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LAMPIRAN

Lampiran 1. Daftar Harga Bahan

No	Nama Bahan	Satuan	Harga Satuan (Rp)
1	Aspal AC 60/70(termasuk angkutan)	Kg	Rp15,000.00
2	Aspal Cutback	Kg	Rp11,400.00
3	Air Kerja / Tawar	Liter	Rp28.00
4	Minyak Aspal / Modifier	Liter	Rp8,000.00
5	BBM Subsidi Diesel	Liter	Rp7,500.00
6	Minyak Pelumas	Liter	Rp27,100.00
7	Filler	Liter	Rp1,800.00
8	Gedeg Guling	m2	Rp54,300.00
9	Dolken Kayu Gelam dia. 8-10 cm	Btg	Rp11,900.00
10	Bambu Bongkolan dia. 10-12 cm ; pj. 3 m	Btg	Rp23,900.00
11	Bambu Ori dia 10-12 cm ; pj 3 m	Btg	Rp39,100.00
12	Kayu Bekisting Meranti	m3	Rp3,484,400.00
13	Paku Klem	Doz	Rp22,000.00
14	Paku Usuk	kg	Rp15,600.00
15	"Paku Biasa 2"" - 5""	Kg	Rp15,600.00
16	Paku Asbes /g	Kg	Rp29,100.00
17	"Paku Beton uk. 3/4""	Bh	Rp700.00
18	Klem PVC	Bh	Rp3,600.00
19	Kapur Pasang	m3	Rp114,400.00
20	Batu Pecah Mesin 0.5 - 1 cm	m3	Rp487,900.00
21	Batu pecah mesin 1/2 cm	m3	Rp395,000.00
22	Batu Pecah Mesin 2/3 cm	m3	Rp291,200.00
23	Batu Kerikil Beton	m3	Rp260,000.00
24	Batu Kali Belah 15/20 cn	m3	Rp446,000.00
25	Batu Kali Belah 20/25 cm	m3	Rp127,000.00
26	Pasir Beton	m3	Rp283,700.00
27	Pasir Pasang	m3	Rp260,000.00
28	Agregat Halus	m3	Rp242,900.00
29	Agregat Kasar	m3	Rp342,000.00
30	Agregat Kelas A	m3	Rp256,000.00
31	Agregat Kelas B	m3	Rp207,000.00
32	Sirtu	m3	Rp218,700.00
33	Curbing Beton Type A panjang 60 cm fc 30	Buah	Rp73,200.00
34	Curbing Bteton Type B panjang 50 cm fc 30	Buah	Rp73,200.00
35	Kanstin Trap uk.15.25.40 ; K-175	m2	Rp64,900.00

Lampiran 1. Daftar Harga Bahan (lanjutan)

No	Nama Bahan	Satuan	Harga Satuan (Rp)
36	Paving Stone Abu-abu tb.6 cm (Empat persegi panjang)	Buah	Rp78,000.00
37	Paving Stone Blok tb 6. cm (Merah Empat persegi panjang DT 3)	Buah	Rp72,800.00
38	Paving Stone Abu-abu tebal 8 cm (Empat persegi Panjang DT 3)	Buah	Rp88,400.00
39	Tegel Trotoar	m2	Rp74,800.00
40	Got Talang R.25(Segmen)	Buah	Rp35,500.00
41	Rabber Barking Pad	cm3	Rp245.00
42	Semen (PC) 40 Kg	Sak	Rp61,300.00
43	Semen (PC) 50 Kg	Sak	Rp73,800.00
44	Semen Warna Yiyitan	Kg	Rp15,300.00
45	Batu Bata Merah Klas I uk.22x11x4.5 cm	Biji	Rp1,000.00
46	Tanah Urug	m3	Rp132,200.00
47	Pasir Urug	m3	Rp202,300.00
48	Kawat Ikat Beton	Kg	Rp23,900.00
49	Besi Beton Ulir	Kg	Rp13,500.00
50	Besi Beton Polos	Kg	Rp13,000.00
51	Besi Angkur dia.10	Kg	Rp13,000.00
52	Besi Angkur dia.12	Bh	Rp13,000.00
53	Besi Angkur PJU	Kg	Rp13,000.00
54	Bollard Cap 100 Ton	Bh	Rp46,502,560.00
55	Rantai Galvanis Uk. 6 mm	m1	Rp36,500.00
56	Dynabolt dia. 6 mm	Bh	Rp3,250.00
57	Glass Bead	Kg	Rp40,945.00
58	Cat Aca	Kg	Rp24,480.00
59	Thinner	Liter	Rp31,400.00
60	Cat Besi / Kayu EMCO	Kg	Rp53,900.00
61	Cat Meni Besi / Kayu cap Pedang	Kg	Rp62,800.00
62	Cat Tembok Vinilek/Aviapaint (sejenis)	Kg	Rp145,500.00
63	Cat Thermoplastic	Kg	Rp27,500.00
64	Plamir/Dempul	Kg	Rp62,800.00
65	Minyak Cat / Afdunner	Liter	Rp7,650.00
66	Kertas Gosok	Lbr	Rp16,800.00
67	"Kuas 4""	Bh	Rp32,100.00
68	"Pipa Plastik PVC Tipe A W Uk 4""	Lonjor	Rp319,300.00
69	"Pipa Plastik PVC Tipe A W Uk 5""	Lonjor	Rp502,100.00
70	"Pipa Plastik PVC Tipe A W Uk. 2""	Lonjor	Rp127,000.00
71	"Pipa Plastik PVC Tipe C Uk 4""	Lonjor	Rp93,100.00

Lampiran 1. Daftar Harga Bahan (lanjutan)

No	Nama Bahan	Satuan	Harga Satuan (Rp)
72	"Pipa PVC Pelaluan Arde Dim. 1/2"" (Putih)"	Bh	Rp6,800.00
73	"Keni Pipa PVC 1/2""(Putih)"	Bh	Rp3,500.00
74	"Elbow 45 Derajat A W Uk 2"""	Bh	Rp29,000.00
75	"Knee Pipa PVC 4"""	Bh	Rp20,000.00
76	"Pipa Galvanis 3"""	Ljr	Rp869,700.00
77	"Pipa Besi Uk.1"""	m1	Rp55,765.00
78	Minyak Bekisting	Ltr	Rp30,100.00
79	Baja WF > 200 MM	Kg	Rp23,900.00
80	Elektroda Las 5 Kg	Kg	Rp59,800.00
81	Besi Siku 50.50.5	Kg	Rp9,400.00
82	Besi Plat	Kg	Rp19,790.00
83	Besi Siku 75.75.5	Kg	Rp11,500.00
84	Besi Siku 75.75.6	Kg	Rp12,600.00
85	Baja Siku L 75.75.5	Kg	Rp25,000.00
86	Baja Siku L 75.75.6	Kg	Rp33,100.00
87	Besi Plat	Kg	Rp19,790.00
88	Plat Besi Tb. 3 mm	Kg	Rp10,125.00
89	Pasak D16	Kg	Rp8,325.00
90	Minyak Tanah	Ltr	Rp11,900.00
91	Lapisan Geotekstile Non - Woven type UNW 250	m2	Rp17,300.00
92	Lapisan Geotekstile Woven Type UW 250	m3	Rp21,500.00
93	Lapisan Geotekstile Woven 250 gr/m2	m2	Rp8,500.00
94	Solar	Liter	Rp6,700.00
95	Kayu Meranti (papan 2/20)	m3	Rp4,355,500.00
96	Kayu Meranti 4/6	m3	Rp7,384,000.00
97	Kayu Meranti Usuk 5/7	m3	Rp7,384,000.00
98	Plywood tebal 9 mm	Lbr	Rp128,900.00
99	Batu Palimanan Muka Halus Uk. 20x20 Warna Cokelat Terang	m2	Rp120,000.00
100	Batu Candi Uk. 20x20 Warna Hitam	m2	Rp94,200.00
102	Batu Andesit	m2	Rp187,500.00
103	Coating (anti lumut)	m2	Rp65,000.00
104	Kabel NYM 2X2.5 mm2	m1	Rp13,500.00
105	Kabel NYFGBY 4 x 10 mm	m1	Rp90,000.00
106	U-Ditch Uk.100.145.120 fc' 30 Mpa Pabrikasi	Pcs	Rp2,527,547.00
107	Cover U-Ditch Uk. 100.145.120 Fc' 30 Mpa Pabrikasi	Pcs	Rp842,515.00

Lampiran 1. Daftar Harga Bahan (lanjutan)

No	Nama Bahan	Satuan	Harga Satuan (Rp)
108	Box Tangkapan Air	Pcs	Rp682,500.00
109	Pelat Injak Uk. 100.20.120 fc' 30 Pabrikan	Pcs	Rp1,097,885.00
110	Ornamen Besi Cor / tempa	Unit	Rp500,000.00
111	Beton Precast K-300	m3	Rp350,000.00
112	Kayu Triplek Uk. 122x244x12	Lembar	Rp152,900.00
113	Steel Pipe Sheet Pile (Tiang Pancang)	Ton	Rp12,964,100.00
114	Joint Type Clutch	m'	Rp1,779,000.00
115	Plat Sirip	Pcs	Rp241,740.00
116	Beton Ready Mix K430	m3	Rp1,586,930.00
117	Biaya PDA Test	Titik	Rp25,000,000.00
118	Concrete Stamp	m2	Rp168,205.00
119	Cathodic	Buah	Rp106,800.00

Lampiran 2. Daftar Upah Tenaga Kerja

No	Tenaga Kerja	Satuan	Harga Satuan (Rp)
1	Mandor	OH	Rp163,000.00/day
2	Kepala Tukang Kayu	OH	Rp153,000.00/day
3	Kepala Tukang Batu	OH	Rp153,000.00/day
4	Kepala Tukang Besi	OH	Rp153,000.00/day
5	Kepala Tukang Cat	OH	Rp153,000.00/day
6	Kepala Tukang Listrik	OH	Rp153,000.00/day
7	Kepala Tukang Gali Tanah	OH	Rp153,000.00/day
8	Tukang Kayu	OH	Rp126,000.00/day
9	Tukang Besi	OH	Rp126,000.00/day
10	Tukang Cat	OH	Rp126,000.00/day
11	Tukang Listrik	OH	Rp126,000.00/day
12	Tukang Las	OH	Rp126,000.00/day
13	Tukang Gali Tanah	OH	Rp89,400.00/day
14	Tukang Memasak Aspal	OH	Rp99,000.00/day
15	Pembantu Tukang	OH	Rp115,000.00/day
16	Pekerja	OH	Rp115,000.00/day
17	Mekanik	OH	Rp110,000.00/day
18	Pembantu Mekanik	OH	Rp105,000.00/day
19	Operator	OH	Rp163,000.00/day
20	Pembantu Operator	OH	Rp153,000.00/day
21	Sopir	OH	Rp126,000.00/day
22	Pembantu Sopir	OH	Rp114,000.00/day
23	Penjaga	OH	Rp89,400.00/day
24	Surveyor Geodesi	OH	Rp160,000.00/day

Lampiran 3. Daftar Harga Sewa Alat

No	Nama Alat	Satuan	Harga Satuan (Rp)
1	Mobilisasi	Ls	4.500.000,00
2	Demobilisasi	Ls	4.500.000,00
3	Sewa Forklip	Jam	120.000,00
4	Sewa AMP 10.00 Ton	Jam	287.300,00
5	Concrete Pan Miccer / Batching Plant	Jam	356.443,00
6	Sewa Concrete Mixer	Jam	71.900,00
7	Sewa Concrete Pump	Hari	3.300.000,00
8	Sewa Concrete Vibrator	Jam	16.500,00
9	Truck Mixer	Jam	432.232,00
10	Sewa Dump Truck 6 Ton	Jam	74.050,00
11	Sewa Dump Truk 5 ton (8-10m3)	Jam	71.900,00
12	Sewa Pump Water	Jam	11.645,00
13	Water Tank Truck	Jam	135.000,00
14	Sewa Truck Tangki Air	Hari	547.800,00
15	Sewa Vibrator Roller	Jam	149.400,00
16	Wheel Loader 10-15 HP	Jam	512.500,00
17	Sewa Crane 150 T	Jam	1.300.000,00
18	Sewa Excavator 6m3	Jam	143.900,00
19	Sewa Excavator Vibro Hammer	Jam	156.100,00
20	Sewa Coal Milling Machine	Jam	2.425.000,00
21	Sewa Truck Ban Dobel	Jam	71.900,00
22	Sewa Alat Concrete Cutting	Jam	65.000,00
23	Sewa Theodolit	Hari	383.500,00
24	Pengecatan Kayu	Ls	86.085,00
25	Upah/Jasa Tekan Paving Stone	Bh	10.000,00
26	Upah Jasa Tes Tekan Kanstin	LS	375.000,00
27	Upah/Jasa Tes Core drill	Ttk	150.000,00
28	Upah/Jasa tes CBR Lapangan	Ttk	170.000,00
29	Upah/Jasa Core Drill	Ttk	900.000,00
30	Transportasi Per Lokasi	Ls	400.000,00
31	Upah/Jasa tes Tekan Silinder	Bh	50.000,00
32	Biaya PDA Test	Titik	5.500.000,00
33	Sewa Alat Cutter	Jam	156.500,00
34	Sewa Genset	Bln	25.000.000,00
35	Sewa Hammer Tiang Pancang 1.2 Ton	Jam	197.000,00
36	Sewa Excavator Drive Hammer 1.2 Ton	Jam	197.000,00

Lampiran 5. Data Durasi yang didapatkan dari *Microsoft Project 2019*

No	Task Name	Duration	Start	Finish	Predecessors
1	Pekerjaan Tahap VII Perkuatan Dermaga	99 days	Sat 1/8/22	Mon 4/18/22	
2	Pekerjaan Tiang Pancang (SPSP)	50 days	Sat 1/8/22	Sun 2/27/22	
3	Pengadaan SPSP Ø = mm, t=mm, L=m'	11 days	Sat 1/8/22	Tue 1/18/22	
4	Pengadaan Joint Type Clutch (Tipe C - T)	10 days	Sun 1/9/22	Tue 1/18/22	3FF
5	Transport ke Lokasi dan Positioning	11 days	Sat 1/8/22	Tue 1/18/22	3FF
6	Pemancangan	30 days	Fri 1/14/22	Sun 2/13/22	3FS-5 days
7	Penyambungan	0 days	Wed 1/12/22	Wed 1/12/22	3FS-7 days
8	Pemotongan	13 days	Mon 1/31/22	Sun 2/13/22	6FF
9	Marine Painting	8 days	Wed 2/9/22	Wed 2/16/22	6FF+3 days
10	Sacrificial Anode Cathodic Protection – Aluminium Anode	14 days	Mon 2/14/22	Sun 2/27/22	6
11	Pekerjaan Plat Sirip Tiang Pancang	6 days	Thu 1/13/22	Tue 1/18/22	3FF
12	Pekerjaan Penutup Clutch	2 days	Thu 2/10/22	Sun 2/13/22	6FF
13	Pekerjaan Beton	47 days	Mon 2/7/22	Sat 3/26/22	
14	Beton Pengisi Tiang – Beton K.430	21 days	Wed 2/9/22	Tue 3/1/22	15FS-19 days
15	Rebar Pengisi Tiang	21 days	Mon 2/7/22	Sun 2/27/22	6FS-7 days
16	Beton Pengisi Clutch – Beton K.430	14 days	Wed 2/16/22	Tue 3/1/22	14FF
17	Beton Capping Beam – Beton K.430	23 days	Mon 2/28/22	Wed 3/23/22	19FS-7 days
18	Rebar Capping Beam	23 days	Sat 2/12/22	Mon 3/7/22	14FS-18 days
19	Bekisting Capping Beam	15 days	Sun 2/20/22	Mon 3/7/22	18FF

Lampiran 5. Data Durasi yang didapatkan dari *Microsoft Project 2019* (lanjutan)

No	Task Name	Duration	Start	Finish	Predecessors
20	Pipa PVC 4"	14 days	Thu 3/10/22	Wed 3/23/22	17FF
21	Beton Kanstin – Beton K.430	14 days	Mon 3/7/22	Sun 3/20/22	23FS-15 days
22	Rebar Kanstin	14 days	Sat 3/12/22	Fri 3/25/22	17FS-12 days
23	Bekisting Kanstin	13 days	Mon 3/14/22	Sat 3/26/22	22FS-12 days
24	Pengecatan Kanstin	10 days	Sun 3/13/22	Tue 3/22/22	21FS-8 days
25	Join Filler	2 days	Tue 3/22/22	Wed 3/23/22	17FF
26	Pekerjaan Kelengkapan dan Aksesoris	76 days	Sat 1/8/22	Sat 3/26/22	
27	Pekerjaan Pembongkaran Fender Ekisting	12 days	Sat 1/8/22	Wed 1/19/22	3FF
28	Pekerjaan Pembongkaran dan Langsir Bollard Eksisting	9 days	Wed 1/12/22	Thu 1/20/22	27FS-8 days
29	Fender Cone 1100, Include Frontal Frame	7 days	Thu 3/17/22	Wed 3/23/22	17FF
30	Bollard Cap. 100 Ton	7 days	Fri 3/18/22	Thu 3/24/22	29FS-6 days
31	Pekerjaan Penambahan Bollard Pendamping	6 days	Sun 3/20/22	Fri 3/25/22	30FS-5 days
32	Access Ladder	7 days	Fri 3/18/22	Thu 3/24/22	17FF+1 day
33	Pengadaan dan Pemasangan Kade meter	7 days	Sun 3/20/22	Sat 3/26/22	17FF+3 days
34	Pekerjaan Pembongkaran	12 days	Wed 1/12/22	Sun 1/23/22	
35	Pembongkaran (Chipping Beton)	11 days	Wed 1/12/22	Sat 1/22/22	28FS-9 days
36	Pembuangan Material Hasil Bongkaran (Chipping Beton)	10 days	Fri 1/14/22	Sun 1/23/22	35FS-9 days

Lampiran 5. Data Durasi yang didapatkan dari *Microsoft Project 2019* (lanjutan)

No	Task Name	Duration	Start	Finish	Predecessors
37	Pekerjaan Timbunan	10 days	Fri 1/14/22	Sun 1/23/22	
38	Pekerjaan Timbunan Pasir	10 days	Fri 1/14/22	Sun 1/23/22	35FS-9 days
39	Pekerjaan Penutup/Cover Duct	9 days	Mon 3/21/22	Tue 3/29/22	
40	Baja Siku L.75.75.6	8 days	Mon 3/21/22	Mon 3/28/22	
41	Baja Siku L.75.75.7 (Tebal 80)	8 days	Mon 3/21/22	Mon 3/28/22	17FF+5 days
42	Chequered Plate t = 6mm	7 days	Wed 3/23/22	Tue 3/29/22	
43	Chequered Plate t = 6mm (Tebal 80)	7 days	Wed 3/23/22	Tue 3/29/22	41FS-6 days
44	Pekerjaan Pelindung Sudut Duct	13 days	Thu 3/24/22	Tue 4/5/22	
45	Baja siku L.75.75.6	10 days	Thu 3/24/22	Sat 4/2/22	
46	Baja siku L.75.75.6 (Tebal 80)	10 days	Thu 3/24/22	Sat 4/2/22	43FS-6 days
47	Bar D13-250	8 days	Tue 3/29/22	Tue 4/5/22	46FS-5 days
48	Pekerjaan Penumpuka Sisa Tiang Pancang	0 days	Sat 1/8/22	Sat 1/8/22	
49	Transport Sisa Tiang Pancang	0 days	Sat 1/8/22	Sat 1/8/22	
50	Pekerjaan Lavelling Dermaga	22 days	Mon 3/28/22	Mon 4/18/22	
51	Bongkar Paving Eksisting	10 days	Mon 3/28/22	Wed 4/6/22	47FS-9 days
52	Pengadaan dan Pasang Paving Mutu K-500	11 days	Fri 4/8/22	Mon 4/18/22	53FS-9 days
53	Lean Concrete Mutu Beton K-125	9 days	Fri 4/8/22	Sat 4/16/22	55FS-7 days
54	Pembuangan Material Hasil Bongkaran Paving Lavelling	8 days	Thu 3/31/22	Thu 4/7/22	51FS-7 days
55	Bekisting Lean Concrete	7 days	Fri 4/8/22	Thu 4/14/22	54

Lampiran 6. Network Diagram

