

	DATA TEKNIS PROYEK		Nomor
			Halaman
			Tanggal
BIRO ENGINEERING	APARTMENT		

NAMA PROYEK	: PODOMORO CITY DELI MEDAN
PEMILIK	: PT SINAR MENARA DELI (AGUNG PODOMORO LAND)
JENIS PROYEK	: APARTMENT, OFFICE, HOTEL, MALL & PARKING AREA (SUPER BLOK)
LOKASI	: JALAN PUTRI HIJAU, MEDAN, SUMATERA UTARA
PERIODE PELAKSANAAN	: 2013 s/d 2021

4	ELEKTRIKAL			
4.1	DATA DAYA UTAMA	KAPASITAS	SATUAN	KETERANGAN
	Besaran Daya Total	: 5540	KVA	Daya PLN Tersambung
	Listrik Total untuk Penerangan	: 312	KVA	Trafo 2000 KVA = 1 Unit
	Listrik Total untuk Stop Kontak	4725	KVA	Sambungan PLN = 5540 KVA
	Listrik Total untuk Daya :			
	- VAC	: 96	KVA	
	- Lift	: 435	KVA	
	- Pompa-pompa	: 560	KVA	
	- FAN ( PAF & SEF )	: 94	KVA	
	Total	:	KVA	

	DATA KEBUTUHAN DAYA							
4.2	Lighting / Penerangan & Stop kontak	MERK	TYPE	JUMLAH	JUMLAH DAYA (Watt)	SATUAN (Watt)	KETERANGAN	
1	Penerangan & STK lantai ground							
1	Tower Liberty							
	Down Light Led 10 W			42	10	420,0		
	Linear Led 10 W/ Meter			247	10	2470,0		
	TL TKO 1 x 18 W			21	18	378,0		
			Total Penerangan			3268,0		
	Stk Lantai 200 W / titik	Boss		5	200	1000,0		
	Stk dinding 200 W / titik	Boss		24	200	4800,0		
			Total Stk			5800,0		
2	Tower Linclon							
	Down Light Led 10 W			31	10	310,0		
	Linear Led 10 W/ Meter			218	10	2180,0		
	TL TKO 1 x 18 W			21	18	378,0		
			Total Penerangan			2868,0		
	Stk Lantai 200 W / titik	Boss		5	200	1000,0		
	Stk dinding 200 W / titik	Boss		12	200	2400,0		
			Total Stk			3400,0		
3	Tower Lexington							
	Down Light Led 10 W			40	10	400,0		
	Linear Led 10 W/ Meter			179	10	1790,0		

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	TL TKO 1 x 18 W				21	18	378,0		
				Total Penerangan			2568,0		
	Stk Lantai 200 W / titik		Boss		5	200	1000,0		
	Stk dinding 200 W / titik		Boss		19	200	3800,0		
				Total Stk			4800,0		
4	Drive way								
	DL-DW1 Led 20 W				32	20	640,0		
	DL-DW2 Led 30 W				110	30	3300,0		
	LL-DW1 14 W/ Meter				896	14	12544,0		
	LL-DW2 7 W/ Meter				688	7	4816,0		
	LL-DW3 14 W/ Meter				439	14	6146,0		
	LL-DW4 8 W/ Meter				3288	8	26304,0		
				Total Penerangan			53750,0		
II	Penerangan & STK area Parkir								
1	Parkir P9 - Liberty								
	TL TKO 1 x 36 W				58	36	2088,0		
	TL TKO 1 x 18 W				7	18	126,0		
	Down Light PLC 13 W				11	13	143,0		
				Total Penerangan			2357,0		
	Stk 200 W				5	200	1000,0		
2	Parkir P9 - Linclon								
	TL TKO 1 x 36 W				54	36	1944,0		
	TL TKO 1 x 18 W				3	18	54,0		
	Down Light PLC 13 W				4	13	52,0		
				Total Penerangan			2050,0		
	Stk 200 W			Total Stk	2	200	400,0		
3	Parkir P9 - Lixington								
	TL TKO 1 x 36 W				44	36	1584,0		
	TL TKO 1 x 18 W				5	18	90,0		
	Down Light PLC 13 W				11	13	143,0		
				Total Penerangan			1817,0		
	Stk 200 W			Total Stk	5	200	1000,0		
4	Parkir P10 - Liberty								
	TL TKO 1 x 36 W				76	36	2736,0		
	TL TKO 1 x 18 W				11	18	198,0		
	Down Light PLC 13 W				11	13	143,0		
				Total Penerangan			3077,0		
	Stk 200 W			Total Stk	11	200	2200,0		

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5	Parkir P10 - Linclon							
	TL TKO 1 x 36 W				60	36	2160,0	
	TL TKO 1 x 18 W				3	18	54,0	
	Down Light PLC 13 W				4	13	52,0	
				Total Penerangan			2266,0	
	Stk 200 W			Total Stk	4	200	800,0	
6	Parkir P10 - Lixington							
	TL TKO 1 x 36 W				55	36	1980,0	
	TL TKO 1 x 18 W				3	18	54,0	
	Down Light PLC 13 W				6	13	78,0	
				Total Penerangan			2112,0	
	Stk 200 W			Total Stk	7	200	1400,0	
III	Penerangan Lounge							
	Down led 15 W				18	15	270,0	
	Down led 9 W				67	9	603,0	
	Linear led 10 W / m				162	10	1620,0	
	Hanging lamp 100 w				8	100	800,0	
				Total Penerangan			3293,0	
	Stk Lantai 200 W / titik		Boss		18	200	3600,0	
	Stk dinding 200 W / titik		Boss		13	200	2600,0	
				Total Stk			6200,0	
IV	Lanscape & kolam renang							
	Bolard 9 W				101	9	909,0	
	Spike Lamp 9W				252	9	2268,0	
	ST- iL				19	5	95,0	
	Linear Led 10 w/ m				130	10	1300,0	
	Under water -L2R 18 W				11	18	198,0	
	Under water -L2R 14 W				20	14	280,0	
				Total Penerangan			4141,0	
V	Penerangan & STK area Lobby & Coridor							
1	Lantai.1- Liberty							
	Down Light PLC 13 W				32	13	416,0	
	TL TKO 1 x 18 W				6	18	108,0	
				Total Penerangan			524,0	
	Stk 200 W			Total Stk	8	200	1600,0	
2	Lantai.1- Linclon							
	Down Light PLC 13 W				28	13	364,0	
	TL TKO 1 x 18 W				3	18	54,0	
				Total Penerangan			418,0	

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	Stk 200 W			Total Stk	6	200	1200,0	
3	Lantai.1- Lexington							
	Down Light PLC 13 W				30	13	390,0	
	TL TKO 1 x 18 W				6	18	108,0	
				Total Penerangan			498,0	
	Stk 200 W			Total Stk	6	200	1200,0	
4	Lantai.2- Linclon							
	Down Light PLC 13 W				27	13	351,0	
	TL TKO 1 x 18 W				3	18	54,0	
				Total Penerangan			405,0	
	Stk 200 W			Total Stk	6	200	1200,0	
5	Lantai.2- Lexington							
	Down Light PLC 13 W				29	13	377,0	
	TL TKO 1 x 18 W				4	18	72,0	
				Total Penerangan			449,0	
	Stk 200 W				6	200	1200,0	
6	Lantai.2.LB - 21 LB ( Total = 20 Lantai )							
	Down Light PLC 13 W ( 34/ Lantai )				680	13	8840,0	
	TL TKO 1 x 18 W ( 3 / Lantai )				100	18	1800,0	
				Total Penerangan			10640,0	
	Stk 200 W ( 8 /Lantai )				120	200	24000,0	
7	Lantai.3 LC - 21 LC ( Total = 19 Lantai )							
	Down Light PLC 13 W ( 32/ Lantai )				608	13	7904,0	
	TL TKO 1 x 18 W ( 3 / Lantai )				57	18	1026,0	
				Total Penerangan			8930,0	
	Stk 200 W ( 7 /Lantai )				133	200	26600,0	
6	Lantai.2 LX - 21 LX ( Total = 19 Lantai )							
	Down Light PLC 13 W ( 34/ Lantai )				646	13	8398,0	
	TL TKO 1 x 18 W ( 5 / Lantai )				95	18	1710,0	
				Total Penerangan			10108,0	
	Stk 200 W ( 7 /Lantai )			Total Stk	133	200	26600,0	
VI	Unit Apartement							
1	Unit Studio ( Sambungan 2200 W 1 $\phi$ ) = 168 unit	2200						
	Down light PLC 13 W ( 2 titik /unit )				372	13	4836,0	
	Down light PLC 9 W ( 1 titik / unit )				168	9	1512,0	

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			Total Penerangan			6348,0		
	Stk Kulkas 100 W ( 1 titik / unit )			168	100	16800,0		
	Stk TV 70 W ( 1 titik / unit )			168	70	11760,0		
	Stk Water heater 400 W ( 1 titik/unit )			168	400	67200,0		
	Stk Micro wave 400 W ( 1 titik/ unit )			168	400	67200,0		
	Stk dinding 70 W ( 1 titik / unit )			168	70	11760,0		
	Unit AC 1 Pk ( 750 W ) 1 titik / unit			168	750	126000,0		
			Total Stk			300720,0		
2	Unit I.BA ( Sambungan 2200 W 1Φ ) = 332 unit	2200						
	Down light PLC 13 W ( 4 titik /unit )			1328	13	17264,0		
	Down light PLC 9 W ( 1 titik / unit )			332	9	2988,0		
			Total Penerangan			20252,0		
	Stk Kulkas 100 W ( 1 titik / unit )			332	100	33200,0		
	Stk TV 70 W ( 1 titik / unit )			332	70	23240,0		
	Stk Water heater 400 W ( 1 titik/unit )			332	400	132800,0		
	Stk Micro wave 400 W ( 1 titik/ unit )			332	400	132800,0		
	Stk dinding 70 W ( 1 titik / unit )			332	70	23240,0		
	Unit AC 1 Pk ( 750 W ) 1 titik / unit			332	750	249000,0		
			Total Stk			594280,0		
3	Unit I.BB ( Sambungan 2200 W 1Φ ) = 82 unit	2200						
	Down light PLC 13 W ( 3 titik /unit )			246	13	3198,0		
	Down light PLC 9 W ( 1 titik / unit )			82	9	738,0		
			Total Penerangan			3936,0		
	Stk Kulkas 100 W ( 1 titik / unit )			82	100	8200,0		
	Stk TV 70 W ( 1 titik / unit )			82	70	5740,0		
	Stk Water heater 400 W ( 1 titik/unit )			92	400	36800,0		
	Stk Micro wave 400 W ( 1 titik/ unit )			82	400	32800,0		
	Stk dinding 70 W ( 1 titik /unit )			82	70	5740,0		
	Unit AC 1 Pk ( 750 W ) 1 titik / unit			82	750	61500,0		
			Total Stk			150780,0		
4	Unit 2.BA ( Sambungan 3500 W 1Φ ) = 224 unit	3500						
	Down light PLC 13 W ( 6 titik /unit )			1344	13	17472,0		
	Down light PLC 9 W ( 1 titik / unit )			224	9	2016,0		
			Total Penerangan			19488,0		
	Stk Kulkas 100 W ( 1 titik / unit )			224	100	22400,0		
	Stk TV 70 W ( 2 titik / unit )			448	70	31360,0		
	Stk Water heater 400 W ( 1 titik/unit )			224	400	89600,0		
	Stk Micro wave 400 W ( 1 titik/ unit )			224	400	89600,0		







 <b>JAYA CM</b>	<b>DATA TEKNIS PROYEK</b>		Nomor
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5	SOUND SYSTEM, TELEPON, FA, CCTV, BAS						KETERANGAN
	Equipment Utama			MERK	TYPE	JUMLAH	
5,1	SOUND SYSTEM					SATUAN	
I	Power Amplifier	:	TOA	ZP-2240	19	UNIT	
	Mixer Amplifier	:	TOA	ZP-2240	2	UNIT	
	Zone Selector	:	TOA		2	UNIT	
	Audio Player	:	TOA	Z-CD2011R	2	UNIT	
II	Instalasi Ceiling speaker						
1	Lantai Basement						
	Ceiling speaker	:	TOA	ZS-2369	24	Titik	
	Wall Speaker	:	TOA	ZS-062	10	Titik	
	Horn Speaker	:	TOA	ZH-61SM	27	Titik	
2	Lantai Lower ground						
	Ceiling speaker	:	TOA	ZS-2369	24	Titik	
	Wall Speaker	:	TOA	ZS-062	12	Titik	
	Horn Speaker	:	TOA	ZH-61SM	11	Titik	
3	Lantai Lower Mezanin						
	Ceiling speaker	:	TOA	ZS-2369	26	Titik	
	Wall Speaker	:	TOA	ZS-062	5	Titik	
	Horn Speaker	:	TOA	ZH-61SM	10	Titik	
4	Ground Floor						
	Ceiling speaker	:	TOA	ZS-2369	86	Titik	
5	Lantai 2 s/d 30 area loby & Corridor @ 29 Lt/Tower x 2 Tower = 58 Lantai						
	Ceiling speaker ( 7 titik )	:	TOA	ZS-2369	406	Titik	
6	Unit Apartemen						
6,1	Unit 2BR ( 2BR.A ) = 113 unit						
	Ceiling speaker ( 1 titik )	:	TOA	ZS-2369	113	Titik	
6,2	Unit 2BR ( 2BR.B ) = 58 unit						
	Ceiling speaker ( 1 titik )	:	TOA	ZS-2369	58	Titik	
6,3	Unit 3BR ( 3BR.A ) = 226 unit						
	Ceiling speaker ( 2 titik )	:	TOA	ZS-2369	452	Titik	
6,4	Unit 3BR ( 3BR.B ) = 116 unit						
	Ceiling speaker ( 2 titik )	:	TOA	ZS-2369	232	Titik	



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5.2	FIRE ALARM						KETERANGAN	
1	Master Control Fire Alarm		Context Plus	IFP Loop	1	Unit		
2	Anunciator Panel	:	Context Plus	IFP Compact	1	Unit		
		:						
II	Instalasi FireAlarm	:						
1	Lantai Basement							
	Smoke Detector		Context Plus	D-213	36	Titik		
	ROR Detector		Context Plus	D-103	117	Titik		
2	Lantai Lower Ground							
	Smoke Detector		Context Plus	D-213	36	Titik		
	ROR Detector		Context Plus	D-103	117	Titik		
3	Lantai Mezanine							
	Smoke Detector		Context Plus	D-213	42	Titik		
	ROR Detector		Context Plus	D-103	48	Titik		
4	Lantai Ground							
	Smoke Detector	450	Context Plus	D-213	54	Titik		
5	Lantai 2 s/d 30 area loby & Corridor							
	@ 29 Lt/Tower x 2 Tower = 58 Lantai							
	Smoke Detector ( 6 titik / lantai )		Context Plus	D-213	348	Titik		
6	Unit Apartemen							
6.1	Unit 2BR ( 2BR.A ) = 113 unit							
	Smoke Detector ( 1 titik / lantai )		Context Plus	D-213	113	Titik		
	Fixed heat Detector ( 1 titik/unit )		Context Plus	D-103	113	Titik		
	ROR Detector ( 3 titik / unit )		Context Plus	D-103	339	Titik		
6.2	Unit 2BR ( 2BR.B ) = 58 unit							
	Smoke Detector ( 1 titik / lantai )		Context Plus	D-213	58	Titik		
	Fixed heat Detector ( 1 titik/unit )		Context Plus	D-103	58	Titik		
	ROR Detector ( 3 titik / unit )		Context Plus	D-103	174	Titik		
6.3	Unit 3BR ( 3BR.A ) = 226 unit							
	Smoke Detector ( 2 titik / lantai )		Context Plus	D-213	452	Titik		
	Fixed heat Detector ( 1 titik/unit )		Context Plus	D-103	226	Titik		
	ROR Detector ( 4 titik / unit )		Context Plus	D-103	904	Titik		
6.4	Unit 3BR ( 3BR.B ) = 116 unit							
	Smoke Detector ( 2 titik / lantai )		Context Plus	D-213	232	Titik		
	Fixed heat Detector ( 1 titik/unit )		Context Plus	D-103	116	Titik		
	ROR Detector ( 5 titik / unit )		Context Plus	D-103	580	Titik		
	Total titik sprinkler untuk 3BR	8						


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5.3	CCTV							KETERANGAN
I	Peralatan Utama		:					
1	Digital Vidio Recorder ( DVR )			Fracaro	DVR-Tri 16	16	Unit	
2	Led Monitor CCTV 32 Inch			LG		32	Unit	
3	Personil Computer			HP		1	Unit	
II	Instalasi CCTV							
1	Lantai Basement							
	Instalasi & CCTV			Fracaro	CDIR1200-3.6	14	Titik	
2	Lantai Lower Ground							
	Instalasi & CCTV			Fracaro	CDIR1200-3.6	9	Titik	
3	Lantai LG Mezanin							
	Instalasi & CCTV			Fracaro	CDIR1200-3.6	11	Titik	
4	Lantai Ground							
	Instalasi & CCTV			Fracaro	CDIR1200-3.6	22	Titik	
5	Lantai 2 s/d 30 area loby & Corridor							
	@ 29 Lt/Tower x 2 Tower = 58 Lantai							
	Instalasi & CCTV ( 3 titik / lantai )			Fracaro	CDIR1200-3.6	174	Titik	

6	PLUMBING										
	EQUIPMENT UTAMA			MERK	TYPE	JUMLAH	KAPASITAS	SATUAN	DAYA	SATUAN	KETERANGAN
	Kapasitas Ground Reservoir		:	CONCRETE WATER PROOF	CONCRETE WATER PROOF	1	1839	M3	N/A	M3	1 GWT untuk 3 tower
	Kapasitas Reservoir Atas	TOWER 1	:	Royal	FRP Panel	1	37	M3	N/A	M3	Liberty
		TOWER 2	:	Royal	FRP Panel	1	35	M3	N/A	M3	Lincoln
		TOWER 3	:	Royal	FRP Panel	1	36	M3	N/A	M3	Lexington
		TOWER 4	:	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
		TOWER 5	:	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	Kapasitas RWT			CONCRETE WATER PROOF	CONCRETE WATER PROOF	1	144	M3	N/A	M3	RAW WATER
	Kapasitas CWT			N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	Kapasitas WTP		:	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	Pompa WTP			N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	Pompa Air Bersih		:	Wilo	Vertical multi stage	4	18	m3/jam	16	KW	
	Pompa Sumpit		:	-	-	-	-	-	-	-	Tidak ada sumpit, sumpit by mall
	Pompa Grease Trap		:	-	-	-	-	-	-	-	Tidak ada greasetrap, greasetrap by mall
	PIPA	AB	:	Westpex	PPR PN 10, PN 20			N/A	N/A	N/A	
		AK	:	Invilon	PVC AW Class 10 kg/cm2						
		ABK	:	Invilon	PVC AW Class 10 kg/cm2						
		ABD	:	Invilon	PVC AW Class 10 kg/cm2						
		AH	:	Invilon	PVC AW Class 10 kg/cm2						
		RISER AB	:	Westpex	PPR						
		R. POMPA AB	:	Ricon	Galvenized						
		R. POMPA AB		Kitz	Gate valve						

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VALVE	PRV		Singer	Membrane (pilot operated)						
PRV			Singer	Membrane (pilot Operated)						
STP	1	:	-	Extended Aeration + MBR System	1	430	m3 / Hari			
	2	:	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	3	:	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
			UKURAN							
Ukuran Grease Trap				N/A	N/A	N/A	N/A	N/A	N/A	
Ukuran Sumpit				N/A	N/A	N/A	N/A	N/A	N/A	


## 6 FIRE FIGHTING


EQUIPMENT UTAMA			MERK	TYPE	JUMLAH	KAPASITAS (GPM)	DAYA (KW)	M3/H	KETERANGAN
Pompa Fire Fighting I	JOCKEY	:	Patterson	Vertical multistage	1	10	3		
	ELECTRIC	:	Patterson	Horizontal split case	1	1.000	270	230	
	DIESEL	:	Patterson	Horizontal split case	1	1.000	360 HP		
Pompa Fire Fighting II	JOCKEY	:	N/A	N/A	N/A	N/A	N/A		
	ELECTRIC	:	N/A	N/A	N/A	N/A	N/A		
	DIESEL	:	N/A	N/A	N/A	N/A	N/A		
Kapasitas Fire Tank	I	:	CONCRETE WATER PROOF	CONCRETE WATER PROOF	1	227	M3		
	II	:	N/A	N/A	N/A	N/A	N/A		
				N/A	N/A	N/A	K FACTOR	WARNA	
	TOWER LIBERTY				JUMLAH UNIT	JUMLAH SPRINKLER TIAP UNIT			
	UNIT STUDIO	:	Viking	Pendent	42	2	5,6	Merah	
	UNIT 1 BA	:	Viking	Pendent	84	-	5,6	Merah	
	UNIT 1 BB	:	Viking	Pendent	40	3	5,6	Merah	
	UNIT 2 BA	:	Viking	Pendent	83	4	5,6	Merah	
	UNIT 2 BB	:	Viking	Pendent	126	5	5,6	Merah	
	UNIT 2 BC	:	Viking	Pendent	41	5	5,6	Merah	
	UNIT 2 BD	:	Viking	Pendent	41	5	5,6	Merah	
	UNIT 3 BA	:	Viking	Pendent	41	7	5,6	Merah	
	UNIT 3 BB	:	Viking	Pendent	21	7	5,6	Merah	
	TOWER LINCOLN								
	UNIT STUDIO	:	Viking	Pendent	84	2	5,6	Merah	
	UNIT 1 BA	:	Viking	Pendent	164	3	5,6	Merah	
	UNIT 1 BB	:	Viking	Pendent	-	-	5,6	Merah	
	UNIT 2 BA	:	Viking	Pendent	59	4	5,6	Merah	
	UNIT 2 BB	:	Viking	Pendent	99	-	5,6	Merah	
	UNIT 2 BC	:	Viking	Pendent	103	5	5,6	Merah	
	UNIT 2 BD	:	Viking	Pendent	19	-	5,6	Merah	
	UNIT 3 BA	:	Viking	Pendent	19	-	5,6	Merah	
	UNIT 3 BB	:	Viking	Pendent	-	-	5,6	Merah	


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Springkler	TOWER LEXINGTON								
	UNIT STUDIO	:	Viking	Pendent	42	2	5,6	Merah	
	UNIT 1 BA	:	Viking	Pendent	84	-	5,6	Merah	
	UNIT 1 BB	:	Viking	Pendent	42	3	5,6	Merah	
	UNIT 2 BA	:	Viking	Pendent	82	4	5,6	Merah	
	UNIT 2 BB	:	Viking	Pendent	124	5	5,6	Merah	
	UNIT 2 BC	:	Viking	Pendent	40	5	5,6	Merah	
	UNIT 2 BD	:	Viking	Pendent	39	5	5,6	Merah	
	UNIT 3 BA	:	Viking	Pendent	39	7	5,6	Merah	
	UNIT 3 BB	:	Viking	Pendent	21	7	5,6	Merah	
	Koridor Unit LIBERTY	:	Viking	Pendent	-	21	5,6	Merah	
	Koridor Unit LINCOLN	:	Viking	Pendent	-	28	5,6	Merah	
	Koridor Unit LEXINGTON	:	Viking	Pendent	-	22	5,6	Merah	
	Lobby LIBERTY	:	Viking	Concealed Pendent	17	N/A	5,6	Merah	
	Koridor Lobby	:	Viking	Concealed Pendent	12	N/A	5,6	Merah	
	Lobby LINCOLN	:	Viking	Concealed Pendent	22	N/A	5,6	Merah	
	Koridor Lobby	:	Viking	Concealed Pendent	7	N/A	5,6	Merah	
	Lobby LEXINGTON	:	Viking	Concealed Pendent	17	N/A	5,6	Merah	
	Koridor Lobby	:	Viking	Concealed Pendent	10	N/A	5,6	Merah	
	Total Sprinkler Publik	:			85				
	PARKIRAN	:	-	-	-	-	-	-	
BOX HIDRANT		:	Kaneda	IHB & OHB		N/A	N/A	Merah	
HYDRANT PILLAR		:	Kaneda	Short Two Way	1	N/A	N/A	Merah	
SEAMESE		:	Kaneda	Short Two Way	1	N/A	N/A	Merah	
PIPA	FF RISER		Spindo	Sch. 40					
	FF SETELAH PRV		Spindo	Medium					
VALVE	R. POMPA		Kitz	Gate Valve					
	INSTALASI		Kitz	Gate Valve					
MCV			Viking	Class 20K HZ, 16K LZ					
BCV			Viking	Class 16k					
PRV			Singer	Pilot Operated					
Fan	LIBERTY, LINCOLN & LEXINGTON		MERK	TYPE	JUMLAH	KAPASITAS (CMH)	DAYA (KW)		
		:							
	PRESSURIZED		KRUGER	AXIAL ADJ. PITCH	6	27000 CFM	15	45576	2 PRESSURIZED untuk 1 tower, posisi di lantai roof
	EXHAUST JANITOR		KRUGER	AXIAL ADJ. PITCH	4	2000 CFM	1,1	3376	2 Exhaust untuk tower liberty & 2 Exhaust untuk tower lexington , posisi di lantai roof

	DATA TEKNIS PROYEK								Nomor
									Halaman
									Tanggal
BIRO ENGINEERING		APARTMENT							

7	VENTILATION & AIR CONDITION			MERK	TYPE	JUMLAH	KAPASITAS (Jumlah 1 Unit/ 1 Area)	SATUAN	DAYA	SATUAN	KETERANGAN
	Chiller		:	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	Kapasitas Pompa Chiller		:	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	AHU/ FCU		:	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	Cooling Tower		:	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	AC Unit Total	TOWER LIBERTY	:			JUMLAH AC TIAP UNIT	KAPASITAS AC				
		UNIT STUDIO									
		Bedroom		Daikin	Split Wall	1	9000	BTUH			AC
		UNIT 1 BA									1656000 184 Type Studio
		Bedroom		Daikin	Split Wall	1	9000	BTUH			4086000 454 Type 1 BR
		UNIT 1 BB									21150000 940 Type 2 BR
		Bedroom		Daikin	Split Wall	1	9000	BTUH			4185000 155 Type 3 BR
		UNIT 2 BA									
		Living Room		Daikin	Split Wall	1	9000	BTUH			31.077.000,00 BTUH
		Bedroom 1		Daikin	Split Wall	1	9000	BTUH			
		Bedroom 2		Daikin	Split Wall	1	4500	BTUH			
		UNIT 2 BB									
		Living Room		Daikin	Split Wall	1	9000	BTUH			
		Bedroom 1		Daikin	Split Wall	1	9000	BTUH			
		Bedroom 2		Daikin	Split Wall	1	4500	BTUH			
		UNIT 2 BC									
		Living Room		Daikin	Split Wall	1	9000	BTUH			
		Bedroom 1		Daikin	Split Wall	1	9000	BTUH			
		Bedroom 2		Daikin	Split Wall	1	4500	BTUH			
		UNIT 2 BD									
		Living Room		Daikin	Split Wall	1	9000	BTUH			
		Bedroom 1		Daikin	Split Wall	1	9000	BTUH			
		Bedroom 2		Daikin	Split Wall	1	4500	BTUH			
		UNIT 3 BA									
		Living Room		Daikin	Split Wall	1	9000	BTUH			
		Bedroom 1		Daikin	Split Wall	1	9000	BTUH			
		Bedroom 2		Daikin	Split Wall	1	4500	BTUH			
		Bedroom 3		Daikin	Split Wall	1	4500	BTUH			
		UNIT 3 BB									
		Living Room		Daikin	Split Wall	1	9000	BTUH			
		Bedroom 1		Daikin	Split Wall	1	9000	BTUH			
		Bedroom 2		Daikin	Split Wall	1	4500	BTUH			
		Bedroom 3		Daikin	Split Wall	1	4500	BTUH			
		TOWER LINCOLN									
		UNIT STUDIO									
		Bedroom		Daikin	Split Wall	1	9000	BTUH			
		UNIT 1 BA									
		Bedroom		Daikin	Split Wall	1	9000	BTUH			
		UNIT 1 BB									
		Bedroom		-	-	-	-	-	-	-	
		UNIT 2 BA									
		Living Room		Daikin	Split Wall	1	9000	BTUH			

		DATA TEKNIS PROYEK								Nomor
BIRO ENGINEERING		APARTMENT								Halaman
										Tanggal
AC Unit	Bedroom 1	Daikin	Split Wall	1	9000	BTUH				
	Bedroom 2	Daikin	Split Wall	1	4500	BTUH				
	UNIT 2 BB									
	Living Room	Daikin	Split Wall	1	9000	BTUH				
	Bedroom 1	Daikin	Split Wall	1	9000	BTUH				
	Bedroom 2	Daikin	Split Wall	1	4500	BTUH				
	UNIT 2 BC									
	Living Room	Daikin	Split Wall	1	9000	BTUH				
	Bedroom 1	Daikin	Split Wall	1	9000	BTUH				
	Bedroom 2	Daikin	Split Wall	1	4500	BTUH				
	UNIT 2 BD									
	Living Room	Daikin	Split Wall	1	9000	BTUH				
	Bedroom 1	Daikin	Split Wall	1	9000	BTUH				
	Bedroom 2	Daikin	Split Wall	1	4500	BTUH				
	UNIT 3 BA									
	Living Room	Daikin	Split Wall	1	9000	BTUH				
	Bedroom 1	Daikin	Split Wall	1	9000	BTUH				
	Bedroom 2	Daikin	Split Wall	1	4500	BTUH				
	Bedroom 3	Daikin	Split Wall	1	4500	BTUH				
	UNIT 3 BB									
	Living Room	Daikin	Split Wall	-	-					
	Bedroom 1	Daikin	Split Wall	-	-					
	Bedroom 2	Daikin	Split Wall	-	-					
	Bedroom 3	Daikin	Split Wall	-	-					
	<b>TOWER LEXINGTON</b>									
	UNIT STUDIO									
	Bedroom	Daikin	Split Wall	1	9000	BTUH				
	UNIT 1 BA									
	Bedroom	Daikin	Split Wall	1	9000	BTUH				
	UNIT 1 BB									
	Bedroom	Daikin	Split Wall	1	9000	BTUH				
	UNIT 2 BA									
	Living Room	Daikin	Split Wall	1	9000	BTUH				
	Bedroom 1	Daikin	Split Wall	1	9000	BTUH				
	Bedroom 2	Daikin	Split Wall	1	4500	BTUH				
	UNIT 2 BB									
	Living Room	Daikin	Split Wall	1	9000	BTUH				
	Bedroom 1	Daikin	Split Wall	1	9000	BTUH				
	Bedroom 2	Daikin	Split Wall	1	4500	BTUH				
	UNIT 2 BC									
	Living Room	Daikin	Split Wall	1	9000	BTUH				
	Bedroom 1	Daikin	Split Wall	1	9000	BTUH				
	Bedroom 2	Daikin	Split Wall	1	4500	BTUH				
	UNIT 2 BD									
	Living Room	Daikin	Split Wall	1	9000	BTUH				
	Bedroom 1	Daikin	Split Wall	1	9000	BTUH				
	Bedroom 2	Daikin	Split Wall	1	4500	BTUH				
	UNIT 3 BA									
	Living Room	Daikin	Split Wall	1	9000	BTUH				
	Bedroom 1	Daikin	Split Wall	1	9000	BTUH				
	Bedroom 2	Daikin	Split Wall	1	4500	BTUH				

			DATA TEKNIS PROYEK								Nomor
											Halaman
BIRO ENGINEERING			APARTMENT								Tanggal
		Bedroom 3	Daikin	Split Wall	1	4500	BTUH				
		UNIT 3 BB									
		Living Room	Daikin	Split Wall	1	9000	BTUH				
		Bedroom 1	Daikin	Split Wall	1	9000	BTUH				
		Bedroom 2	Daikin	Split Wall	1	4500	BTUH				
		Bedroom 3	Daikin	Split Wall	1	4500	BTUH				
	Total kapasitas AC 3BR					27.000					
AC Public Total					1.340.000						
		Lantai Dasar							TOTAL BTUH		
		Lift Lobby Liberty	Daikin	Split Duct	2	20.000	BTUH	2400	Watt	40000	
		Public Liberty	Daikin	Split Duct	1	100.000	BTUH	10600	Watt	100000	
		Lift Lobby Lincoln	Daikin	Split Duct	1	20.000	BTUH	2400	Watt	20000	
		Public Lincoln	Daikin	Split Duct	1	150.000	BTUH	16000	Watt	150000	
		Lift Lobby Lexington	Daikin	Split Duct	2	20.000	BTUH	2400	Watt	40000	
		Public Lexington	Daikin	Split Duct	1	150.000	BTUH	16000	Watt	150000	
		Lounge Lt.1	Daikin	Split Duct	4	150.000	BTUH	600000	Watt	600000	
		AC lobby BS - LGMP1	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
		AC Lobby Lift P6A - P10A	Daikin	Ceiling Casette	16	15000	BTUH	2,4	KW	240000	
TOTAL AC + Unit						32.417.000	BTUH				
REFRIGERANT											
	Fan	IAF PARKIR	:							Exhaust fan area parkir tidak ada, masuk sistem mall.	
		EAF PARKIR	:							Intake fan area parkir tidak ada, masuk sistem mall.	
						CFM		Fconv			
		Toilet Unit 3BR	Kruger	Ceiling Mounted	-	100	-	1,688	168,8		
	PIPA	CHWS	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
		CHWR	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
		REFRIGERANT	Mueller	Non INTEGRATED	N/A	N/A	N/A	N/A	N/A		

			DATA TEKNIS PROYEK							Nomor	
BIRO ENGINEERING			APARTMENT							Halaman	
										Tanggal	
8	ELEVATOR & ESCALATOR			MERK	TYPE	JUMLAH	KAPASITAS (KG)	KAPASITAS (PERSON)	KECEPATAN (MPM)	DAYA (KW)	KETERANGAN
	Low Zone Elevator		:								
	High Zone Elevator	TOWER 1	:	MITSUBISHI	LP-LB-01, LP-LB-02, LP-LB-03, LP-LB-04	4	1.350	20	180	27.4 KW	LIBERTY / LIFT PENUMPANG
		TOWER 2	:	MITSUBISHI	LP-LC-01, LP-LC-02, LP-LC-03	3	1.800	26	180	27.4 KW	LINCOLN / LIFT PENUMPANG
		TOWER 3	:	MITSUBISHI	LP-LX-01, LP-LX-02, LP-LX-03, LP-LX-04	4	1.150	17	180	27.4 KW	LEXINGTON / LIFT PENUMPANG
	Service Lift	TOWER 1	:	MITSUBISHI	LS-LB-01, LS-LB-02	2	1.350	120	120	26.3 KW	LIBERTY / LIFT SERVICE
		TOWER 2	:	MITSUBISHI	LS-LC-01	1	1350	120	120	26.3 KW	LINCOLN / LIFT SERVICE
		TOWER 3	:	MITSUBISHI	LS-LX-01, LS-LX-02	2	1350	120	120	26.3 KW	LEXINGTON / LIFT SERVICE
	Escalator		:	-	-	-	-	-	-	-	
	Kemiringan Escalator		:	-	-	-	-	-	-	-	
	Ketinggian Escalator		:	-	-	-	-	-	-	-	
	Travelator		:	-	-	-	-	-	-	-	
	Kemiringan Travelator		:	-	-	-	-	-	-	-	
	Ketinggian Travelator		:	-	-	-	-	-	-	-	
9 GEN SET				MERK	TYPE	JUMLAH	KAPASITAS (KVA)	Total (KVA)		Bila lebih dari 1 type rinci masing-masing type dan jumlahnya	
	Gen Set		:	MITSUBISHI	-	3	1450	4350			