

8 Spesifikasi Teknis

OUTLINE SPESIFIKASI MATERIAL STRUKTUR

NO	ITEM PEKERJAAN	URAIAN	MEREK	PRODUK YANG DIPILIH
A	PONDASI	TIANG PANCANG		
1	Beton	K-500 (fc = 40 Mpa)		
2	Baja Prategang	PC WIRE JIS 3536 fu: 15.500 kg/cm2 fy (0,2%): 13.500 kg/cm2	- Paku Bumi Semesta - Praba Pondasi Persada - Indopora	Paku Bumi Semesta
3	Baja Tulangan	Mutu Baja Tulangan: BJTS 420B	- Krakatau Steel - Master Steel - DelcoPrima	Master Steel, Delco Prima
B	STRUKTUR ATAS			
1	Beton	Fc = 30 Mpa	Adhimix Jayamix Setara yang disetujui MK	Adhimix, Adhi Persada Beton
2	Baja Tulangan	Mutu Baja Tulangan: BJTS 420B Diameter Tulangan: D10, D13, D16, D19, D22, D25, D32	- Krakatau Steel - Master Steel - DelcoPrima	Master Steel, Delco Prima
3	Baja Profil	ST 37 Mild Steel Angkur tanam : ASTM 307 Baut : HTB A 325 Las : E 70 xx	- Krakatau Steel - Gunung Garuda - Cigading	Gunung Garuda
4	Water Proofing Floor Hardener & Water Stop	Membran coating WP Concrete Integral Water proofing PVC Membran WP	- SIKA - Ultrachem - Fosroc	Ultrachem, Fosroc
5	Anti Rayap	Dipilih yang tidak membahayakan manusia dan sudah disetujui oleh Ditjen POM Depkes RI	- Bayer - lemkra - BasiliuMta	Bayer
6	Bounding Agent		- SIKA - ULTRACEM - COMIX	SIKA, ULTRACHEM
7	Additive Beton + Plasticizer		- SIKA - FEB -ULTRACEM	SIKA, ULTRACHEM
8	Cat Baja Profil	Cat dasar zincromate Cat Finish	Menyesuaikan arsitek	Nippon Paint / Setara
9	Tanah Timbunan	Syarat Teknis Material Timbunan: - Tidak bersifat ekspansif Timbunan - Tidak bersifat dispersif - Mencapai nilai CBR minimum 6% - Mencapai kohesi minimum sebesar 0.5 kg/cm2 untuk tanah lempungan yang dipadatkan	Lihat penjelasan secara rinci pada Spesifikasi Teknis Tanah	Lokal

OUTLINE SPESIFIKASI MATERIAL ARSITEKTUR
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No	ITEM PEKERJAAN	REFERENSI PRODUK			PRODUK YANG DIPILIH
		MERK 1	MERK 2	MERK 3	
A	PEKERJAAN PASANGAN				
1	PEKERJAAN BETON NON STRUKTURAL - Kolom praktis - Balok praktis - Spesifikasi Beton fc 15 Mpa	LOKAL	LOKAL	LOKAL	LOKAL
2	PEKERJAAN PASANGAN BATUKALI	LOKAL	LOKAL	LOKAL	LOKAL
3	PEKERJAAN KAYU	LOKAL	LOKAL	LOKAL	LOKAL
4	PEKERJAAN LOGAM NON STRUKTURAL - Besi Railing (sesuai gambar)	LOKAL	LOKAL	LOKAL	LOKAL
5	PEKERJAAN STAINLESSTEEL - Grab bar - Railing Tangga - Spesifikasi : SUS 304, Uk 1.5" (sesuai gambar)	LOKAL	LOKAL	LOKAL	LOKAL
B	PEKERJAAN FINISHING				
I	PEKERJAAN DINDING				
1	PEKERJAAN PLESTERAN ACIAN, PEREKAT BATU BATA RINGAN DAN PEREKAT KERAMIK				
	A. Semen Instant Type acian, plesteran, pemasangan bata, perekat keramik, perekat granit yang digunakan sesuai dengan rekomendasi dari masing- masing produk.	MI MORTAR INDONESIA	MU MORTAR UTAMA	ULTRACHEM	MU, ULTRACHEM
	B. Semen PC spesi & Pasir	SEMEN INDONESIA	SEMEN MERAH PUTIH	SEMEN TIGA RODA	SEMEN TIGA RODA, SEMEN INDONESIA
2	PEKERJAAN DINDING BATA RINGAN, ROOSTER				
	a. Dinding Bata Merah Spesifikasi: Isian tangga dan ramp lt 1, Tangga Kebakaran, Dinding toilet, Dinding, bangunan utilitas	LOKAL	LOKAL	LOKAL	LOKAL
	b. Dinding Bata Beton Karawang/Rooster Ukuran 15X25cm	OMABATA	BATA GAPIT	CISANGKAN	CISANGKAN
	c. Dinding Bata Beton Karawang/Rooster Ukuran 20X20cm	OMABATA	BATA GAPIT	CISANGKAN	CISANGKAN
	d. Dinding Bata Ringan Aerasi Acc - Bata concrete Ukuran 10x20x60cm atau sesuai gambar -	JAYA CELCON PRIMA	THERMOBLOCK	POWER BLOCK	POWERBLOCK
3	PEKERJAAN DINDING PRECASST	JAYA BETON INDONESIA	ADHIMIX PCI	ADHI PERSADA BETON	
	Precast - Façade dan Precast Tangga Include Sielant. Spesifikasi: - Beton ringan bertulang - Mutu beto K.350 - Ketebalan 10cm				ADHIMIX PCI, JAYA BETON INDONESIA
4	PEKERJAAN DINDING HOMOGENOUS TILE, KERAMIK & MARMER/GRANIT	ROMAN	NIRO GRANIT	INDOGRESS	
		basel bone - GT609702FR	TERRAZO GRISEO - GTZ 03	SABBIA TERRAZZO	ROMAN, INDOGRESS
					ROMAN, INDOGRESS
		Mengacu pada interior	Mengacu pada interior	Mengacu pada interior	ROMAN, INDOGRESS
		Marmar traventin	HT 60x120 cm Matt Travertino GTV01 - Ivory	BIANCO TRAVERTINO PL	ROMAN, INDOGRESS
		ROMAN	MULIA	KIA	
			SUBWAY WHITE GLOSSY		ROMAN

No	ITEM PEKERJAAN	REFERENSI PRODUK			PRODUK YANG DIPILIH
		MERK 1	MERK 2	MERK 3	
II	PEKERJAAN LANTAI				
1	PEKERJAAN HOMOGENOUS TILE, KERAMIK & MARMER/GRANIT	ROMAN	NIRO GRANIT	INDOGRESS	
			cementous - gcu03 - ash grey	GRIGIO CEMENTO MT	ROMAN, INDOGRESS
		basel bone - GT609702FR	GLX09 Absolute White	TOPAZ PL	ROMAN, INDOGRESS
		basel grey - GT609702FR	cementous - gcu03 - ash grey	GRIGIO CEMENTO MT	ROMAN, INDOGRESS
		gangnam bone - GT609000FR		TOPAZ PL	ROMAN, INDOGRESS
			cementous - gcu03 - ash grey	GRIGIO CEMENTO MT	ROMAN, INDOGRESS
		dVeneti Perla	TERRAZO GRISEO - GTZ 03	SABBIA TERRAZZO	ROMAN, INDOGRESS
		gangnam taupe - GT609002FR	LEGNO BEIGO GDW02	GOLDEN OAKWOOD MT	ROMAN, INDOGRESS
			GLZ03 Crema Marfil	CREMA PERLATO PL	ROMAN, INDOGRESS
3	PEKERJAAN WATERPROFING	ULTRACHEM	PROPAN	FOSROC	
	PEKERJAAN WATERPROFING LIQUID - Digunakan Area Toilet, Ruang Cuci	PU WB	PU Bituminous UP-990	Nitoproof 800	ULTRACHEM, FOSROC
	PEKERJAAN WATERPROFING LIQUID MEMBRANE - Digunakan Area Atap dak Beton, Balkon - Type PU Modifed - Ketebalan min 1.2mm DFT - Lantai beton minimal mutu beton K.175	TORCH S	Ultraflex Membrane UFM-930 1K WB		ULTRACHEM, FOSROC
4	PEKERJAAN LANTAI FLOOR HARDENER	ULTRACHEM	SIKA	MORTAR INDONESIA	
	- Mutu Beton K225 - Nilai Slump diantara 75-100mm - Dosis 5-7 kg - Ketebalan Floor Hardener : 2-3mm	Ultrachem Floor Hardener	SIKA Floor Hardener		ULTRACHEM
5	PEKERJAAN GUIDELINE BLOCK TILE	TAS BLOCK	TAYNEKS		
	- Spesifikasi :Bahan Rubber/karet, termasuk 2 macam surface (line dan dot) - Ukuran 30x30x2mm				TAS BLOCK
III	PEKERJAAN LANGIT-LANGIT				
1	PEKERJAAN PLAFOND GYPSUM	KNAUF	APLUS	ELEPHANT	
	Tebal : 9mm Rangka :Drywall/Furring System	StandardShield	Gypsum Indogyps		APLUS
	Type Waterresisten Tebal : 9mm Rangka :Drywall/Furring System	WR	WR	WR	APLUS
2	PEKERJAAN PLAFOND CALSIUM SILICATE BOARD	KALSIBOARD	APLUS		
	- Ketebalan 6mm - System pemasangan dengan rangka hollow - Finising cat plafond	Kalsi Ling 6	APLUS Papan Silika		APLUS

No	ITEM PEKERJAAN	REFERENSI PRODUK			PRODUK YANG DIPILIH
		MERK 1	MERK 2	MERK 3	
3	PEKERJAAN PLAFOND AKSEN (DEKORASI)	TACO LAMINATE	CARTA LAMINATED	AICA LAMINATED	
	Rangka Multipleks Tebal: 18 mm Finishing HPL Detail merujuk ke gambar detail	HPL TH 5019 NT - Mink Walnut	HPL CT 5412 T - Dijon Oak		TACO
IV	PEKERJAAN PINTU DAN JENDELA				
1	PEKERJAAN ALUMINIUM	ATA	YKK	S+ PLUS	
	Pintu Aluminium: - Kusen aluminium (Ukuran 4", fin. powder coating, tebal 1.2 mm) - Frame pintu aluminium (fin. Powder coating, Tebal 1.2mm)				ATA, YKK
	Jendela Aluminium: - Kusen aluminium (Ukuran 4", fin. powder coating, tebal 1.2 mm) - Frame jendela (fin. Powder coating, Tebal 1.2mm)				ATA, YKK
	Pintu Aluminium: - Kusen aluminium (Ukuran 4", fin. powder coating, tebal 1.8 mm) - Frame pintu aluminium (fin. Powder coating, Tebal 1.8mm)				ATA, YKK
	Jendela Aluminium: - Kusen aluminium (Ukuran 4", fin. powder coating, tebal 1.8 mm) - Frame jendela (fin. Powder coating, Tebal 1.2mm)				ATA, YKK
2	PEKERJAAN KACA	ASAHIMAS	MULIA GLASS		
	Kaca Façade (Jendela Eksterior) Ketebalan : 6mm Type : Panasap	Panasap Tinted Grey	Soles		ASAHIMAS
	Kaca Interior (Jendela Interior) Ketebalan : 6mm Type : Clear Glass	Clear Glass	Vistran		ASAHIMAS
	Kaca Tempered (Pintu-Jendela Besar) Ketebalan : 10mm Type : Clear Glass+Sandblast	Clear Glass	Vistran		ASAHIMAS
	Kaca Cermin Ketebalan : 6mm Type : Mirror	Dantalux	Vistran		ASAHIMAS
3	PEKERJAAN IRONMONGERY/HARDWARE	DEKKSON	KEND		
	PINTU ALUMINIUM 1 DAUN PINTU	Handle Dekkson LHTR 84030 SSS	FINO HREO.85.01Fn US32D		DEKSON
		Escutcheon Dekkson ESCN D07SSS	FINO E.85.37Fn US32D		DEKSON
		Mortise Lock Dekkson MTS IL DL84030 SSS	Lockcase swing AL FINO Fn8535- 30 US32		DEKSON
		Cylinder Dekkson CYL DC DL65MM SN	Double Cylinder FINO DC.Fn1001- 60 US14		DEKSON
		Hinge Dekkson ESS DL 4X3X2MM 2BB SSS Dust Proof Dekkson DP 003 SSS	Hinges FINO SEL Fn13 4x3x2 4BB US32D Dust proof strike FINO DPS- Fn851 US15		DEKSON
	PINTU ALUMINIUM 2 DAUN PINTU	PRESTIGE SERIES PHA D300 SILVER 31X332X299	Pull Handle P 45.06 FB US32D		DEKSON
		ESCUTCHEON ESCN D07 SSS	Escutcheon E.85.37FN		DEKSON
		MORTISE LOCK ROLLER LATCH MTS RL 83585 SSS	Lock case FN 8535-30		DEKSON
		CYLINDER CYL CON DC DL62MM SN (2+3)	Cylinder DC FN1001-60		DEKSON
		NRP HINGE NRP ESS DL 4X3X3MM 4BB SSS	Hinge SEL FN08 4x3x3mm 4BB		DEKSON
		DCL 8916 NHO NA	Door Closer 85713 FN RA 5		DEKSON
		FB 608 BR 6" SN	Flush Bolt FN 675 6" x 19 mm		DEKSON
	FB 040 12" SSS	Flush Bolt FN 675 12" x 19 mm		DEKSON	

No	ITEM PEKERJAAN	REFERENSI PRODUK			PRODUK YANG DIPILIH
		MERK 1	MERK 2	MERK 3	
		DP 003 SSS	Dust Proof DPS FN851		DEKSON
	PINTU KAYU 1 DAUN PINTU	LHTR 8013 SSS	Lever Handle HRE 26.01FN		DEKSON
		ESCUTCHEON ESCN D07 SSS	Escutcheon E.85.37FN		DEKSON
		MORTISE LOCK ROLLER LATCH MTS RL 83585 SSS	Lockcase FN 8539-40 US15		DEKSON
		CYL TC KK DL60MM SN	Knob Cylinder KC FN1002-60		DEKSON
		NRP HINGE NRP ESS DL 4X3X3MM 4BB SSS	Hinge SEL FN08 4x3x3mm 4BB		DEKSON
		DCL 8916 NHO NA	Door Stop STP-FN 017		DEKSON
		PINTU KAYU 2 DAUN PINTU	PRESTIGE SERIES PHA D300 SILVER 31X332X299	Pull Handle P 45.06 FB US32D	
	ESCUTCHEON ESCN D07 SSS		Escutcheon E.85.37FN		DEKSON
	MORTISE LOCK ROLLER LATCH MTS RL 83585 SSS		Lockcase FN 8535-30		DEKSON
	CYLINDER CYL CON DC DL62MM SN (2+3)		Cylinder DC FN1001-60		DEKSON
	NRP HINGE NRP ESS DL 4X3X3MM 4BB SSS		Hinge SEL FN08 4x3x3mm 4BB		DEKSON
	DCL 8916 NHO NA		Door Closer 85713 FN RA S		DEKSON
	FB 608 BR 6" SN		Flush Bolt FN 675 6" x 19 mm		DEKSON
	FB 040 12" SSS		Flush Bolt FN 675 12" x 19 mm		DEKSON
	DP 003 SSS		Dust Proof DPS FN851		DEKSON
	JENDELA & ASSESORIS	FRICTION STAY FS SS 28"	Casement CMT FN27 08"		DEKSON
		SK 018 BR SN	Spring Knip SK-FN 479		DEKSON
		Friction Stay Dekkson FS HD T250 10"	FINO RMB-Fn090 RH OFF WHITE ECO		DEKSON
4	PEKERJAAN KUSEN, PINTU BESI DAN PINTU SHAFT	KUPPE	MARKS	S+Plus	
	Pekerjaan Pintu Besi Tangga Darurat (Pemadam Kebakaran) <ul style="list-style-type: none"> - Fire door DKI Standar - Spesifikasi DIN 18082 Daun Pintu - Tebal minimum pintu 55mm - Tebal plat baja : 1.2mm-1.6mm - Isolasi : rockwooll 100 kg/m³ Kusen (frame) - Kusen (frame) z system/c system - Tebal kusen : 2-3mm Perlengkapan (hardware) - sesuai dengan standar dari masing- masing produk. - Door handle menggunakan lever handle dan bar handle Untuk ukuran dan type pintu lihat gambar shop drawing.	SingleSteel Door	Single Steel Door		KUPPE
	Pintu shaft <ul style="list-style-type: none"> - Spesifikasi DIN 18101 Daun Pintu - Tebal pintu 35mm - Tebal plat besi 1,2mm Kusen (Frame) - C system - Tebal Kusen 2.0mm Perlengkapan Hardware sesuai standar dari masing-masing produk Untuk ukuran dan type pintu lihat gambar shop drawing.	Single/Double Shaft Door	Single/Double Shaft Door	Single/Double Shaft Door	KUPPE

No	ITEM PEKERJAAN	REFERENSI PRODUK			PRODUK YANG DIPILIH
		MERK 1	MERK 2	MERK 3	
	Pekerjaan Pintu Besi - Spesifikasi DIN 18101 Daun Pintu - Tebal pntu 43mm, double sided - Tebal Plat besi 1.2mm Kusen (Frame) - C System - Tebal kusen 2.0mm Perlengkapan Hardware sesuai standar dari masing-masing produk Untuk ukuran dan type pintu lihat gambar shop drawing.	Single Steel Door	Single Steel Door		KUPPE
5	PEKERJAAN PINTU ALUMINIUM	AMK	ALPHAMAX	MAHOTTAMA	
	Untuk ukuran dan type detail lihat gambar shop drawing.				AMK
6	PEKERJAAN PINTU DAN DINDING PHENOLIC CUBICAL TOILET	TACO	ICUBIX	SAKURA MATRIKS UTAMA	
	- Tebal = 12 mm - Finishing HPL - Density + 1.400kg/m3 - Ukuran sesuai shop drawing. - Asesories dan bahan pendukungnya, harus sesuai standar dari produk cubicle yang digunakan.	Tacompact	TITAN BOX		TACO
7	PEKERJAAN PINTU ROLLING DOOR	JOB METAL	MAXINDO STELL		
	- Bahan Jenis Roliing one sheet tebal 0,45mm, Fin Cat Powder Coating, Motif Semi Perporated 25 cm, ukuran Lobang Perporated Ø2 mm - Kusen besi U 2x5 cm tebal 1,2 mm - Box ukuran tinggi 50 cm, rangka besi hollow 2x2 cm, tebal 1 mm, cover triplek melaminto 3 mm - Untuk ukuran dan type detail lihat gambar shop drawing.				MAXINDO STEEL
V	PEKERJAAN SANITAIR				
22	PEKERJAAN SANITARY	TOTO	AMERICAN STANDARD	ROCA	
	CLOSED JONGKOK	CE9/TV150NWV12J			TOTO
	WASTAFEL	LW824CJ			TOTO
	KRAN WESTAFEL	TX115LEN	FFASTJ53- 101500BF0	MBA-S1030	TOTO
	KRAN WUDHU	TX133L			TOTO
	KRAN TAMAN				TOTO
	SHOWER	TX465SEN	F40012-CHADY	HSA-005	TOTO
	SHOWER FAUCET			TL2-080	TOTO
	URINAL MUSLIM (UR)	UW447JNM			TOTO
	KRAN URINAK (KUR)				TOTO
	JET SHOWER (SW)	THX20MCRB			TOTO
	TISSUE PAPER HOLDER (TH)	TX703AESV1		REF: A817101001	TOTO
	FLOOR DRAINS (FD)	TX1EB			TOTO
	ROOF DRAIN	ONDA	SAN-EI	WASSER	
		ROOF DRAIN (RFS 01) 3"			ONDA
	URINAL DIVIDER	AW115J			ONDA
	HANGER (GANTUNGAN)				ONDA
	TEMPAT SABUN				ONDA
	STOP KRAN				ONDA
	BAR UNTUK DIFABEL				ONDA
	KRAN SINKS/PANTRY	ROYAL	MODENA	SANDIMAS	ROYAL
	KITCHEN SINK Material : Stainless steel 304 Terdiri dari : 1 bowl dan 1 drainer	ROYAL	MODENA	SANDIMAS	ROYAL
	KITCHEN SINK Material : Stainless steel 304 Terdiri dari : 2 bowl dan 1 drainer	ROYAL	MODENA	SANDIMAS	ROYAL
	KITCHEN SINK Material : Stainless steel 304 Terdiri dari : 1 bowl P : 430 mm L : 430 mm T : 180 mm	ROYAL	MODENA	SANDIMAS	ROYAL
	PEKERJAAN PENGECATAN	JOTUN	PROPAN	NIPPON	

No	ITEM PEKERJAAN	REFERENSI PRODUK			PRODUK YANG DIPILIH
		MERK 1	MERK 2	MERK 3	
1,	Cat Interior - General - Area Service (Tangga Darurat/Janitor)	- Majestic True - Jota floor (Epoxy Paint)	- Eco Emultion Décor Acrylic Enamel DAE 560	- Nippon Flawless - Nippon Epoxy 911SL	
		9918 Morning Fog			JOTUN
		S3020-R90B			JOTUN
					JOTUN
		S2030-Y10R			JOTUN
		CEMENT WASH LIGHT GREY		Gamma Paint	JOTUN
	Cat Eksterior	Jotashield Antifade	Decorshield	Nippon Weatherbond	
		9918 Morning Fog			JOTUN
		4226 Thunder Hero			JOTUN
		1105 Soyamilk			JOTUN
		9904 Twilight			JOTUN
		20047 Blushing Peach			JOTUN
		CEMENT WASH LIGHT GREY		Gamma Paint	JOTUN
		6317			JOTUN
		Alphine Snow			JOTUN
		4521 Midnight Floss			JOTUN
		1359 Macchiato			JOTUN
		2396 Tender Pink			JOTUN
	Cat Kamprot	Jotashield Antifade	Decorshield	Nippon Weatherbond	
		9918 Morning Fog			JOTUN
	Cat Plafond	Jotaplast	Eco Gypsum	Nippon Vinilex	
		7236 Chi			JOTUN
		S3020-R90B Semigloss			JOTUN
		S2030-Y10R			JOTUN
		Semigloss			JOTUN
		S 5010 - B90G Semigloss			JOTUN
5	Cat Besi/Cat Duco	Gardex Premium Gloss	Synthetic 2000	Nippon Nippe 2000	NIPPON
6	Cat Kayu	Gardex Premium Gloss	Propan Woodstain	Nippon Timberfinish	NIPPON
7	Cat Lantai (Cat Marka Jalan)	Jotun Traffic Paint	Décor Acrylic Enamel 560	Nippon Roadline Paint	NIPPON
VII	PEKERJAAN LAIN-LAIN				
25	PEKERJAAN PEMASANGAN SIGNED	MALKA	CITY AD EXPO INDONESIA		
	Signed Dilarang Merokok - Acrylic Bening 3mm - Digital Printing + Double Laminating - Ukuran 95mm x 155mm				MALKA
	Bak Sampah - Ukuran 1200mm 750mm - Bahan Stainlesssteel				MALKA
	Logo Gedung - Ukuran sesuai gambar - Bahan Stainlesssteel t.2mm - Type Huruf Tahoma				MALKA
26	PEKERJAAN SEALANT	IKASEAL	GE	BOSTIC SEALANT	
	- Sealant Kusen	IKASEAL 988	GE Silglaze N10	BOSTIC Boscosil 616	IKASEAL

No	ITEM PEKERJAAN	REFERENSI PRODUK			PRODUK YANG DIPILIH
		MERK 1	MERK 2	MERK 3	
	- Sealant Dinding Precast	IKASEAL MS 1022LM	-	BOSTIC Seal n Flex PU	IKASEAL
VII	PEKERJAAN FACADE				
1	PEKERJAAN PEMASANGAN PANEL FASAD FIBER-SEMEN	CONWOOD	SHERA		
	- PANEL BERMOTIF ORNAMEN LOKAL				SHERA
	- PANEL CLADDING TALI AIR (Tangga Kebakaran)				SHERA
	- PANEL MOTIF ORNAMEN ISLAMI				SHERA
2	PEKERJAAN PEMASANGAN GRC	GRC ARTICON INDONESIA	GRC NUANSA		
	- KUBAH MASJID				GRC ARTICON INDONESIA
	- PANEL FASAD (Penutup ruang jemur)				GRC ARTICON INDONESIA
	KAMAR ASRAMA (TYPICAL)				
1	PENGECATAN ULANG BUNKBED EXISTING		White West 512 SMO ; Powder Coating , Jotun PowderCoating		
2	REFINISH LEMARI BAJU EXISTING		Multiplek 18mm finish HPL TH 5019 NT - Mink Walnut,Taco Laminated	Multiplek 18mm finish HPL CT 5412 T - Dijon Oak, Carta Laminated	
	2.1 DOOR AKSEN		Multiplek 18mm finish HPL TH 014 D - Light Grey Matte, Taco Laminated	Multiplek 18mm finish HPL CT 0109 t - Light Grey Matte, Carta Laminated	
3	MEJA BELAJAR		Multiplek 18mm finish HPL TH 5019 NT - Mink Walnut,Taco Laminated	Multiplek 18mm finish HPL CT 5412 T - Dijon Oak, Carta Laminated	
4	HAMBALAN		Multiplek 18mm finish HPL TH 014 D - Light Grey Matte, Taco Laminated	Multiplek 18mm finish HPL CT 0109 t - Light Grey Matte, Carta Laminated	
5	Lantai		Homogenius Tile Gangnam Taupe- GT609002FR,60x60, Roman Granite	Homogenius Tile Legno Beigo GDW02 Niro Granite	
	KAMAR ASRAMA (DIFABEL)				
6	DIVAN & BACK PANEL		Multiplek 18mm finish HPL TH 5019 NT - Mink Walnut,Taco Laminated	Multiplek 18mm finish HPL CT 5412 T - Dijon Oak, Carta Laminated	
7	LEMARI BAJU		Multiplek 18mm finish HPL TH 5019 NT - Mink Walnut,Taco Laminated	Multiplek 18mm finish HPL CT 5412 T - Dijon Oak, Carta Laminated	
8	MEJA BELAJAR		Multiplek 18mm finish HPL TH 014 D - Light Grey Matte, Taco Laminated	Multiplek 18mm finish HPL CT 0109 t - Light Grey Matte, Carta Laminated	
9	Lantai		Homogenius Tile Gangnam Taupe- GT609002FR,60x60, Roman Granite	Homogenius Tile Legno Beigo GDW02 Niro Granite	
	KAMAR ASRAMA (PEMBINA)				
10	DIVAN		Multiplek 18mm finish HPL TH 5019 NT - Mink Walnut,Taco Laminated	Multiplek 18mm finish HPL CT 5412 T - Dijon Oak, Carta Laminated	

No	ITEM PEKERJAAN	REFERENSI PRODUK			PRODUK YANG DIPILIH
		MERK 1	MERK 2	MERK 3	
11	BACK PANEL / HEADBOARD		Multiplek 18mm finish HPL TH 5019 NT - Mink Walnut,Taco Laminated	Multiplek 18mm finish HPL CT 5412 T - Dijon Oak, Carta Laminated	
12	LEMARI BAJU		Multiplek 18mm finish HPL TH 014 D - Light Grey Matte, Taco Laminated	Multiplek 18mm finish HPL CT 0109 t - Light Grey Matte, Carta Laminated	
13	MEJA BELAJAR		Multiplek 18mm finish HPL TH 5019 NT - Mink Walnut,Taco Laminated	Multiplek 18mm finish HPL CT 5412 T - Dijon Oak, Carta Laminated	
14	HAMBALAN		Multiplek 18mm finish HPL TH 014 D - Light Grey Matte, Taco Laminated	Multiplek 18mm finish HPL CT 0109 t - Light Grey Matte, Carta Laminated	
15	KITCHEN SET		Multiplek 18mm finish HPL TH 014 D - Light Grey Matte, Taco Laminated	Multiplek 18mm finish HPL CT 0109 t - Light Grey Matte, Carta Laminated	
	15.1 TOP TABLE & BACKSPLASH		Homogenius Tile Basel bone- GT609702FR,60x60, Roman Granite	Homogenius Tile TERRAZO GRISEO GTZ 03,60x60, Matt, Niro Granite	
16	Lantai		Homogenius Tile Gangnam Taupe- GT609002FR,60x60, Roman Granite	Homogenius Tile Legno Beigo GDW02 Niro Granite	
LOBBY LIFT (Biru)					
17	BACK PANEL 1 (Depan Lift)		Multiplek 18mm finish HPL TH 5019 NT - Mink Walnut,Taco Laminated	Multiplek 18mm finish HPL CT 5412 T - Dijon Oak, Carta Laminated	
18	AKSEN COLOUR PANEL & CEILING 2 (Lobby)		Duco Semigloss/Cat Dinding S3020-R90B Ex. Jotun		
19	WALL TREATMENT (Lobby)		Cat Tembok Stucco, Cement Wash (Iron Grey), Stucco	Cat Tembok Cement Wash, (Light Grey), Gamma Paint	
20	Bench		Multiplek 18mm finish HPL TH 5019 NT - Mink Walnut,Taco Laminated	Multiplek 18mm finish HPL CT 5412 T - Dijon Oak, Carta Laminated	
LOBBY LIFT (Kuning)					
21	BACK PANEL 1 (Depan Lift)		Multiplek 18mm finish HPL TH 5019 NT - Mink Walnut,Taco Laminated	Multiplek 18mm finish HPL CT 5412 T - Dijon Oak, Carta Laminated	
22	AKSEN COLOUR PANEL & CEILING 2 (Lobby)		Duco Semigloss/Cat Dinding S2030-Y10R Ex. Jotun		
23	WALL TREATMENT (Lobby)		Cat Tembok Stucco, Cement Wash (Iron Grey), Stucco	Cat Tembok Cement Wash, (Light Grey), Gamma Paint	
24	Bench		Multiplek 18mm finish HPL TH 5019 NT - Mink Walnut,Taco Laminated	Multiplek 18mm finish HPL CT 5412 T - Dijon Oak, Carta Laminated	
LOBBY LIFT (Hijau)					

No	ITEM PEKERJAAN	REFERENSI PRODUK			PRODUK YANG DIPILIH
		MERK 1	MERK 2	MERK 3	
25	BACK PANEL 1 (Depan Lift)		Multiplek 18mm finish HPL TH 5019 NT - Mink Walnut,Taco Laminated	Multiplek 18mm finish HPL CT 5412 T - Dijon Oak, Carta Laminated	
26	AKSEN COLOUR PANEL & CEILING 2 (Lobby)		Duco Semigloss/Cat Dinding S 5010 - B90G Ex. Jotun		
27	WALL TREATMENT (Lobby)		Cat Tembok Stucco, Cement Wash (Iron Grey), Stucco	Cat Tembok Cement Wash, (Light Grey), Gamma Paint	
28	Bench		Multiplek 18mm finish HPL TH 5019 NT - Mink Walnut,Taco Laminated	Multiplek 18mm finish HPL CT 5412 T - Dijon Oak, Carta Laminated	
KANTIN MAHASISWA					
29	LANTAI		Homogenius Tile TYPE : Dpiccadilly Grey - GT602057R 600 x 600 mm Surface : Matt Pei Rating 4 Ex. Roman Granite	Homogenius Tile TYPE : Cementous GCU03 - ASH GREY 1200 x 600 mm Surface : Matt Pei Rating 4 Ex. Niro Granite	
30	DINDING UTAMA		Cat Dinding Morning Fog Kode : 9918 Ex. Jotun		
31	CEILING AKSEN		Multiplek 18mm finish HPL TH 5019 NT - Mink Walnut,Taco Laminated	Multiplek 18mm finish HPL CT 5412 T - Dijon Oak, Carta Laminated	
LOOSE FURNITURE					
KANTIN					
1	Kursi Makan 1	London Z Bangku - Hitam, Informa			
2	Kursi Makan 2	London Z Bangku - Kuning, Custom Colour			
3	Kursi Makan 3	London Z Bangku - Abu-abu, Informa			
4	Meja Makan	Meja Cafe Hanko Putih	Informa 70x70 cm Forby Meja - Putih		
LOBBY LIFT					
5	MEJA BULAT	Sawarna Stool,Biru Putih Robries			
KAMAR TYPICAL - KAMAR PEMBINA - DIFABEL					
6	Kursi Belajar	Kursi Macaroonsn kursi kantor sandaran rendah, Warna Kuning, Informa	Kursi Kantor Putar MALSKAR/ELDBERGET, Kuning Putih, IKEA		
KAMAR MANDI PEMBINA & DIFABEL					
7	CERMIN	Cermin Oval U58 Putih/Hitam 50x100cm, Informa	Cermin Round Putih/Hitam Dia 55 cm, informa		
INTERIOR MESJID					
1	DINDING GENERAL		Cat Dinding Kode : S1002-Y 01-b1 Ex. Jotun Paint	Cat Dinding Kode :27D-01A11 Twinkled Star Ex. Mowilex	JOTUN
2	DINDING AKSEN 1		Marmer Travertine	HT 60x120 cm Matt Travertino GTV01 - Ivory Ex. Niro Granite	NIRO GRANITE

No	ITEM PEKERJAAN	REFERENSI PRODUK			PRODUK YANG DIPILIH
		MERK 1	MERK 2	MERK 3	
3	DINDING AKSEN 2		Grey Marmer	HT 60x120 cm Slipstop Dante GDT 05 - VITO Ex. Niro Granite	NIRO GRANITE
4	CEILING GENERAL		Cat Ceiling Kode : Morning Fog 9918 Ex. Jotun Paint	Cat Ceiling Kode :VS 1800 White Ex. Mowilex	JOTUN
5	CEILING AKSEN		Multiplek 18mm finish HPL TH 5019 NT - Mink Walnut,Taco Laminated	Multiplek 18mm finish HPL CT 5412 T - Dijon Oak, Carta Laminated	TACO
6	LANTAI GENERAL INTERIOR		Homogenius Tile Basel bone- GT609702FR,60x60, Roman Granite	HT 60x120 cm Matt Travertino GTV01 - Ivory Ex. Niro Granite	ROMAN
7	KARPET SOLAT		Karpet Mesjid Gulung MIR Silver Bintik 1	Karpet Mesjid Gulung MIR Coklat Polos 2	
MIHRAB					
8	DINDING MELENGKUNG 1		Multiplek 18mm finish HPL TH 5019 NT - Mink Walnut,Taco Laminated	Multiplek 18mm finish HPL CT 5412 T - Dijon Oak, Carta Laminated	TACO
9	DINDING AKSEN 1		Kulit Batu Silver Quartz	Cat Texture Addstone Tipe : AN - 625	
10	LANTAI AKSEN		Pebbel putih		LOKAL
KUBAH					
11	KUBAH		Texture Paint Lime Concrete Heart Brown Ex Gamma Paint		
12	KUBAH AKSEN		Marmer Travertine	HT 60x120 cm Matt Travertino GTV01 - Ivory Ex. Niro Granite	
KOLOM & RAILING					
13	KOLOM UTAMA		Marmer Travertine	HT 60x120 cm Matt Travertino GTV01 - Ivory Ex. Niro Granite	ROMAN
14	RAILING		Tempered Glass 10mm		LOKAL
15	HAND RAILING		Multiplek 18mm finish HPL TH 5019 NT - Mink Walnut,Taco Laminated	Multiplek 18mm finish HPL CT 5412 T - Dijon Oak, Carta Laminated	TACO
LIGHTING					
16	LAMPU GANTUNG UTAMA		Custom Lampu Gantung Besi Powder coating Black		LOKAL
17	LAMPU AKSEN PADA KOLOM		Custom Tembaga Lasser cut		LOKAL

No	ITEM PEKERJAAN	REFERENSI PRODUK		PRODUK YANG DIPILIH
		MERK 1	MERK 2	
INTERIOR MESJID				
1	DINDING GENERAL	Cat Dinding Kode : S1002-Y 01-b1 Ex. Jotun Paint	Cat Dinding Kode :27D-01A11 Twinkled Star Ex. Mowilex	JOTUN
2	DINDING AKSEN 1	Marmer Travertine	HT 60x120 cm Matt Travertino GTV01 - Ivory Ex. Niro Granite	NIRO GRANITE
3	DINDING AKSEN 2	Grey Marmer	HT 60x120 cm Slipstop Dante GDT 05 - VITO Ex. Niro Granite	NIRO GRANITE
4	CEILING GENERAL	Cat Ceiling Kode : Morning Fog 9918 Ex. Jotun Paint	Cat Ceiling Kode :VS 1800 White Ex. Mowilex	JOTUN
5	CEILING AKSEN	Multiplek 18mm finish HPL TH 5019 NT - Mink Walnut,Taco Laminated	Multiplek 18mm finish HPL CT 5412 T - Dijon Oak, Carta Laminated	TACO
6	LANTAI GENERAL INTERIOR	Homogenius Tile Basel bone- GT609702FR,60x60, Roman Granite	HT 60x120 cm Matt Travertino GTV01 - Ivory Ex. Niro Granite	ROMAN
7	KARPET SOLAT	Karpet Mesjid Gulung MIR Silver Bintik 1	Karpet Mesjid Gulung MIR Coklat Polos 2	
MIHRAB				
8	DINDING MELENGKUNG 1	Multiplek 18mm finish HPL TH 5019 NT - Mink Walnut,Taco Laminated	Multiplek 18mm finish HPL CT 5412 T - Dijon Oak, Carta Laminated	TACO
9	DINDING AKSEN 1	Kulit Batu Silver Quartz	Cat Texture Addstone Tipe : AN - 625	JOTUN
10	LANTAI AKSEN	Pebbel putih		LOKAL
KUBAH				
11	KUBAH	Texture Paint Lime Concrete Heart Brown Ex Gamma Paint		GAMMA PAINT
12	KUBAH AKSEN	Marmer Travertine	HT 60x120 cm Matt Travertino GTV01 - Ivory Ex. Niro Granite	ROMAN, NIRO GRANITO
KOLOM & RAILING				
13	KOLOM UTAMA	Marmer Travertine	HT 60x120 cm Matt Travertino GTV01 - Ivory Ex. Niro Granite	ROMAN
14	RAILING	Tempered Glass 10mm		LOKAL
15	HAND RAILING	Multiplek 18mm finish HPL TH 5019 NT - Mink Walnut,Taco Laminated	Multiplek 18mm finish HPL CT 5412 T - Dijon Oak, Carta Laminated	TACO
LIGHTING				
16	LAMPU GANTUNG UTAMA	Custom Lampu Gantung Besi Powder coating Black		LOKAL
17	LAMPU AKSEN PADA KOLOM	Custom Tembaga Lasser cut		LOKAL

No	Satuan Pekerjaan	Spesifikasi Teknis	Merk	Merk Yang di Tawarkan
I PEKERJAAN PLUMBING				
1	Transfer Pump	Type : - Centrifugal End Suction - Mechanical Seal Kapasitas : Sesuai Gambar Head : Sesuai Gambar	- Ebara Indobara - KSB - Grundfos - Turbosan - Vansan	- Grundfos - KSB
2	Packaged Booster Pump	Type : - Packaged Booster Pump - Automatic Parallel Alternate - Operation with inverter Kapasitas : Sesuai Gambar Head : Sesuai Gambar	- Ebara Indobara - KSB - Grundfos - Turbosan - Vansan	- Grundfos - KSB
3	Pipa Air Bersih & Fitting	- PPR PN-20 untuk riser ke roof tank - PPR PN-20 untuk pipa tegak distribusi - Fitting PPR-25 - PVC AW class untuk distribusi horizontal setiap lantai	- Rucika Green, ATP Toro, Genova, wesplex - Rucika Sdt., Vinilon, Supramas, Pipamas, Wavin	- Wespex, Genova - Pipamas, Supramas
4	Clean Out	Cover : Stainless Steel Body : Disesuaikan dengan pipa pembuangan	- Toto, Yuta, San-ei, SPI	- SPI
5	Kran Taman	Type : Sillcock with hose coupling	- Toto, San-ei	- Toto, San-ei
6	Pompa Sumpit	Type : - Submersible drainage & Sewage pump - automatic parallel alternate operation with floater with QDC. Kapasitas head : sesuai gambar	- Ebara Indobara, Grundfos, Flyght, ABS, Rovatti	- Grundfos
7	Electrode Water Level Control	Tegangan 24 Volt Type : Stick elektrode	- Hattersley, Omron	- Omron
8	Flexible Joint	Tekanan : 16 kg/cm2 Bahan : - Rubber, Nylon dengan reinforced	- Muraflex, Yuta, Proco, Tozen, AFA	- Muraflex, Tozen
9	Gate Valve	Diameter ≤ 50 : Screw bronze. Diameter ≥ 65 : Flanged Cast Iron Working Pressure : - Sebelum PRV : 12 kg/cm2 - Setelah PRV : 10 kg/cm2	- Elmech, AFA, Kitz, Yuta, Toyo	- Yuta
10	Check Valve, Strainer, Anti water hammer	Diameter ≤ 50 : Screw bronze. Diameter ≥ 65 : Flanged Cast Iron Working Pressure : - Sebelum PRV : 12 kg/cm2 - Setelah PRV : 10 kg/cm2	- Elmech, AFA, Kitz, Yuta, Toyo	- Yuta
11	Pipa Air Bekas, Kotor & Fitting	Kelas : PVC 10 Kg/cm2	- Rucika Sdt., Vinilon, Supramas, Pipamas, Wavin	- Pipamas, Supramas
12	Pipa Venting	Kelas : PVC 10 Kg/cm2 Pipa Vertikal : PVC Class AW Pipa Horizontal : PVC Class AW	- Rucika Sdt., Vinilon, Supramas, Pipamas, Wavin	- Pipamas, Supramas
13	Pipa Air Buangan dan Kitchen Sink	Kelas : PVC 10 Kg/cm2	- Rucika Sdt., Vinilon, Supramas, Pipamas, Wavin	- Pipamas, Supramas
14	Safety Valve	Body : Cast Iron/Ductile Iron/bronze. Working Pressure : 16 kg/cm2	- Elmech, AFA, Kitz, Yuta, Toyo	- Yuta
	Air Release Valve	Body : Cast Iron/Ductile Iron/bronze. Working Pressure : 16 kg/cm2	- SCI, AFA, Kitz, Samyang	- Samyang, AFA
15	Pressure Gauge	Working Pressure : 25 kg/cm2 Indicator	- VPG, Nagano, Elmech, VDO	- VPG
16	Floor Drain	Stainless Steel Plate with memorable strainer type bell trap	- SPI, Toto, San-ei, Yuta	- SPI
17	Water meter (Pre Paid)	Body : Brass bronze. Working Pressure : 10 kg/cm2 Brass / D2R 20 x ¼", 25 x ¼", Straight / Argle Valve ½" x ¼"	- FDE (Fuji Dharma Electric), Thera, Actaris, B&R, Fuzhou	B&R
18	Air Valve / Air Vent	Body : Cast Iron Working Pressure : 16 kg/cm2	- SCI, AFA, Kitz, Socla, Samyang	- Samyang, AFA
19	Foot Valve	Body : Cast Iron Working Pressure : 12 kg/cm2	- Elmech, AFA, Kitz, Yuta, Socla, Ebara, Mizu, KSB	- Yuta
20	Grease Trap (Portable)	Dimensi : 46 (P) x 35(L) x 34 (T) cm Material : Poly Propylene (PP). Pipa dan Fitting : PVC 1 ½". Drain : Kran ½" Drain Out Ukuran : Sesuai Kapasitas	- Biotech, Tri Mitra, Antasan	- Biotech, Antasan
21	Roof Drain	Cast Iron. Working Pressure 8 Kg/cm2	- Antasan, Kharisma, Austindo	- Antasan, Kharisma
22	Pressure Reducing Valve	Type : Adjustable Setting. Body : Cast Iron / Ductile Iron	- Elmech, AFA, Kitz, Yuta, Bayard, Yoshitake & Fushman, KKK	- Yuta
23	Tutup Manhole Sumpit dan Sewage Pit	Cash Iron	- SPI, Antasan	- SPI, Antasan
24	Pipa Buangan Air Hujan	PVC Working Pressure 10 kg/cm2	- Vinilon, Pipamas, Rucika Std., Supramas, Wavin	- Pipamas, Supramas
25	STP Sewage Treatment Plant	Type : Extended Aeration + Recycling. Kap. Sesuai perhitungan / day. WTP Sand Filter + Carbon	- Biosant, Biotech, Tunas Wikarya, Daiki Axis Indonesia	- Biosant, Tunas Wikarya, Daiki Axis Indonesia
26	Tangki Air	Bahan tangki air terbuat dari fiberglass berbentuk silinder dan mudah untuk perawatan / bersihkan. Finish : Sisi bagian luar dilengkapi dengan coating anti ultra violet & sisi bagian dalam diproteksi dengan coating anti lumut dan oksidan. Accessories : lengkap dengan drain, manhole, pondasi dan pipa vent. Tangki air tertutup / terlindungi dari panas matahari dan dari hujan (beratap dan berdingding di sisi	- Biotech, Pinguin, Indogreen, Jaya Utama	- Biotech, Pinguin
27	Sand & Carbon Filter		- Pevasa, Medifilt, Biosant, Setara	- Biosant, Setara

No	Satuan Pekerjaan	Spesifikasi Teknis	Merk	Merk Yang di Tawarkan
II INSTALASI FIRE FIGHTING				
1	Pompa Electric	Kapasitas : 1.000 USGPM Head : 110 Meter NFPA 20. Type Vertical Turbine. Putaran : 2900 RPM, 200 KW, 380 V, 50 Hz, 1 Ph	- Petterson, Aurora, Turbosan - Vansan, Flowserve, KSB, Sycroflo	- Sycroflo, KSB, Aurora
2	Pompa Diesel	Kapasitas : 1.000 USGPM Head : 110 Meter NFPA 20. Type Vertical Turbine. Putaran : 2900 RPM, 200 KW, 380 V, 50 Hz, 1 Ph Dilengkapi Silencer Exhaust air filter, automatic battery charger, fuel tank untuk 8 jam operasi, panel control. Tangki harian 250 liter dll	- Petterson, Aurora, Turbosan - Vansan, Flowserve, KSB, Sycroflo - Engine : Clarke, Cummin, Iveco	- Sycroflo, KSB, Aurora - Engine : Cummin
3	Pompa Jockey	Kapasitas : 25 USGPM Head : 120 Meter Type Vertical Multistage. Putaran : 2900 RPM 3,7 KW Dilengkapi dengan panel control dan system control	- Petterson, Aurora, Turbosan - Vansan, Flowserve, KSB, Sycroflo	- Sycroflo, KSB, Aurora
4	Pipa & Fitting	Dalam bangunan Black Steel pipe sch 40 ASTM A120/ASTM A53-A	- KS, Bakrie, Nippon Steel	- KS
5	Box Hydrant	Bahan : Steel Plat Tebal bahan untuk dalam bangunan minimum 1,2 mm. Tebal bahan untuk luar bangunan minimum 1,8 mm. Dilengkapi tutup plat, ventilasi dan pintu engsel 180o Box hydrant lengkap Accessories Noozle kuningan dan selang	- Apron, Ozeki, Hooseki, On Fire, Yamato	- Hooseki, On Fire
6	Check Valve	Swing Type	- Elmech, AFA, Kitz, Yuta, Viking, Toyo, Victoulc	- Yuta
	Check Valve Anti Water Hammer	Membran Type	- Elmech, AFA, Kitz, Yuta, Viking, Toyo, Victoulc	- Yuta
	Anti Water Hammer	Water Hammer Eliminator	- Bayard, Kitz, Yuta	- Bayard
	Strainer	Tekanan kerja minimum untuk : Ruang Pompa 20 kg/cm2. Sebelum PRV 20 kg/cm2. Setelah PRV 16 kg/cm2. Diameter s2" screwed bronze. Diameter s2,5" Flanged Cast Iron	- Kitz, Bayard, Yuta	- Yuta
7	Safety Valve, Air	Tekanan kerja minimal 15 kg/cm2. Bodi : Cast Iron / bronze Ductile Iron	- Bayard, AFA, Samyang, Socla, Viking	- Bayard
	Air Release Valve	Tekanan kerja minimum 15 kg/cm2. Body : Cast Iron / bronze	- Samyang, AFA, SCI, Viking	- Samyang
8	Gate Valve, Globe Valve	Tekanan kerja minimum Ruang Pompa 20 kg/cm2. Sebelum PRV 20 kg/cm2. Setelah PRV 16 kg/cm2. Diameter s 2,5" screwed bronze. Diameter s3" flanged cast iron /Carbon Steel. Type : OS & Y	- Kitz, AFA, Yuta, SCI, Viking	- Yuta
9	Panel Control Pompa	NFPA 20	- Tornatec, Firetrol, Metron	- Metron
10	Fire Brigade Connection	Type : Dapat diatur dengan pengaturan yang flexsible. Tekanan kerja minimum 12 kg/cm2	- Apron, Hooseki, Chubb, On Fire	- Hooseki, On Fire
11	Pressure Reducing Valve	Type : Adjustable setting	- Kitz, AFA, Socla, Bayard, Weflow, Yoshitake, Crane, KKK, Viking	- Bayard
12	Motor Pompa	NFPA 20 Putaran : 2900 RPM (sesuai pompa yang digunakan) IP Motor : IP-55	- WEG, CMG, Western Electric, ABB	- Western Electric,
13	Pillar Hydrant	Type : Two way 100x65x65. Bahan : Cast Iron. Dilengkapi dengan Air release valve	- Apron, Hooseki, On Fire, Ozeki, Yamato, Viking	- Hooseki, On Fire
14	Sprinkler Head	UL/FM. Diameter : 15 mm, Material : Anti korosif. Automatic head sensitive nozzle – Glass bulb tingkat suhu 68oC	- On fire, Victaulic, X-Fire, Viking, Duyar, Fike	- Viking, On Fire
15	Fire Extinguisher	Tabung 5 kg Standard NFPA/Dinas PMK DKI, Multi Purpose dry Chemical	- Yamato, Chubb, Servvo, Viking	- Servvo, Viking
16	Flow switch	UL/FM. Type khusus untuk Fire Sprinkler dilengkapi Time Delay Relay	- Viking, Victaulic, Tyco, Potter	- Tyco
17	Air Valve	Cast Iron, Working Pressure : 16 kg/cm2	- Viking, AFA, Victaulic, Tyco, Tozen, Yoshitake	- Tyco
18	Branch Control Valve (BCV)	Cast Iron, Tekanan Kerja minimum 16 Kg/cm2, lengkap dengan tampered switch	- Victaulic, AFA, On Fire, Weflow	- On Fire, Weflow
19	Sight Glass	Cast iron, Tekanan kerja Minimum 16 Kg / cm2	- Victaulic, On Fire, Viking,Weflow	- On Fire, Weflow
20	Siamese Connection	Type Two Way. Bahan kuningan	- Apron, Hooseki, On Fire, Yamato, Ozeki, Viking	- Hooseki, On Fire, Viking
21	Alarm Control Valve	Ukuran sesuai dengan riser pipe, type Horizontal / Vertical sesuai gambar	- Victaulic, AFA, Victaulic, On Fire, Weflow	- On Fire, Weflow
22	Presure Switch (UL/FM)	Type khusus untuk Fire Sprinkler, dilengkapi Time delay relay	- Viking, On Fire, Victaulic, Potter	- Potter
23	Vibration Isolator / Hanger		Tozen, Kinetic, VMC	Tozen
24	Anti Corrosion U.G pipe		Denso CPT.1000	Denso CPT.1000
25	Mechanical Coupling		- Shurjoint, Grindell, Victaulic	- Victaulic
26	Fire Hose + Nozzle		- Apron, Ozeki, Hooseki, On Fire	- Hooseki, On Fire
III PEKERJAAN AIR CONDITIONING				
1	AC VRV / VRF	VRV / VRF Type Compressor : Scroll Rotary. Kapasitas Sesuai Gambar. Refrigerant : 410 A	- Daikin, Panasonic, LG	- Daikin, LG
2	Refrigerant Pipe	Material : Copper Seamless, Class : Type M or L (ASTM-B280)	- Steramer Muller, Denji, Kembla, Crane Enfield, Elgin	- Denji
3	Drain Pipe	Material : PVC Class 10 kg Class	- Rucika, Vinilon, Wavin, Supramas	- Supramas

No	Satuan Pekerjaan	Spesifikasi Teknis	Merk	Merk Yang di Tawarkan
4	Isolasi Pipa		- Armaflex, Insuflex, Thermaflex	- Insuflex
5	Ducting	Type : BILS SMACNA	- Lokfom, Fumira, Sarana	- Lokfom, Sarana
6	Seal Tape	Material : Aluminium	- Instape, ABB Tape	- Instape, ABB Tape
7	Centrifugal Fan	Blade type : Forward curve DIDW, Drives : Belt driven. Kap : Sesuai Gambar	- Kruger, Nicotra, S&P, Vanco, Lti	- Vanco
8	Axial Fan	Blade type : Aerofoil, Drives : Direct, Kap : Sesuai Gambar	- Kruger, Nicotra, S&P, Vanco, Lti	- Vanco
9	Electric Motor For Axial & Centrifugal Fan	Type : Squirell Cage, Motor RPM : 1450-1500 RPM, IP motor : IP-55, 380 Vol, 3 Phase, 50 Hz	- Kruger, Nicotra, S&P, Vanco, Lti	- Vanco
10	Ceiling Fan		- Panasonic, Mithubishi	- Panasonic
11	Pressurized Fan		- Kruger, Nicotra, S&P, Vanco, Lti	- Vanco
12	Exhaust		- Panasonic	- Panasonic
13	Fresh Air Fan		- Kruger, Nicotra, S&P, Vanco, Lti	- Vanco
14	Diffuser & Grille		- Catura, Hichindo, U-Master	- Catura
15	Damper		- Catura, Hichindo, U-Master	- Catura
16	Flexible Duct		- Safeflex. Polar	- Polar
IV PEKERJAAN ELEVATOR				
1	Public Passenger Lift Spesifikasi Dasar	Kapasitas : 15 Orang / 1150 Kg. Kecepatan : 90 mpm. Jumlah 2 Unit. No Stop / opening : 8. Lebar Pintu : 1000 mm. Tinggi Pintu 2100 mm. Tinggi lantai yang dilayani : 8 Lantai. Power : 380 / 220 Volt, 3 Φ, 50 Hz. Motor : 13 KW	- Mithubishi, Kone, SJEC, Fuji Elevator, Xizi Otis, Hyundai	- Fuji Elevator, Xizi Otis, Kone, SJEC, Hyundai
2	Fire Lift Spesifikasi Dasar	Kapasitas : 1600 Kg. Kecepatan : 60 mpm. Jumlah 2 Unit. No Stop / opening : 8. Lebar Pintu : 1300 mm. Tinggi Pintu 2100 mm Tinggi lantai yang dilayani : 8 Lantai. Power : 380 / 220 Volt, 3 Φ, 50 Hz. Motor : 15 KW <u>Standard :</u> Penggerak : AC Variabel Voltage, Variabel Frequency. Operation : Group selective collective operation. Ukuran Shaft : Sesuai Pengembangan Rancangan. Type Pintu : Single Speed Center Opening Door. Over Head : Sesuai Pengembangan Rancangan. Pit depth : sesuai Pengembangan Rancangan. <u>Perlengkapan Kereta :</u> Ceiling / Lighting : Central Lighting / Fluorescen Painted Steel Sheet. Car Door : Painted Steel Sheet. Front Return Walls : Aching Stailless Steel Ketebalan min. 2 mm. Side Rear Walls : Aching Stainless Steel ketebalan min. 2 mm. Transom Panel Lantai Type Cal : Painted Steel Sheet. Entrance Column : Stainless Steel. Kick Plates : Stainless Steel. Floor : PR 803 Gray. Ventilation : Blower type fan 2 vent hole. Emergency Light : Provided. Interphone / Acces Caed/Sound System : Provided in machine room, control operation & security room. <u>Feature :</u> Automatic Bypass (75% Loading). • Over Load Device. • Safety Edge. • Fire Emergency Return. • Emergency Stop Switch • Car Arrival Gong. • Emergency Car Lighting. • Up & Down Indicator Arrows. • Door Photo Cell • Automatic Resque Device. • Supervisory panel di ruang control. • Earth Quake Sensor. • Fire Man's Switch. • Control elevator terdiri dari komponen electronic yang dilengkapi dengan peralatan pengatur operasi dengan Microprosesor kecuali relay penggerak utama.	- Mithubishi, Kone, SJEC, Fuji Elevator, Xizi Otis, Hyundai	- Fuji Elevator, Xizi Otis, Kone, SJEC, Hyundai
V GONDOLA				
1	Gondola	Type : Manual Davit Socket Arm Motor Penggerak : daya angkut 500 kg. Sangkar 2 m (p) x 0,65 m (L) x 1 m (T). Hoist, Sangkar, Wire rope, kabel power, panel control, Wire Wider, tali pengaman, sling, izin dan test	- Anugerah Tunas Mulia, Tiens Persada, Pola Gondola	Tidak Ditawarkan
III PEKERJAAN LISTRIK				
A Tegangan Menengah				
1	Transformator	Kapasitas : 1.000 KVA Tegangan Kerja : 20K V/ 400V Type : Synthetic Oil Ester Group Vektor : DYN 5, Imp = 5 % Proteksi : DGPT/ RIS Jumlah Unit : 1 unit Lilitan : Tembaga	1. Trafindo 2. Welltraf 3. B & D 4. Stralite	3. B & D
2	Panel Tegangan Menengah			
a	Incoming + Lightning Arrester	Rated Voltage : 20 KV - 24 KV Bus Bars : 630 A Protection : LBS Standar : VDE, IEC Breaking Capacity : 16 KA Lightning Arrester	1. Schneider 2. ABB 3. Siemens 4. LS	2. ABB
b	Outgoing	Rated Voltage : 20 KV - 24 KV	1. Schneider	2. ABB

No	Satuan Pekerjaan	Spesifikasi Teknis	Merk	Merk Yang di Tawarkan
		Bus Bars : 630 A Protection : CB SF6 + Motorized Standar : VDE, IEC Breaking Capacity : 16 KA UPS 1 KVA	2. ABB 3. Siemens 4. LS	
3	Kabel Tegangan Menengah	Rated Voltage : 20 KV Isolasi : XLPE Jenis : N2XSY dan N2XSEBY Standar : VDE, IEC	1. Kabel Metal 2. Kabelindo 3. Supreme 4. Jembo	1. Kabel Metal 4. Jembo
4	Kabel Tray / Kabel Ladder	Material : Galvanized 2 mm	1. Metosu 2. Boss 3. Thee Star 4. AJK 5. Tri Abadi	3. Thee Star 5. Tri Abadi
B Tegangan Rendah				
1	Panel Tegangan Rendah (LVMDP)	Pembuat Panel : ISO 9001 - 2015 Kapasitas : Sesuai gambar Tebal plat : min. 2.0 mm (Free Standing) Cat : Powder coating IP : 42 Standar : PUIL 2020, IEC 61439-4, IEC 60947-2 Form : Type Test	1. Duta Listrik 2. Prima Energy Nasional 3. Inti Muara 4. Simetri 5. Prasti Wahyu	4. Simetri
2	Panel Tegangan Rendah Distribusi dan Sub Distribusi Panel	Kapasitas : Sesuai gambar Tebal plat : min. 2.0 mm (Free Standing) Cat : Powder coating IP : 42 (di dalam bangunan) 54 (di luar bangunan) Form : 3	1. Duta Listrik 2. Prima Energy Nasional 3. Inti Muara 4. Simetri 5. Prasti Wahyu	4. Simetri
3	Komponen Panel			
a	Circuit Breaker (LVMDP)	Kapasitas : Sesuai gambar Standart : IEC 661439 - 1 & 2	1. Schneider 2. ABB 3. LS 4. Seimen 5. Terasaki	1. Schneider 3. LS
b	Circuit Breaker (Distribusi Panel)	Kapasitas : Sesuai gambar Standart : IEC 661439 - 1 & 2	1. Schneider 2. ABB 3. LS 4. Seimen 5. Terasaki	1. Schneider 3. LS
c	MCB BOX + MCB	Kapasitas : Sesuai gambar Material : ABS Tebal : min. 2 mm	1. Schneider 2. Hager 3. Boss 4. Legrand	2. Hager
d	Automatic Transfer Switch (ATS)	Kapasitas : Sesuai gambar Standart : UL 1008 IEC 947-6-1	1. Asco 2. Socomec 3. GE 4. PTS 5. Vistro	2. Socomec
e	LBS	Kapasitas : Sesuai gambar Standart : IEC 661439 - 1 & 2	1. Siemens 2. Socomec 3. Schneider	2. Socomec
f	Kapasitor	Rated Voltage : 525 VAC/3 Phasa/50hz Kapasitas : Sesuai gambar Level insulasi : 3/15 KV Toleransi : -5% s/d +10% Over Current : 2 x In (termasuk harmonic) Max. Inrush Curren : 200 x In Sifat Kapasitor : Internal Overpressure disconnecter Mencegah terjadinya ledakan apabila kapasitor terjadi overload yang diakibatkan arus harmonik	1. Nokian 2. Lifasa 3. Alvipar 4. Ducati 5. Lovato	4. Ducati
g	Reaktor Harmonik (Detunt Reaktor)	Rating detund : 7 %, 400 Volt Test tegangan : 3 KV, 1 MENIT, 50 Hz Isolasi : Klas F (155 °C) Toleransi Induktan : ± 3% / 6% In Toleransi Suhu : 5% Standar : IEC 60076 - 6	1. Nokian 2. Lifasa 3. Alvipar 4. Ducati 5. Lovato	4. Ducati
4	Kabel Tegangan Rendah	Rated Voltage : 0,6 KV/ 1000 V PENGHANTAR : Tembaga Kabel Instalasi : NYY, NYM, Isolasi : PVC (Low Smoke Zero Halogen) Kabel Power : NYY, NYFGBY Isolasi : PVC Kabel Grounding : NYA, BC Isolasi : PVC (Low Smoke Zero Halogen)	1. Kabel Metal 2. Kabelindo 3. Supreme 4. Extrana 5. Jembo	1. Kabel Metal 4. Extrana 5. Jembo
5	Kabel FRC	Rated Voltage : 0,6 KV/ 1000 V Standar : VDE, IEC Rated Temperatur : 1.000° C selama 3 jam	1. Shan Cabel 2. Nexan 3. Lioni Flam 4. Pyrotec 5. Jembo	5. Jembo
6	Bus Duct	Kapasitas : Sesuai gambar Standar : IEC - 439-2 Konduktor : Aluminium 99 % Isolasi : Epoxy / Miller Klas : F (155° C)	1. Optimus 2. EAE 3. Schneider 4. Power Duct 5. WINbus	1. Optimus
7	Rumah Lampu	Lampu Umum Tebal Plate : minimum 0.7 mm Finishing : Powder Coating Reflektor : Sesuai gambar	1. Megalux 2. Panasonic 3. Spectra 4. Skylite 5. Terra	1. Megalux
8	Lampu	Tipe : LED	1. Philips	1. Philips

No	Satuan Pekerjaan	Spesifikasi Teknis	Merk	Merk Yang di Tawarkan
			2. GE 3. Osram 4. Terra 5. Panasonic	3. Osram
9	Emergency Ligthing	Type : Battery Nicad minimal 2 jam	1. Philips 2. WA 3. Power Craft	1. Philips
10	Fitting		1. Sace 2. GE 3. Osram 4. Philip	4. Philip
11	Kabel Tray / Kabel Ladder	Material : Galvanized 2 mm	1. Metosu 2. Boss 3. Thee Star 4. AJK 5. Tri Abadi	3. Thee Star 5. Tri Abadi
12	Saklar / Stop Kontak	Standar : International Warna : disesuaikan interior	1. Schneider 2. Boss 3. Panasonic 4. Himel 5. Hager	2. Boss
13	Pipa Conduit	Standard : High Impact	1. Boss 2. Pralon 3. Vinilon 4. Legrand 5. Elmec	1. Boss
14	Penangkal Petir & Grounding	Radius : Sesuai gambar Tipe : Konvensional Standard : IEC 62305	1. Raychem 2. Furse	2. Furse
15	Arrester	Kapasitas : Sesuai gambar	1. OBO 2. Indelec 3. Schneider	3. Schneider
16	UPS	Kapasitas : Sesuai gambar Input Voltage : 380 V + 15% - 20% Input Current Distort : < 3 % Efficiency 100% load : 94,40 Back-up : 60 menit Full load	1. Piller 2. APC 3. Socomec 4. Fuji Electric	2. APC
17	Trafo Isolator	Kapasitas : Sesuai gambar Standard : IEC 61557-9, ISO 9001-2000	1. Dossena 2. Bender 3. Scheneider	Tidak Diwatakan
18	Inverter	Kapasitas : Sesuai gambar Input Voltage : 220 / 380 V IP : 21/55	1. Danfoss 2. Fuji Electric 3. Schneider	Tidak Diwatakan
19	Aktif Harmonik Filter	* Tegangan Line-line : 208-415 V _{ac} ± 15% / ± 10% untuk sistem 4 kawat dan 200 - 480 Vac untuk sistem 3 kawat * Nilai Frekuensi : 50 or 60 Hz, ± 3 Hz sensing otomatis * Tipe Koneksi : 3ph / 3-kabel atau 3 ph / 4- kabel * Tipe Kompensasi : 3 fasa saja atau 3-fasa + netral * Sistem pembumian : TT, TN-C, TN-S, TN-C-S, IT	1. Schaffner 2. Epcos 3. Schneider 4. Elcnova	3. Schneider
	Relay	Kapasitas : sesuai gambar	1. Fuji 2. Scheneider 3. GAE	2. Scheneider
	Power Meter	Tipe : Digital	1. Fuji 2. Scheneider 3. GAE 4. Exel 5. Socomec	2. Scheneider
20	Alat Ukur Panel Utama (LVMDP) dan Panel Distribusi	Tipe : Power Meter (Digital) Klas : ModBas	1. Socomec 2. Schneider 3. Fuji Elektrik 4. GEA	2. Schneider
21	kwh Meter	Tipe : Power Meter (Digital) Klas : ModBas	1. Socomec 2. Schneider 3. Fuji Elektrik 4. GEA	4. GEA
22	Fire Stop	Material : Mortar (Non Combustible, non toxin) Standard : SNI , bs 476	1. 3 M 2. Promat	1. 3 M 2. Promat
C Generator Set				
1	Generator set 800 KVA			
a	Engine	Kapasitas : 1 x 800 KVA Tipe : Prime (Green type) Rated Voltage : 380 Volt/ 3phase/ 50HZ Putaran : 1500 rpm/4 stroke	1. Perkin(UK) 2. Cummins 3. Mitsubishi 4. Kohler	Tidak Diwatakan
b	Alternator	Kapasitas : 800 KVA Tipe : Prime Rated Voltage : 380 Volt / 3phase/50 HZ Putaran : 1.500 rpm IP : 23 Insulation : Class H	1. Stamford 2. Leorysomer 3. Maraton	Tidak Diwatakan
2	Panel Kontrol Genset	Pembuat Panel Tebal plat : min. 2.0 mm (Free Standing) min 1.6 mm (wall mounted)	1. Duta Listrik 2. Prima Energy Nasional 3. Inti Muara 4. Simetri 5. Prasti Wahyu	4. Simetri
3	Komponen Panel	Kapasitas : sesuai gambar	1. Scheider	

No	Satuan Pekerjaan	Spesifikasi Teknis	Merk	Merk Yang di Tawarkan
		Standar : VDE - IEC 60947-2	2. ABB 3. LS 4. Terasaki 5. Siemens	2. ABB
4	Modul AMF	Standard : UL Standard	1. Deep Sea 2. Babercholman 3. Dieff	1. Deep Sea
5	Silincer	Tipe : Residential Material : Mid Steel Noise Level : 65 dB pada jarak 3meter	1. Bakrie 2. Spindo 3. PPI	2. Spindo
6	Pipa Knaipot	Jenis Pipa : BPS Insulation : Cover dengan double aluminiumFoil termasuk rockwool density 80 kg/m3 lengkap dengan reinforced steel dan alluminium metal clading 0,8 mm Diameter : 16 inchi	1. Bakrie 2. Spindo 3. PPI	2. Spindo
7	Sound Attenuator Intake/ Exhaust	Material : BJLS 1.00 Including Rockwool Density 100 kg/m3	1. Lokfom 2. Tombo	1. Lokfom
8	Sound Attenuator Intake/ Exhaust	Material : BJLS 1.00 Including Rockwool Density 80 kg/m3	1. Lokfom 2. Tombo 3. Vanco	3. Vanco
9	Water Separator		1. Rakor USA	1. Rakor USA
10	Daily tank	Kapasitas : Sesuai gambar Material : Besi plat 6 mm	1. Lokal	1. Lokal
11	Storage tank	Kapasitas : Sesuai gambar Material : Besi plat 8 mm	1. Lokal	1. Lokal
D Solar Cell atau PLTS				
1	Solar PV Modules	* Mono Crytallina * Minimal Power 500 WP * Minimal Efficiency 21 %	- Hi-Cell Solar - Jinko Solar - Rec Solar	- Jinko Solar
2	Grid Tied Inverter	* Maximum Efficiency : 96.8% * Main Voltage/ Frequency : 230 / 50 Hz * Power Connection : Three Phase * Protection : against Overload, Short Circuit, Reverse Polarity, Over/Under Input Voltage, Over Temperature * Ambient Temperature Range : -20C to + 50 C * Cooling : Regulated Cooling * Protection Class : IP65 * Certification : CE Compliance	- SMA - ABB - Huawei - Hi- Cell	- Huawei
3	Monitoring System	* Datalogger for PV System PerformanceMonitoring * 42" LCD Public Display * Menggunakan Solar PV Cable * Memiliki insulasi luar untuk perlindungan terhadap cuaca * Digunakan khusus untuk aplikasi outdoor * Digunakan khusus untuk aplikasi Panel Surya (PV) * UV Resistant * High Temperature-Resistant, Flame Retardant.	- JJ Lapp	- JJ Lapp
4	Cable DC Solar	* Oil Resistant and Water Proof * Abrasion Resistant * Temperatur Oprasi -40 DegC to + 120 DegC * Short circuitoverload up to + 280 DegC * TUV and Rohs approved (with certification) * Conductor standing IEC 60228, class 5	- JJ Lapp - Leoni	- JJ Lapp - Leoni
5	Engineering, Procurement & Construction Panel Surya	* Tier - 3	1. Go-Power 2. SMA 3. Hi- Cell	1. Go-Power 2. SMA 3. Hi- Cell
6	Cable Power	* NYY	1. Supreme 2. Jembo 3. Kabel Metal, Extrana, 4. Extrana,	2. Jembo 4. Extrana,
7	Fire Mitigation System			
a	Main Loop Parameters	Number of String : 1 atau 2 Max DC Voltage : 1.500 Vac Max DC Current : 40 A 1.500V/26a, 1.000Parameters : V/40A, 600V/40A DC Connector : mc 4	1. Suntime	1. Suntime
b	Control Loop Parameters	Power Supply : AC Single Phase Nominal Voltage : 230 Vac Operating Voltage : 100 - 270 Vac Nominal Frekwensi : 50 Hz Operating Frekwensi : 47 - 53 Hz Nominal Ampere : 30 mA Max. Ampere : 300 mA Ac Connector : Plug -in		
c	Product Parameters	Protection Degree : IP 65 Protection Level : Class II Certifications : CE Switch According to : EN 60047-3 Number of Operations : > 10.000 Number of Operations underload : > 1.500 Operating Temperatur : - 20 °C s/d 70 °C Temperature Sensor Trigger : 70° C Waranty : 5 tahun Dimensions (L x W xH) : 266 x 280 x 115 mm Weight : 2.950 g/ 3.130 g		