


<div> JAYA CM</div>		DATA TEKNIS PROYEK				Nomor : Halaman : Tanggal :	
BIRO ENGINEERING		TRANSPORTASI					
NAMA PROYEK : BANDAR UDARA							
PEMILIK : Angkasa Pura							
JENIS PROYEK : Pembangunan Apron Selatan dan Apron Timur Beserta Fasilitas Penunjangnya							
LOKASI : Maros - Sulawesi Selatan							
PERIODE							
PELAKSANAAN : 2019 - 2021							
NO	DESKRIPSI	VOLUME/ Qty	SATUAN	Biaya Konstruksi		KETERANGAN	
1 UMUM							
	URAIAN						
	Luas area :	199.846,00	m2			Luas sesuai kontrak	
	Perencanaan	1,00	ls	Rp 3.658.550.000			
	Persiapan	1,00	ls	Rp 20.122.930.572			
	Perbaikan Tanah + Galian	126.306,08	m2	Rp 74.332.650.918			
	Apron (Rigid Pavement)	126.306,08	m2	Rp 148.034.895.426			
	Apron Service Road (Rigid Pavement)	15.413,52	m2	Rp 18.014.804.795			
	Jumlah Parking Stand						
	Narrow Body	33,00	Pesawat				
	Wide Body	3,00	Pesawat			memuat pesawat tipe narrow dan wide body	
	Konstruksi GSE Road (Rigid Pavement)	2.754,70	m2	Rp 3.354.325.041			
	Saluran (drainase)	2.412,82	m1	Rp 25.314.326.278			
	Apron Flood Light (AFL)						
	Pengadaan Baru	13,00	Unit	Rp 5.047.957.844			
	Relokasi dan Modifikasi	10,00	Unit	Rp 144.043.011			
	Pengadaan AFL Temporary	12,00	Unit	Rp 131.583.050			
	Spot Number Light (SNL)	27,00	Unit	Rp 669.291.114			
	Sistem elektrik	1,00	ls	Rp 3.067.697.975			
	Infrastruktur Penunjang	1,00	ls	Rp 6.177.693.802			
	Perlengkapan	1,00	ls	Rp 4.158.026.000			
	Fasilitas penunjang						
	Jalan Akses Pertamina	1.188,70	m2	Rp 982.337.784			
	Pos Jaga + Kanopi	211,51	m2	Rp 369.350.282			
	Jet Blast Deflector	1,00	ls	Rp 5.057.354.307			
	Pagar	863,65	m'	Rp 2.000.779.282			
	Rumput	15.414,97	m2	Rp 954.094.339			
2. KONSTRUKSI GSE - GROUND SUPPORT EQUIPMENT (Rigid Pavement)							
	Tebal urugan P-154 (Non crushed agregat)	413,21	m3				
	Tebal :	15	cm				
	Type :	Non Plastis					
	Quarry :	Bili - bili					
	Density :	> 20	%				
	Tebal urugan P-209 (crushed agregat)	819,33	m3				
	Tebal :	30	cm				
	Type :	Non Plastis					
	Quarry :	Bili - bili					
	Density :	> 80	%				
	Tebal urugan P-304 (CTB)	413,21	m3				
	Tebal :	15	cm				
	Type :	Non Plastis					
	Merek :	WBP					
	Density :	100 - 150	%				
	Mutu Besi (rebar/stek dowel/wiremesh)	240, 550	Mpa				
	Besi dowel (ukuran / diameter)	32	mm				
	Type :	-					
	Merek :	Krakatau Steel					
	Besi wiremesh (ukuran / diameter)	6	mm				
	Type :	M6					
	Merek :	Togo Mesh					
	Mutu Beton perkerasan (Kuat tekan fc')	35	Mpa				
	Mutu Beton perkerasan (Flextural strength fs)	4,28	Mpa				
	Dimensi/tebal perkerasan	500	mm				
	Type :	Cast in Site					
	Merek :	WBP, Wika Beton, Bosowa, Varia					
	Material marka (tipe/jenis)						
	Type :	Jotaline Paint					
	Merek :	Jotun Paint					
	Sealant (tipe/jenis)	1	cm				
	Type :	thioflex 600					
	Merek :	Fosroc					
3. Perbaikan Tanah							
	Tanah timbunan pilihan	221.063,76	m3				
	Density :	6	%				
	Quarry :	Gowa					
	Mini Pile	3.276,00					
	Type :	25x25x300 cm					
	Merek :	Kalla Beton					
	Gabion Wall	136,70					
	Type :	Kawat galvanish dia 3-4 mm, kuat tarik 41-53 kg/mm2					
	Quary :	Mccaferry					

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CCSP		774,00			
Type :		Tipe W350 dg moment crack 17 tonm			
Quary :		Wika Beton			
Geotextil	:	222.417,43	m2		
Tebal :		3	mm		
Type :		Non Woven 38 KN/m			
Merek :		Ecomat			

4. APRON (Rigid Pavement)					
Tebal urugan P-154 (Non crushed agregat)	:	10.711,41	m3		
Tebal :		15	cm		
Type :		Non Plastis			
Merek :		Bili - bili			
Density :		> 20	%		
Tebal urugan P-209 (crushed agregat)	:	36.173,03	m3		
Tebal :		30	cm		
Type :		Non Plastis			
Merek :		Bili - bili			
Density :		> 80	%		
Tebal urugan P-304 (CTB)	:	18.086,52	m3		
Tebal :		15	cm		
Type :		Non Plastis			
Merek :		WBP			
Density :		100 - 150	%		
Mutu Besi (rebar/stek dowel/wiremesh)	:	240, 550	Mpa		
Besi dowel (ukuran / diameter)	:	32	mm		
Type :		-			
Merek :		Krakatau Steel			
Besi wiremesh (ukuran / diameter)	:	6	mm		
Type :		M6			
Merek :		Togo Mesh			
Mutu Beton perkerasan (Kuat tekan fc')	:	35	Mpa		
Mutu Beton perkerasan (Flextural strength fs)	:	4,28	Mpa		
Dimensi/tebal perkerasan	:	500	mm		
Type :		Cast in Site			
Merek :		WBP, Wika Beton, Bosowa, Varia			
Material marka (tipe/jenis)	:				
Type :		Jotaline Paint			
Merek :		Jotun Paint			
Sealant (tipe/jenis)	:	1	cm		lebar
Type :		thioflex 600			
Merek :		Fosroc			

5. APRON SERVICE ROAD (Rigid Pavement)					
Tebal urugan P-154 (Non crushed agregat)	:	2.312,05	m3		
Tebal :		15	cm		
Type :		Non Plastis			
Merek :		Bili - bili			
Density :		> 20	%		
Tebal urugan P-209 (crushed agregat)	:	4.624,04	m3		
Tebal :		30	cm		
Type :		Non Plastis			
Merek :		Bili - bili			
Density :		> 80	%		
Tebal urugan P-304 (CTB)	:	2.312,05	m3		
Tebal :		15	cm		
Type :		Non Plastis			
Merek :		WBP			
Density :		100 - 150	%		
Mutu Besi (rebar/stek dowel/wiremesh)	:	240, 550	Mpa		
Besi dowel (ukuran / diameter)	:	32	mm		
Type :		-			
Merek :		Krakatau Steel			
Besi wiremesh (ukuran / diameter)	:	6	mm		
Type :		M6			
Merek :		Togo Mesh			
Mutu Beton perkerasan (Kuat tekan fc')	:	35	Mpa		
Mutu Beton perkerasan (Flextural strength fs)	:	4,28	Mpa		
Dimensi/tebal perkerasan	:	500	mm		
Type :		Cast in Site			
Merek :		WBP, Wika Beton, Bosowa, Varia			
Material marka (tipe/jenis)	:				
Type :		Jotaline Paint			
Merek :		Jotun Paint			
Sealant (tipe/jenis)	:	1	cm		lebar
Type :		thioflex 600			
Merek :		Fosroc			

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6. Saluran (Drainase)					
Box culvert (dimensi)	:	4300x2600	mm		
Type	:	SD1			
Box culvert (dimensi)	:	2450x1500	mm		
Type	:	SD2			
Split gully (dimensi)	:	1200 x (1000 - 1400)	mm		
Type	:				
U- shape (dimensi)	:	1200 x (1350 - 1750)	mm		
Type	:				
Steel Grating Galvanized (dimensi)	:	200x600	mm		
Type	:	-			
Merek	:	local			
7. ELEKTRIKAL					
Outgoing Medium Voltage Panel, MCSG 24 kV Outgoing (VCB 630 A/CT/ES)	:	N/A	unit		
Merek	:	N/A			
Tegangan	:	N/A	kV		
Frekuensi	:	N/A	Hz		
Peak Current	:	N/A	kA		
Kabel tegangan menengah	:	N/A	m'		
Merek	:	N/A			
Type	:	N/A			
Apron Distribution Panel	:	N/A	unit		
Merek	:	N/A			
Trafo	:	N/A	kVA		
Frekuensi	:	N/A	Hz		
Panel Main Distribution Panel (MDP)	:	2	unit		Zone 3 dan Zone 2
Panel Sub Distribution Panel (SDP)	:	4	Unit		Zone 1, Zone 2, Zone 3 dan Zone 4
Panel Flood Light (P-FL)	:	17	Unit		Zone 2 12 Unit, Zone 3 1 Unit, Zone 4 4 Unit
Merek	:	Schneider			
Type	:	Outdoor			
Tiang Flood Light	:				
Height	:	15	m		17 Unit zone 2 dan zone 4
	:	22	m		4 Unit Zone 3
Type	:	High Mast Pole			
Merek	:	PT.Helory			
Lighting LED	:				
Type	:	EWO F- System 555 W			
Merek	:	ADB			
Lumen Output	:	60.232	lm		
Luminous Efficacy	:	108,5	lm/W		
Lumens	:	20	Lux		pada jarak 2 m diatas lantai
Origin	:	Belgium			
Obstruction Lamp	:				
Type	:	Obstvision LED XGP500			7 Watt
Merek	:	ADB			
Light Color	:	Red			
Penangkal Petir	:				
Type	:	R.16			
Merek	:	FURSE			
Spot Number Light (SNL)	:	30	set		
Type	:				
Merek	:	Lokal			
Apron Edge Light Inset	:	N/A	set		
Type	:	N/A			
Merek	:	N/A			
Isolating Transformer	:	N/A			
Primary Connector	:	N/A			
Secondary Connector	:	N/A			
Apron Edge Light (AEL)	:	N/A	unit		
Type	:	N/A			
Merek	:	N/A			
Isolating Transformer	:	N/A			
Primary Connector	:	N/A			
Secondary Connector	:	N/A			
Taxiway Guidance Sign (TGS)	:	N/A	unit		
Type	:	N/A			
Merek	:	N/A			
Isolating Transformer	:	N/A			
Primary Connector	:	N/A			
Secondary Connector	:	N/A			
Airfield Lighting Control & Monitoring	:	N/A	unit		
Type	:	N/A			
Merek	:	N/A			

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Lampu Perimeter	:	On Progress Approval	unit		Desain belum ada
Type :		On Progress Approval			
Merek :		Philips			
Sistem CCTV (Apron Barat)	:	On Progress Approval	unit		
Type :		On Progress Approval			
Merek :		On Progress Approval			
- Kabel FO		900	m'		
Type :		12 Core			
Merek :		Belden			
- Panel CCTV		On Progress Approval			
Type :		On Progress Approval			
Merek :		On Progress Approval			
- Media Converter		On Progress Approval			
Type :		On Progress Approval			
Merek :		On Progress Approval			
- Kabel		On Progress Approval			
Type :		On Progress Approval			
Merek :		On Progress Approval			
- Pathcord FO		On Progress Approval			
Type :		On Progress Approval			
Merek :		On Progress Approval			
- FSFP		On Progress Approval			
Type :		On Progress Approval			
Merek :		On Progress Approval			
Sistem CCTV (Perimeter)	:	N/A	unit		
Type :		N/A			4 unit
Merek :		N/A			6 unit
- Kabel FO		N/A			
Type :		N/A			
Merek :		N/A			
-Tiang CCTV		N/A			
Type :		N/A			
Merek :		N/A			
- Panel CCTV		N/A			
Type :		N/A			
Merek :		N/A			
- Kabel		N/A			
Type :		N/A			
Merek :		N/A			
- Obstruction Lamp		N/A			
Type :		N/A			
Merek :		N/A			
Video Management System		N/A	set		
- Core Media Gateway		N/A			
Type :		N/A			
Merek :		N/A			
- WS Operation Centre		N/A			
Type :		N/A			
Merek :		N/A			
- Enhance Decoder		N/A			
Type :		N/A			
Merek :		N/A			
- Network Storage		N/A			
Type :		N/A			
Merek :		N/A			
- Outdoor Smartrack		N/A			
Type :		N/A			
Merek :		N/A			
- Din Rail		N/A			
Type :		N/A			
Merek :		N/A			
- Industrial Media Converter		N/A			
Type :		N/A			
Merek :		N/A			
- SPF Transeiver Module		N/A			
Type :		N/A			
Merek :		N/A			
- PoE + Injector Power Supply		N/A			
Type :		N/A			
Merek :		N/A			
- Swith Hub		N/A			
Type :		N/A			
Merek :		N/A			
- OTB 48 port Rackmount		N/A			
Type :		N/A			
Merek :		N/A			
- OTB 12 port Rackmount		N/A			
Type :		N/A			
Merek :		N/A			
- Pathcord FO		N/A			
Type :		N/A			
Merek :		N/A			
Penerangan Jalan Umum (PJU) service road	:	18	unit		Zone 3 13 Unit dan Zone 4 5 Unit
Type :		TYPE AIO 41W			
Merek :		Philips			