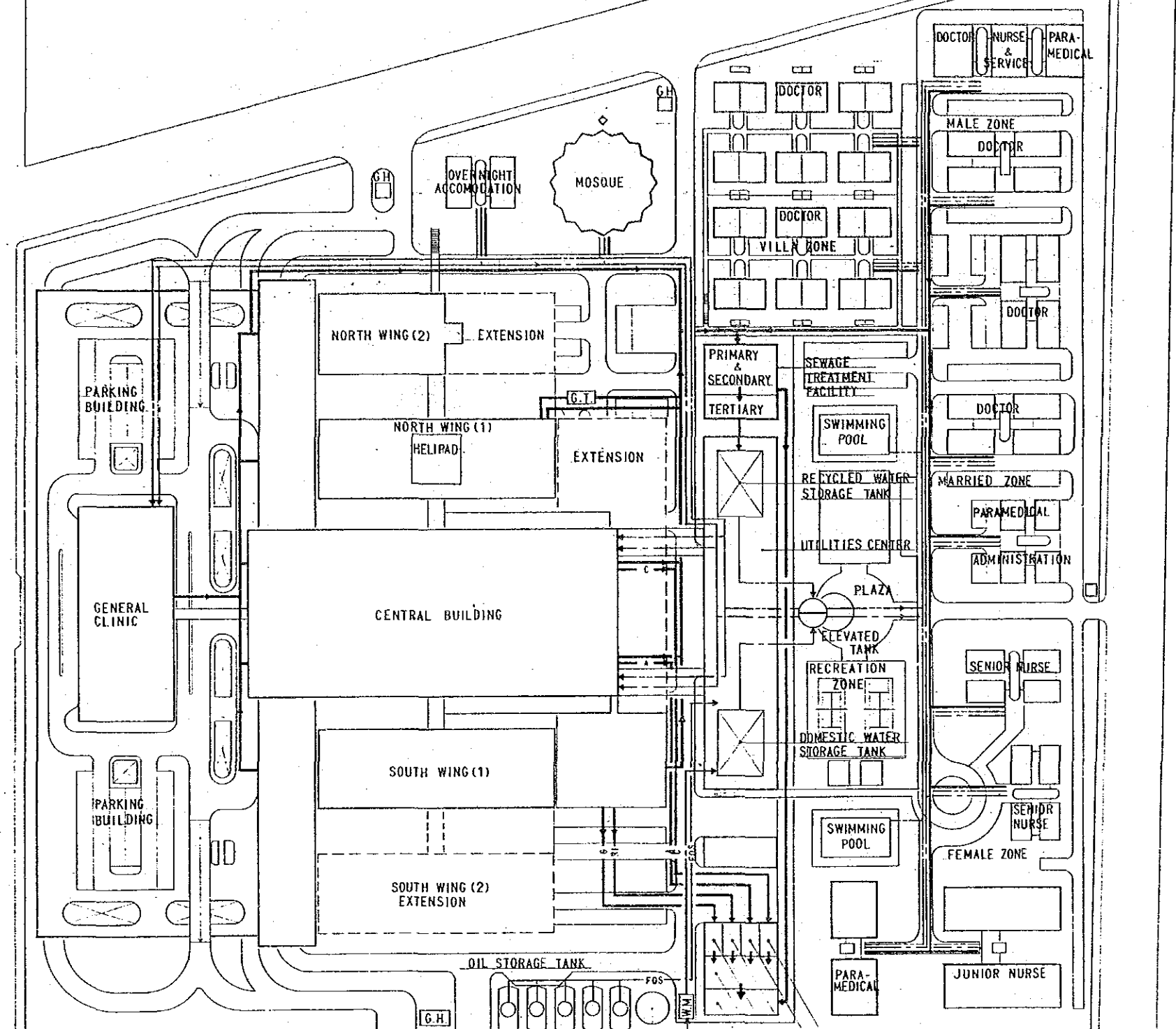
BASEMENT 1ST FLOOR PLAN



SYMBOLS	
(R-1)	PACKAGED AIR-COOLED CHILLER (TEN SETS) (FOR AIR-CONDITIONING)
(R-2)	PACKAGED AIR-COOLED CHILLER (TWO SETS) (FOR COLD STORAGE UNITS)
(CP-1)	PRIMARY CHILLED WATER PUMP (FOR AIR-CONDITIONING)
(CP-2)	SECONDARY CHILLED WATER PUMP (FOR AIR-CONDITIONING)
(CP-3)	CHILLED WATER PUMP (FOR COLD STORAGE UNITS)
(SHD) (RHD)	CHILLED WATER SUPPLY & RETURN HEADER
(B)	FLUE TUBE-SMOKE TUBE BOILER(FIVE SETS)
(OST)	OIL SERVICE TANK
(HWT) (FT)	HOT WELL TANK & FLASH TANK
(SWT)	SOFTENED WATER STORAGE TANK
(DWT)	DOMESTIC WATER TANK
(HHD) (SHD)	HOT WATER SUPPLY HEADER & STEAM HEADER
(HP)	HOT WATER SUPPLY PUMP
(HEX)	HEAT EXCHANGER
(BP)	FEED WATER PUMP (FOR BOILER)
(SWP)	SOFTENED WATER PUMP
(S)	SOFTENER
(WP)	RAW WATER PUMP
(DST) (RST)	DOMESTIC WATER & RECYCLED WATER STORAGE TANK
(WST)	WATER STORAGE TANK (FOR FIRE-FIGHTING)
(HST)	HOT WATER STORAGE TANK
(DLP) (RLP)	LIFT PUMP (DOMESTIC & RECYCLED WATER)
(FP)	FIRE PUMP (HYDRANT & SPRINCLER etc.)
(HWP)	HOT WATER CIRCULATION PUMP
(DWH) (RWH) (HWH)	DOMESTIC WATER, RECYCLED WATER & HOT WATER SUPPLY HEADER
(C)	CHLORINATOR
(TR)	TRANSFORMER
(BAT)	BATTERY
(GTG)	GAS TURBINE GENERATOR SET
(DG)	DIESEL GENERATOR
(DP)	DISTRIBUTION PANEL
(CEC)	CONTROL & ELECTRICAL CUBICLES
(EGS)	EXHAUST GAS SILENCER
(SF)	ENGINE ROOM AIR INLET SILENCER & FILTER

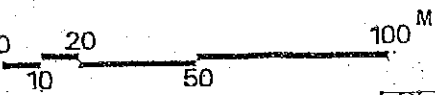
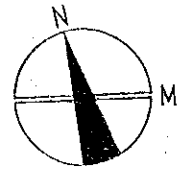


294.000
 243.000
 36.000

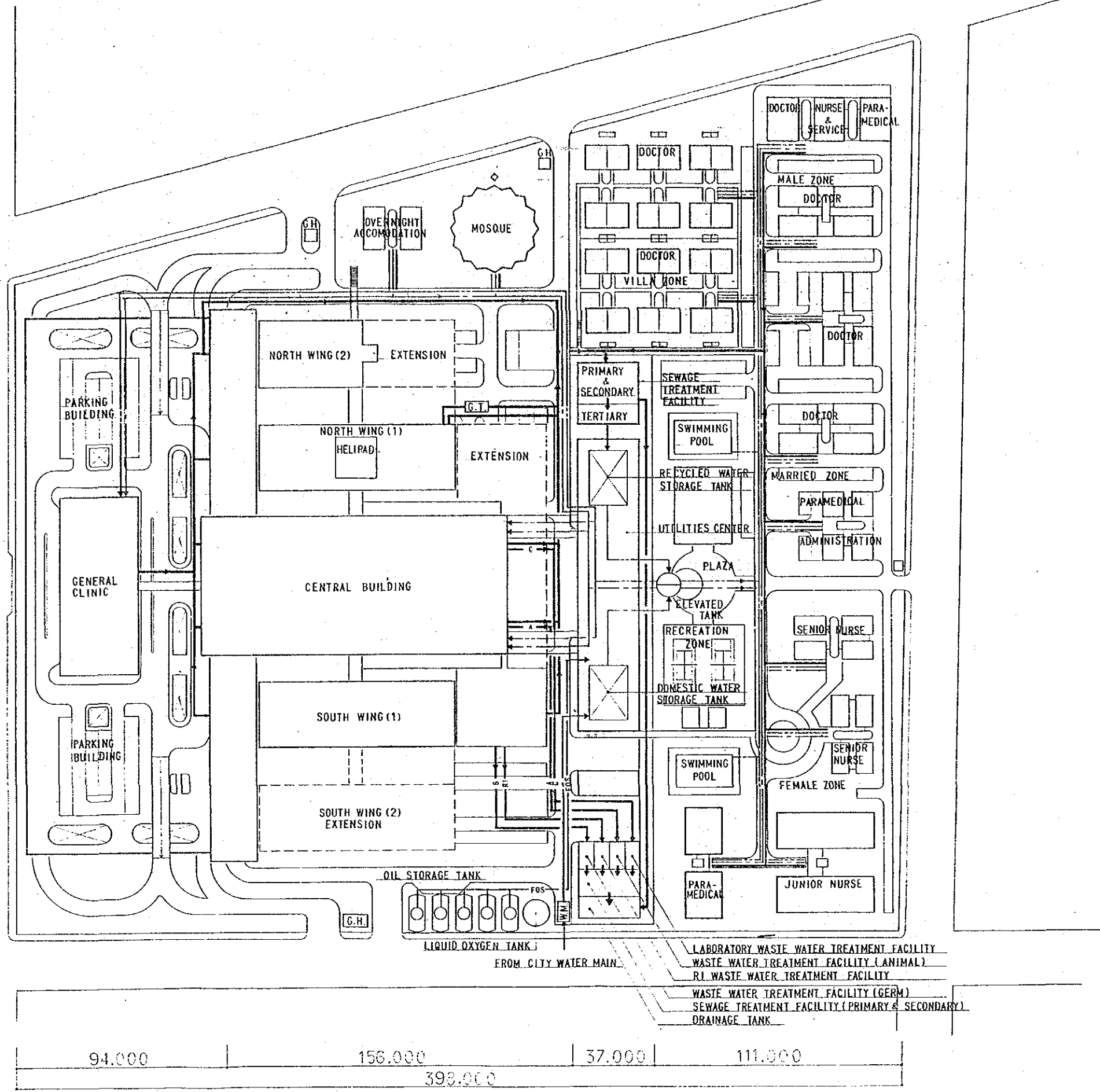


SYMBOLS

---R ---
---C---
---A---
---G---
---FOS---
[W.M.]
[G.T.]

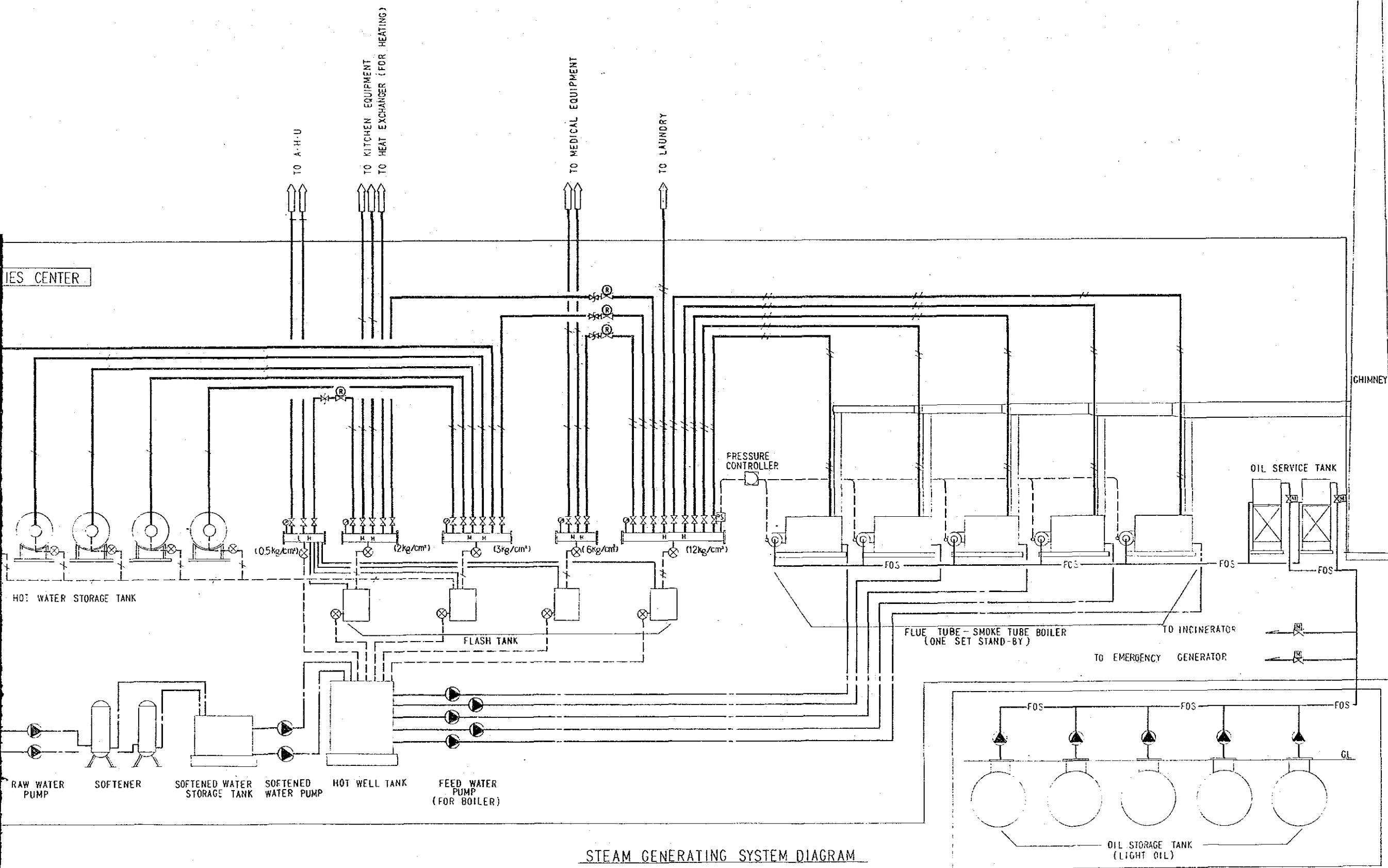


294.000
 243.000
 30.000



SYMBOLS	
---	DOMESTIC WATER
---	RECYCLED WATER
---	SOIL & WASTE WATER
—R—	RADIOACTIVE WASTE WATER
—C—	LABORATORY WASTE WATER
—A—	WASTE WATER (ANIMAL)
—G—	WASTE WATER (GERM)
—FOS—	FUEL OIL SUPPLY
[W.M.]	WATER METER
[G.T.]	GREASE TRAP

94.000 156.000 37.000 111.000
 398.000

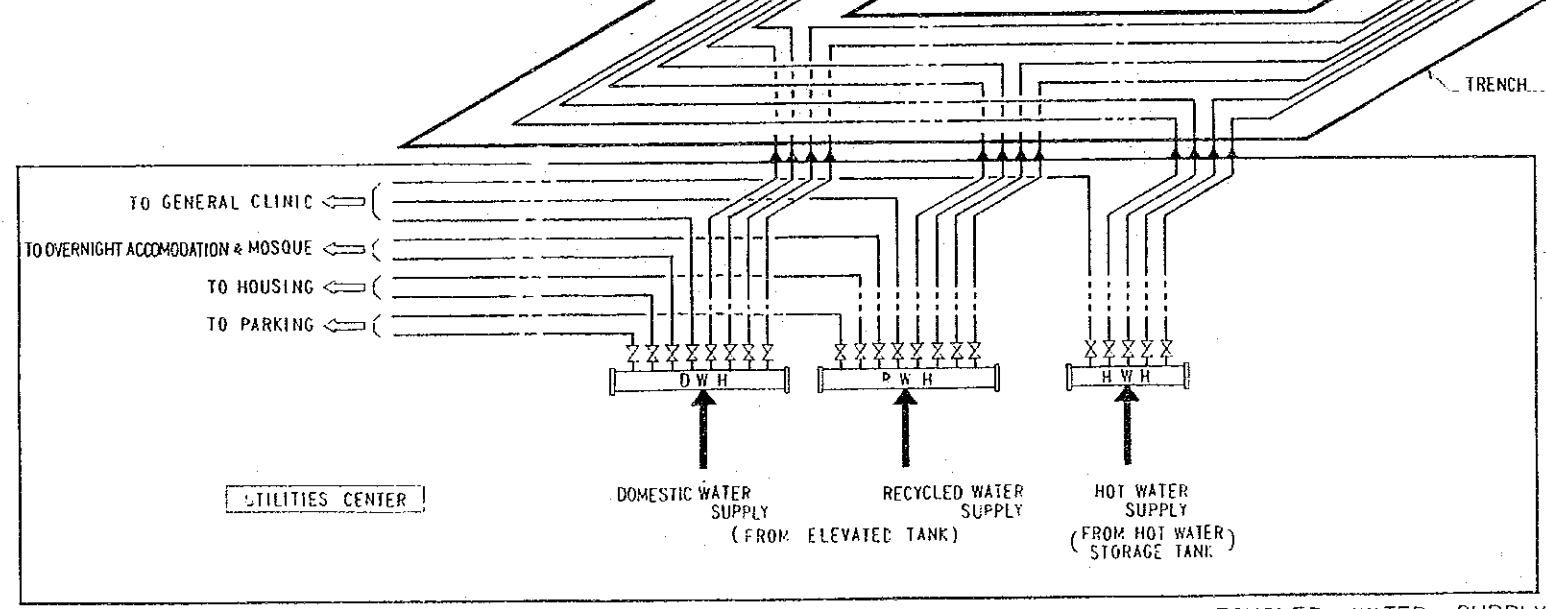
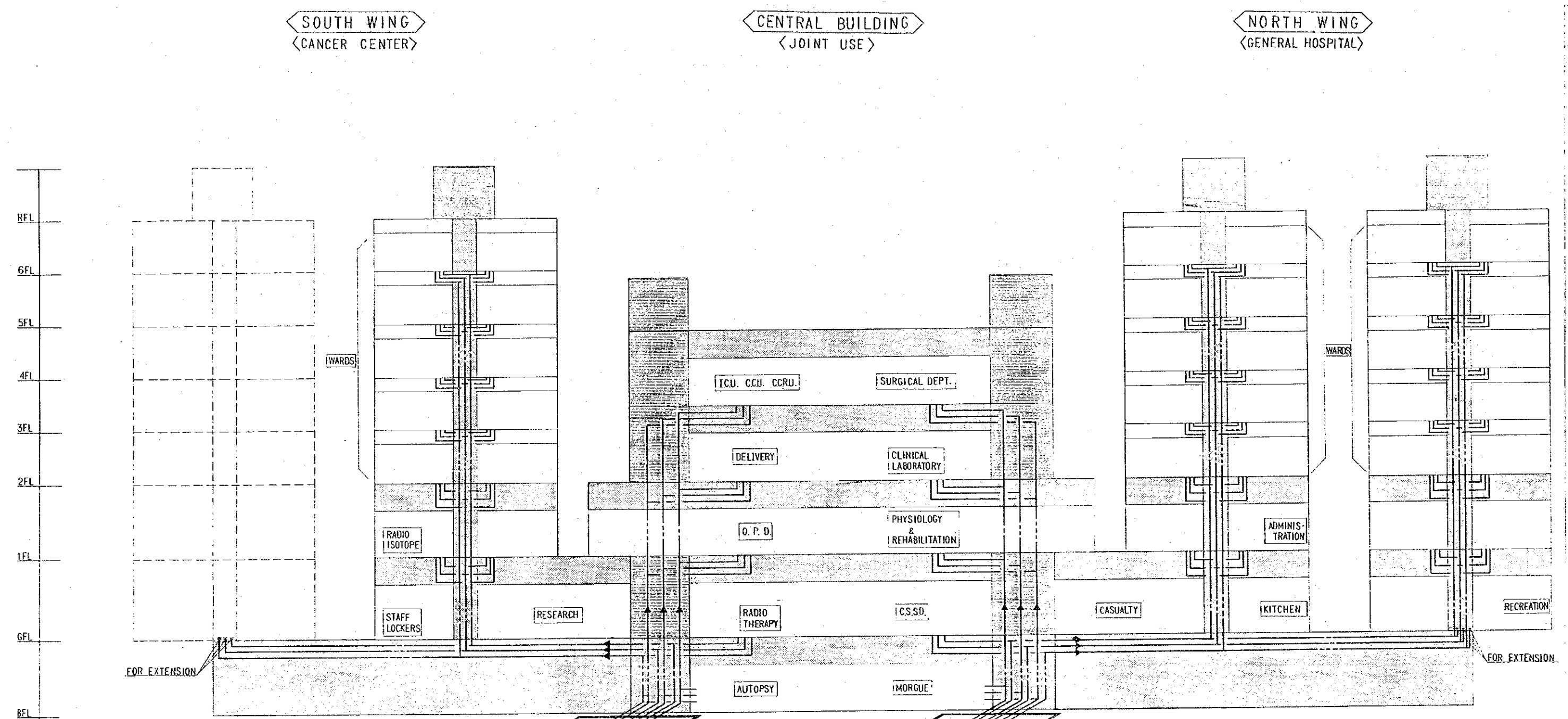


SYMBOLS.

—/—/—	HIGH PRESSURE STEAM SUPPLY
—/—/—	HIGH PRESSURE RETURN
—/—/—	MEDIUM PRESSURE STEAM SUPPLY
—/—/—	MEDIUM PRESSURE RETURN
—/—/—	LOW PRESSURE STEAM SUPPLY
—/—/—	LOW PRESSURE RETURN
—/—/—	MAKE UP WATER
-FOS-	FUEL OIL SUPPLY
⊠	TWO WAY VALVE
⊙	STEAM TRAP
⊗	GLOBE VALVE
⊕	PRESSURE REDUCING VALVE
⊖	RELIEF VALVE
⊠	HIGH PRESSURE STEAM HEADER
⊠	MEDIUM PRESSURE STEAM HEADER
⊠	LOW PRESSURE STEAM HEADER
⊙	PRESSURE GAUGE
⊕	PUMP
A.H.U.	AIR HANDLING UNIT

STEAM GENERATING SYSTEM DIAGRAM

SYMBOLS	
---	DC
---	R
---	HC
[DWH]	DC
[RWH]	R
[HWH]	H



DOMESTIC WATER, HOT WATER AND RECYCLED WATER SUPPLY SYSTEM DIAGRAM

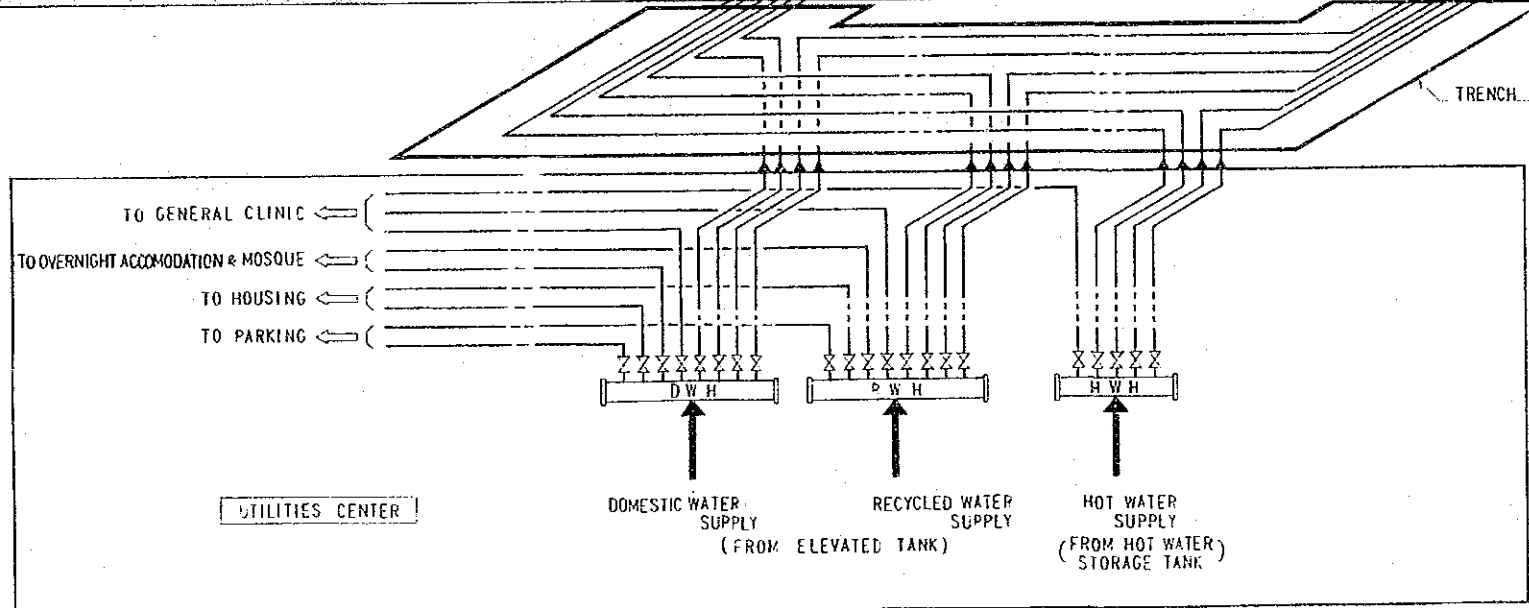
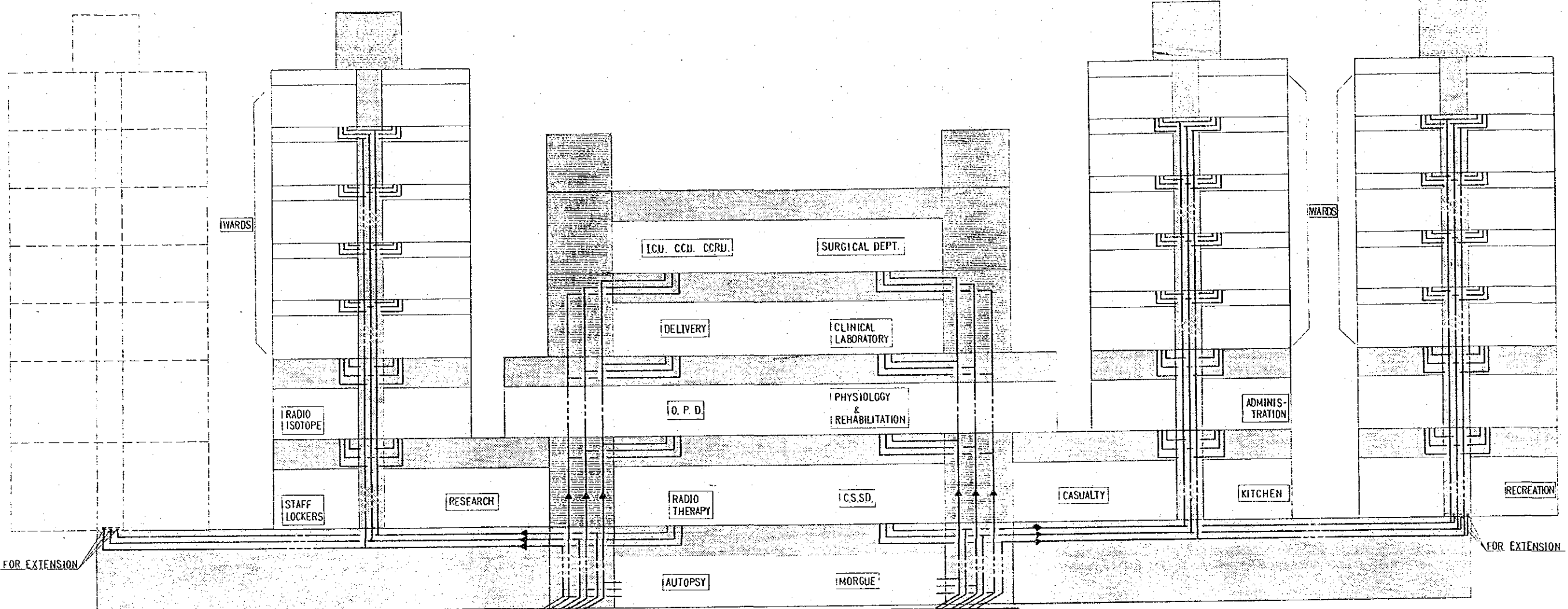
SOUTH WING
<CANCER CENTER>

CENTRAL BUILDING
<JOINT USE>

NORTH WING
<GENERAL HOSPITAL>

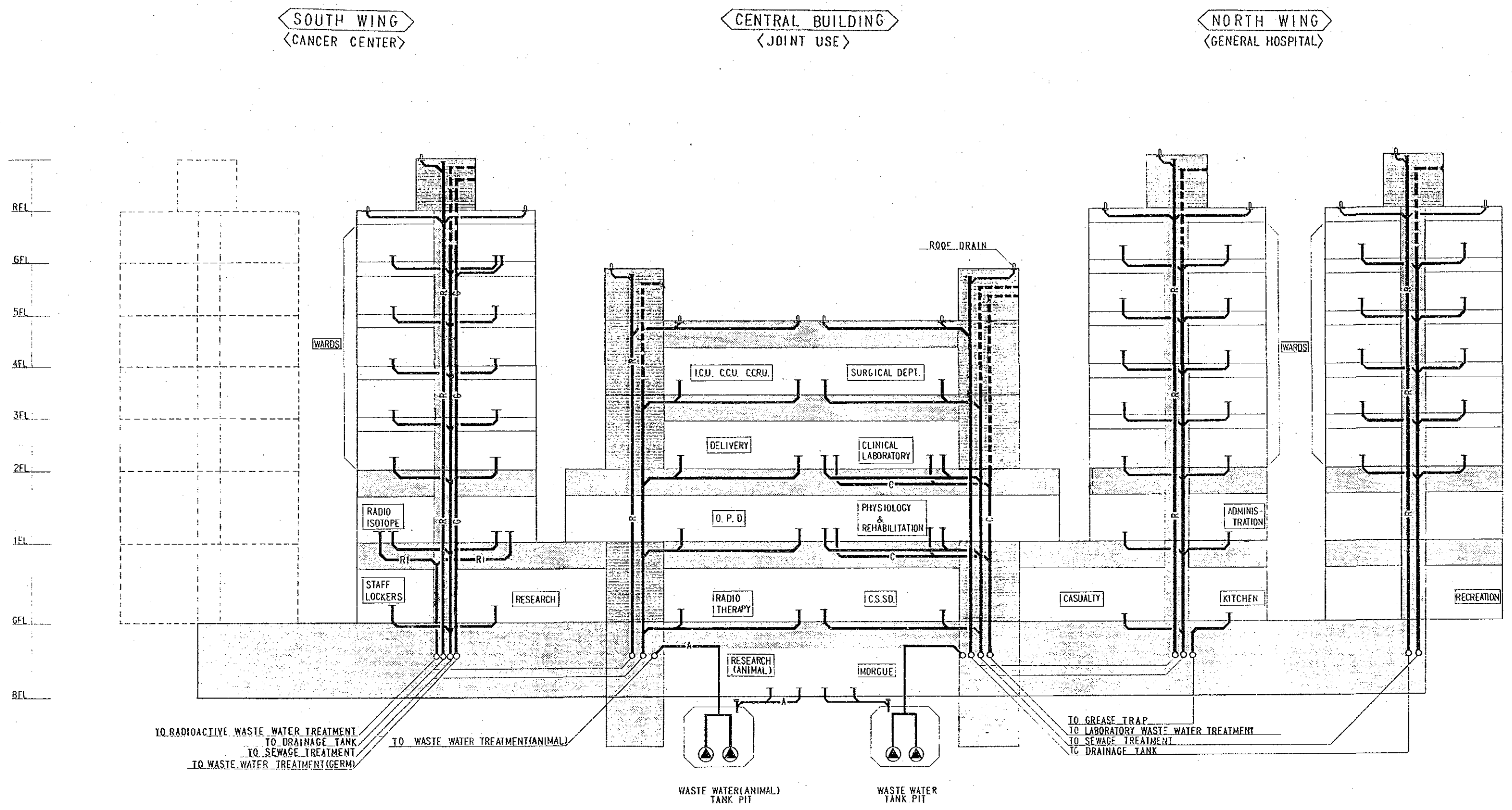
SYMBOLS

—	DOMESTIC WATER SUPPLY
- - -	RECYCLED WATER SUPPLY
—	HOT WATER SUPPLY
[DWH]	DOMESTIC WATER SUPPLY HEADER
[RWH]	RECYCLED WATER SUPPLY HEADER
[HWH]	HOT WATER SUPPLY HEADER



DOMESTIC WATER, HOT WATER AND RECYCLED WATER SUPPLY SYSTEM DIAGRAM

SYMBOLS
 ---R---
 ---RI---
 ---C---
 ---G---
 ---A---
 (A)



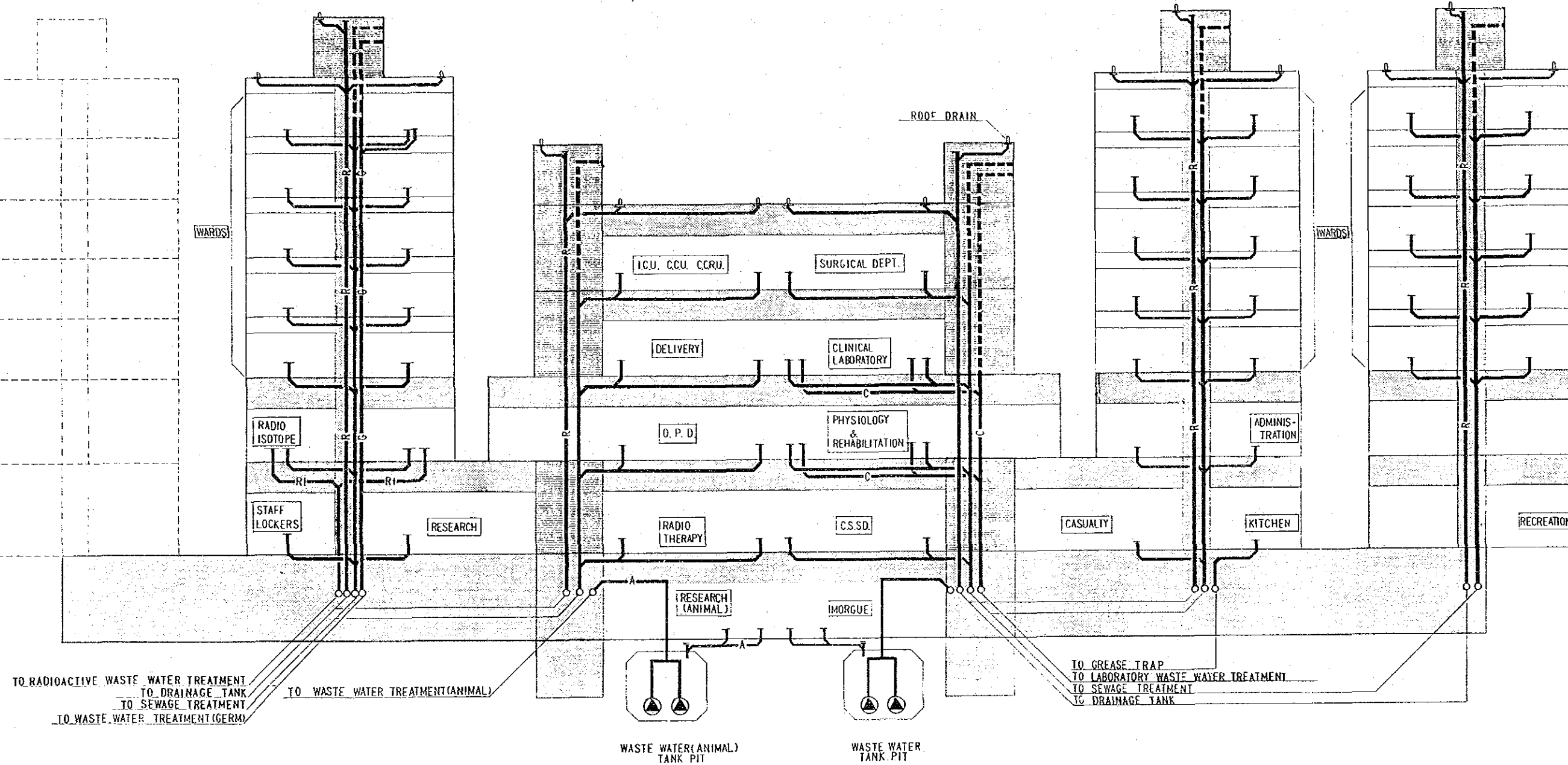
DRAINAGE SYSTEM DIAGRAM

SOUTH WING
<CANCER CENTER>

CENTRAL BUILDING
<JOINT USE>

NORTH WING
<GENERAL HOSPITAL>

SYMBOLS	
---	SOIL & WASTE WATER
-R-	ROOF DRAIN
-RI-	RADIOACTIVE WASTE WATER
-C-	LABORATORY WASTE WATER
---	VENT STACK
-G-	WASTE WATER (GERM)
-A-	WASTE WATER (ANIMAL)
⊙	PUMP

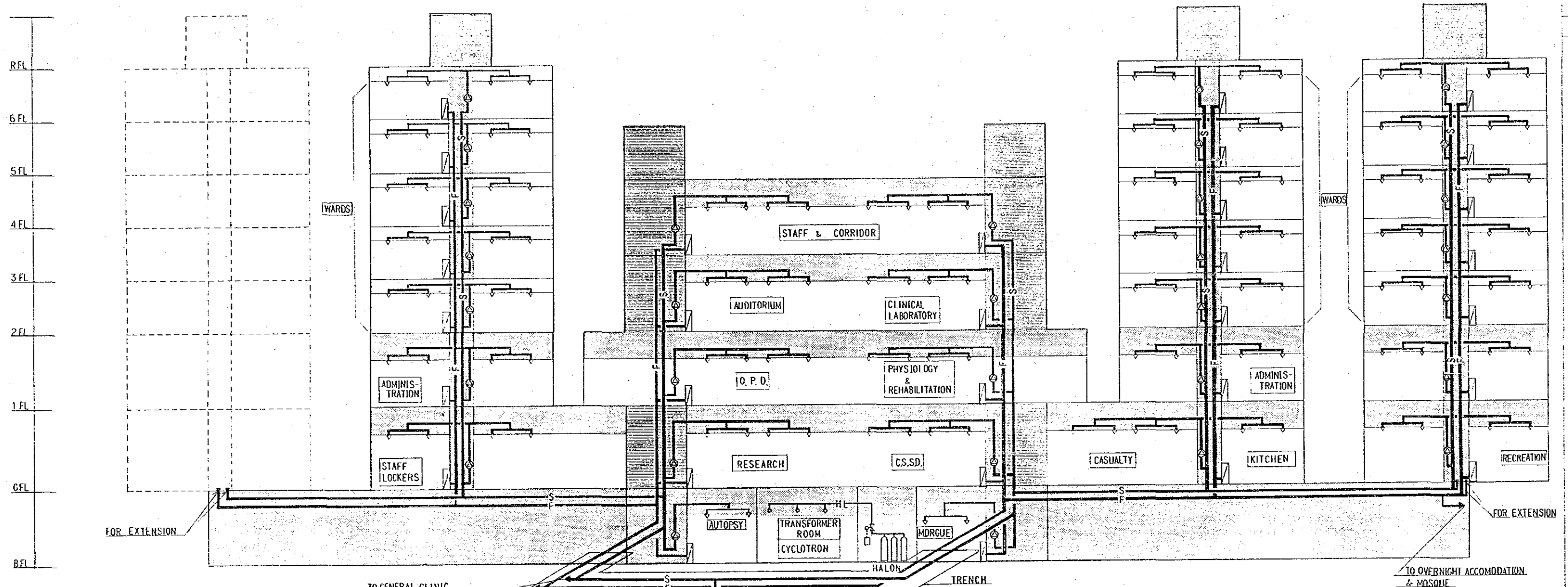


DRAINAGE SYSTEM DIAGRAM

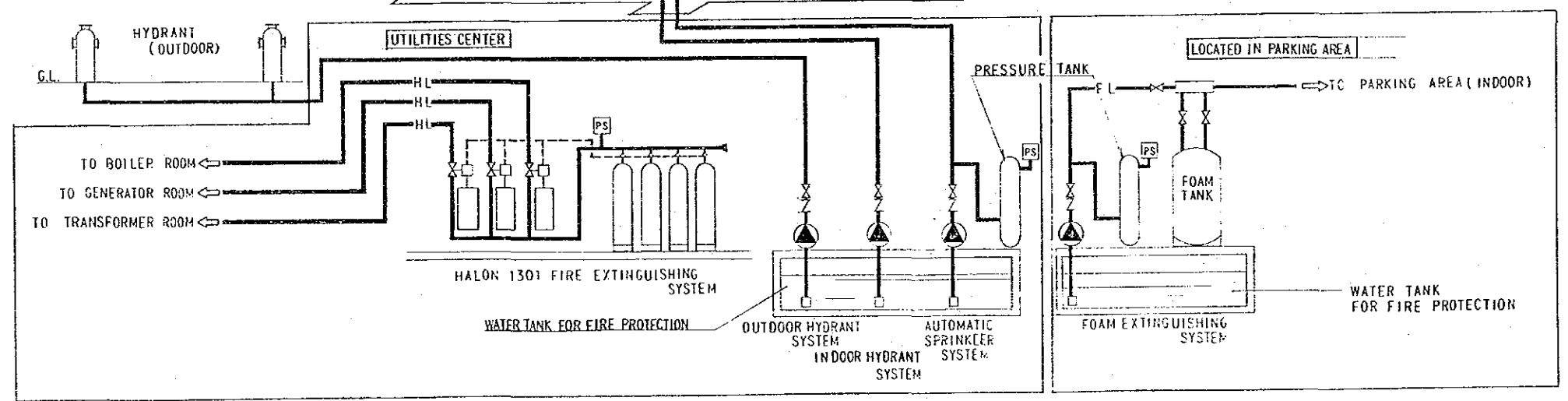
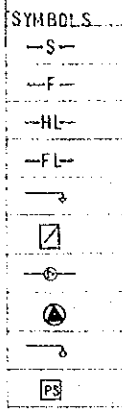
SOUTH WING
<CANCER CENTER>

CENTRAL BUILDING
<JOINT USE>

NORTH WING
<GENERAL HOSPITAL>



R.F.L.
6 FL
5 FL
4 FL
3 FL
2 FL
1 FL
G.F.L.
B.F.L.



FIRE PROTECTION SYSTEM DIAGRAM

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

BASIC DESIGN

JAPAN INTERNATIONAL
COOPERATION AGENCY

PLUMBING

FIRE PROTECTION SYSTEM D

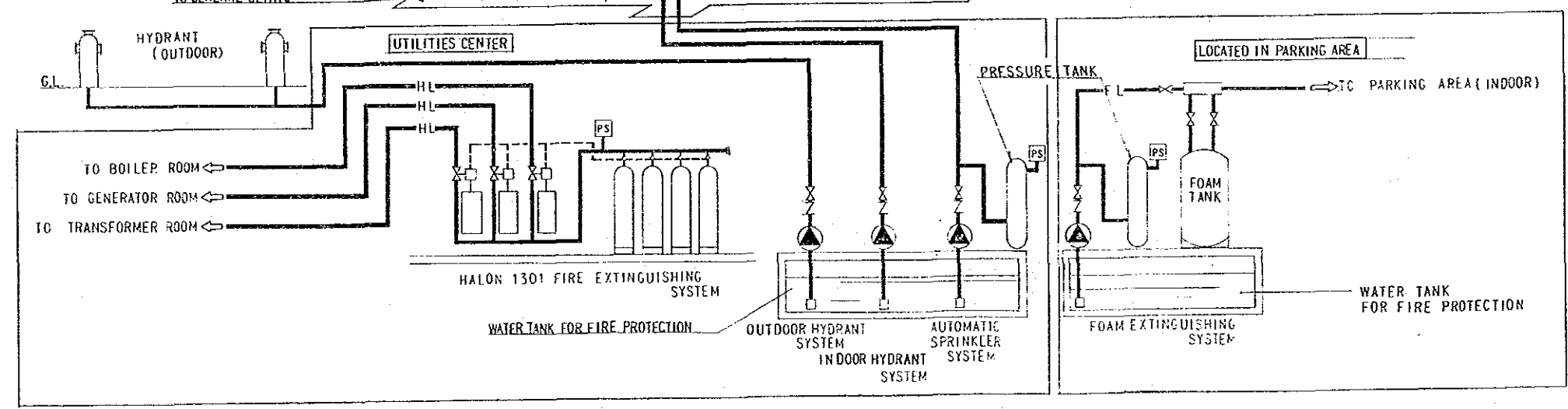
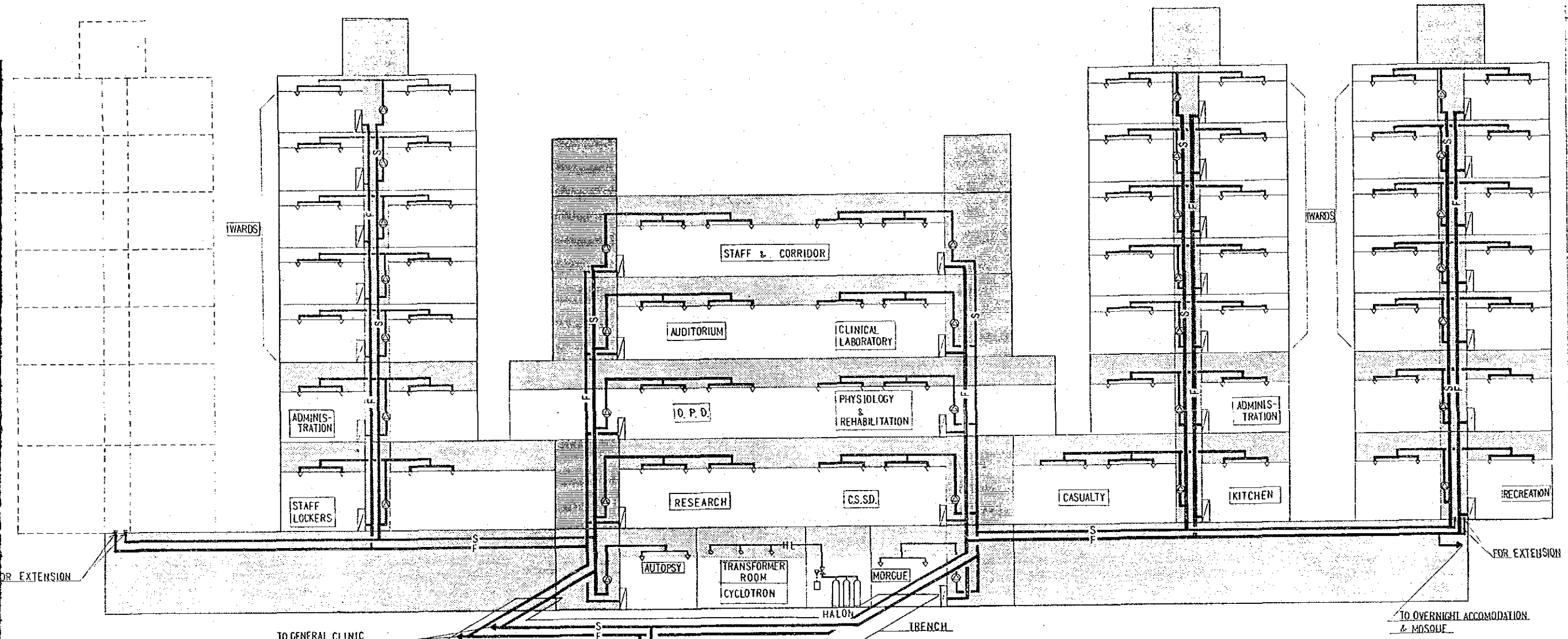
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CENTRAL BUILDING
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NORTH WING
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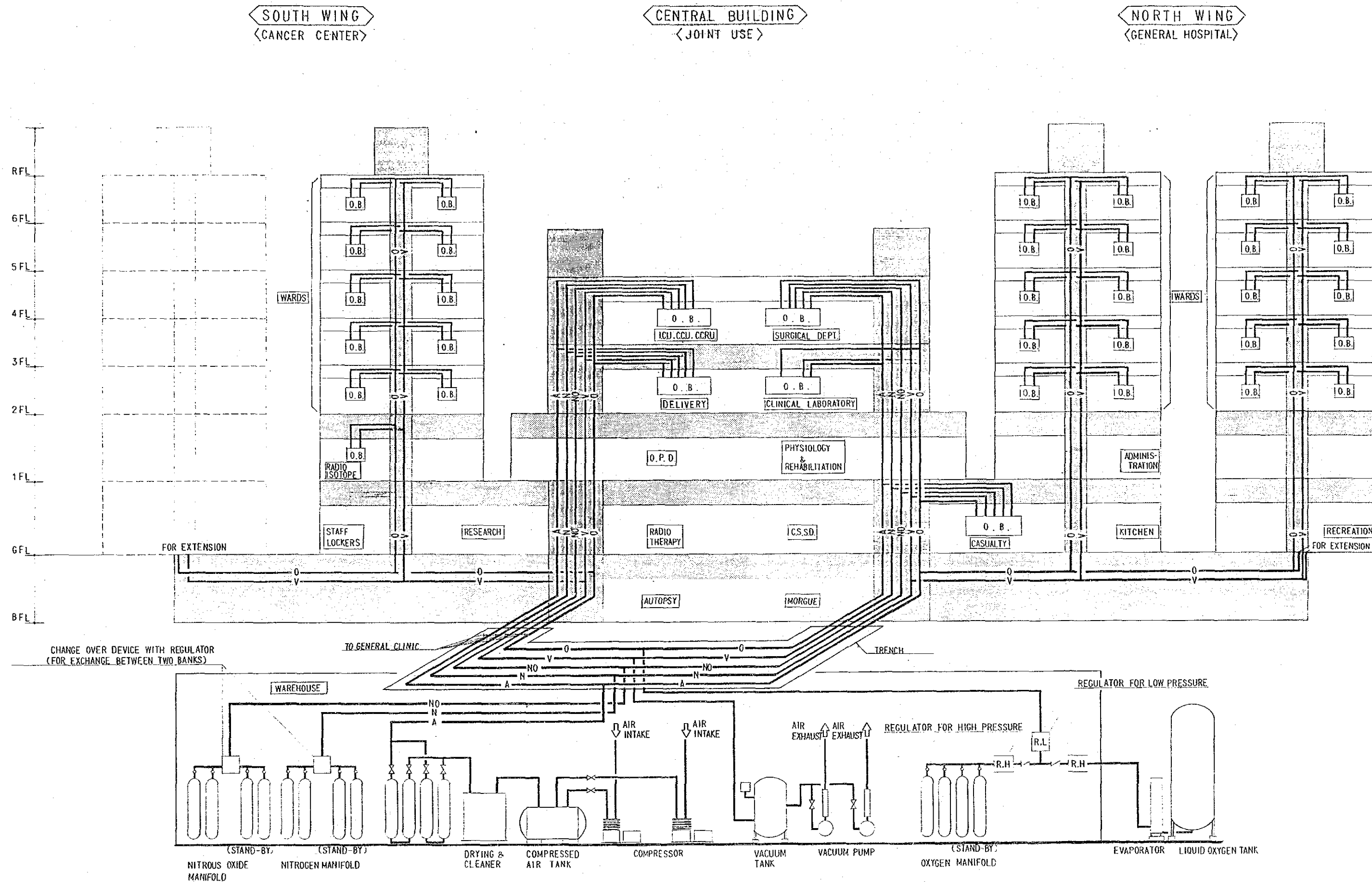
SYMBOLS

-S-	SPRINKLER LINE
-F-	FIRE LINE
-HL-	HALON GAS LINE
-FL-	FOAM LINE
→	SPRINKLER HEAD
☐	FIRE HOSE CABINET
⊙	SPRINKLER ALARM VALVE
⊕	PUMP
↗	HALON HEAD
PS	PRESSURE SWITCH



FIRE PROTECTION SYSTEM DIAGRAM

SYMBOLS	
-A-	CO
-NO-	NI
-N-	NI
-O-	OX
-V-	VA
-X-	NE
-L-	CF
O.B.	OU



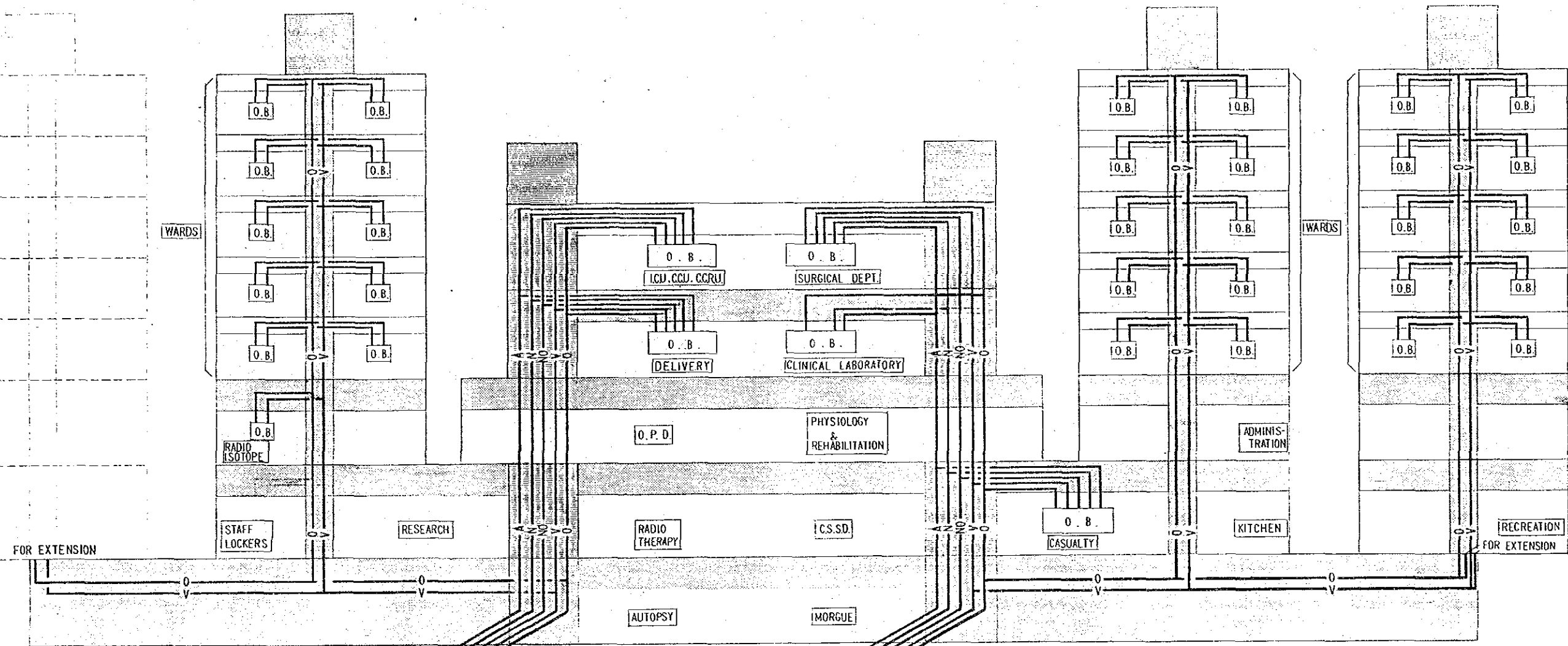
MEDICAL GAS SUPPLY SYSTEM DIAGRAM

SOUTH WING
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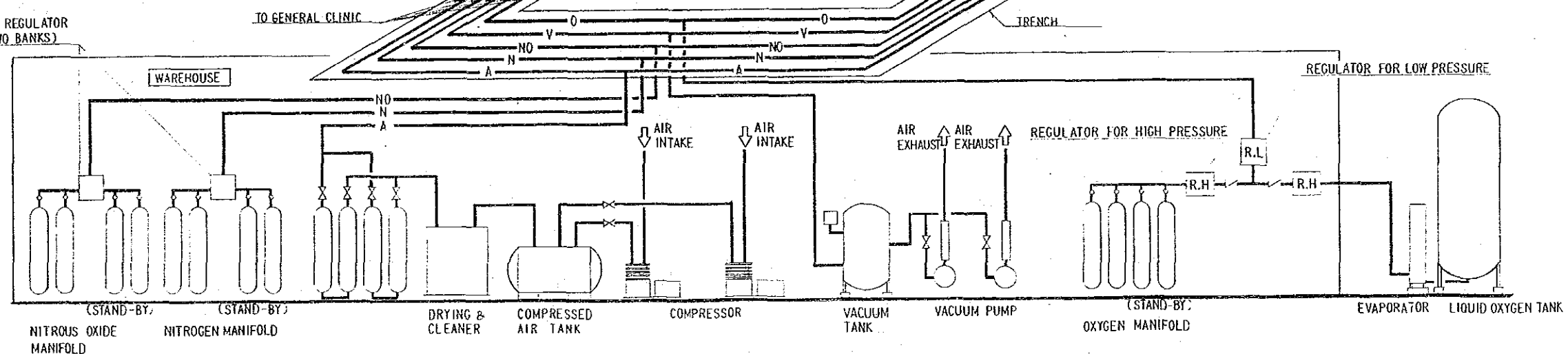
CENTRAL BUILDING
<JOINT USE>

NORTH WING
<GENERAL HOSPITAL>

SYMBOLS	
-A-	COMPRESSED AIR
-NO-	NITROUS OXIDE
-N-	NITROGEN
-O-	OXYGEN
-V-	VACUUM
-X-	NEEDLE VALVE
-✓-	CHECK VALVE
O.B.	OUTLET BOX



OVER DEVICE WITH REGULATOR
CHANGE BETWEEN TWO BANKS



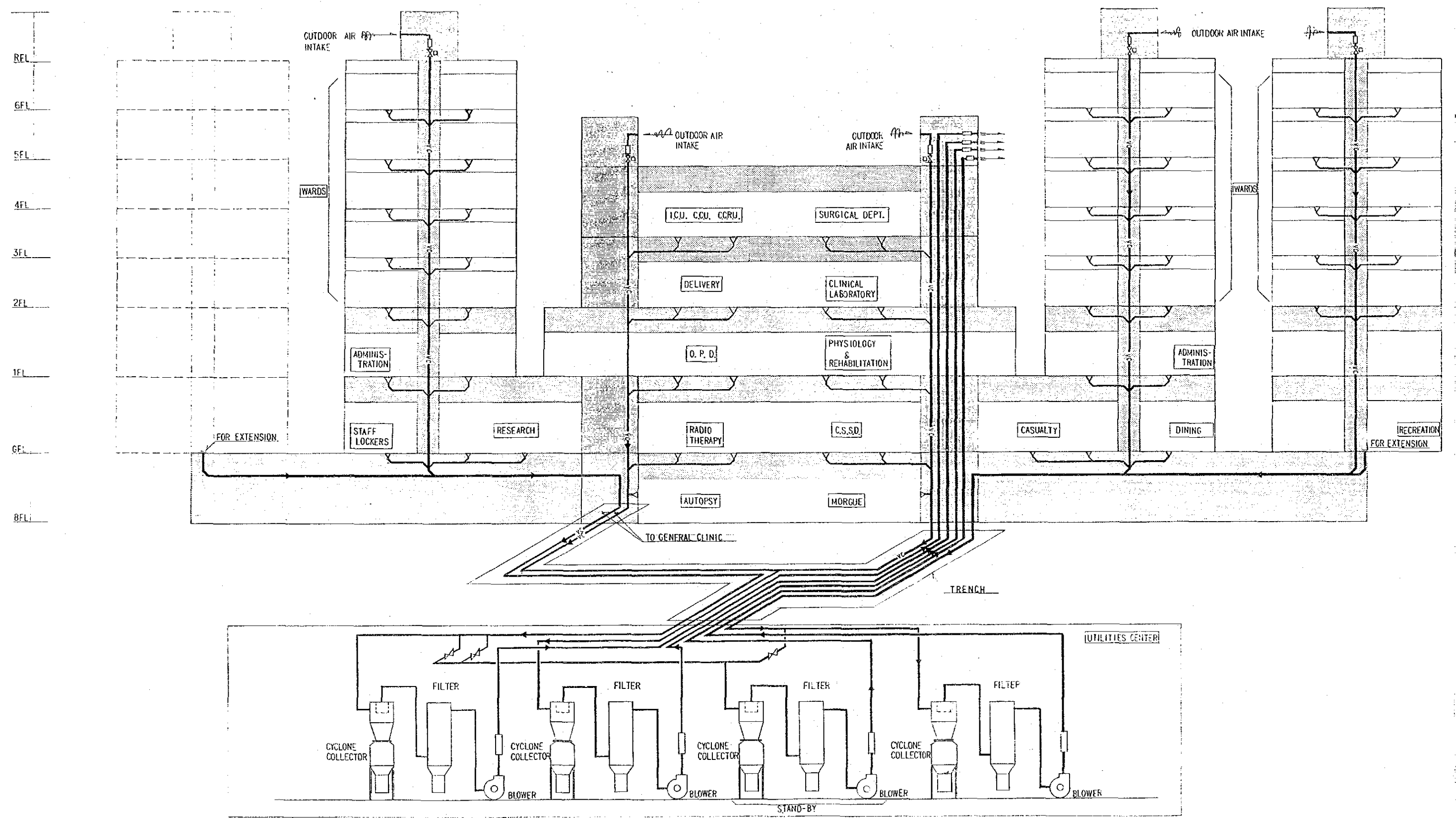
MEDICAL GAS SUPPLY SYSTEM DIAGRAM

SYMBOLS
 ---VC---
 Y
 S
 □

SOUTH WING
 <CANCER CENTER>

CENTRAL BUILDING
 <JOINT USE>

NORTH WING
 <GENERAL HOSPITAL>



CENTRAL VACUUM CLEANING SYSTEM DIAGRAM

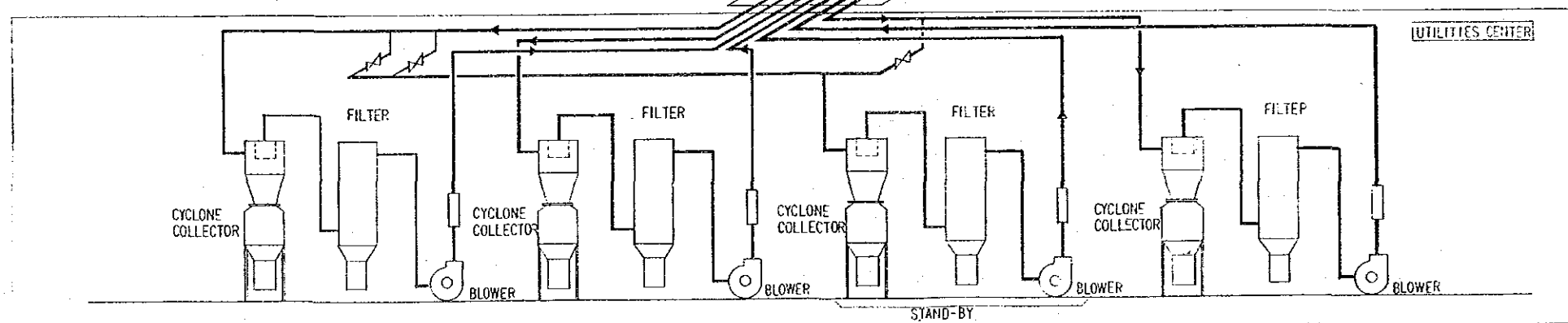
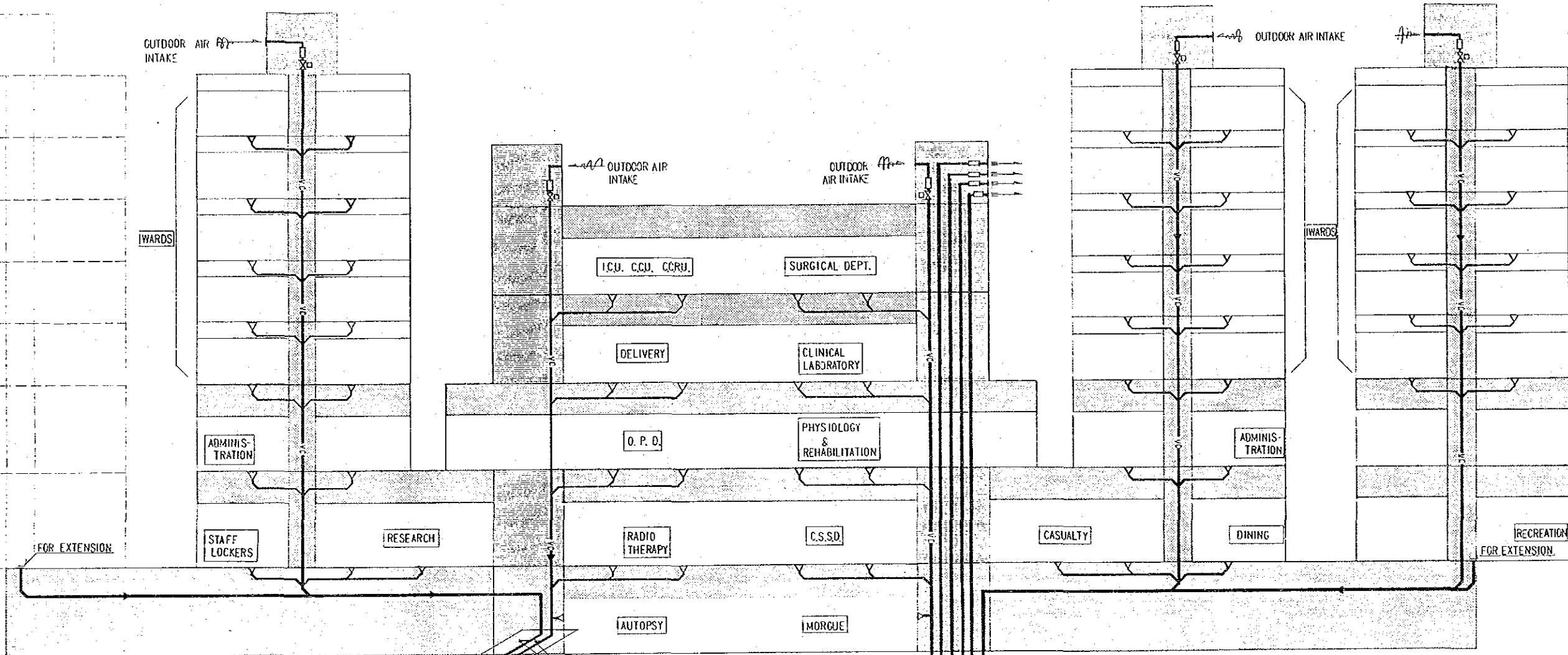
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CENTRAL BUILDING
<JOINT USE>

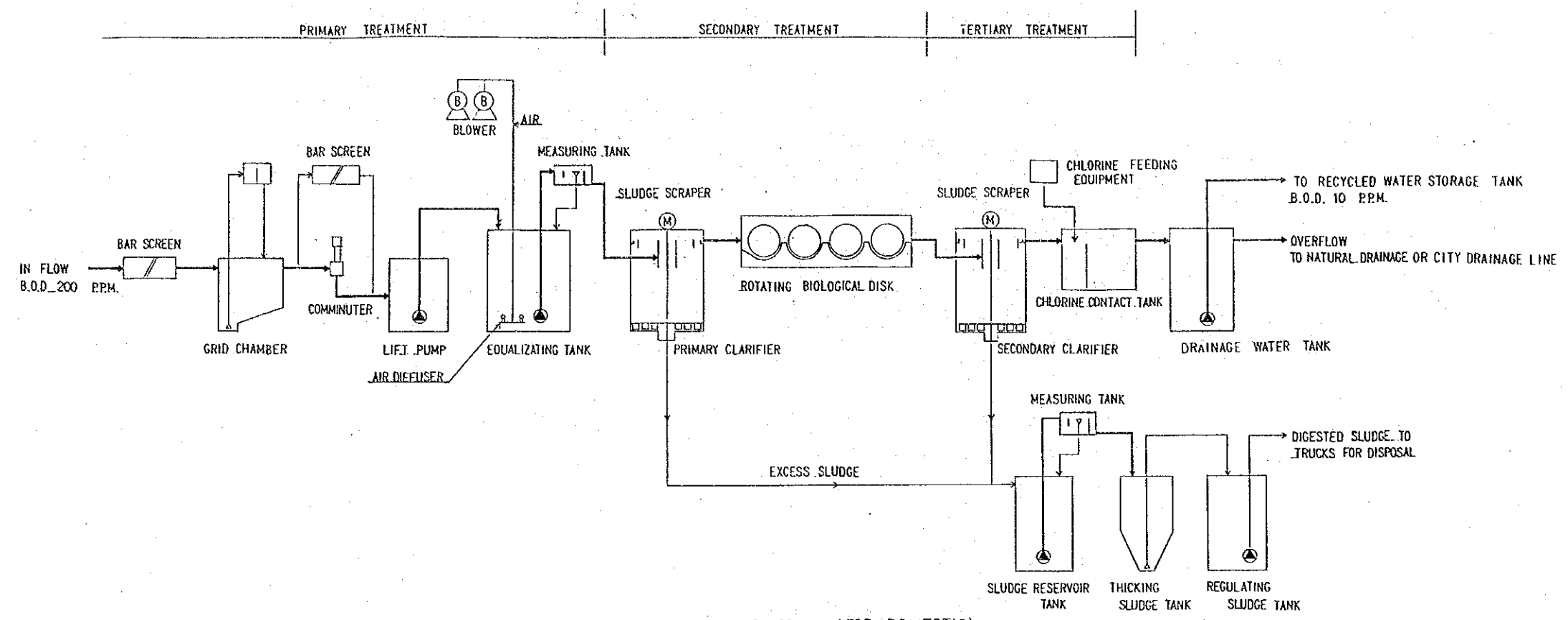
NORTH WING
<GENERAL HOSPITAL>

SYMBOLS

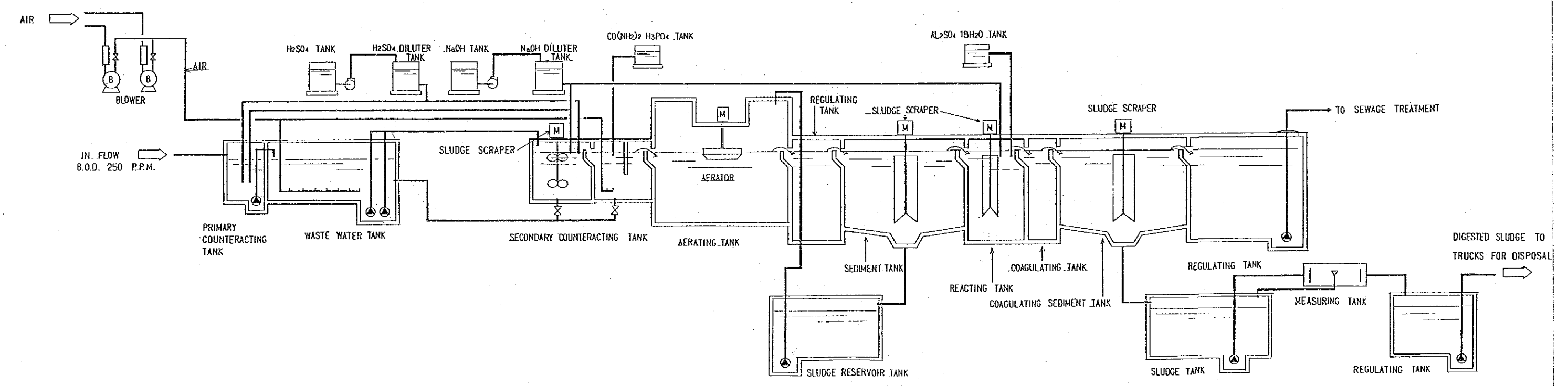
	VACUUM CLEANING PIPE
	OUTLET FOR VACUUM CLEANING
	PRESSURE CONTROLLER
	SILENCER



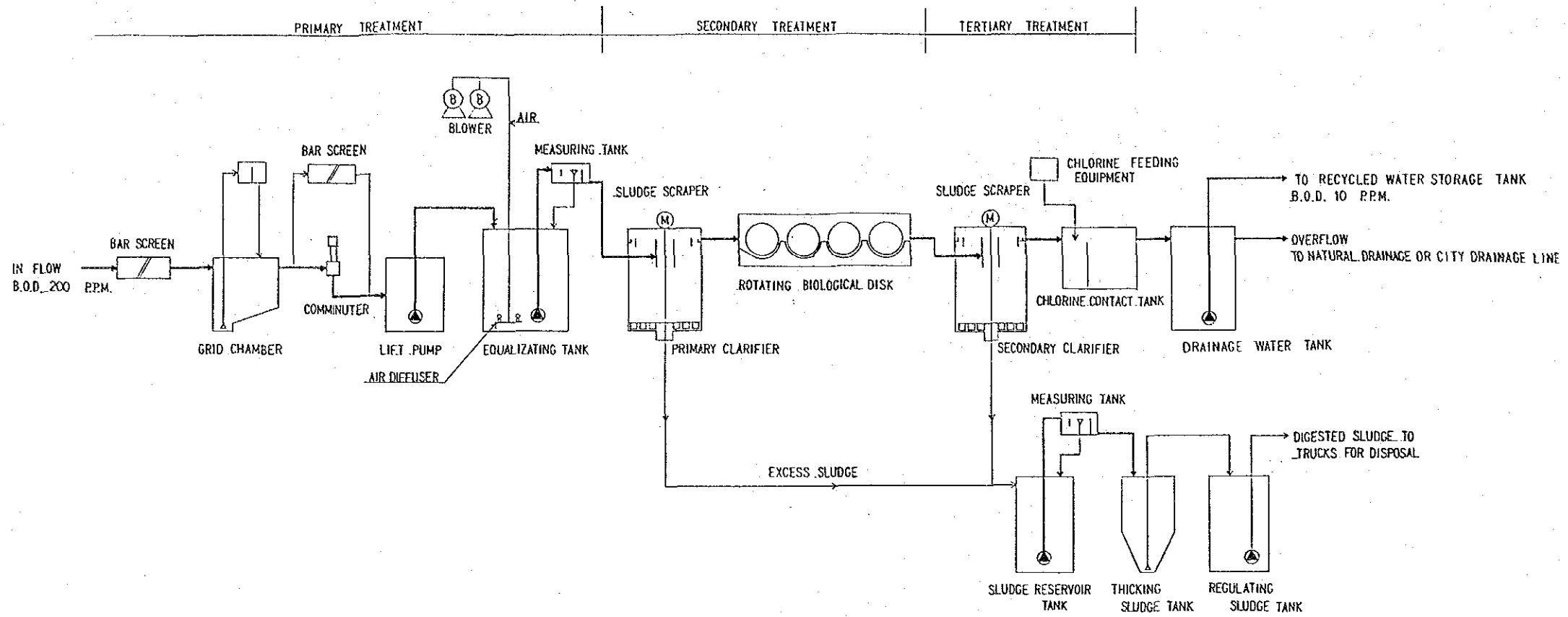
CENTRAL VACUUM CLEANING SYSTEM DIAGRAM



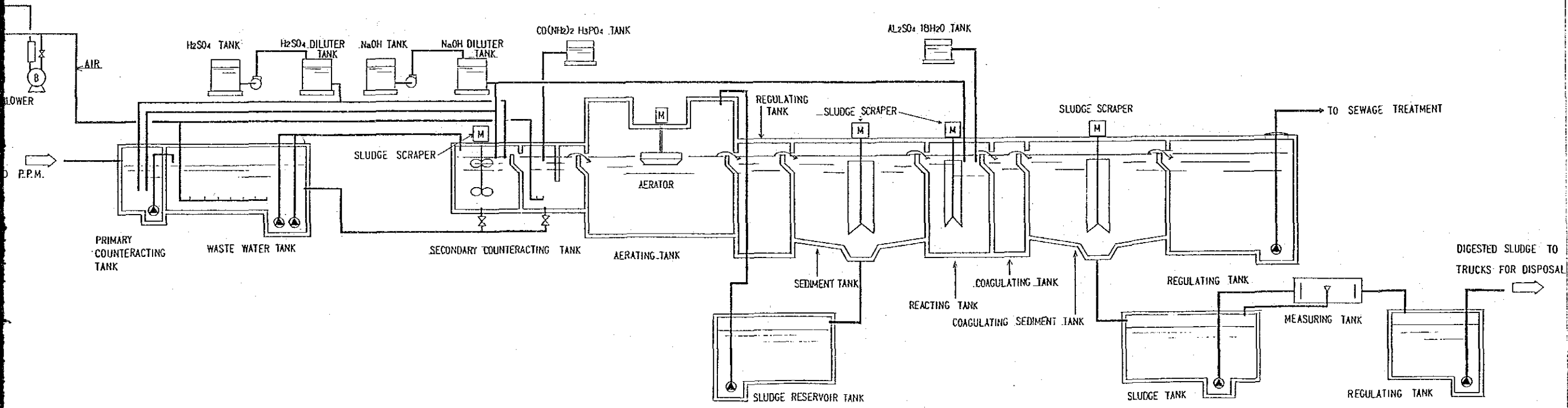
SEWAGE TREATMENT DIAGRAM (FOR DOMESTIC)



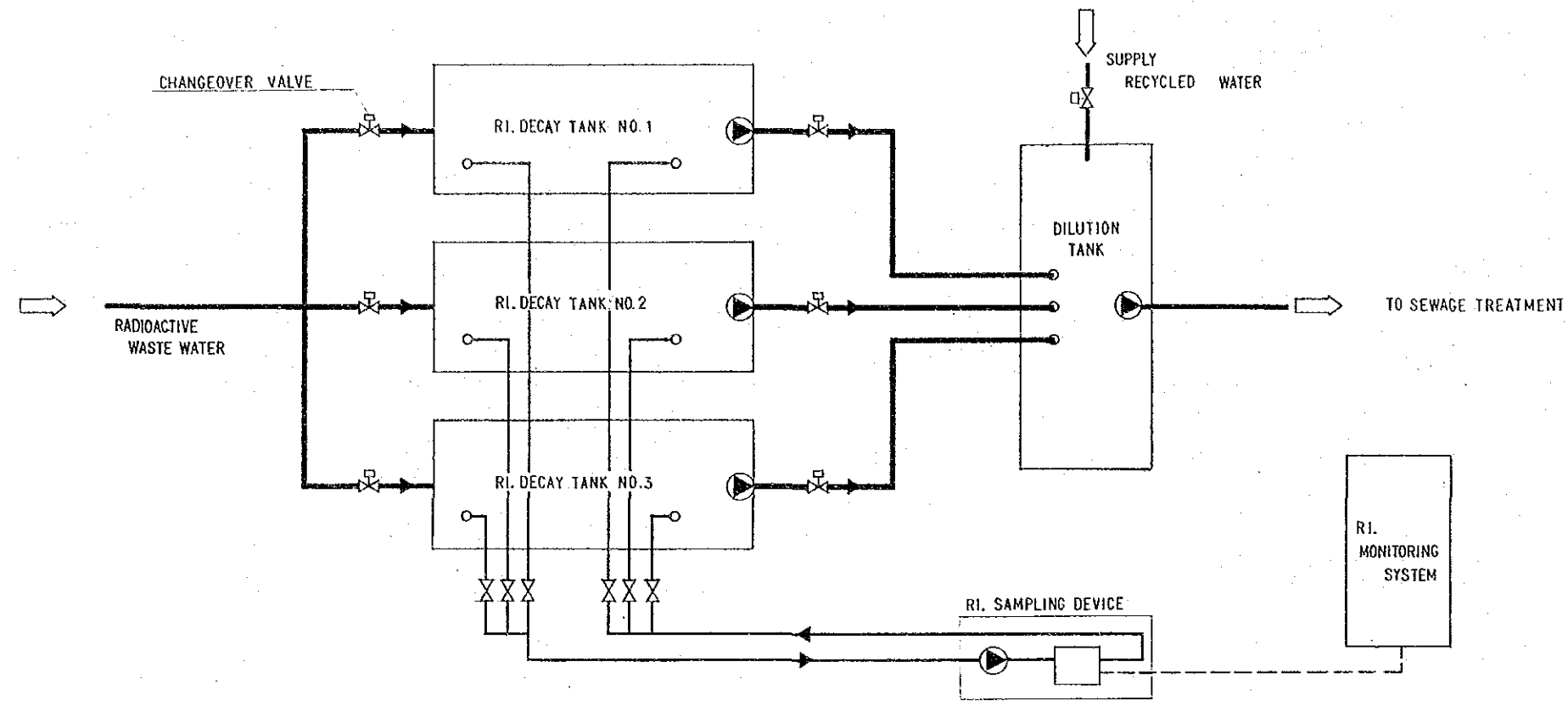
LABORATORY WASTE WATER TREATMENT DIAGRAM



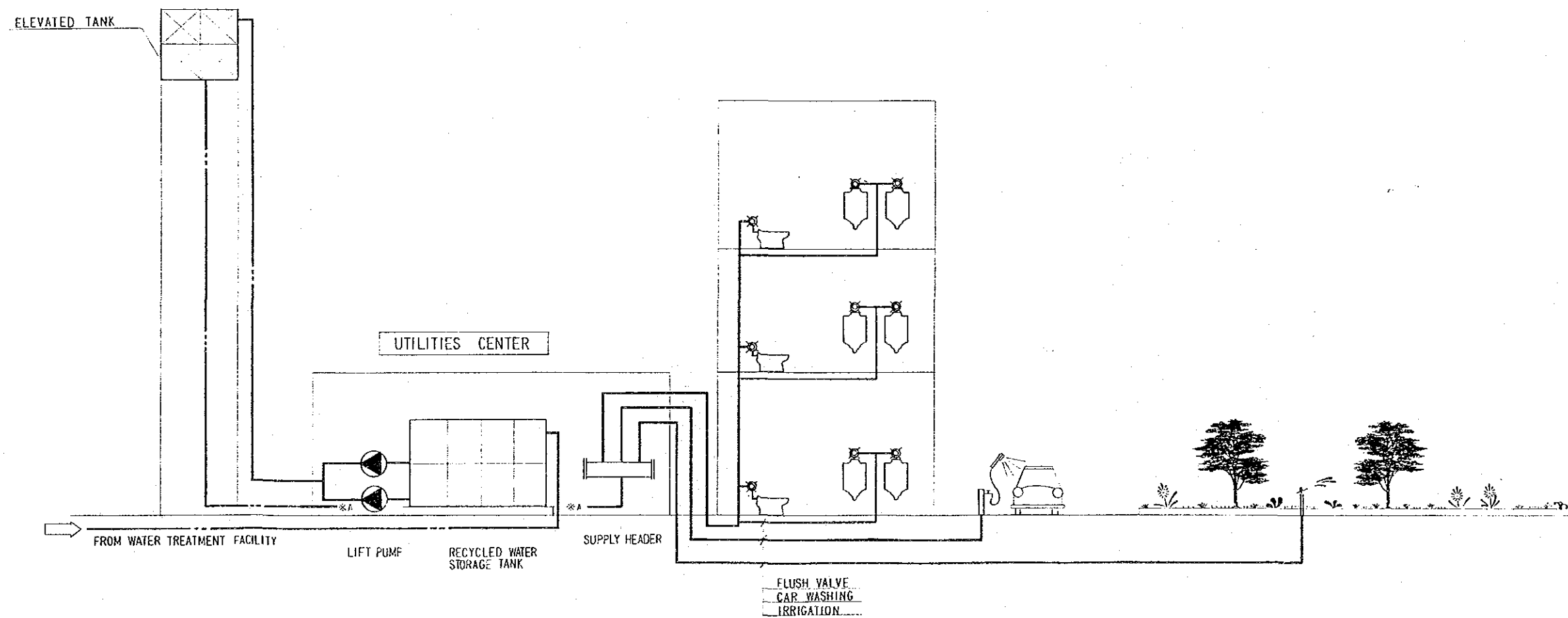
SEWAGE TREATMENT DIAGRAM (FOR DOMESTIC)



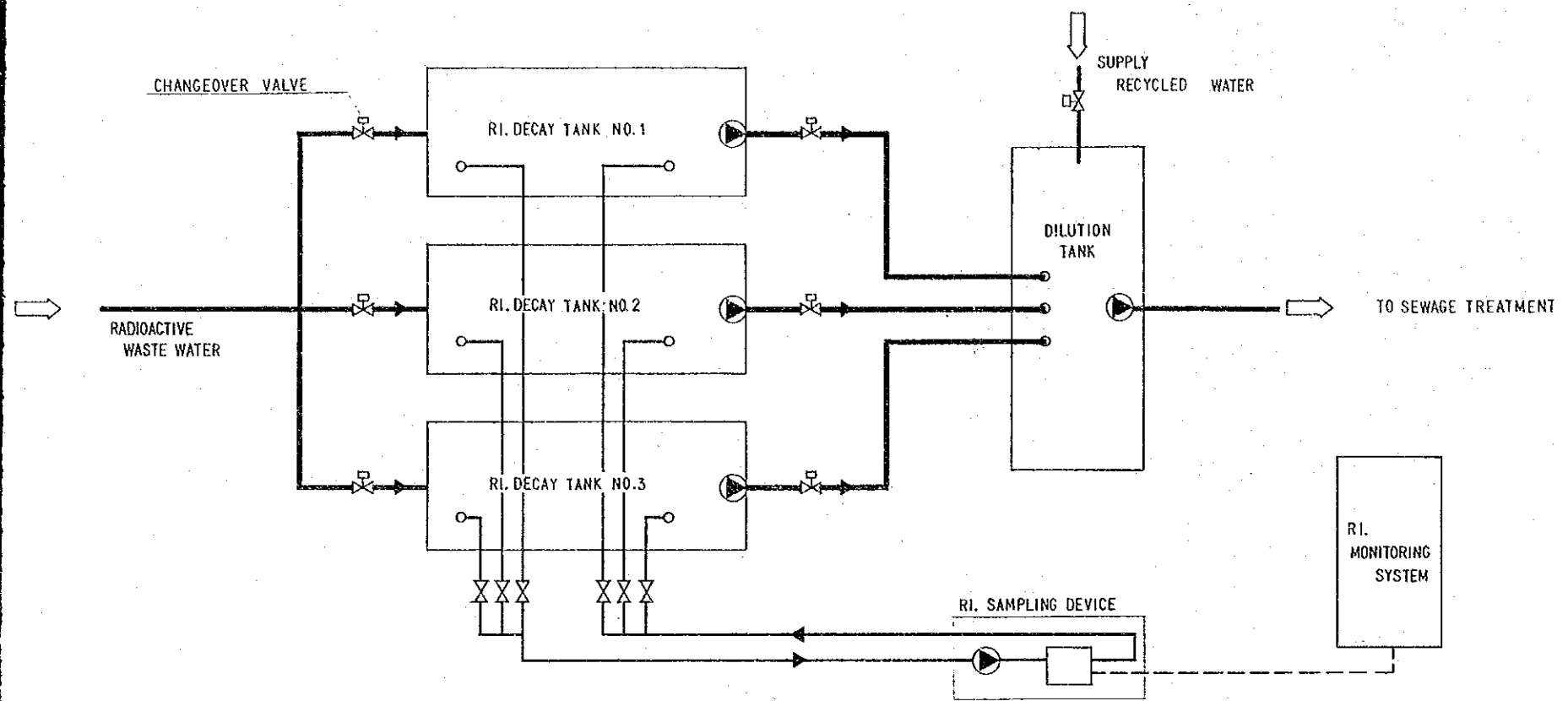
LABORATORY WASTE WATER TREATMENT DIAGRAM



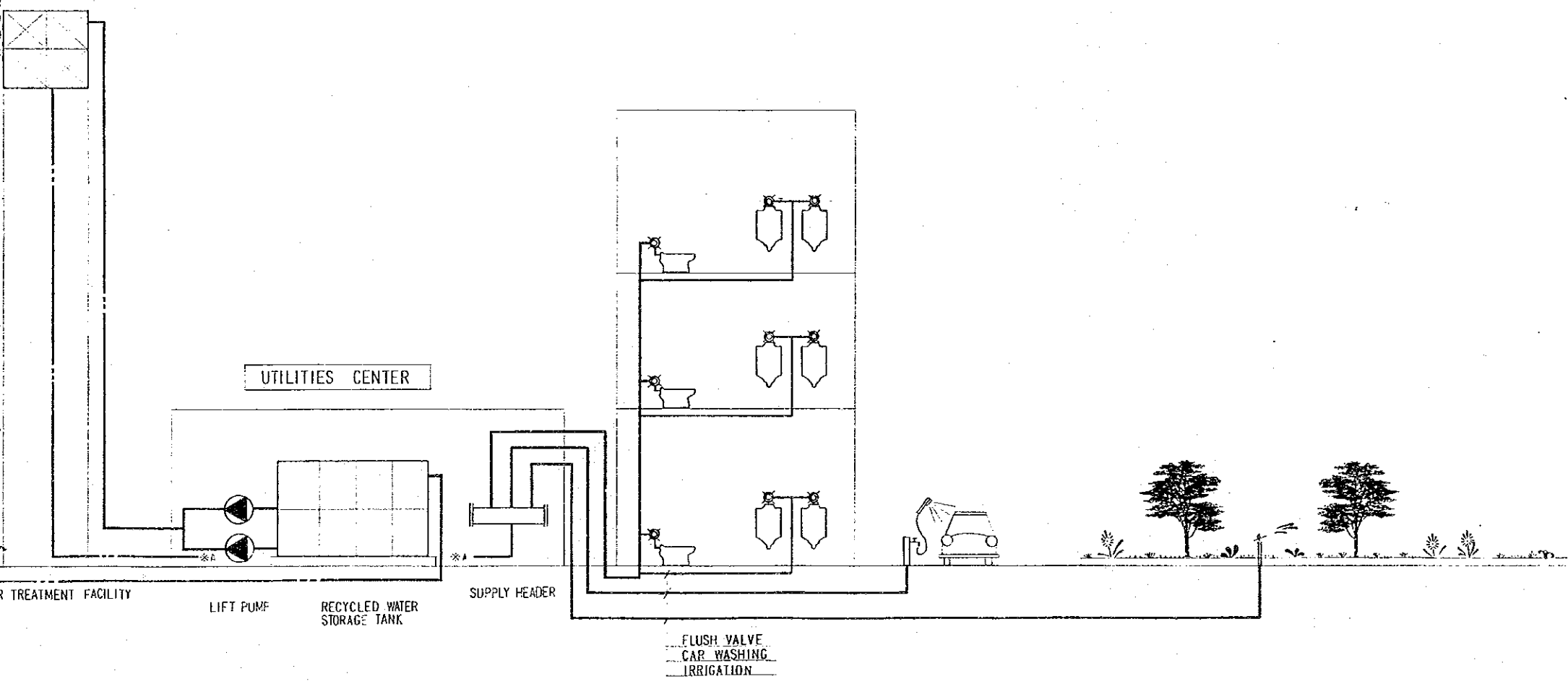
RADIOACTIVE WASTE WATER TREATMENT DIAGRAM



RECYCLED WATER SUPPLY SYSTEM DIAGRAM



RADIOACTIVE WASTE WATER TREATMENT DIAGRAM



RECYCLED WATER SUPPLY SYSTEM DIAGRAM