

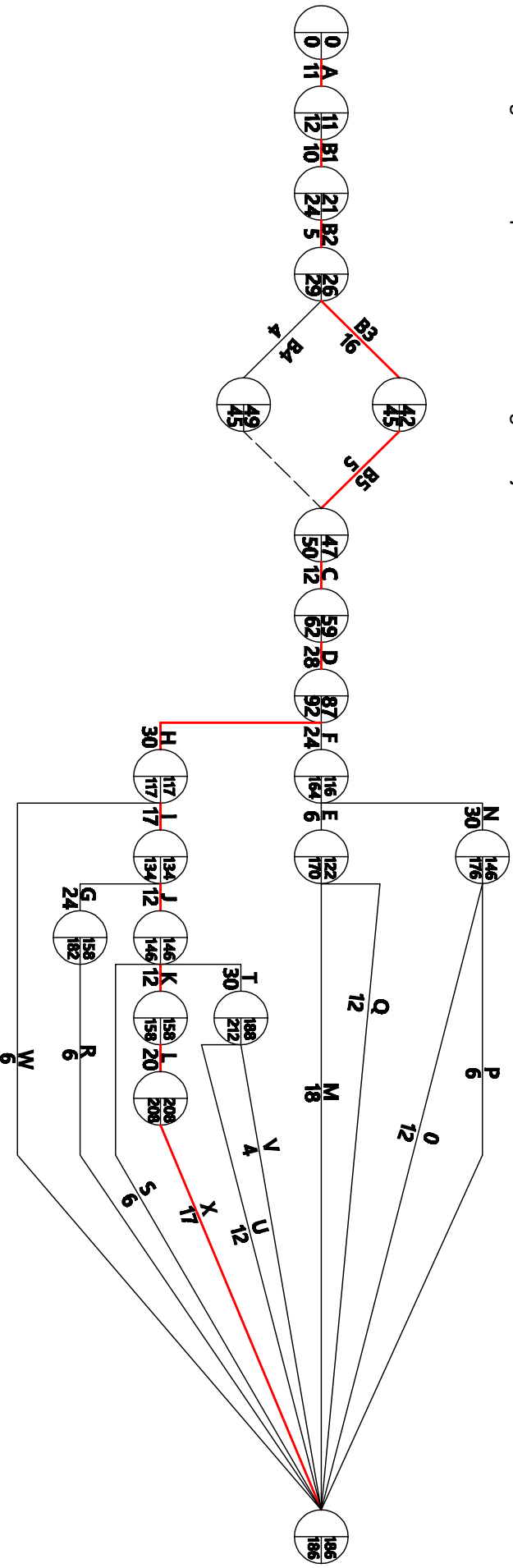
LAMPIRAN

LAMPIRAN 1.

Penambahan Jam Kerja					
KODE	ITEM WORK DESCRIPTION	DURASI	Crash 1 jam	Crash 2 jam	Crash 3 jam
A	Preliminary work	12	12	12	11
B	Foundation work				
B1	Bore pile foundation work: Type PB1	12	12	11	11
	Deformed Reinforced steel diameter of 16 mm	6	6	6	5
B2	Bore pile foundation work: Type SP2	5	5	5	5
B3	Pile cap : Type PB1	16	16	15	15
B4	Pile cap : Type SP2	4	4	4	4
B5	Concrete of foundation column type C1 350 x 350 mm	5	5	5	5
C	Stone masonry foundation	12	12	12	12
D	Ground beam	30	30	30	30
E	Floor concrete t=12 cm	6	6	6	6
F	Column work	24	24	24	24
G	Concrete stair work	24	24	24	24
H	Beam work	30	30	30	30
I	Reinforcement Concrete Slab T=12 Cm	24	23	21	21
J	Column work	12	12	12	12
K	Ring balk-roof beam (L=143 cm)	12	12	12	12
L	Structural roof frame	30	28	26	25
M	Floor work	18	18	18	18
N	Wall work	30	30	30	30
O	Door window & boveligth including partision work	12	12	12	12
P	Ceiling work	6	6	6	6
Q	Sanitasion work	12	12	12	12
R	Railing work	6	6	6	6
S	Floor work	6	6	6	6
T	Wall work	30	30	30	30
U	Supply & install doors & window work	12	12	12	12
V	Supply & install ceiling work	4	4	4	4
W	Sanitasion work	6	6	6	6
X	Roofing work	24	23	21	21

Penambahan Tenaga Kerja		
KODE	ITEM WORK DESCRIPTION	DURASI
A	Preliminary work	11
B	Foundation work	
B1	Bore pile foundation work: Type PB1	10
B2	Bore pile foundation work: Type SP2	5
B3	Pile cap : Type PB1	16
B4	Pile cap : Type SP2	4
B5	Concrete of foundation column type C1 350 x 350 mm	5
C	Stone masonry foundation	12
D	Ground beam	28
E	Floor concrete t=12 cm	6
F	Column work	24
G	Concrete stair work	24
H	Beam work	30
I	Reinforcement Concrete Slab T=12 Cm	17
J	Column work	12
K	Ring balk-roof beam (L=143 cm)	12
L	Structural roof frame	20
M	Floor work	18
N	Wall work	30
O	Door window & boveligth including partision work	12
P	Ceiling work	6
Q	Sanitasion work	12
R	Railing work	6
S	Floor work	6
T	Wall work	30
U	Supply & install doors & window work	12
V	Supply & install ceiling work	4
W	Sanitasion work	6
X	Roofing work	17

Diagram CPM penambahan Tenaga Kerja



LAMPIRAN 2

Diagram CPM durasi normal

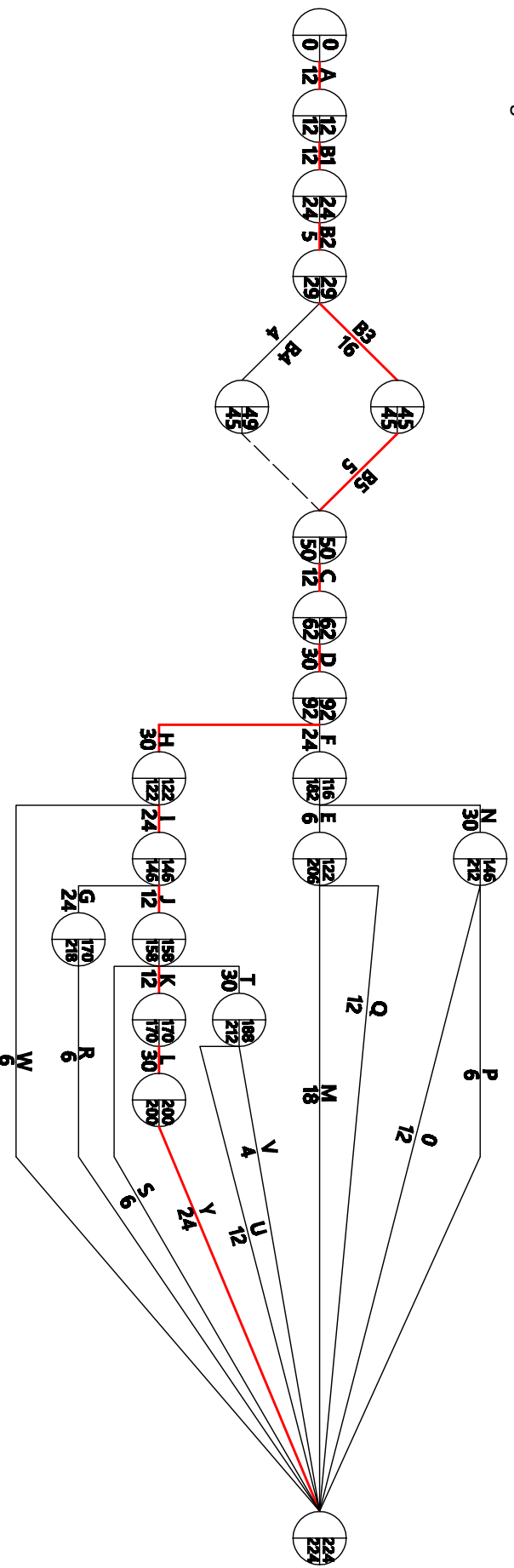


Diagram CPM Penambahan 1 jam kerja

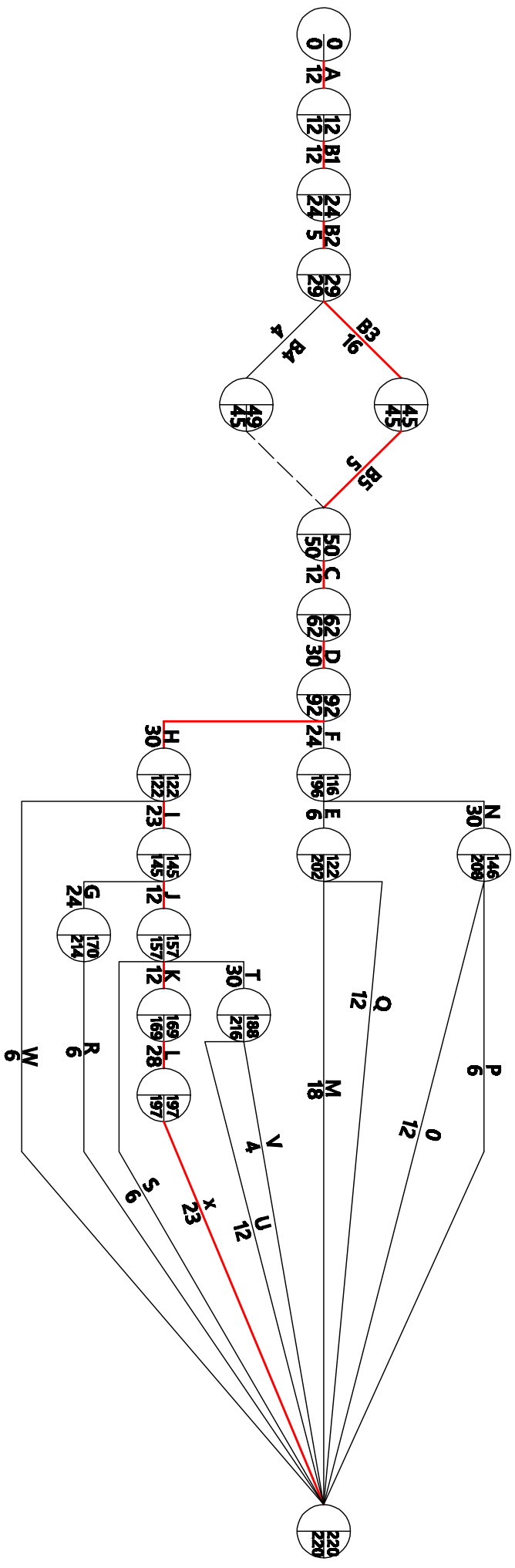


Diagram CPM penambahan 2 jam kerja

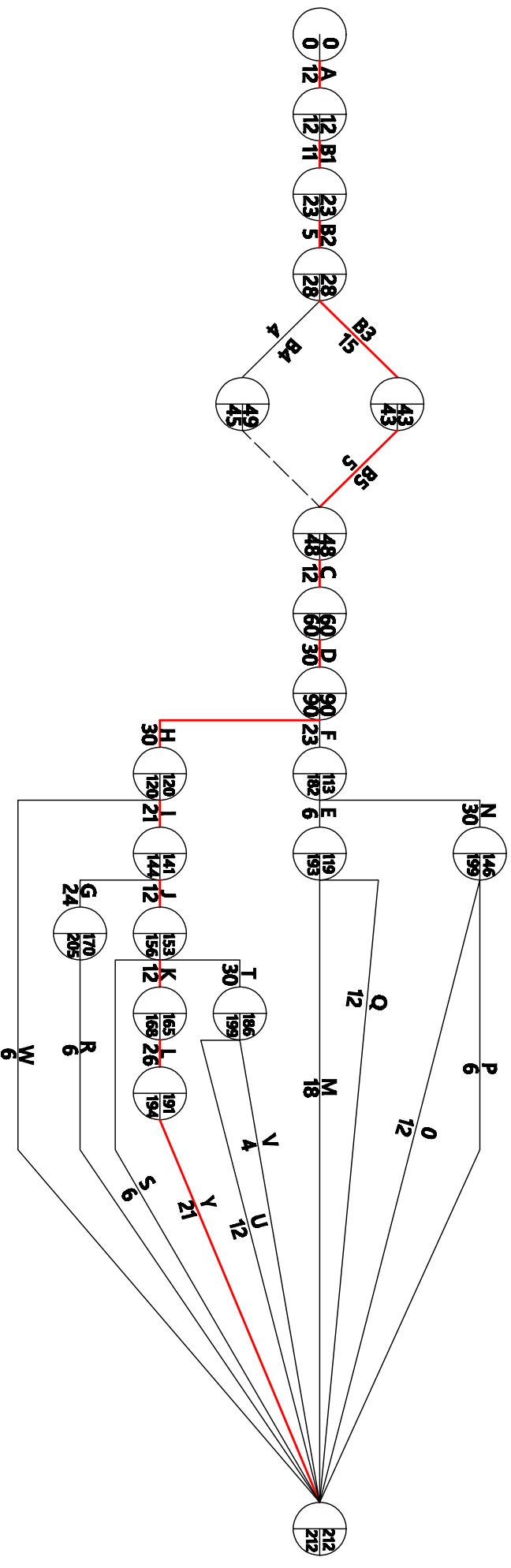
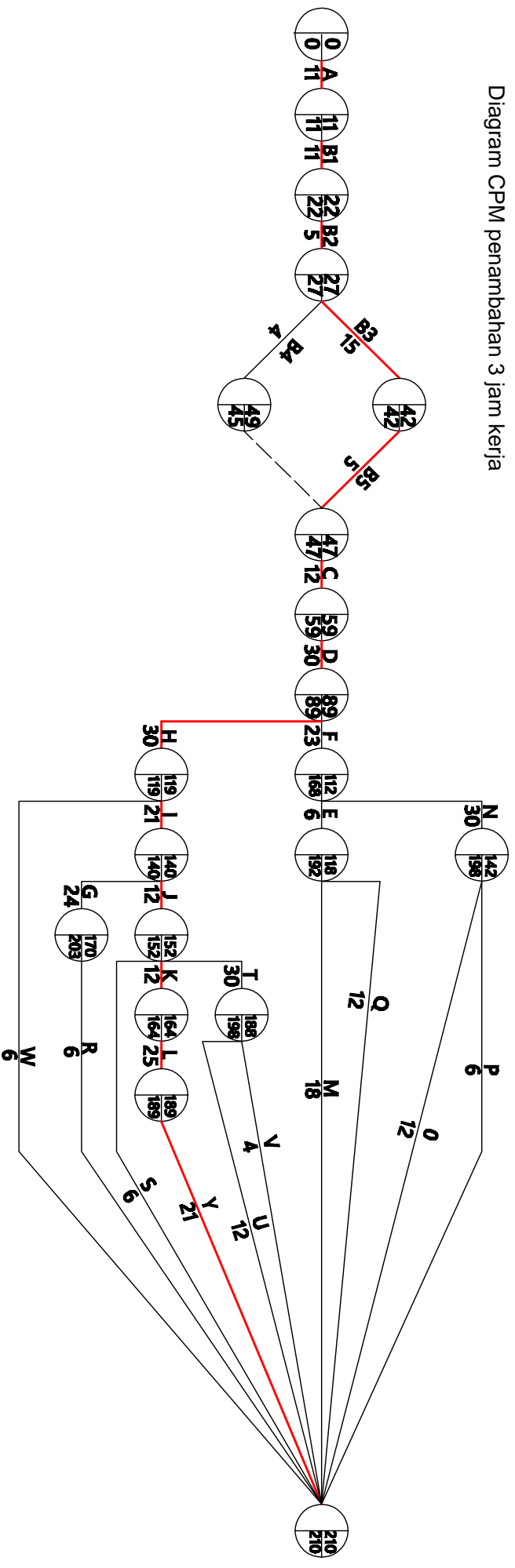


Diagram CPM penambahan 3 jam kerja



	mandor		oh	0.0320	31.2500	1								
	- Sand bedding t=10 cm	3.15	m3				85.3561	0.04	1					
	pekerja		oh	0.3023	3.3080	2								
	mandor		oh	0.0127	78.7402	1								
	- Concrete bedding 1:3:5 t=5 cm	1.58	m3				65.1794	0.02	1					
	pekerja		oh	0.7800	1.2821	6								
	tukang batu		oh	0.3900	2.5641	2								
	kepala tukang		oh	0.0579	17.2712	1								
	mandor		oh	0.0285	35.0877	1								
	- Concrete Block Formworks	132.3	m2				130.7692	1.01	2					
	pekerja		oh	0.5200	1.9231	4								
	tukang kayu		oh	0.2600	3.8462	2								
	kepala tukang		oh	0.0260	38.4615	1								
	mandor		oh	0.0130	76.9231	1								
	-Deformed Reinforced steel diameter	1572.5	kg				342.4056	4.59	5	314.496		367.7369	2.99327	3 5
	tukang besi		oh	0.0757	13.2100	2					3			
	pekerja		oh	0.3300	3.0303	8					12			
	kepala tukang		oh	0.0109	91.7431	1					1			
	mandor		oh	0.0050	200.0000	1					1			
	-Round Plain reinforced steel diameter	778.74	kg				363.8539	2.14	3					
	tukang besi		oh	0.0757	13.2100	5								
	pekerja		oh	0.3300	3.0303	2								
	kepala tukang		oh	0.0109	91.7431	1								
	mandor		oh	0.0050	200.0000	1								
	- Pour concrete Ready Mix K-3	12.6	m3				116.5158	0.11	1					
	pekerja		oh	1.6842	0.5938	4								
	tukang batu		oh	0.2807	3.5625	2								
	kepala tukang		oh	0.0281	35.5872	1								
	mandor		oh	0.0140	71.4286	1								
	-Water proofing interaged	132.3	m2						1					
2	Ground Beam Type S2 -200/350 mm													
	- Soil excavation	5.36	m3				37.2201	0.14	1					
	pekerja		oh	0.6700	1.4925	4								
	mandor		oh	0.0320	31.2500	1								
	- Sand bedding t=10 cm	1.53	m3				85.3561	0.02	1					
	pekerja		oh	0.3023	3.3080	2								
	mandor		oh	0.0127	78.7402	1								
	- Concrete bedding 1:3:5 t=5 cm	0.77	m3				62.6153	0.01	1					
	pekerja		oh	0.7800	1.2821	4								
	tukang batu		oh	0.3900	2.5641	2								
	kepala tukang		oh	0.0579	17.2712	1								
	mandor		oh	0.0285	35.0877	1								
	- Concrete Block Formworks	68.85	m2				134.6154	0.51	1					
	pekerja		oh	0.5200	1.9231	6								
	tukang kayu		oh	0.2600	3.8462	2								
	kepala tukang		oh	0.0260	38.4615	1								
	mandor		oh	0.0130	76.9231	1								
	-Deformed Reinforced steel diameter	716.69	kg				377.0640	1.9	2					
	tukang besi		oh	0.0757	13.2100	6								
	pekerja		oh	0.3300	3.0303	2								
	kepala tukang		oh	0.0109	91.7431	1								
	mandor		oh	0.0050	200.0000	1								
	-Deformed Reinforced steel diameter	135.98	kg				353.6742	0.38	1					
	tukang besi		oh	0.0757	13.2100	4								
	pekerja		oh	0.3300	3.0303	3								
	kepala tukang		oh	0.0109	91.7431	1								
	mandor		oh	0.0050	200.0000	1								
	-Round Plain reinforced steel diameter	174.21	kg				350.6439	0.5	1					
	tukang besi		oh	0.0757	13.2100	4								
	pekerja		oh	0.3300	3.0303	2								
	kepala tukang		oh	0.0109	91.7431	1								
	mandor		oh	0.0050	200.0000	1								
	- Pour concrete Ready Mix K-3	5.36	m3				116.5158	0.05	1					
	pekerja		oh	1.6842	0.5938	4								
	tukang batu		oh	0.2807	3.5625	2								
	kepala tukang		oh	0.0281	35.5872	1								
	mandor		oh	0.0140	71.4286	1								
	-Water proofing interaged	68.85	m2						1					
3	Ground Beam Type S3 -150/250 mm													
	- Soil excavation	1.51	m3				37.2201	0.04	1					

	kepala tukang mandor		oh	0.0109	91.7431	1									1				
			oh	0.005	200.0000	1									1				
	-Round Plain reinforced steel diameter	2398.5	kg																
	tukang besi		oh	0.0757	13.2100	4													
	pekerja		oh	0.33	3.0303	8													
	kepala tukang mandor		oh	0.0109	91.7431	1													
			oh	0.005	200.0000	1													
	- Pour concrete Ready Mix K-3	36.9	m3																
	pekerja		oh	1.6842	0.5938	4													
	tukang batu		oh	0.2807	3.5625	2													
	kepala tukang mandor		oh	0.0281	35.5872	1													
			oh	0.014	71.4286	1													
	- First Floor Concrete Curing	318.15	m2																
	J. Column Works																		
	1 Concrete Column type C2 350 x 350 mm																		
	-Multiplex 9 mm for Formwork	398.65	m2																
	pekerja		oh	0.6600	1.5152	6													
	tukang kayu		oh	0.3300	3.0303	2													
	kepala tukang mandor		oh	0.0330	30.3030	1													
			oh	0.0160	62.5000	1													
	-Deformed Reinforced steel diameter	1326	kg																
	tukang besi		oh	0.0757	13.2100	10													
	pekerja		oh	0.33	3.0303	4													
	kepala tukang mandor		oh	0.0109	91.7431	1													
			oh	0.005	200.0000	1													
	-Round Plain reinforced steel diameter	591.64	kg																
	tukang besi		oh	0.0757	13.2100	6													
	pekerja		oh	0.33	3.0303	2													
	kepala tukang mandor		oh	0.0109	91.7431	1													
			oh	0.005	200.0000	1													
	- Pour concrete Ready Mix K-3	10.41	m3																
	pekerja		oh	1.6842	0.5938	4													
	tukang batu		oh	0.2807	3.5625	2													
	kepala tukang mandor		oh	0.0281	35.5872	1													
			oh	0.014	71.4286	1													
	- Scaffolding Works	99.66	m2																
	-Removal of Formworks	398.65	m2																
	2 Column Practice																		
	Concrete Column type Pc 2 150 x 150 mm																		
	Multiplex 9 mm for formworks	1.15	m3																
	pekerja		oh	0.66	1.5152	4													
	tukang kayu		oh	0.33	3.0303	2													
	kepala tukang mandor		oh	0.033	30.3030	1													
			oh	0.016	62.5000	1													
	Deformed Reinforced steel diameter	54																	
	tukang besi		oh	0.0757	13.2100	4													
	pekerja		oh	0.33	3.0303	2													
	kepala tukang mandor		oh	0.0109	91.7431	1													
			oh	0.005	200.0000	1													
	Round plain reinforced steel diameter	222.08																	
	tukang besi		oh	0.0757	13.2100	6													
	pekerja		oh	0.33	3.0303	2													
	kepala tukang mandor		oh	0.0109	91.7431	1													
			oh	0.005	200.0000	1													
	Scaffolding Works	102.38																	
	Removal of formworks	54																	
	pekerja		oh	0.6600	1.5152	4													
	tukang kayu		oh	0.3300	3.0303	2													
	kepala tukang mandor		oh	0.0330	30.3030	1													
			oh	0.0160	62.5000	1													

K. Bridge Works

Supply and Installation of steel	426.24	Kg
Supply and Installation of steel	244.95	Kg
Supply and installation of Metal Deck	8	m2
Supply and Installation Shear Connectors	36.44	Kg
Bridge Railing	120	kg
Roof truss 30 x 30 x 1mm	402.16	Kg
Roof batten	24.5	m'
Polycarbonate Sheet	13.61	m2
Wiremesh M6-150	37.74	Kg

	mandor		oh	0.0083	120.4819	1								
	Exterior wall painting	196.54	m²				228.3670	0.86	1					
	pekerja		oh	0.1667	5.9988	4								
	tukang cat		oh	0.0833	12.0048	2								
	kepala tukang		oh	0.0167	59.8802	1								
	mandor		oh	0.0083	120.4819	1								
O	Door Window and Bovenlight including Partision works													
	Supply and Install Frame of Dc		1	Unit										
	Supply and Install Frame of Dc		4	Unit										
	Supply and Install Frame of Dc		1	Unit										
	Supply and Install Frame of Dc		1	Unit										
	Supply and Install Frame of Dc		10	Unit										
	Supply and Install Frame of ste		1	Unit										
	Gypsum partition, frame of me	104	m2											
	Supply and Install Glass partiti		1	Unit										
	Supply and Install Glass partiti		1	Unit										
	Supply and Install Glass partiti		1	Unit										
	Supply and Install Frame, glas		10	Unit										
	Supply and Install Frame of Fix		7	Unit										
	Gypsum partition, frame of metal Zincaleme including accessories and Finishing		m2											
	Supply and Install Glass partition size 2.6 x 2.45 m, Alumunium Frame, 2 holes, one door glass 8 mm including accessories and Finishing		Unit											
	Supply and Install Glass partition size 2.6 x 2.65 m, Alumunium Frame, 3 holes, one door glass 8 mm including accessories and Finishing		Unit											
	Supply and Install Glass partition size 2.6 x 3.65 m, Alumunium Frame, 3 holes, one door glass 8 mm including accessories and Finishing		Unit											
	Supply and Install Frame of Alumunium Sliding Door with size 2.10 x 2.60 m, glass 8 mm, including all accessories and finishing		Unit											
	Supply and Install Frame of Alumunium Sliding Door with size 3.65 x 2.60 m, glass 8 mm, including all accessories and finishing		Unit											
	Curtain for all windows specified below including all accessories with specification:1. Curtain Material Row: Polyester 100% 2. Shading Coating Process: PVC foam color matching layer 3. Drawstring Material: POM beads 4. Weight: 1.59kg/m2 5. Width each layer: 85-127mm 6. Thickness: ± 0.25mm		Unit											
	Supply and Install complete set Vertical		Unit											
	Supply and Install Automatic closing Do		Unit											
P	Ceiling Works													
	Plafond Gypsum t = 12 mm + t	290	m²				600.0000	0.48	1					
	pekerja		oh	0.06	16.6667	4								
	tukang kayu		oh	0.06	16.6667	2								

No	Item Pekerjaan	Kontrak				Realisasi Lapangan				Pekerjaan Tambah			Pekerjaan Kurang		
		volume		Harg	Jumlah	volume		Harga	Jumlah	volume	Jumla	volume	Juml		
		QTY	Sat.	a	Harga	QTY	Sat.	Satuan	Harga	QTY	Sat.	h	QTY	Sat.	ah
A	Foundation Works														
1	Bore Pile Foundation Works:				54,970.04				56727.07						
(a.)	Type PB1														
	Equipment mobilization and setting out	1	ls	1323	1323	1	ls	1323.00	1323.00	0	ls	0	0	ls	0
	Soil boring and Drilling works	156	m'	132.3	20638.8	156	m'	132.30	20638.80	0	m'	0	0	m'	0
	Pouring Concrete Ready Mix	24.81	cu.m	258	6401.4762	24.81	cu.m	258.02	6401.48	0	cu.m	0	0	cu.m	0
	Deformed Reinforced steel diameter of 16 mm	1971.84	Kg	3.09	6092.9856	1972	Kg	3.09	6092.99	0	Kg	0	0	Kg	0
	Round Plain reinforced steel diameter 8 mm	317.15	Kg	2.65	840.4475	362.6	Kg	2.65	960.94	45.5	Kg	120.5	0	Kg	0
(b.)	Type SP2														
	Equipment mobilization and set up	1	ls	1323	1323	1	ls	1323.00	1323.00	0	ls	0	0	ls	0
	Soil boring and Drilling works	12	m'	132.3	1587.6	12	m'	132.30	1587.60	0	m'	0	0	m'	0
	Pouring Concrete Ready Mix	0.85	m3	258	219.317	0.85	m3	258.02	219.32	0	m3	0	0	m3	0
	Deformed Reinforced steel diameter of 16 mm	113.64	Kg	3.09	351.1476	113.6	Kg	3.09	351.15	0	Kg	0	0	Kg	0
	Round Plain reinforced steel diameter 8 mm	24.4	Kg	2.65	64.66	24.4	Kg	2.65	64.66	0	Kg	0	0	Kg	0
2	Pile cap														
(a.)	Type PB1														
	- Soil excavation	39	m3	5.41	210.99	39	m3	5.41	210.99	0	m3	0	0	m3	0
	- Sand bedding t=10 cm	3.74	m3	12.06	45.1044	3.74	m3	12.06	45.10	0	m3	0	0	m3	0
	- Concrete bedding 1:3:5 t=5 cm	1.87	m3	258	482.4974	1.87	m3	258.02	482.50	0	m3	0	0	m3	0
	- Concrete Block Formworks	74.88	m2	21.17	1585.2096	74.88	m2	21.17	1585.21	0	m2	0	0	m2	0
	- Pour concrete Ready Mix K-300	22.46	m3	258	5795.1292	22.46	m3	258.02	5795.13	0	m3	0	0	m3	0
	- Reinforced steel bars 16 mm dia	689.42	kg	3.09	2130.3078	689.4	kg	3.09	2130.31	0	kg	0	0	kg	0
	- Reinforced steel bars 18 mm dia	1121.84	kg	3.09	3466.4856	1122	kg	3.09	3466.49	0	kg	0	0	kg	0
	- Soil back filling works	9.75	m3	4.41	42.9975	9.75	m3	4.41	43.00	0	m3	0	0	m3	0
(b.)	Type SP2														
	- Soil excavation	1.36	m3	5.41	7.3576	1.36	m3	5.41	7.36	0	m3	0	0	m3	0
	- Sand bedding t=10 cm	0.16	m3	12.06	1.9296	0.16	m3	12.06	1.93	0	m3	0	0	m3	0
	- Concrete bedding 1:3:5 t=5 cm	0.08	m3	258	20.6416	0.08	m3	258.02	20.64	0	m3	0	0	m3	0
	- Concrete Block Formworks	4.32	m2	21.17	91.4544	4.32	m2	21.17	91.45	0	m2	0	0	m2	0
	- Pour concrete Ready Mix K-300	0.97	m3	258	250.2794	0.97	m3	258.02	250.28	0	m3	0	0	m3	0
	- Deformed Reinforced steel diameter of 16 mm	62.5	kg	3.09	193.125	62.5	kg	3.09	193.13	0	kg	0	0	kg	0
	- Soil back filling works	0.34	m3	4.41	1.4994	0.34	m3	4.41	1.50	0	m3	0	0	m3	0
3	Concrete of Foundation Column type C1 350 x 350	36.4	m2	7.06	256.984	36.4	m2	7.06	256.98	0	m2	0	0	m2	0
	- Multiplex 9 mm for Formworks	203.76	kg	3.09	629.6184	657.3	kg	3.09	2031.00	454	kg	1401	0	kg	0
	- Deformed Reinforced steel diameter of 16 mm	35.06	kg	2.65	92.909	123.8	kg	2.65	328.07	88.7	kg	235.2	0	kg	0
	- Round Plain reinforced steel diameter 10 mm for stirrup	3.19	m3	258	823.0838	3.19	m3	258.02	823.08	0	m3	0	0	m3	0
	- Pour concrete Ready Mix K-300									0		0	0		0
B.	Stone masonry Foundation				7,930.65				7930.65						
	- Soil excavation	118	m3	5.41	638.38	118	m3	5.41	638.38	0	m3	0	0	m3	0
	- Sand bedding t=10 cm	7.4	m3	12.06	89.244	7.4	m3	12.06	89.24	0	m3	0	0	m3	0
	- Stone soling	22	m3	75.21	1654.62	22	m3	75.21	1654.62	0	m3	0	0	m3	0
	- Sand bedding t=10 cm under ground floor	14.5	m3	12.06	174.87	14.5	m3	12.06	174.87	0	m3	0	0	m3	0
	- Masonry installation works	70.8	m3	75.21	5324.868	70.8	m3	75.21	5324.87	0	m3	0	0	m3	0
	- Pointing works	9.2	m2	5.29	48.668	9.2	m2	5.29	48.67	0	m2	0	0	m2	0
C.	Ground Beam				22,834.33				22834.33						
1	Ground Floor														
	Ground Beam Type S1 -250/400 mm														
	- Soil excavation	12.6	m3	5.41	68.166	12.6	m3	5.41	68.17	0	m3	0	0	m3	0
	- Sand bedding t=10 cm	3.15	m3	12.06	37.989	3.15	m3	12.06	37.99	0	m3	0	0	m3	0
	- Concrete bedding 1:3:5 t=5 cm	1.58	m3	258	407.6716	1.58	m3	258.02	407.67	0	m3	0	0	m3	0
	- Concrete Block Formworks	132.3	m2	21.17	2800.791	132.3	m2	21.17	2800.79	0	m2	0	0	m2	0
	- Deformed Reinforced steel diameter of 16 mm	1572.48	kg	3.09	4858.9632	1572	kg	3.09	4858.96	0	kg	0	0	kg	0
	- Round Plain reinforced steel diameter 8 mm for stirrup	778.74	kg	2.65	2063.661	778.7	kg	2.65	2063.66	0	kg	0	0	kg	0
	- Pour concrete Ready Mix K-300	12.6	m3	258	3251.052	12.6	m3	258.02	3251.05	0	m3	0	0	m3	0
	- Water proofing interaged	132.3	m2	5.29	699.867	132.3	m2	5.29	699.87	0	m2	0	0	m2	0
2	Ground Beam Type S2 -200/350 mm														
	- Soil excavation	5.36	m3	5.41	28.9976	5.36	m3	5.41	29.00	0	m3	0	0	m3	0
	- Sand bedding t=10 cm	1.53	m3	12.06	18.4518	1.53	m3	12.06	18.45	0	m3	0	0	m3	0
	- Concrete bedding 1:3:5 t=5 cm	0.77	m3	258	198.6754	0.77	m3	258.02	198.68	0	m3	0	0	m3	0
	- Concrete Block Formworks	68.85	m2	21.17	1457.5545	68.85	m2	21.17	1457.55	0	m2	0	0	m2	0
	- Deformed Reinforced steel diameter of 16 mm	716.69	kg	3.09	2214.5721	725.2	kg	3.09	2240.93	8.53	kg	26.36	0	kg	0
	- Deformed Reinforced steel diameter of 12 mm for stirrup	135.98	kg	2.65	360.347	136	kg	2.65	360.35	0	kg	0	0	kg	0
	- Round Plain reinforced steel diameter 8 mm for stirrup	174.211	kg	2.65	461.65841	209.5	kg	2.65	555.12	35.3	kg	93.46	0	kg	0
	- Pour concrete Ready Mix K-300	5.36	m3	258	1382.9872	5.36	m3	258.02	1382.99	0	m3	0	0	m3	0
	- Water proofing interaged	68.85	m2	5.29	364.2165	68.85	m2	5.29	364.22	0	m2	0	0	m2	0
3	Ground Beam Type S3 -150/250 mm														
	- Soil excavation	1.51	m3	5.41	8.1691	1.51	m3	5.41	8.17	0	m3	0	0	m3	0
	- Sand bedding t=10 cm	0.6	m3	12.06	7.236	0.6	m3	12.06	7.24	0	m3	0	0	m3	0
	- Concrete bedding 1:3:5 t=5 cm	0.3	m3	258	77.406	0.3	m3	258.02	77.41	0	m3	0	0	m3	0
	- Formworks	26.16	m2	21.17	553.8072	26.16	m2	21.17	553.81	0	m2	0	0	m2	0
	- Deformed Reinforced steel diameter of 13 mm	201.9	kg	2.65	535.035	201.9	kg	2.65	535.04	0	kg	0	0	kg	0
	- Round Plain reinforced steel diameter 8 mm for stirrup	124.24	kg	2.65	329.236	124.2	kg	2.65	329.24	0	kg	0	0	kg	0
	- Pour concrete Ready Mix K-300	1.51	m3	258	389.6102	1.51	m3	258.02	389.61	0	m3	0	0	m3	0
	- Water proofing interaged	26.16	m2	5.29	138.3864	26.16	m2	5.29	138.39	0	m2	0	0	m2	0
										0		0	0		0

D.	Floor Concrete t=12 cm				21,693.16				21,693.16	0	0	0	0
	Selected soil material filling and compaction with field	116.75	m3	22.05	2574.3375	116.8	m3	22.05	2574.34	0	m3	0	0
	Sand bedding t=10 cm	30.75	m3	12.06	370.845	30.75	m3	12.06	370.85	0	m3	0	0
	Concrete bedding 1:3:5 t=5 cm	15.38	m3	258	3968.3476	15.38	m3	258.02	3968.35	0	m3	0	0
	Edge Formworks	71	m2	5.29	375.59	71	m2	5.29	375.59	0	m2	0	0
	Wire Mesh M16	307.5	m2	7.06	2170.95	307.5	m2	7.06	2170.95	0	m2	0	0
	Pour concrete Ready Mix K-300	36.9	m3	258	9520.938	36.9	m3	258.02	9520.94	0	m3	0	0
	Water proofing intergrated	307.5	m2	5.29	1626.675	307.5	m2	5.29	1626.68	0	m2	0	0
	Concrete Curing	307.5	m2	3.53	1085.475	307.5	m2	3.53	1085.48	0	m2	0	0
E.	Column Works				17,453.47				17,453.47	0	0	0	0
1	Concrete Column type C1 350 x 350 mm									0	0	0	0
	-Multiplex 9 mm for Formworks	134.68	m2	7.06	950.8408	134.7	m2	7.06	950.8408	0	m2	0	0
	Deformed Reinforced steel diameter of 16 mm	2866.5	kg	3.09	8857.485	2867	kg	3.09	8857.485	0	kg	0	0
	Round Plain reinforced steel diameter 10 mm for stirr	687.96	kg	2.65	1823.094	688	kg	2.65	1823.094	0	kg	0	0
	Pour concrete Ready Mix K-300	11.47	m3	258	2959.4894	11.47	m3	258.02	2959.489	0	m3	0	0
	Scaffolding Works	134.68	m2	2.65	356.902	134.7	m2	2.65	356.902	0	m2	0	0
	-Removal of Formworks	134.68	m2	2.65	356.902	134.7	m2	2.65	356.902	0	m2	0	0
2	Column Practice									0	0	0	0
	Concrete Column type Pc 2 150 x 150 mm	2.03	m3	258	523.7806	2.03	m3	258.02	523.7806	0	m3	0	0
	Multiplex 9 mm for formworks	54		7.06	381.24	54		7.06	381.24	0	0	0	0
	Deformed Reinforced steel diameter of 10 mm	222.08		3.09	686.2272	222.1		3.09	686.2272	0	0	0	0
	Round plain reinforced steel diameter 8 mm for stirru	102.38		2.65	271.307	102.4		2.65	271.307	0	0	0	0
	Scaffolding Works	54		2.65	143.1	54		2.65	143.1	0	0	0	0
	Removal of formworks	54		2.65	143.1	54		2.65	143.1	0	0	0	0
F.	Concrete Stair Work									0	0	0	0
1	Stair Foundation				2,727.57				2,727.57	0	0	0	0
	-Soil excavation	3.2	m3	5.41	17.312	3.2	m3	5.41	17.312	0	m3	0	0
	- Soil disposal	2.13	m3	3.53	7.5189	2.13	m3	3.53	7.5189	0	m3	0	0
	- Pour concrete Ready Mix K-300	0.02	m3	258	5.1604	0.02	m3	258.02	5.1604	0	m3	0	0
	-Deformed Reinforced steel diameter of 12 mm	3.51	kg	2.65	9.3015	3.51	kg	2.65	9.3015	0	kg	0	0
	-Round plain Reinforced steel diameter of 8 mm	1.52	kg	2.65	4.028	1.52	kg	2.65	4.028	0	kg	0	0
	- Concrete Block Formworks	0.16	m2	20.29	3.2464	0.16	m2	20.29	3.2464	0	m2	0	0
2	Stair Wall									0	0	0	0
	- Pour concrete Ready Mix K-300	0.15	m3	258	38.703	0.15	m3	258.02	38.703	0	m3	0	0
	-Deformed Reinforced steel diameter of 12 mm	9.75	kg	2.65	25.8375	9.75	kg	2.65	25.8375	0	kg	0	0
	-Round plain Reinforced steel diameter of 8 mm	22.5	kg	2.65	59.625	22.5	kg	2.65	59.625	0	kg	0	0
	-Multiplex 9 mm for Formworks	25	m2	7.06	176.5	25	m2	7.06	176.5	0	m2	0	0
	-Removal of Formworks	25	m2	2.65	66.25	25	m2	2.65	66.25	0	m2	0	0
3	Bordes Plate and Stair plate									0	0	0	0
	- Pour concrete Ready Mix K-300	0.65	m3	258	167.713	0.65	m3	258.02	167.713	0	m3	0	0
	-Deformed Reinforced steel diameter of 12 mm	42.25	kg	2.65	111.9625	42.25	kg	2.65	111.9625	0	kg	0	0
	-Round plain Reinforced steel diameter of 8 mm	97.5	kg	2.65	258.375	97.5	kg	2.65	258.375	0	kg	0	0
	-Multiplex 9 mm for Formworks	3.6	m2	7.06	25.416	3.6	m2	7.06	25.416	0	m2	0	0
	- Scaffolding Works	3.6	m2	2.65	9.54	3.6	m2	2.65	9.54	0	m2	0	0
	-Removal of Formworks	1.8	m2	2.65	4.77	3.6	m2	2.65	9.54	1.8	m2	4.77	0
4	Stair									0	0	0	0
	- Pour concrete Ready Mix K-300	1.8	m3	258	464.436	1.8	m3	258.02	464.436	0	m3	0	0
	-Deformed Reinforced steel diameter of 12 mm	269.69	kg	2.65	714.6785	269.7	kg	2.65	714.6785	0	kg	0	0
	-Round plain Reinforced steel diameter of 8 mm	116.86	kg	2.65	309.679	116.9	kg	2.65	309.679	0	kg	0	0
	-Multiplex 9 mm for Formworks	25	m2	7.06	176.5	25	m2	7.06	176.5	0	m2	0	0
	-Removal of Formworks	25	m2	2.65	66.25	25	m2	2.65	66.25	0	m2	0	0
3.2.	FIRST FLOOR STRUCTURAL WORKS									0	0	0	0
A.	Beam Works				23,553.86				23,553.86	0	0	0	0
1	Concrete Beam type B1A 300 x 500 mm (L=66m)									0	0	0	0
	-Multiplex 9 mm for Formworks	85.8	m2	7.06	605.748	85.8	m2	7.06	605.748	0	m2	0	0
	-Deformed Reinforced steel diameter of 16 mm	738.68	kg	3.09	2282.5212	1251	kg	3.09	3866.702	513	kg	1584	0
	-Deformed Reinforced steel diameter of 13 mm for t	81.26	kg	2.65	215.339	137.3	kg	2.65	363.792	56	kg	148.5	0
	-Round Plain reinforced steel diameter 10 mm for stir	366.09	kg	2.65	970.1385	443	kg	2.65	1173.897	76.9	kg	203.8	0
	- Pour concrete Ready Mix K-300	5.85	m3	258	1509.417	9.9	m3	258.02	2554.398	4.05	m3	1045	0
	- Scaffolding Works	28.6	m2	2.65	75.79	85.8	m2	2.65	227.37	57.2	m2	151.6	0
	-Removal of Formworks	85.8	m2	2.65	227.37	85.8	m2	2.65	227.37	0	m2	0	0
2	Concrete Beam type B1B 300 x 500 mm (L=12.5m)									0	0	0	0
	-Multiplex 9 mm for Formworks	16.25	m2	7.06	114.725	16.25	m2	7.06	114.725	0	m2	0	0
	-Deformed Reinforced steel diameter of 16 mm	216.43	kg	3.09	668.7687	237	kg	3.09	732.33	20.6	kg	63.56	0
	-Deformed Reinforced steel diameter of 13 mm for t	25.97	kg	2.65	68.8205	26	kg	2.65	68.9	0.03	kg	0.08	0
	-Round Plain reinforced steel diameter 10 mm for stir	115.45	kg	2.65	305.9425	115.5	kg	2.65	305.9425	0	kg	0	0
	- Pour concrete Ready Mix K-300	1.87	m3	258	482.4974	1.87	m3	258.02	482.4974	0	m3	0	0
	- Scaffolding Works	5.42	m2	2.65	14.363	16.25	m2	2.65	43.0625	10.8	m2	28.7	0
	-Removal of Formworks	16.25	m2	2.65	43.0625	16.25	m2	2.65	43.0625	0	m2	0	0
3	Concrete Beam type B2 250 x 450 mm (L=26m)									0	0	0	0
	-Multiplex 9 mm for Formworks	29.9	m2	7.06	211.094	29.9	m2	7.06	211.094	0	m2	0	0
	-Deformed Reinforced steel diameter of 16 mm	410.38	kg	3.09	1268.0742	410.8	kg	3.09	1269.372	0.42	kg	1.298	0
	-Deformed Reinforced steel diameter of 10 mm for t	32.06	kg	2.65	84.959	32.08	kg	2.65	85.012	0.02	kg	0.053	0
	-Round Plain reinforced steel diameter 10 mm for stir	207.68	kg	2.65	550.352	207.7	kg	2.65	550.352	0	kg	0	0
	- Pour concrete Ready Mix K-300	2.93	m3	258	755.9986	2.93	m3	258.02	755.9986	0	m3	0	0
	- Scaffolding Works	9.97	m2	2.65	26.4205	29.9	m2	2.65	79.235	19.9	m2	52.81	0
	-Removal of Formworks	29.9	m2	2.65	79.235	29.9	m2	2.65	79.235	0	m2	0	0

4	Concrete Beam type B3 200x 400 mm (L=89.5m)								0	0	0	0			
	-Multiplex 9 mm for Formworks	73.5	m2	7.06	518.91	89.5	m2	7.06	631.87	16	m2	113	0	m2	0
	-Deformed Reinforced steel diameter of 16 mm	928.04	kg	3.09	2867.6436	1131	kg	3.09	3495.655	203	kg	628	0	kg	0
	-Round Plain reinforced steel diameter 10 mm for stirr	488.04	kg	2.65	1293.306	488	kg	2.65	1293.306	0	kg	0	0	kg	0
	- Pour concrete Ready Mix K-300	5.88	m3	258	1517.1576	7.16	m3	258.02	1847.423	1.28	m3	330.3	0	m3	0
	- Scaffolding Works	24.5	m2	2.65	64.925	89.5	m2	2.65	237.175	65	m2	172.3	0	m2	0
	-Removal of Formworks	73.5	m2	2.65	194.775	89.5	m2	2.65	237.175	16	m2	42.4	0	m2	0
	5 Concrete Beam type B4 200x 350 mm (L=30m)								0	0	0	0	0	0	
	-Multiplex 9 mm for Formworks	27	m2	7.06	190.62	27	m2	7.06	190.62	0	m2	0	0	m2	0
	-Deformed Reinforced steel diameter of 16 mm	284.109	kg	3.09	877.89681	284.1	kg	3.09	877.8968	0	kg	0	0	kg	0
-Round Plain reinforced steel diameter 8 mm for stirr	78.141	kg	2.65	207.07365	82.15	kg	2.65	217.6975	4.01	kg	10.62	0	kg	0	
- Pour concrete Ready Mix K-300	2.1	m3	258	541.842	2.1	m3	258.02	541.842	0	m3	0	0	m3	0	
- Scaffolding Works	9	m2	2.65	23.85	27	m2	2.65	71.55	18	m2	47.7	0	m2	0	
-Removal of Formworks	27	m2	2.65	71.55	27	m2	2.65	71.55	0	m2	0	0	m2	0	
B.	Reinforcement Concrete Slab t=12 cm			42,607.02				42,607.02	0	0	0	0			
	- Scaffolding Works (scaffolding)	307.5	m2	2.65	814.875	307.5	m2	2.65	814.875	0	m2	0	0	m2	0
	-Multiplex 9 mm for Formworks	318.15	m2	7.06	2246.139	318.2	m2	7.06	2246.139	0	m2	0	0	m2	0
	-Deformed Reinforced steel diameter of 12 mm	5535	kg	2.65	14667.75	5535	kg	2.65	14667.75	0	kg	0	0	kg	0
	-Round Plain reinforced steel diameter 8 mm for stirr	2398.5	kg	2.65	6356.025	2399	kg	2.65	6356.025	0	kg	0	0	kg	0
	- Pour concrete Ready Mix K-300	36.9	m3	258	9520.938	43.5	m3	258.02	11223.87	6.6	m3	1703	0	m3	0
	- First Floor Concrete Curing	318.15	m2	20.29	6455.2635	318.2	m2	20.29	6455.264	0	m2	0	0	m2	0
-Removal of Formworks	318.15	m2	2.65	843.0975	318.2	m2	2.65	843.0975	0	m2	0	0	m2	0	
C.	Column Works			12,199.53				13,959.06	0	0	0	0			
	1 Concrete Column type C2 350 x 350 mm								0	0	0	0			
	-Multiplex 9 mm for Formworks	398.65	m2	7.06	2814.469	398.7	m2	7.06	2814.469	0	m2	0	0	m2	0
	-Deformed Reinforced steel diameter of 16 mm	1326.03	kg	2.65	3513.9795	1326	kg	2.65	3513.98	0	kg	0	0	kg	0
	-Round Plain reinforced steel diameter 8 mm for stirr	591.64	kg	2.65	1567.846	591.6	kg	2.65	1567.846	0	kg	0	0	kg	0
	- Pour concrete Ready Mix K-300	10.41	m3	258	2685.9882	10.41	m3	258.02	2685.988	0	m3	0	0	m3	0
	- Scaffolding Works	99.66	m2	2.65	264.099	121.9	m2	2.65	323.141	22.3	m2	59.04	0	m2	0
	-Removal of Formworks	398.65	m2	2.65	1056.4225	398.7	m2	2.65	1056.423	0	m2	0	0	m2	0
	2 Column Practice								0	0	0	0			
	Concrete Column type Pc 2 150 x 150 mm	1.15	m3	258	296.723	1.88	m3	258.02	485.0776	0.73	m3	188.4	0	m3	0
Multiplex 9 mm for formworks	2.03		7.06		50.25		7.06	354.765	48.2		340.4	0		0	
Deformed Reinforced steel diameter of 10 mm	54		3.09		206.7		3.09	638.5794	153		471.7	0		0	
Round plain reinforced steel diameter 8 mm for	222.08		2.65		95.27		2.65	252.4655	0		0	127		336	
Scaffolding Works	102.38		2.65		50.25		2.65	133.1625	0		0	52.1		138	
Removal of formworks	54		2.65		50.25		2.65	133.1625	0		0	3.75		9.94	
D.	Bridge Works			7,560.83				7,560.83	0	0	0	0			
	Supply and Installation of steel profile WF 250 .125.	426.24	Kg	2.65	1129.536	426.2	Kg	2.65	1129.536	0	Kg	0	0	Kg	0
	Supply and Installation of steel profile WF 200.100.	244.95	Kg	2.65	649.1175	245	Kg	2.65	649.1175	0	Kg	0	0	Kg	0
	Supply and installation of Metal deck 0.85 m Thick	8	m2	6.17	49.36	8	m2	6.17	49.36	0	m2	0	0	m2	0
	Supply and Installation Shear Connector D12-300	36.44	Kg	2.65	96.566	36.44	Kg	2.65	96.566	0	Kg	0	0	Kg	0
	Bridge Railing	120	kg	2.65	318	120	kg	2.65	318	0	kg	0	0	kg	0
	Roof truss 30 x 30 x 1mm	402.16	Kg	2.65	1065.724	402.2	Kg	2.65	1065.724	0	Kg	0	0	Kg	0
	Roof batten	24.5	m'	10.58	259.21	24.5	m'	10.58	259.21	0	m'	0	0	m'	0
	Polycarbonate Sheet	13.61	m2	13.23	180.0603	13.61	m2	13.23	180.0603	0	m2	0	0	m2	0
	Wiremesh M6-150	37.74	Kg	2.65	100.011	37.74	Kg	2.65	100.011	0	Kg	0	0	Kg	0
	End Plate 6 mm	38	Nos	4.41	167.58	38	Nos	4.41	167.58	0	Nos	0	0	Nos	0
	HTB M16 L=50 mm	228	Nos	3.53	804.84	228	Nos	3.53	804.84	0	Nos	0	0	Nos	0
	- Pour concrete Ready Mix K-300	10.01	m3	258	2582.7802	10.01	m3	258.02	2582.78	0	m3	0	0	m3	0
	- Scaffolding Works	12.78	m2	2.65	33.867	12.78	m2	2.65	33.867	0	m2	0	0	m2	0
	-Removal of Formworks	12.78	m2	2.65	33.867	12.78	m2	2.65	33.867	0	m2	0	0	m2	0
-Concrete Stair	0.35		258	90.307	0.35		258.02	90.307	0		0	0		0	
E.	Ring Balk -Roof Beam (L=143m)			9,117.82				9,374.37	0	0	0	0			
	1 Concrete Beam type B5 200x 350 mm								0	0	0	0			
	-Multiplex 9 mm for Formworks	128.7	m2	7.06	908.622	128.7	m2	7.06	908.622	0	m2	0	0	m2	0
	-Deformed Reinforced steel diameter of 16 mm	1354.25	kg	3.09	4184.6325	1356	kg	3.09	4188.928	1.39	kg	4.295	0	kg	0
	-Round Plain reinforced steel diameter 8 mm for stirr	372.47	kg	2.65	987.0455	388.6	kg	2.65	1029.843	16.2	kg	42.8	0	kg	0
	- Pour concrete Ready Mix K-300	10.01	m3	258	2582.7802	10.01	m3	258.02	2582.78	0	m3	0	0	m3	0
	- Scaffolding Works	42.9	m2	2.65	113.685	121.9	m2	2.65	323.141	79	m2	209.5	0	m2	0
-Removal of Formworks	128.7	m2	2.65	341.055	128.7	m2	2.65	341.055	0	m2	0	0	m2	0	
3.3	STRUCTURAL ROOF WORKS								0	0	0	0			
	1 Structural Roof Frame			24,849.88				24849.88	0	0	0	0			
	1.1 Light Steel								0	0	0	0			
	Supply and Install Roof truss including all accessorie	434	m2	13.23	5741.82	434	m2	13.23	5741.82	0	m2	0	0	m2	0
	Supply and Install Roof truss including all accessorie	434	m'	13.23	5741.82	434	m'	13.23	5741.82	0	m'	0	0	m'	0
	Supply and Install Roof cover of zinalume including	434	m2	20.29	8805.86	434	m2	20.29	8805.86	0	m2	0	0	m2	0
	- Ridge Cup .42mm Thick; including all accessories.	68	m'	22.05	1499.4	68	m'	22.05	1499.4	0	m'	0	0	m'	0
	- Lisplank	80	m'	13.23	1058.4	80	m'	13.23	1058.4	0	m'	0	0	m'	0
	- Roof Painting	434	m2	4.41	1913.94	434	m2	4.41	1913.94	0	m2	0	0	m2	0
	- Supply and install Traditional aesthetic Apex	6.7	m'	13.23	88.641	6.7	m'	13.23	88.641	0	m'	0	0	m'	0
2.1.	GROUND FLOOR								0	0	0	0			
	A Floor Work			38,404.97				38,404.97	0	0	0	0			
	Sand Filling for leveling	58.00	m3	66.15	3836.7	58.00	m3	66.15	3836.7	0	m3	0	0	m3	0

	Floor type T12-01 (1 : 3 : 5)	2.40	m3	136.7	328.104	2.40	m3	136.71	328.104	0	m3	0	0	m3	0	
	Screeding	243.00	m2	30.87	7501.41	243.00	m2	30.87	7501.41	0	m2	0	0	0	m2	0
	Floor hardener	243.00	m2	30.87	7501.41	243.00	m2	30.87	7501.41	0	m2	0	0	0	m2	0
	The Work of Granito tile 60 x 60 cm	243.00	m2	57.33	13931.19	243.00	m2	57.33	13931.19	0	m2	0	0	0	m2	0
	The Work of plin granito tile 10 x 60	88.58	m1	47.63	4219.0654	88.58	m1	47.63	4219.065	0	m1	0	0	0	m1	0
	The Work of Ceramic anti slip tile 20 x 20 mm	17.50	m2	20.15	352.625	17.50	m2	20.15	352.625	0	m2	0	0	0	m2	0
	The Work of step nosing stair and ceramic tile 10 x 40	19.20	m1	20.15	386.88	19.20	m1	20.15	386.88	0	m1	0	0	0	m1	0
	The Work of Ceramic tile anti slip 20 x 20	17.25	m2	20.15	347.5875	17.25	m2	20.15	347.5875	0	m2	0	0	0	m2	0
B	Wall Work				27,039.53				28,715.38	0		0	0	0		0
	Supply and Install Hebel Blocks for interior wall Thick	44.46	m2	22.05	980.343	44.46	m2	22.05	980.343	0	m2	0	0	0	m2	0
	Supply and Install Hebel Blocks exterior wall Thick	138.7	m2	22.05	3058.335	138.7	m2	22.05	3058.335	0	m2	0	0	0	m2	0
	Supply and Install Hebel Blocks exterior wall Thick	196.54	m2	22.05	4333.707	196.5	m2	22.05	4333.707	0	m2	0	0	0	m2	0
	Plastering of Prime Mortar & Finishing (Wall)	759.4	m2	4.39	3333.766	759.4	m2	4.39	3333.766	0	m2	0	0	0	m2	0
	Plastering of Prime Mortar & Finishing (Concrete col	277.4	m2	4.39	1217.786	277.4	m2	4.39	1217.786	0	m2	0	0	0	m2	0
	Ceramic Tiling work of Toilet wall size 20 x 25 cm	28	m2	22.8	638.4	28	m2	22.8	638.4	0	m2	0	0	0	m2	0
	Practice columns	90	m1	74.97	6747.3	90	m1	74.97	6747.3	0	m1	0	0	0	m1	0
	Practical Ring balks	30.5	m1	74.97	2286.585	30.5	m1	74.97	2286.585	0	m1	0	0	0	m1	0
	Interior wall painting	563	m2	5.85	3293.55	563.7	m2	5.85	3414.528	20.7	m2	121	0	0	m2	0
	Exterior wall painting	196.54	m2	5.85	1149.759	312.3	m2	5.85	1827.131	116		677.4	0	0		0
	Wall Break for installation of cables for data line inclu	15				15		58.5	877.5	0	m2	0	0	0	m2	0
C	Door Window and Bovenlight including Partision works				35,174.16				45753.86	0		0	0	0		0
	Supply and Install Frame of Door & window Aluminium Size 2.6 X 1.72 M' type FD8-BB (2 holes bovenlights + 2 sheets of Door UPVC Panel 6 mm dark glass) including accessories and Finishing	1	Unit	793.8	793.8	1	Unit	793.8	793.8	0	Unit	0	0	0	Unit	0
	Supply and Install Frame of Door Aluminium Size 2.6 X 1.72 M' type D80' (1 hole bouvenlights + 1 sheets of Door UPVC Panel 6 mm dark glass) including accessories and Finishing	4	Unit	485.1	1940.4	4	Unit	485.1	1940.4	0	Unit	0	0	0	Unit	0
	Supply and Install Frame of Door & window Aluminium Size 2.6 X 1.72 M' type D80X2 (2 holes bovenlights + 2 sheets of Door 8 mm dark glass) including accessories and Finishing	1	Unit	793.8	793.8	0	Unit	0	0	0	Unit	0	1	Unit	0	0
	Supply and Install Frame of Door +bovenlight Aluminium Size 2.6 X 0.8 M' type D80 (1 hole bouvenlights + 1 sheets of Door glass 8 mm dark) including accessories and Finishing	1	Unit	441	441	1	Unit	441	441	0	Unit	0	0	0	Unit	0
	Supply and Install Frame of Door +bovenlight Aluminium Size 2.6 X 0.7 M' type D70 (1 hole bouvenlights + 1 sheets of Door glass 8 mm dark) including accessories and Finishing	10	Unit	441	4410	10	Unit	441	4410	0	Unit	0	0	0	Unit	0
	Supply and Install Frame of steel door Size 2.5 X 1.25 M' type D115-01 (1 steel sheets) including accessories and Finishing	1	Unit	529.2	529.2	1	Unit	529.2	529.2	0	Unit	0	0	0	Unit	0
	Gypsum partition, frame of metal Zinalume including accessories and Finishing	104	m2	39.69	4127.76	128	m2	39.69	5080.32	24	m2	952.6	0	0	m2	0
	Supply and Install Glass partition size 2.6 x 5.65 m, Aluminium Frame, 4 holes including accessories and Finishing	1	Unit	1147	1146.6	1	Unit	1146.6	1146.6	0	Unit	0	0	0	Unit	0
	Supply and Install Glass partition size 2.6 x 2.95 m, Aluminium Frame, 3 holes, one door glass 8 mm including accessories and Finishing	1	Unit	1058	1058.4	1	Unit	1058.4	1058.4	0	Unit	0	0	0	Unit	0
	Supply and Install Glass partition size 2.6 x 4.85 m, Aluminium Frame, 4 holes, one door glass 8 mm including accessories and Finishing	1	Unit	1323	1323	0	Unit	0	0	0	Unit	0	1	Unit	0	0
	Supply and Install Frame, glas ventilation Size 500 X 700 M' type V1 including accessories and Finishing	10	Unit	1058	10584	10	Unit	1058.4	10584	0	Unit	0	0	0	Unit	0
Supply and Install Frame of Fixed glass Window with bovenlight Aluminium Size 2000 x 1800 mm' type W (3 hole bouvenlights 3 holes of Window glass 8 mm dark) including accessories and Finishing	7	Unit	1147	8026.2	7	Unit	1146.6	8026.2	0	Unit	0	0	0	Unit	0	
Gypsum partition, frame of metal Zinalume including accessori	m2				13	m2	39.69	515.97	13		516	0	0	m2	0	
Supply and Install Glass partition size 2.6 x 2.45 m, Aluminium Frame, 2 holes, one door glass 8 mm including accessories and Finishing	Unit				1	Unit	1323	1323	1		1323	0	0	Unit	0	
Supply and Install Glass partition size 2.6 x 2.65 m, Aluminium Frame, 3 holes, one door glass 8 mm including accessories and Finishing	Unit				1	Unit	1323	1323	1		1323	0	0	Unit	0	
Supply and Install Glass partition size 2.6 x 3.65 m, Aluminium Frame, 3 holes, one door glass 8 mm including accessories and Finishing	Unit				2	Unit	1323	2646	2		2646	0	0	Unit	0	

	Supply and Install Frame of Aluminium Sliding Door with size 2.10 x 2.60 m, glass 8 mm, including all accessories and finishing		Unit			2 Unit	1014.3	2028.6	2	2029	0 Unit	0
	Supply and Install Frame of Aluminium Sliding Door with size 3.65 x 2.60 m, glass 8 mm, including all accessories and finishing		Unit			1 Unit	1762.95	1762.95	1	1763	0 Unit	0
	Supply and install Vertical Curtain for all windows specified below including all accessories with specification:1. Curtain Material Row: Polyester 100% 2. Shading Coating Process: PVC foam color matching layer 3. Drawstring Material: POM beads 4. Weight: 1.59kg/m2 5. Width each layer: 85-127mm 6. Thickness: ± 0.25mm 7. Absorbent sunlight: ±25% 8. Upper Rail Material: All aluminum Paint aluminum tube 9. Lower Rail Material: Aluminum alloy 10. Aluminum railing (hanger) ½ inch 11. Cover Aluminum railing, wood made.								0	0	0	0
	Supply and Install complete set Vertical Blind for Window size 3.00x2.30 m		Unit			7 Unit	256.06	1792.42	7	1792	0 Unit	0
	Supply and Install Automatic closing Door for ground and first floor, including all accessories and finishing		Unit			11 Unit	32	352	11	352	0 Unit	0
D	Ceiling Works								0	0	0	0
	Plafond Gypsum t = 12 mm + rangka Metal Furing	290 m ²	22.54	6536.6	290 m ²	22.54	6536.6	0 m ²	0	0	0 m ²	0
	List Plafond 5 cm	162 m ¹	6.31	1022.22	162 m ¹	6.31	1022.22	0 m ¹	0	0	0 m ¹	0
	Plofond Painting	243 m ²	5.85	1421.55	243 m ²	5.85	1421.55	0 m ²	0	0	0 m ²	0
	Toilet Plafond Painting	48 m ²	5.85	280.8	48 m ²	5.85	280.8	0 m ²	0	0	0 m ²	0
E	Saniation Work			8,120.63				8120.63	0	0	0	0
	Sitting Closet	8 each	308.7	2469.6	8 each	308.7	2469.60	0 each	0	0	0 each	0
	Wastafel	8 each	105.8	846.72	8 each	105.84	846.72	0 each	0	0	0 each	0
	Urinoir	2 each	308.7	617.4	2 each	308.7	617.40	0 each	0	0	0 each	0
	Urinoir partition	3 each	132.3	396.9	3 each	132.3	396.90	0 each	0	0	0 each	0
	Wall water tape	8 each	21.17	169.36	8 each	21.17	169.36	0 each	0	0	0 each	0
	Floor drain	10 each	2.65	26.5	10 each	2.65	26.50	0 each	0	0	0 each	0
	Plastic Water Tank	8 each	441	3528	8 each	441	3528.00	0 each	0	0	0 each	0
	Cermin 6 mm	1.5 m ²	44.1	66.15	1.5 m ²	44.1	66.15	0 m ²	0	0	0 m ²	0
F	Railling Work			781.41				781.41	0	0	0	0
	Railling tangga hollow 2/2 & 5/5 finnish cat duco	13.6 m ¹	22.05	299.88	13.6 m ¹	22.05	299.88	0 m ¹	0	0	0 m ¹	0
	Hand rail hollow 5/5 finnish cat duco	21 m ¹	22.93	481.53	21 m ¹	22.93	481.53	0 m ¹	0	0	0 m ¹	0
2.2.	FIRST FLOOR							0	0	0	0	0
A	Floor Work			29,030.47				29030.47	0	0	0	0
	Tiling Work granito 60 x 60 cm	255.63 m ²	57.33	14655.268	255.6 m ²	57.33	14655.27	0 m ²	0	0	0 m ²	0
	Tile plin granito 10 x 60 cm	110.25 m ¹	47.63	5251.2075	110.3 m ¹	47.63	5251.21	0 m ¹	0	0	0 m ¹	0
	Ceramic Tile anti slip 20 x 20 cm	14.25 m ²	20.15	287.1375	14.25 m ²	20.15	287.14	0 m ²	0	0	0 m ²	0
	Send filling for leveling				0.56 m3	66.15	37.04	0.56 m3	37.04	0 m3	0	0
	Supply & install Non-Slip Ceramic Tiles on the Bridge connection building A-B at first floor, size 30 x 30 cm				11.18 m ²	17.5	195.65	11.2 m ²	195.7	0 m ²	0	0
	Waterproofing coating toilet area	256 m ²	5.78	1479.68	256 m ²	5.78	1479.68	0 m ²	0	0	0 m ²	0
	Waterproofing bitutine sheet dconcrete slab	256 m ²	5.78	1479.68	256 m ²	5.78	1479.68	0 m ²	0	0	0 m ²	0
	Screeding concrete slab	256 m ²	22.05	5644.8	256 m ²	22.05	5644.80	0 m ²	0	0	0 m ²	0
B	Wall Work			27766.395				28779.13	0	0	0	0
	Supply and Install Hebel Blocks for interior wall Thick	44.46 m ²	22.05	980.343	47.46 m ²	22.05	1046.49	3 m ²	66.15	0 m ²	0	0
	Supply and Install Hebel Blocks exterior wall Thick	138.7 m ²	22.05	3058.335	138.7 m ²	22.05	3058.34	0 m ²	0	0	0 m ²	0
	Supply and Install Hebel Blocks exterior wall Thick	196.54 m ²	22.05	4333.707	196.5 m ²	22.05	4333.71	0 m ²	0	0	0 m ²	0
	Plastering of Prime Mortar & Finishing (Wall)	759.4 m ²	4.39	3333.766	762.4 m ²	4.59	3499.42	3 m ²	13.77	0 m ²	0	0
	Plastering of Prime Mortar & Finishing (Concrete col	277.4 m ²	4.39	1217.786	277.4 m ²	4.39	1217.79	0 m ²	0	0	0 m ²	0
	BNCTL Stainlee steel logo			0	120 m2	5.29	634.80	120 m2	634.8	0 m2	0	0
	Ceramic Tiling work of Toilet wall size 20 x 25 cm	59.88 m ¹	22.8	1365.264	86.2 m ¹	22.8	1965.36	26.3 m ¹	600.1	0 m ¹	0	0
	Practice columns	90 m ¹	74.97	6747.3	90 m ¹	74.97	6747.30	0 m ¹	0	0	0 m ¹	0
	Practical Ring balks	30.5 m ²	74.97	2286.585	30.5 m ²	74.97	2286.59	0 m ²	0	0	0 m ²	0
	Interior wall painting	563 m ²	5.85	3293.55	482.4 m ²	5.85	2822.04	0 m ²	0	80.6 m ²	472	0
	Exterior wall painting	196.54 m ²	5.85	1149.759	199.5 m ²	5.85	1167.31	3 m ²	17.55	0	0	0
C	Supply & Install Doors & Windows works			38269.98				36946.98	0	0	0	0
	Supply and Install Frame of Door + bovenlight Aluminium Size 2.6 X 0.8M' type D70 (1 hole bovenlights + 1 sheets of Door glass 8 mm dark) including accessories and Finishing	6 Unit	705.6	4233.6	6 Unit	705.60	4233.6	0 Unit	0	0	0 Unit	0

2	Supply and Install Frame of Fixed glass Window with bovenlight Aluminium Size 2000 X1800 mm' type W (3 hole bouvenlights 3 holes of Window glass 8 mm dark) including accessories and Finishing	10	Unit	1147	11466	10	Unit	1146.60	11466	0	Unit	0	0	Unit	0
3	Supply and install Frame of Fixed glass Window Aluminium Size 1700 X1525 mm' type W (2 holes of Window glass 8 mm dark) including accessories and Finishing	1	Unit	793.8	793.8	1	Unit	793.80	793.8	0	Unit	0	0	Unit	0
4	Supply and Install Frame of Fixed glass Window Aluminium Size 4650 X2800 mm' type W (4 holes of Window glass 8 mm dark) including accessories and Finishing	1	Unit	1323	1323	1	Unit	1323.00	1323	0	Unit	0	0	Unit	0
5	Gypsum partition, frame of metal Zinalume including painting and finishing as per drawing including accessories and Finishing	82	m2	39.69	3254.58	82	m2	39.69	3254.58	0	m2	0	0	m2	0
6	Supply and Install Frame, glas ventilation Size 500 X 700 M' type V1 including accessories and Finishing	6	Unit	485.1	2910.6	6	Unit	485.10	2910.6	0	Unit	0	0	Unit	0
7	Supply and Install Frame glas ventilation Size 500 X 1350 M' type V2 (two holes) including accessories and Finishing	1	Unit	396.9	396.9	1	Unit	396.90	396.9	0	Unit	0	0	Unit	0
8	Supply and Install Glass partition size 2.6 x 3.85 m, Aluminium Frame, 4 holes, one door glass 8 mm including accessories and Finishing	1	Unit	1014	1014.3	1	Unit	1014.30	1014.3	0	Unit	0	0	Unit	0
9	Supply and Install Glass partition size 2.6 x 2.65 m, Aluminium Frame, 3 holes including accessories and Finishing	1	Unit	1323	1323	1	Unit	1323.00	1323	0	Unit	0	0	Unit	0
10	Supply and Install Glass partition size 2.6 x 2.75 m, Aluminium Frame, 3 holes, one door glass 8 mm including accessories and Finishing	1	Unit	1323	1323	1	Unit	0.00	0	0	Unit	0	0	Unit	0
11	Supply and Install Glass partition size 2.6 x 3.65 m, Aluminium Frame, 3 holes including accessories and Finishing	2	Unit	1323	2646	2	Unit	1323.00	2646	0	Unit	0	0	Unit	0
12	Supply and Install Glass partition size 2.6 x 3.875 m, Aluminium Frame, 3 holes including accessories and Finishing	1	Unit	1323	1323	1	Unit	1323.00	1323	0	Unit	0	0	Unit	0
13	Supply and Install Glass partition size 2.6 x 2.775 m, Aluminium Frame, 3 holes, one door glass 8 mm including accessories and Finishing	2	Unit	1323	2646	2	Unit	1323.00	2646	0	Unit	0	0	Unit	0
14	Supply and Install Glass partition size 2.6 x 2.75 m, Aluminium Frame, 2 holes including accessories and Finishing	1	Unit	1147	1146.6	1	Unit	1146.60	1146.6	0	Unit	0	0	Unit	0
15	Supply and Install frame of Door & Window Aluminium Size 2.6 x 1.72 M' type FD80-BB (2 holes bovenlights + 2 sheets of door UPVC Panel 6	1	Unit	793.8	793.8	1	Unit	793.80	793.8	0	Unit	0	0	Unit	0
16	Supply and Install frame of Door & Window Aluminium Size 2.6 x 1.72 M' type D80X2 (2 holes bovenlights + 2 sheets of door 8 mm dark)	1	Unit	793.8	793.8	1	Unit	793.80	793.8	0	Unit	0	0	Unit	0
17	Supply and Install Frame of Door + bovenlight Aluminium Size 2.6 X 0.8M' type D80 (1 hole bouvenlights + 1 sheets of Door glass 8 mm dark)	2	Unit	441	882	2	Unit	441.00	882	0	Unit	0	0	Unit	0
D	Supply & Install Ceiling Works				8,554.99				8554.985	0		0	0	0	0
	Plafond Gypsum t = 12 mm + rangka Metal Furing	275	m ²	22.54	6198.5	275	m ²	22.54	6198.5	0	m ²	0	0	m ²	0
	List Plafond 5 cm	118.5	m ¹	6.31	747.735	118.5	m ¹	6.31	747.735	0	m ¹	0	0	m ¹	0
	Ceiling Painting	275	m ²	5.85	1608.75	275	m ²	5.85	1608.75	0	m ²	0	0	m ²	0
E	Sanitation Work				4,154.25				4154.25	0		0	0	0	0
	Sitting Closet	4	each	308.7	1234.8	4.00	each	308.7	1234.8	0	each	0	0	each	0
	Wastafel	5	each	105.8	529.2	5.00	each	105.84	529.2	0	each	0	0	each	0
	Urinoir	1	each	308.7	308.7	1.00	each	308.7	308.7	0	each	0	0	each	0
	Partision of urinoir	1	each	132.3	132.3	1.00	each	132.3	132.3	0	each	0	0	each	0
	Wall water tape	5	each	21.17	105.85	5.00	each	21.17	105.85	0	each	0	0	each	0
	Floor drain	5	each	2.65	13.25	5.00	each	2.65	13.25	0	each	0	0	each	0
	Plastic Water Tank	4	each	441	1764	4.00	each	441	1764	0	each	0	0	each	0
	Cermin 6 mm	1.5	m ²	44.1	66.15	1.50	m ²	44.1	66.15	0	m ²	0	0	m ²	0
F	Railing Work				1,083.04				1083.04	0		0	0	0	0
	Railling stair hollow 2/2 & 5/5 finnish cat duco	20	m ¹	22.05	441	20.00	m ¹	22.05	441.00	0	m ¹	0	0	m ¹	0
	Hand rail hollow 5/5 finnish cat duco	28	m ¹	22.93	642.04	28.00	m ¹	22.93	642.04	0	m ¹	0	0	m ¹	0
G	Roofing Works				14,264.17				14264.17	0		0	0	0	0
	Supply and Install Roof cover of zinalume including	434	m2	19.4	8419.6	434	m2	19.4	8419.6	0	m2	0	0	m2	0
	Ridge Cup 0.42mm Thick; including all accessories.	68	m'	24.7	1679.6	68	m'	24.7	1679.6	0	m'	0	0	m'	0
	Lisplank	80	m'	13.23	1058.4	80	m'	13.23	1058.4	0	m'	0	0	m'	0

	Roof Painting	442.49	m2	6.62	2929.2838	442.5	m2	6.62	2929.284	0	m2	0	0	m2	0
	Supply and install Traditional aesthetic Apex	6.7	m'	26.46	177.282	6.7	m'	26.46	177.282	0	m'	0	0	m'	0
A	GROUND FLOOR									0		0	0		0
1	ELECTRICAL WORKS				34,743.48				34743.48	0		0	0		0
	MCB ground Floor	1	Unit	44.1	44.1	1	Unit	44.1	44.1	0	Unit	0	0	Unit	0
	Electrical Cable NYM 3 x 4 mm2	2	roll	264.6	529.2	2	roll	264.6	529.2	0	roll	0	0	roll	0
	Electrical Cable NYM 3 x 4 mm2		m'	1.52		748	m'	1.52	1136.96	748	m'	1137	0	m'	0
	Electrical Cable NYM 2 x 2.5 mm2	2	rol	176.4	352.8	2	rol	176.4	352.8	0	rol	0	0	rol	0
	Single Switch	17	unit	8.82	149.94	18	unit	8.82	158.76	1	unit	8.82	0	unit	0
	Double Switch	9	unit	13.23	119.07	9	unit	13.23	119.07	0	unit	0	0	unit	0
	Triple Switch		unit	26.46		1	unit	26.46	26.46	1	unit	26.46	0	unit	0
	Lamp Spot Light TC-D 15 w	3	Unit	22.05	66.15	3	Unit	22.05	66.15	0	Unit	0	0	Unit	0
	Lamp TC-D 10w	20	Unit	17.64	352.8	19	Unit	17.64	335.16	0	Unit	0	1	Unit	17.6
	Lamp Down Light TC-D 13 w	16	Unit	20.29	324.64	16	Unit	20.29	324.64	0	Unit	0	0	Unit	0
	Lamp T 2x 18 w	33	Unit	26.46	873.18	33	Unit	26.46	873.18	0	Unit	0	0	Unit	0
	Electrical Sockets	23	Unit	13.23	304.29	42	Unit	13.23	555.66	19	Unit	251.4	0	Unit	0
2	UPS Socket	19	Unit	13.23	251.37	27	Unit	13.23	357.21	8	Unit	105.8	0	Unit	0
	Exhaust Fund Socket	8	Unit	57.33	458.64	8	Unit	57.33	458.64	0	Unit	0	0	Unit	0
	Supply and install steel galvanize plat for Electrical Grounding Protection around foundation outside building, with thickness 40mm & width 40mm, including all accessories and plat connections should be welding		m	8.5		85	m	8.5	722.5	85	m	722.5	0	m	0
	GENERATOR ROOM									0		0	0		0
	ATS Panel	1	unit	441	441	1	unit	441	441	0	unit	0	0	unit	0
	Main Panel	1	Unit	220.5	220.5	1	Unit	220.5	220.5	0	Unit	0	0	Unit	0
	Feeder Cable from city panel to MDP Cap. 200A	20	m'	7.06	141.2	20	m'	7.06	141.2	0	m'	0	0	m'	0
	Cable from MDP to SDP Cap.100A	8	m'	7.06	56.48	8	m'	7.06	56.48	0	m'	0	0	m'	0
	Single Suitch	1	Unit	0.88	0.88	1	Unit	0.88	0.88	0	Unit	0	0	Unit	0
	Lamp TC-D 10 W	1	Unit	0.88	0.88	1	Unit	0.88	0.88	0	Unit	0	0	Unit	0
	Electrical Cable NYM 2 x 2.5mm2	5	m'	4.41	22.05	5	m'	4.41	22.05	0	m'	0	0	m'	0
	Supply and install Generator with type "Silent Cummins Generator, Model JHK-180GF-S"		unit	27800		1	unit	27800	27800	1	unit	27800	0	unit	0
										0		0	0		0
3	Electrical Works									0		0	0		0
(a).	General Equipments & Accessories								32650.69	0		0	0		0
	Light Tray Wire Mesh cable tray for heavy current, with size H=100 & W=200mm, including all accessories	1	m			57.00	m	44.5	2536.5	57	m	2537	0	m	0
	Cable Tray with aluminium cover for weak current, with size H=100 & W=300mm, including all accessories	2	m			55.00	m	42	2310	55	m	2310	0	m	0
	Supply & install Conduit Pipe Clips 20 mm.3000mm including	3	m			139.00	m	11.25	1563.75	139	m	1564	0	m	0
	Supply & install Cable Management	4	Set			38.00	Set	22.95	872.1	38	Set	872.1	0	Set	0
	Supply & install Cabel Ties	5	Set			25.00	Set	10.8	270	25	Set	270	0	Set	0
	Supply & install Horizontal Cable Management Panel	6	Pcs			6.00	Pcs	38	228	6	Pcs	228	0	Pcs	0
	Supply & install Cable ties Microfiber Cloth Cable Strap Hook	7	Set			30.00	Set	28.8	864	30	Set	864	0	Set	0
	Supply & install POE Switch 24 port including all accessories	8	Unit			2.00	Unit	775	1550	2	Unit	1550	0	Unit	0
	Supply & install POE Switch 48 port including all accessories	9	Unit			0.00	Unit	0	0	0	Unit	0	0	Unit	0
	Supply & install Hard Disk Enterprise 6 TB 7200 RPM, 3.5 Inc	10	Unit			8.00	Unit	378	3024	8	Unit	3024	0	Unit	0
	Supply & install Hikvision 16ch H.265 8MP DS-7716NI-K4 Embedded 4K NVR with Alarm System up to 4K resolution including all accessories and finishing	11	Unit			2.00	Unit	690.88	1381.76	2	Unit	1382	0	Unit	0
	Supply & install Standing Rack Server 32 U Complete With all	12	Unit			1.00	Unit	1485.35	1485.35	1	Unit	1485	0	Unit	0
	Supply & install Original Cat 6 LAN Cable Belden 100 m	13	Roll			33.00	Roll	277.41	9154.53	33	Roll	9155	0	Roll	0
	Supply & install D-Link Rj 45 UTP Cat.6 8P8C Plug 100Pcs	14	Box			5.00	Box	157.71	788.55	5	Box	788.6	0	Box	0
	Supply & install D-Link Patch Panel Cat.6 Fully Loaded 24 Por	15	Unit			5.00	Unit	125	625	5	Unit	625	0	Unit	0
	Supply & install HDMI Cable 20 m	16	Roll			4.00	Roll	112.55	450.2	4	Roll	450.2	0	Roll	0
	Supply and install LCD 32" complete with Flexible wall/ceiling mount Bracket, with high resolution	17	Unit			2.00	Unit	625.7	1251.4	2	Unit	1251	0	Unit	0
	Supply and install Audio Visual for Conference, with specificati	18	Unit			1.00	Unit	2615	2615	1	Unit	2615	0	Unit	0
	- TV 65 inches														
	- Resolution : 3,840x2,160														
	- Running Memory: 3GB														
	- Storage Memory: 32GB														
	- Power: 180W														
	- Terminal type: HNMI 2.0, USB 2.0, Network Port, Digital Audio output port														
	Including:														
	- Omni-Directional Microphone;														
	- HDMI Cable 20m									0		0	0		0
19	Omni-Directional Microphone, with specification below:		Unit			1.00	Unit	645	645	1	Unit	645	0	Unit	0

	- Support system: Windows XP Windows/Windows Vista, Windows 10 - Interface: USB 2.0 - Max Volume: 91dB - Power Supply: 5V DC - Operating Temperature: 5°C-40°C									0	0	0	0		
20	HDMI Cable 20m	Unit			1.00	Unit	112.55	112.55	1	Unit	112.6	0	Unit	0	
21	Sistem testing	ls			1.00	ls	923	923	1	ls	923	0	ls	0	
(b.)	Telephone works						2359.35				0	0		0	
1	DB. B1	1.00	unit	308.7	308.7				0	unit	0	1	unit	0	
2	Feeder cable from MDF to :								0		0	0		0	
3	DB. B1 Telephone Cable ITC 6 pairs + HIC 20mm	46.00	m'	4.41	202.86				0	m'	0	46	m'	0	
4	Telephone outlet ex clipsal	7.00	unit	22.05	154.35				0	unit	0	7	unit	0	
5	Telephone handset include cable connecting from out	7.00	point	26.46	185.22				0	point	0	7	point	0	
6	Telephone cable ITC 2 x 2 x 0.6Squmm + hic 20mm (c	7.00	point	26.46	185.22				0	point	0	7	point	0	
7	Programming, Testing and commisioning	1.00	Lot	1323	1323				0	Lot	0	1	Lot	0	
(b.1.)	PBAX Installation								0		0	0		0	
1	Supply & install RJ45 Modular Jack Cat. 6 UTP Keystone	Unit				7.00	Unit	5.51	38.57	7	Unit	38.57	0	Unit	0
2	Supply & install D-Link Face Plate Single	Unit				7.00	Unit	10.24	71.68	7	Unit	71.68	0	Unit	0
3	Supply & install D-Link Back Box cat.6 for single face plate	Unit				7.00	Unit	8.11	56.77	7	Unit	56.77	0	Unit	0
4	Supply & install Original Rj45 Cat.6 Patch Cord 3m	Unit				7.00	Unit	22.53	157.71	7	Unit	157.7	0	Unit	0
(c.)	Intranet/Data Cable system								0		0	0		0	
1	PC Server O/S : Win XP + Router	1.00	Set	4410	4410.00					0	Set	0	1	Set	0
2	Manageable Switching HUB - 8 Port	2.00	Unit	132.3	264.60					0	Unit	0	2	Unit	0
3	DB 01.B	1.00	Unit	308.7	308.70					0	Unit	0	1	Unit	0
4	Data installation cable 2x UTP cat 6 w/ HIC 20mm, f	90.00	Mtr'	4.41	396.90					0	Mtr'	0	90	Mtr'	0
5	Testing and commissioning	1.00	Lot	1323	1323.00					0	Lot	0	1	Lot	0
6	Data Outlet, Ex clipsal	18.00	Unit	17.64	317.52					0	Unit	0	18	Unit	0
7	Access Point	5.00	Unit	4.41	22.05					0	Unit	0	5	Unit	0
8	Data installation cable cat 6 w/ HIC 20mm	23.00	Unit	22.05	507.15					0	Unit	0	23	Unit	0
(c.1.)	Data Line Installation									0		0		0	
1	Supply & install RJ45 Modular Jack Cat. 6 UTP Keystone	Unit				75.00	Unit	5.51	413.25	75	Unit	413.3	0	Unit	0
2	Supply & install D-Link Face Plate Single	Unit				75.00	Unit	10.24	768	75	Unit	768	0	Unit	0
3	Supply & install D-Link Back Box cat.6 for single face plate	Unit				75.00	Unit	8.11	608.25	75	Unit	608.3	0	Unit	0
4	Supply & install Original Rj45 Cat.6 Patch Cord 3m	Unit				75.00	Unit	22.53	1689.75	75	Unit	1690	0	Unit	0
(d.)	Video Surveillance/CCTV System									0		0		0	
1	Dom Camera, 1/4' sharp ccd, 420TVL, 0.5lux/F1.2, DC12V (4mm or 6mm lens)	26.00	Unit							0	Unit	0	26	Unit	0
2	Box Camera, 1/3"sharp CCD, 420TVL (include optional lens), auto iris lens non supported	2.00	Unit							0	Unit	0	2	Unit	0
3	Cable Coaxial RG 59	65.00	m'							0	m'	0	65	m'	0
4	Power Supply Camera	1.00	Unit							0	Unit	0	1	Unit	0
(d.1.)	CCTV Installation									0		0		0	
1	Supply & install DS-2CD2143G0-1 H.265+ 4MP IP cam Dome including all accessories	Unit				10.00	Unit	468.20	4682.00	10	Unit	4682	0	Unit	0
2	Supply & install DS-2CD2185FWD-1 4K (8MP) IP Dome Camera including all accessories	Unit				5.00	Unit	509.52	2547.60	5	Unit	2548	0	Unit	0
4	Fire Alarm System				3,086.98				3086.98	0		0	0		0
	Master Controlle Fire Alarm (MCFA) konvensional system c/w CPU & LCD Display, 21 zone, Lead accid batery Rechargeable and power suply.	1	Set	1323	1323	1	Set	1323.00	1323.00	0	Set	0	0	Set	0
	Fire Alarm Feeder cables from MCFA to TB. FA. A1 TB. FA. A1	38	Mtr'	4.41	167.58	38	Mtr'	4.41	167.58	0	Mtr'	0	0	Mtr'	0
	Testing and commissioning	1	Unit	220.5	220.5	1	Unit	220.5	220.50	0	Unit	0	0	Unit	0
	Smoke detector cables, NYMHY 2x 1.5 mm2	12	point	882	882	1	Lot	882	882.00	0	Lot	0	0	Lot	0
	Heat detector cables, NYMHY 2x 1.5 mm2	12	point	22.93	275.16	12	point	22.93	275.16	0	point	0	0	point	0
	Audible Alarm bell cables, NYMHY 2x 1.5 mm2	2	point	22.93	45.86	2	point	22.93	45.86	0	point	0	0	point	0
	Push buttom cable, NYMHY 2x 1.5 mm2	2	point	22.93	45.86	2	point	22.93	45.86	0	point	0	0	point	0
	Visual Indicator lamp cables, NYMHY 2x 1.5 mm2	4	point	20.29	81.16	4	point	20.29	81.16	0	point	0	0	point	0
5	Plumbing Works				1,409.40				1409.4	0		0	0		0
5.1	Clean Water Distribution Plumbing									0		0	0		0
	Main Line Distribution									0		0	0		0
	PPR pipe PN-10, DN 25 mm (1")	30	Mtr'	13.23	396.9	30	Mtr'	13.23	396.9	0	Mtr'	0	0	Mtr'	0
	PPR pipe PN-10, DN 20 mm (3/4")	5	Mtr'	8.82	44.1	5	Mtr'	8.82	44.1	0	Mtr'	0	0	Mtr'	0
	PPR pipe PN-10, DN 20 mm, 1/2"	10	Mtr'	10.58	105.8	10	Mtr'	10.58	105.8	0	Mtr'	0	0	Mtr'	0
	Elbow 1"	20	No	6.17	123.4	20	No	6.17	123.4	0	No	0	0	No	0
	T Joint 1"	6	No	6.17	37.02	6	No	6.17	37.02	0	No	0	0	No	0
	Elbow 3/4"	8	No	4.41	35.28	8	No	4.41	35.28	0	No	0	0	No	0
	T Joint 3/4"	2	No	4.41	8.82	2	No	4.41	8.82	0	No	0	0	No	0
	Elbow 1/2"	14	No	5.29	74.06	14	No	5.29	74.06	0	No	0	0	No	0
	T Joint 1/2"	6	No	5.29	31.74	6	No	5.29	31.74	0	No	0	0	No	0
	Water Tape 1/2"	18	No	13.23	238.14	18	No	13.23	238.14	0	No	0	0	No	0
	Reducer 1" to 3/4"	2	No	4.41	8.82	2	No	4.41	8.82	0	No	0	0	No	0
	Reducer 3/4" to 1/2"	2	No	5.29	10.58	2	No	5.29	10.58	0	No	0	0	No	0
	Gate Valve dia. 3/4 "	2	No	4.41	8.82	2	No	4.41	8.82	0	No	0	0	No	0
5.2	Sewage Water Distribution Plumbing								0	0	0	0	0	0	0

	PVC AW dia. 4"	20	Mtr	3.53	70.6	20	Mtr	3.53	70.6	0	Mtr	0	0	Mtr	0
	PVC AW dia. 2"	28	Mtr	2.65	74.2	28	Mtr	2.65	74.2	0	Mtr	0	0	Mtr	0
	Inspection point	2	unit	22.05	44.1	2	unit	22.05	44.1	0	unit	0	0	unit	0
	Clean Out 4" indoor type, stainless stell	2	unit	26.46	52.92	2	unit	26.46	52.92	0	unit	0	0	unit	0
	Fitting & Suport Assessoris D class	1	Lot	44.1	44.1	1	Lot	44.1	44.1	0	Lot	0	0	Lot	0
6	Fire Fighting Works				7,276.50				7276.5	0		0		0	0
	Addressable Smoke Detector	12	set	176.4	2116.8	13	set	176.4	2293.2	1	set	176.4	0	set	0
	Heat Detector	2	unit	220.5	441	2	unit	220.5	441	0	unit	0	0	unit	0
	Audiable Alarm Bell -20106 Alarm Buzzer 85 db	2	Unit	132.3	264.6	2	Unit	132.3	264.6	0	Unit	0	0	Unit	0
	Visual Alarm	4	Unit	132.3	529.2	5	Unit	132.3	661.5	1	Unit	132.3	0	Unit	0
	Control panel- 20278 Fire & Smoke Warning Panel, 1	1	Unit	441	441	1	Unit	441	441	0	Unit	0	0	Unit	0
	Fire Extinguisher 5 Kg (Dry Powder)	7	Unit	176.4	1234.8	9	Unit	176.4	1587.6	2	Unit	352.8	0	Unit	0
	Fire Extinguisher 5 Kg (CO2)	6	Unit	264.6	1587.6	6	Unit	264.6	1587.6	0	Unit	0	0	Unit	0
7	Air Conditioning Works				8,038.20				8,038.20	0		0		0	0
	Supply and Install AC System Wall Mounted Type; c/w. Wireless Remote Controller plinth, bolt and other accessories as design drawing for normally installation, Cooling Capacity : 1.5PK	7	unit	264.6	1852.2	11	unit	264.6	2910.6	4	unit	1058	0	unit	0
	Supply and Install Refrigerant Pipe (Liquid & Gas) + Aeroflex Insullation 25 mm expose /19mm inbow, Controlle cable from indoor to outdoor, clamp, bolt, hanger and other support material	7	lot	44.1	308.7	11	lot	44.1	485.1	4	lot	176.4	0	lot	0
	Supply and Install Drain Pipe (PVC AW dia. 3/4" + Insullation 13 mm thick c/w clem, bolt, hanger and other support material from Indoor unit to nearestmain drain pipe.	7	lot	44.1	308.7	11	lot	44.1	485.1	4	lot	176.4	0	lot	0
	Supply and Install AC System Wall Mounted Type; c/w. Wireless Remote Controller plinth, bolt and other accessories as design drawing for normally installation, Cooling Capacity : 1PK	1	unit	220.5	220.5	0	unit	220.5		0	unit	0	1	unit	221
	Supply and Install Refrigerant Pipe (Liquid & Gas) + Aeroflex Insullation 25 mm expose /19mm inbow, Controlle cable from indoor to outdoor, clamp, bolt, hanger and other support material	1	lot	44.1	44.1	0	lot	44.1		0	lot	0	1	lot	44.1
	Supply and Install Drain Pipe (PVC AW dia. 3/4" + Insullation 13 mm thick c/w clem, bolt, hanger and other support material from Indoor unit to nearestmain drain pipe.	1	lot	44.1	44.1	0	lot	44.1		0	lot	0	1	lot	44.1
	Supply and Install AC System Wall Mounted Type; c/w. Wireless Remote Controller plinth, bolt and other accessories as design drawing for normally installation, Cooling Capacity : 2 PK	8	unit	529.2	4233.6	1	unit	529.2	529.2	0	unit	0	7	unit	3704
	Supply and Install Refrigerant Pipe (Liquid & Gas) + Aeroflex Insullation 25 mm expose /19mm inbow, Controlle cable from indoor to outdoor, clamp, bolt, hanger and other support material	8	lot	44.1	352.8	1	lot	44.1	44.1	0	lot	0	7	lot	309
	Supply and Install Drain Pipe (PVC AW dia. 3/4" + Insullation 13 mm thick c/w clem, bolt, hanger and other support material from Indoor unit to nearest main drain pipe.	8	lot	44.1	352.8	1	lot	44.1	44.1	0	lot	0	7	lot	309
	Supply and Install AC System Casette Type; c/w. Wireless Remote Controller plinth, bolt and other accessories as design drawing for normally installation, Cooling Capacity 3 PK	1	unit	573.3	573.3	3	unit	573.3	1719.9	2	unit	1147	0	unit	0
	Supply and Install Refrigerant Pipe (Liquid & Gas) + Aeroflex Insullation 25 mm expose /19mm inbow, Controlle cable from indoor to outdoor, clamp, bolt, hanger and other support material	1	lot	44.1	44.1	3	lot	44.1	132.3	2	lot	88.2	0	lot	0
	Supply and Install Drain Pipe (PVC AW dia. 3/4" + Insullation 13 mm thick c/w clem, bolt, hanger and other support material from Indoor unit to nearestmain drain pipe.	1	lot	44.1	44.1	3	lot	44.1	132.3	2	lot	88.2	0	lot	0
B.	FIRST FLOOR									0		0		0	0
1	Electrical Works				7,178.57				7,178.57	0		0		0	0
	MCB ground Floor	1	unit	44.1	44.1	1	unit	44.1	44.1	0	unit	0	0	unit	0
	Electrical Cable NYM 3 x 4mm2	2	roll	264.6	529.2	2	roll	529.2	1058.4	0	roll	0	0	roll	0
	Electrical Cable NYM 3 x 4mm2					361	m'			361	rol	0	0	rol	0
	Electrical Cable NYM 2 x 2.5mm2	2	rol	176.4	352.8	3.87	rol	352.8	1365.336	1.87	unit	659.7	0	unit	0
	Single Switch	13	unit	8.82	114.66	16	unit	114.66	1834.56	3	unit	344	0	unit	0
	Double Switch	5	unit	13.23	66.15	5	unit	66.15	330.75	0	set	0	0	set	0
	Triple Switch					2	unit			2	set	0	0	set	0
	Lamp TC-D 10w	8	set	17.64	141.12	8	set	141.12	1128.96	0	set	0	0	set	0
	Lamp Down Light TC-D 13 w	15	set	20.29	304.35	15	set	304.35	4565.25	0	Unit	0	0	Unit	0

Supply and Install AC System Wall Mounted Type; c/w.Wireless Remote Controller plinth, bolt and other accessories as design drawing for normally installation, Cooling Capacity : 1.5 PK	8 unit	264.6	2116.8	6 unit	264.6	1587.6	0 unit	0	2 unit	529
Supply and Install Refrigerant Pipe (Liquid & Gas) + Aeroflex Insullation 25 mm expose /19mm inbow, Controlle cable from indoor to outdoor, clamp, bolt, hanger and other support material	8 lot	44.1	352.8	6 lot	44.1	264.6	0 lot	0	2 lot	88.2
Supply and Install Drain Pipe (PVC AW dia. 3/4" + Insullation 13 mm thick c/w clem, bolt, hanger and other support material from Indoor unit to nearestmain drain pipe.	8 lot	44.1	352.8	6 lot	44.1	264.6	0 lot	0	2 lot	88.2
Supply and Install AC System Wall Mounted Type; c/w.Wireless Remote Controller plinth, bolt and other accessories as design drawing for normally installation, Cooling Capacity : 2 PK	6 unit	529.2	3175.2	5 unit	529.2	2646	0 unit	0	1 unit	529
Supply and Install Refrigerant Pipe (Liquid & Gas) + Aeroflex Insullation 25 mm expose /19mm inbow, Controlle cable from indoor to outdoor, clamp, bolt, hanger and other support material	6 lot	44.1	264.6	5 lot	44.1	220.5	0 lot	0	1 lot	44.1
Supply and Install Drain Pipe (PVC AW dia. 3/4" + Insullation 13 mm thick c/w clem, bolt, hanger and other support material from Indoor unit to nearestmain drain pipe.	6 lot	44.1	264.6	5 lot	44.1	220.5	0 lot	0	1 lot	44.1
Supply and Install AC System Casette Type; c/w.Wireless Remote Controller plinth, bolt and other accessories as design drawing for normally installation, Cooling Capacity : 3 PK	4 unit	980	3920	5 unit	980	4900	1 unit	980	0 unit	0
Supply and Install Refrigerant Pipe (Liquid & Gas) + Aeroflex Insullation 25 mm expose /19mm inbow, Controlle cable from indoor to outdoor, clamp, bolt, hanger and other support material	4 lot	100	400	5 lot	100	500	1 lot	100	0 lot	0
Supply and Install Drain Pipe (PVC AW dia. 3/4" + Insullation 13 mm thick c/w clem, bolt, hanger and other support material from Indoor unit to nearestmain drain pipe.	4 lot	100	400	5 lot	100	500	1 lot	100	0 lot	0
9 Video Surveillance/CCTV System			0				0	0	0	0
Dom Camera, 1/4' sharp ccd, 420TVL, 0.5 lux/F1.2, I	16 Unit	882	14112	Unit			0 Unit	0	16 Unit	0
Box Camera, 1/3"sharp CCD, 420TVL (include optional lens), auto iris lens non supported	2 Unit	1323	2646	Unit			0 Unit	0	2 Unit	0
Cable Coaxial RG 59	65 m'	4.41	286.65	m'			0 m'	0	65 m'	0

	tukang batu		oh	1.2366	0.8087	2											
	kepala tukang		oh	0.1236	8.0906	1											
	mandor		oh	0.0618	16.1812	1											
	Urinoir	1	each				36.0000	0.028	1								
	pekerja		oh	1.0000	1.0000	4											
	tukang batu		oh	1.0000	1.0000	2											
	kepala tukang		oh	0.1000	10.0000	1											
	mandor		oh	0.0500	20.0000	1											
	Partision of urinoir	1	each				36.0000	0.028	1								
	pekerja		oh	1.0000	1.0000	4											
	tukang batu		oh	1.0000	1.0000	2											
	kepala tukang		oh	0.1000	10.0000	1											
	mandor		oh	0.0500	20.0000	1											
	Wall water tape	5	each						1								
	Floor drain	5	each														
	Plastic Water Tank	4	each						1								
	Cermin 6 mm	1.5	m ²				720.0000	0.002	1								
	pekerja		oh	0.0100	100.000	4											
	tukang batu		oh	0.1000	10.000	2											
	kepala tukang		oh	0.0100	100.000	1											
	mandor		oh	0.0050	200.000	1											
X	Railing Work																
	Railling stair hollow 2/2 & 5/5 finnish cat duco	20	m ¹				191.6667	0.104	1								
	pekerja		oh	0.15	6.6667	4											
	tukang besi		oh	0.3	3.3333	2											
	kepala tukang		oh	0.03	33.3333	1											
	mandor		oh	0.008	125.0000	1											
	Hand rail hollow 5/5 finnish cat duco	28	m ¹				191.6667	0.146	1								
	pekerja		oh	0.15	6.6667	4											
	tukang besi		oh	0.3	3.3333	2											
	kepala tukang		oh	0.03	33.3333	1											
	mandor		oh	0.008	125.0000	1											
Y	Roofing Works																
	Supply and Install Roof cover of zinalume including other	434	m2				31.1258	13.94	14	31.00	3.875	3.488	34.488	12.584	13	14	
	pekerja		oh	0.228	4.3860	6				31.00	3.875	6.200	37.200	11.667	12	14	
	tukang kayu		oh	0.4158	2.4050	2				31.00	3.875	8.138	39.138	11.089	12	14	
	kepala tukang		oh	0.0416	24.0385	1											
	mandor		oh	0.014	71.4286	1											
	Ridge Cup 0.42mm Thick; including all accessories.	68	m'				117.8209	0.577	1								
	pekerja		oh	0.228	4.3860	4											
	tukang kayu		oh	0.4158	2.4050	2											
	kepala tukang		oh	0.0416	24.0385	1											
	mandor		oh	0.014	71.4286	1											
	Lisplank	80	m'				117.8209	0.679	1								
	pekerja		oh	0.228	4.3860	4											
	tukang kayu		oh	0.4158	2.4050	2											
	kepala tukang		oh	0.0416	24.0385	1											
	mandor		oh	0.014	71.4286	1											
	Roof Painting	442.49	m2				68.7462	6.437	7	63.2129	9.0304	8.1274	71.3402	6.2025	7	7	
	pekerja		oh	0.228	4.3860	8				63.2129	9.0304	14.4487	77.6615	5.6977	6	7	
	tukang kayu		oh	0.4158	2.4050	4				63.2129	9.0304	18.9639	82.1767	5.3846	6	7	

						kepala tuk mandor	Rp 24,000.00 Rp 24,000.00	Rp 36,000.00 Rp 36,000.00	Rp 36,000.00 Rp 36,000.00	Rp 36,000.00 Rp 36,000.00 Rp 348,000.00					
						tukang be pekerja kepala tuk mandor	Rp 24,000.00 Rp 14,000.00 Rp 24,000.00 Rp 24,000.00	Rp 36,000.00 Rp 21,000.00 Rp 36,000.00 Rp 36,000.00 Rp 48,000.00 Rp 28,000.00 Rp 48,000.00 Rp 48,000.00	Rp 84,000.00 Rp 49,000.00 Rp 84,000.00 Rp 84,000.00	Rp 252,000.00 Rp 392,000.00 Rp 84,000.00 Rp 84,000.00 Rp 812,000.00	Rp 49,342,798.40	Rp 485,307,984.00	Rp 444,085,185.60	Rp 395,554,378.20	
						tukang be pekerja kepala tuk mandor	Rp 24,000.00 Rp 14,000.00 Rp 24,000.00 Rp 24,000.00	Rp 36,000.00 Rp 21,000.00 Rp 36,000.00 Rp 36,000.00 Rp 96,000.00 Rp 56,000.00 Rp 96,000.00 Rp 96,000.00	Rp 132,000.00 Rp 77,000.00 Rp 132,000.00 Rp 132,000.00	Rp 396,000.00 Rp 616,000.00 Rp 132,000.00 Rp 132,000.00 Rp 1,276,000.00	Rp 49,806,798.40	Rp 485,307,984.00	Rp 398,454,387.20	Rp 349,923,580.80	
D	ground beam														
	4 -Deformed Reinforced steel diameter of 16 mm	1572.48	kg	Rp 48,530,798.40		tukang be pekerja kepala tuk mandor	Rp 24,000.00 Rp 14,000.00 Rp 24,000.00 Rp 24,000.00	Rp 36,000.00 Rp 21,000.00 Rp 36,000.00 Rp 36,000.00	Rp 36,000.00 Rp 21,000.00 Rp 36,000.00 Rp 36,000.00	Rp 72,000.00 Rp 168,000.00 Rp 36,000.00 Rp 36,000.00 Rp 312,000.00	Rp 48,842,798.40	Rp 436,777,185.60	Rp 439,585,185.60	Rp 391,054,378.20	
						tukang be pekerja kepala tuk mandor	Rp 24,000.00 Rp 14,000.00 Rp 24,000.00 Rp 24,000.00	Rp 36,000.00 Rp 21,000.00 Rp 36,000.00 Rp 36,000.00 Rp 48,000.00 Rp 28,000.00 Rp 48,000.00 Rp 48,000.00	Rp 84,000.00 Rp 49,000.00 Rp 84,000.00 Rp 84,000.00	Rp 168,000.00 Rp 392,000.00 Rp 84,000.00 Rp 84,000.00 Rp 728,000.00	Rp 49,258,798.40	Rp 436,777,185.60	Rp 394,070,387.20	Rp 345,539,580.80	
						tukang be pekerja kepala tuk mandor	Rp 24,000.00 Rp 14,000.00 Rp 24,000.00 Rp 24,000.00	Rp 36,000.00 Rp 21,000.00 Rp 36,000.00 Rp 36,000.00 Rp 96,000.00 Rp 56,000.00 Rp 96,000.00 Rp 96,000.00	Rp 132,000.00 Rp 77,000.00 Rp 132,000.00 Rp 132,000.00	Rp 264,000.00 Rp 616,000.00 Rp 132,000.00 Rp 132,000.00 Rp 1,144,000.00	Rp 49,674,798.40	Rp 436,777,185.60	Rp 397,398,387.20	Rp 348,867,580.80	
i	Reinforcement concrete														
	5 -Deformed Reinforced steel diameter of 12 mm	5535	kg	Rp 205,348,500.00		tukang be pekerja kepala tuk mandor	Rp 24,000.00 Rp 14,000.00 Rp 24,000.00 Rp 24,000.00	Rp 36,000.00 Rp 21,000.00 Rp 36,000.00 Rp 36,000.00	Rp 36,000.00 Rp 21,000.00 Rp 36,000.00 Rp 36,000.00	Rp 216,000.00 Rp 168,000.00 Rp 36,000.00 Rp 36,000.00 Rp 456,000.00	Rp 205,804,500.00	Rp 2,874,879,000.00	Rp 2,675,458,500.00	Rp 2,470,109,987.00	
						tukang be pekerja kepala tuk mandor	Rp 24,000.00 Rp 14,000.00 Rp 24,000.00 Rp 24,000.00	Rp 36,000.00 Rp 21,000.00 Rp 36,000.00 Rp 36,000.00 Rp 48,000.00 Rp 28,000.00 Rp 48,000.00 Rp 48,000.00	Rp 84,000.00 Rp 49,000.00 Rp 84,000.00 Rp 84,000.00	Rp 504,000.00 Rp 392,000.00 Rp 84,000.00 Rp 84,000.00 Rp 1,064,000.00	Rp 206,412,500.00	Rp 2,874,879,000.00	Rp 2,476,950,000.00	Rp 2,271,601,488.00	

					tukang be pekerja kepala tuk mandor	Rp 24,000.00 Rp 14,000.00 Rp 24,000.00 Rp 24,000.00	Rp 36,000.00 Rp 21,000.00 Rp 36,000.00 Rp 36,000.00								Rp 96,000.00 Rp 56,000.00 Rp 96,000.00 Rp 96,000.00	Rp 132,000.00 Rp 77,000.00 Rp 132,000.00 Rp 132,000.00	Rp 792,000.00 Rp 616,000.00 Rp 132,000.00 Rp 132,000.00 Rp 1,672,000.00	Rp 207,020,500.00	Rp 2,874,879,000.00	Rp 2,484,246,000.00	Rp 2,278,897,488.00
6	Round Plain reinforced steel	2,398.50	kg	Rp 88,984,350.00	tukang be pekerja kepala tuk mandor	Rp 24,000.00 Rp 14,000.00 Rp 24,000.00 Rp 24,000.00	Rp 36,000.00 Rp 21,000.00 Rp 36,000.00 Rp 36,000.00	Rp 36,000.00 Rp 21,000.00 Rp 36,000.00 Rp 36,000.00	Rp 144,000.00 Rp 168,000.00 Rp 36,000.00 Rp 36,000.00 Rp 384,000.00	Rp 89,368,350.00	Rp 622,890,450.00	Rp 625,578,450.00	Rp 536,594,093.00								
					tukang be pekerja kepala tuk mandor	Rp 24,000.00 Rp 14,000.00 Rp 24,000.00 Rp 24,000.00	Rp 36,000.00 Rp 21,000.00 Rp 36,000.00 Rp 36,000.00								Rp 96,000.00 Rp 56,000.00 Rp 96,000.00 Rp 96,000.00	Rp 132,000.00 Rp 77,000.00 Rp 132,000.00 Rp 132,000.00	Rp 528,000.00 Rp 616,000.00 Rp 132,000.00 Rp 132,000.00 Rp 1,408,000.00	Rp 90,392,350.00	Rp 622,890,450.00	Rp 542,354,100.00	Rp 453,369,744.00
					tukang be pekerja kepala tuk mandor	Rp 24,000.00 Rp 14,000.00 Rp 24,000.00 Rp 24,000.00	Rp 36,000.00 Rp 21,000.00 Rp 36,000.00 Rp 36,000.00								Rp 96,000.00 Rp 56,000.00 Rp 96,000.00 Rp 96,000.00	Rp 132,000.00 Rp 77,000.00 Rp 132,000.00 Rp 132,000.00	Rp 528,000.00 Rp 616,000.00 Rp 132,000.00 Rp 132,000.00 Rp 1,408,000.00	Rp 90,392,350.00	Rp 622,890,450.00	Rp 542,354,100.00	Rp 453,369,744.00
L	Structural roof frame																				
7	Supply and Install Roof cover of zincalume including other accessories	434	m2	Rp 123,282,040.00	pekerja tukang ka kepala tuk mandor	Rp 14,000.00 Rp 24,000.00 Rp 24,000.00 Rp 24,000.00	Rp 21,000.00 Rp 36,000.00 Rp 36,000.00 Rp 36,000.00	Rp 21,000.00 Rp 36,000.00 Rp 36,000.00 Rp 36,000.00	Rp 462,000.00 Rp 720,000.00 Rp 36,000.00 Rp 36,000.00 Rp 1,254,000.00	Rp 124,536,040.00	Rp 3,082,051,000.00	Rp 2,864,328,920.00	Rp 2,741,046,857.00								
					pekerja tukang ka kepala tuk mandor	Rp 14,000.00 Rp 24,000.00 Rp 24,000.00 Rp 24,000.00	Rp 21,000.00 Rp 36,000.00 Rp 36,000.00 Rp 36,000.00								Rp 28,000.00 Rp 48,000.00 Rp 48,000.00 Rp 48,000.00	Rp 49,000.00 Rp 84,000.00 Rp 84,000.00 Rp 84,000.00	Rp 1,078,000.00 Rp 1,680,000.00 Rp 84,000.00 Rp 84,000.00 Rp 2,926,000.00	Rp 126,208,040.00	Rp 3,082,051,000.00	Rp 2,650,368,840.00	Rp 2,527,086,779.00
					pekerja tukang ka kepala tuk mandor	Rp 14,000.00 Rp 24,000.00 Rp 24,000.00 Rp 24,000.00	Rp 21,000.00 Rp 36,000.00 Rp 36,000.00 Rp 36,000.00								Rp 56,000.00 Rp 96,000.00 Rp 96,000.00 Rp 96,000.00	Rp 77,000.00 Rp 132,000.00 Rp 132,000.00 Rp 132,000.00	Rp 1,694,000.00 Rp 2,640,000.00 Rp 132,000.00 Rp 132,000.00 Rp 4,598,000.00	Rp 127,880,040.00	Rp 3,082,051,000.00	Rp 2,557,600,800.00	Rp 2,434,318,740.00

T	Wall work												
9	Plastering of Prime Mortar & Finishing (Wall)	759.4	m ²	Rp	-	pekerja Rp 14,000.00 tukang ba Rp 24,000.00 kepala tuk Rp 24,000.00 mandor Rp 24,000.00	Rp 21,000.00 Rp 36,000.00 Rp 36,000.00 Rp 36,000.00	Rp 21,000.00 Rp 36,000.00 Rp 36,000.00 Rp 36,000.00	Rp 210,000.00 Rp 144,000.00 Rp 36,000.00 Rp 36,000.00 Rp 426,000.00	Rp 426,000.00	Rp -	Rp 4,686,000.00	Rp 4,685,989.00
						pekerja Rp 14,000.00 tukang ba Rp 24,000.00 kepala tuk Rp 24,000.00 mandor Rp 24,000.00	Rp 21,000.00 Rp 36,000.00 Rp 36,000.00 Rp 36,000.00 Rp 28,000.00 Rp 48,000.00 Rp 48,000.00 Rp 48,000.00	Rp 49,000.00 Rp 84,000.00 Rp 84,000.00 Rp 84,000.00	Rp 490,000.00 Rp 336,000.00 Rp 84,000.00 Rp 84,000.00 Rp 994,000.00	Rp 994,000.00	Rp -	Rp 9,940,000.00	Rp 9,939,990.00
						pekerja Rp 14,000.00 tukang ba Rp 24,000.00 kepala tuk Rp 24,000.00 mandor Rp 24,000.00	Rp 21,000.00 Rp 36,000.00 Rp 36,000.00 Rp 36,000.00 Rp 56,000.00 Rp 96,000.00 Rp 96,000.00 Rp 96,000.00	Rp 77,000.00 Rp 132,000.00 Rp 132,000.00 Rp 132,000.00	Rp 770,000.00 Rp 528,000.00 Rp 132,000.00 Rp 132,000.00 Rp 1,562,000.00	Rp 1,562,000.00	Rp -	Rp 15,620,000.00	Rp 15,619,990.00

Y	Roofing work												
10	Supply and Install Roof cover of zincalume including other accessories	434	M2	Rp 117,874,400.00	pekerja	Rp 14,000.00	Rp 21,000.00	Rp 21,000.00	Rp 126,000.00	Rp 118,144,400.00	Rp 1,650,241,600.00	Rp 1,535,877,200.00	Rp 1,418,002,787.00
					tukang ka	Rp 24,000.00	Rp 36,000.00	Rp 36,000.00	Rp 72,000.00				
					kepala tuk	Rp 24,000.00	Rp 36,000.00	Rp 36,000.00	Rp 36,000.00				
					mandor	Rp 24,000.00	Rp 36,000.00	Rp 36,000.00	Rp 36,000.00				
					pekerja	Rp 14,000.00	Rp 21,000.00						
					tukang ka	Rp 24,000.00	Rp 36,000.00						
					kepala tuk	Rp 24,000.00	Rp 36,000.00						
					mandor	Rp 24,000.00	Rp 36,000.00						
							Rp 28,000.00	Rp 49,000.00	Rp 294,000.00	Rp 118,504,400.00	Rp 1,650,241,600.00	Rp 1,422,052,800.00	Rp 1,304,178,388.00
						Rp 48,000.00	Rp 84,000.00	Rp 168,000.00					
						Rp 48,000.00	Rp 84,000.00	Rp 84,000.00					
							Rp 48,000.00	Rp 84,000.00	Rp 84,000.00				
					pekerja	Rp 14,000.00	Rp 21,000.00						
					tukang ka	Rp 24,000.00	Rp 36,000.00						
					kepala tuk	Rp 24,000.00	Rp 36,000.00						
					mandor	Rp 24,000.00	Rp 36,000.00						
							Rp 56,000.00	Rp 77,000.00	Rp 462,000.00	Rp 118,864,400.00	Rp 1,650,241,600.00	Rp 1,426,372,800.00	Rp 1,308,498,388.00
						Rp 96,000.00	Rp 132,000.00	Rp 264,000.00					
						Rp 96,000.00	Rp 132,000.00	Rp 132,000.00					
							Rp 96,000.00	Rp 132,000.00	Rp 132,000.00				
								Rp 990,000.00					
11	Roof Painting	442.49	m2	Rp 41,009,973.20	pekerja	Rp 14,000.00	Rp 21,000.00	Rp 21,000.00	Rp 168,000.00	Rp 41,393,973.20	Rp 287,069,812.40	Rp 289,757,812.40	Rp 248,747,832.20
					tukang ka	Rp 24,000.00	Rp 36,000.00	Rp 36,000.00	Rp 144,000.00				
					kepala tuk	Rp 24,000.00	Rp 36,000.00	Rp 36,000.00	Rp 36,000.00				
					mandor	Rp 24,000.00	Rp 36,000.00	Rp 36,000.00	Rp 36,000.00				
					pekerja	Rp 14,000.00	Rp 21,000.00						
					tukang ka	Rp 24,000.00	Rp 36,000.00						
					kepala tuk	Rp 24,000.00	Rp 36,000.00						
					mandor	Rp 24,000.00	Rp 36,000.00						
							Rp 28,000.00	Rp 49,000.00	Rp 392,000.00	Rp 41,905,973.20	Rp 287,069,812.40	Rp 251,435,839.20	Rp 210,425,860.00
						Rp 48,000.00	Rp 84,000.00	Rp 336,000.00					
						Rp 48,000.00	Rp 84,000.00	Rp 84,000.00					
							Rp 48,000.00	Rp 84,000.00	Rp 84,000.00				
					pekerja	Rp 14,000.00	Rp 21,000.00						
					tukang ka	Rp 24,000.00	Rp 36,000.00						
					kepala tuk	Rp 24,000.00	Rp 36,000.00						
					mandor	Rp 24,000.00	Rp 36,000.00						
							Rp 56,000.00	Rp 77,000.00	Rp 616,000.00	Rp 42,417,973.20	Rp 287,069,812.40	Rp 254,507,839.20	Rp 213,497,860.00
						Rp 96,000.00	Rp 132,000.00	Rp 528,000.00					
						Rp 96,000.00	Rp 132,000.00	Rp 132,000.00					
							Rp 96,000.00	Rp 132,000.00	Rp 132,000.00				
								Rp 1,408,000.00					

Crash cost penambahan tenaga kerja										
No	Uraian Pekerjaan	Volume	Satuan	Biaya Normal	Tenaga Kerja	upah Harian	Kebutuhan tenaga kerja dipercepat	biaya upah tenaga kerja	Total Biaya Tambah Tenaga Kerja	Cost Slope
A	Contractor's office and Accomodation	24.00	ls	Rp 84,000,000.00	tukang kayu pekerja kepala tukang mandor	Rp 168,000.00 Rp 98,000.00 Rp 168,000.00 Rp 168,000.00	2 4 1 1	Rp 168,002.00 Rp 98,004.00 Rp 168,001.00 Rp 168,001.00	Rp 84,602,008.00	Rp 602,008.00
B	Foundation Work							Rp 602,008.00		
1	Deformed Reinforced steel diameter of 16 mm	1971.84	kg	Rp 85,301,798.40	tukang besi pekerja kepala tukang mandor	Rp 168,000.00 Rp 98,000.00 Rp 168,000.00 Rp 168,000.00	3 9 1 1	Rp 504,000.00 Rp 882,000.00 Rp 168,000.00 Rp 168,000.00 Rp 1,722,000.00	Rp 87,023,798.40	Rp 861,000.00
2	- Reinforced steel bars 18 mm dia	1121.84	Kg	Rp 48,530,798.40	tukang besi pekerja kepala tukang mandor	Rp 168,000.00 Rp 98,000.00 Rp 168,000.00 Rp 168,000.00	6 12 1 1	Rp 1,008,000.00 Rp 1,176,000.00 Rp 168,000.00 Rp 168,000.00 Rp 2,520,000.00	Rp 51,050,798.40	Rp 360,000.00
F	Column work									
4	-Deformed Reinforced steel diameter of 16 mm	1572.48	Kg	Rp 48,530,798.40	tukang besi pekerja kepala tukang mandor	Rp 168,000.00 Rp 98,000.00 Rp 168,000.00 Rp 168,000.00	3 12 1 1	Rp 504,000.00 Rp 1,176,000.00 Rp 168,000.00 Rp 168,000.00 Rp 2,016,000.00	Rp 50,546,798.40	Rp 672,000.00
L	Reinforcement concrete									
5	-Deformed Reinforced steel diameter of 12 mm	5535	kg	Rp 205,348,500.00	tukang besi pekerja kepala tukang mandor	Rp 168,000.00 Rp 98,000.00 Rp 168,000.00 Rp 168,000.00	8 18 1 1	Rp 1,344,000.00 Rp 1,764,000.00 Rp 168,000.00 Rp 168,000.00 Rp 3,444,000.00	Rp 208,792,500.00	Rp 688,800.00
6	Round Plain reinforced steel diameter 8 mm for stirrup	2,398.50	Kg	Rp 205,348,500.00	tukang besi	Rp 168,000.00	6	Rp 1,008,000.00	Rp 207,868,500.00	Rp 419,996.00

					pekerja kepala tukang mandor	Rp 98,000.00 Rp 168,000.00 Rp 168,000.00	12 1 1	Rp 1,176,000.00 Rp 168,000.00 Rp 168,000.00 Rp 2,520,000.00		
AL	Wall Work									
7	Supply and Install Roof cover of zinalume including other accessories	434	m2	Rp 117,874,400.00	pekerja tukang kayu kepala tukang mandor	Rp 98,000.00 Rp 168,000.00 Rp 168,000.00 Rp 168,000.00	30 33 8 3	Rp 2,940,000.00 Rp 5,544,000.00 Rp 1,344,000.00 Rp 504,000.00 Rp 10,332,000.00	Rp 128,206,400.00	Rp 861,000.00
T										
9	Plastering of Prime Mortar & Finishing (Wall)	759.4	m2	Rp 46,672,724.00	pekerja tukang batu kepala tukang mandor	Rp 98,000.00 Rp 168,000.00 Rp 168,000.00 Rp 168,000.00	15 6 2 2	Rp 1,470,000.00 Rp 1,008,000.00 Rp 336,000.00 Rp 336,000.00 Rp 3,150,000.00	Rp 49,822,724.00	Rp 315,000.00
Y	Roffing work									
10	Supply and Install Roof cover of zinalume including other accessories	434	m2	Rp 117,874,000.00	pekerja tukang kayu kepala tukang mandor	Rp 98,000.00 Rp 168,000.00 Rp 168,000.00 Rp 168,000.00	9 3 1 1	Rp 882,000.00 Rp 504,000.00 Rp 168,000.00 Rp 168,000.00 Rp 1,722,000.00	Rp 119,596,000.00	Rp 156,545.45
11	Roof Painting	442.49	m2	Rp 117,874,000.00	pekerja tukang kayu kepala tukang mandor	Rp 98,000.00 Rp 168,000.00 Rp 168,000.00 Rp 168,000.00	12 6 1 1	Rp 1,176,000.00 Rp 1,008,000.00 Rp 168,000.00 Rp 168,000.00 Rp 2,520,000.00	Rp 120,394,000.00	Rp 504,000.00

Crash Duration Penambahan Jam Kerja											
Kode Pek.	Nama Pekerjaan	Dura si (Hari)	Volum e	satuan	Prod. Harian	prod. Perja m	Prod. Lembur	Prod. Crash	Cras Duration		Jam
									Hari	Pembul	
A		1	2		3 = 2:1	4 = 3:8	= 3 x 0.7 x	6 = 3 + 5	7 = 2 : 6		
	Contractor's office and Accomodation	8	24.00	ls	3	0.375	0.3375	3.3375	7.191	8	1
					3	0.375	0.6	3.6	6.6667	7	2
					3	0.375	2.1	5.1	4.7059	5	3
B	Foundation Works										
	Deformed Reinforced steel diameter	6	1972	Kg	328.64	41.08	36.972	365.612	5.393	6	1
					328.64	41.08	65.728	394.368	5.000	5	2
					328.64	41.08	86.268	414.908	4.752	5	3
	- Reinforced steel bars 18 mm dia	7	1122	kg	160.263	20.033	18.02957	178.292	6.292	7	1
					160.263	20.033	32.05257	192.315	5.833	6	2
					160.263	20.033	42.069	202.332	5.545	6	3
I	Reinforcement concrete										
	-Deformed Reinforced steel diameter	12	5535	kg	461.250	57.656	51.891	513.141	10.787	11	1
					461.250	57.656	92.250	553.500	10.000	10	2
					461.250	57.656	121.078	582.328	9.505	10	3
	-Round Plain reinforced steel diamete	6	2399	Kg	399.75	49.97	44.97	444.72	5.39	6	1
					399.75	49.97	79.95	479.70	5.00	5	2
					399.75	49.97	104.93	504.68	4.75	5	3
L	Structural Roof Frame										
	Supply and Install Roof cover of zinalume including other accessories	27	434	m2	16.074	2.009	1.808	17.882	24.270	25	1
					16.074	2.009	3.215	19.289	22.500	23	2
					16.074	2.009	4.219	20.294	21.386	22	3
Y	Roofing Works										
	Supply and Install Roof cover of zinalume including other accessories	14	434	m2	31.000	3.875	3.4875	34.488	12.584	13	1
					31.000	3.875	6.2	37.200	11.667	12	2
					31.000	3.875	8.1375	39.138	11.089	12	3
	Roof Painting	7	442.5	m2	63.213	7.902	7.111446	70.324	6.2921	7	1
					63.213	7.902	12.64257	75.855	5.8333	6	2
					63.213	7.902	16.59338	79.806	5.5446	6	3

Crash Duration Penambahan Tenaga Kerja

No	Kode Pek	Nama Pekerjaan	Volume	Satuan	Durasi		di= Dn-Dc
					Norma	Hari	
1	A	Contractor's office and Accomodation	24.00	ls	5	4	1
2	B	Deformed Reinforced steel diameter d	1972	Kg	6	4	2
3		- Reinforced steel bars 18 mm dia	1122	kg	7	2	5
	D	-Deformed Reinforced steel diameter	1572	Kg	5	3	2
4	I	-Deformed Reinforced steel diameter	5535	kg	14	9	5
5		-Round Plain reinforced steel diameter	2399	Kg	7	5	2
6	L	Supply and Install Roof cover of zincalume including other accessories	434	m2	26	16	10
7	Y	Supply and Install Roof cover of zincalume including other accessories	434	m2	14	7	7
8		Roof Painting	442.5	m2	10	5	5



INSTITUT TEKNOLOGI NASIONAL MALANG
FAKULTAS TEKNIK SIPIL DAN PERENCANAAN
PROGRAM STUDI TEKNIK SIPIL S-1

Jl. Bendungan Sigura-gura no. 2 Telp. (0341) 551431 Malang

Lembar Asistensi Tugas Akhir

Nama : Marzenia Da Costa Silva
Jurusan : 1821009
Program Studi : Teknik Sipil S-1
Judul : Evaluasi Penjadwalan Waktu Dan Biaya Pada Pembangunan Gedung Bank Nasional Komersial Dili Dengan Metode Crashing
Dosen Pembimbing I : Ir. Togi Nainggolan, MS



NO	TANGGAL	KETERANGAN	TANDA TANGAN
1.	07/08-22	1. lihat catatannya 2. lengkapi data Σ sebagai 3. laporan minggu kei proyek, gbr kerja, TS - RAB, gbr detail. 4. dokumentasi	TS



INSTITUT TEKNOLOGI NASIONAL MALANG
FAKULTAS TEKNIK SIPIL DAN PERENCANAAN
PROGRAM STUDI TEKNIK SIPIL S-1

Jl. Bendungan Sigura-gura no. 2 Telp. (0341) 551431 Malang

Lembar Asistensi Tugas Akhir

Nama : Marzenia Da Costa Silva
Jurusan : 1821009
Program Studi : Teknik Sipil S-1
Judul : Penjadwalan Waktu Dan Biaya Pada Pembangunan Gedung Bank Nasional Komersial Dili Dengan Metode *Crashing*
Dosen Pembimbing I : Ir. Togi Nainggolan, MS



NO	TANGGAL	KETERANGAN	TANDA TANGAN
2.	$\frac{10-22}{11}$	1. Lembaran of progres mingguan (bobot). 2. Dis kusi	
3	$\frac{12-22}{12}$	1. Buatlah MP - CPM (Rencana). 2. Be SH kontrol ada Re - schedule dan CCO \rightarrow makei waktu. 3. Dis kusi	



INSTITUT TEKNOLOGI NASIONAL MALANG
FAKULTAS TEKNIK SIPIL DAN PERENCANAAN
PROGRAM STUDI TEKNIK SIPIL S-1

Jl. Bendungan Sigura-gura no. 2 Telp. (0341) 551431 Malang

Lembar Asistensi Tugas Akhir

Nama : Marzenia Da Costa Silva
Jurusan : 1821009
Program Studi : Teknik Sipil S-1
Judul : Penjadwalan Waktu Dan Biaya Pada Pembangunan Gedung Bank Nasional Komersial Dili Dengan Metode Crashing



Dosen Pembimbing II : Ir. Togi Nainggolan

NO	TANGGAL	KETERANGAN	TANDA TANGAN
4.	10/1-23	1. NWP Seputra 2. Re-schedule (TS) ada CCO.	NS
5	18/1-23	1. NW → OK (seputra) 2. CCO → OK 3. Crashing (tabel = sahau) 4. kegiatan	NS
6	31/1-23	1. Buat Draft TA 2. abstrak 3. D-161 4. pustaka (setoran)	

5. Bila sah Ace
4/ semhol.



INSTITUT TEKNOLOGI NASIONAL MALANG
FAKULTAS TEKNIK SIPIL DAN PERENCANAAN
PROGRAM STUDI TEKNIK SIPIL S-1

Jl. Bendungan Sigura-gura no. 2 Telp. (0341) 551431 Malang

Lembar Asistensi Tugas Akhir

Nama : Marzenia Da Costa Silva
Jurusan : 1821009
Program Studi : Teknik Sipil S-1
Judul : Evaluasi Penjadwalan Waktu Dan Biaya Pada Pembangunan Gedung Bank Nasional Komersial Dili Dengan Metode Crashing



Dosen Pembimbing II : Ir. Munasih, MT

NO	TANGGAL	KETERANGAN	TANDA TANGAN
1	27/10 - 2022	= Landasan temu di lapangan	✗
2	8/11 - 2022	= penulisan cak cak. v. ly.	✗
3	21/11 2022	= hasil kurva S dan	✗
4	20/10 2022	part. m. baog kan cost gedung di bahas	✗



INSTITUT TEKNOLOGI NASIONAL MALANG
FAKULTAS TEKNIK SIPIL DAN PERENCANAAN
PROGRAM STUDI TEKNIK SIPIL S-1
Jl. Bendungan Sigura-gura no. 2 Telp. (0341) 551431 Malang

Lembar Asistensi Tugas Akhir
Nama : Marzenia Da Costa Silva
Jurusan : 1821009
Program Studi : Teknik Sipil S-1
Judul : Penjadwalan Waktu Dan Biaya Pada Pembangunan Gedung Bank Nasional Komersial Dili Dengan Metode Crashing
Dosen Pembimbing II : Ir. Munasih, MT



NO	TANGGAL	KETERANGAN	TANDA TANGAN
5	5/1/2023	buat produktifitas tenaga kerja	} R
6	9/1/2023	produktifitas di komputer	R
7	11/1/2023	produktifitas Guat Jg Crashing	} R
8	17/1/2023	analisa di komputer	R
9	25/1/2023	buat lembar 1, 2, 3 jam.	R



INSTITUT TEKNOLOGI NASIONAL MALANG
FAKULTAS TEKNIK SIPIL DAN PERENCANAAN
PROGRAM STUDI TEKNIK SIPIL S-1

Jl. Bendungan Sigura-gura no. 2 Telp. (0341) 551431 Malang

Lembar Asistensi Tugas Akhir

Nama : Marzenia Da Costa Silva
Jurusan : 1821009
Program Studi : Teknik Sipil S-1
Judul : Penjadwalan Waktu Dan Biaya Pada Pembangunan Gedung Bank Nasional Komersial Dili Dengan Metode *Crashing*

Dosen Pembimbing II : Ir. Munasih, MT



NO	TANGGAL	KETERANGAN	TANDA TANGAN
10	07 / 1 2023	Analisa waktu & biaya di sale sar'ken	} 7
11	30 / 1 2023	Analisa di sale sar'ken	7
12	31 / 1 2023	Cah jumlah jam kerja & Sale sar'ken	} 7



FORM REVISI/ PERBAIKAN

Nama Mahasiswa : Marzeina Da Costa Silva
 NIM : 1821009
 Hari, tanggal : Kamis, 9 Februari 2023
 Judul Tugas Akhir : Evaluasi Penjadwalan Waktu dan Biaya Pada Pembangunan Gedung Bank Nasional Komersil Dili

Perbaikan Materi Tugas Akhir Meliputi :

perbaikan y metode penjadwalan. → baru layout. percepatan.
 → jadwal normal → ke jadwal percepatan.
 (kondisi awal) →
 dibandingkan.

Perbaikan Tugas Akhir wajib diselesaikan paling lambat 14 hari terhitung sejak Pelaksanaan Seminar Hasil Tugas Akhir dilaksanakan.

[Handwritten signature]
 07/03

Dosen Pembahas 1

[Handwritten signature]

Dr. Lila Ayu Ratna Winanda, ST., MT.

Tugas Akhir Telah diperbaiki dan disetujui :

Dosen Pembimbing

6/3-23.
[Handwritten signature]
 Ir. Togi Nainggolan, MS

Dosen Pembahas 1

[Handwritten signature]

Dr. Lila Ayu Ratna Winanda, ST., MT.



INSTITUT TEKNOLOGI NASIONAL
Kampus I : Jl. Bendungan Sigura-gura 2
Kampus II : Jl. Raya Karanglo Km. 2
MALANG

SEMINAR HASIL
PRODI TEKNIK SIPIL S1

FORM REVISI/ PERBAIKAN

Nama Mahasiswa : Marzeina Da Costa Silva
NIM : 1821009
Hari, tanggal : Kamis, 9 Februari 2023
Judul Tugas Akhir : Evaluasi Penjadwalan Waktu dan Biaya Pada Pembangunan Gedung Bank Nasional Komersil Dili

Perbaikan Materi Tugas Akhir Meliputi :

• Bab 1 → Identifikasi Masalah, Rumusan Masalah, Batasan Masalah. ✓

• Bab 2 → Cara pemisahan Stazai, kebaruan sumber referensi (10 th) ✓?

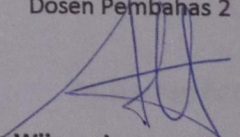
• Bab 3 → Metode penelitian, bagian akhir. ✓

• Bab 4 → CPM, dasar acuan upah & lembur, rekapitulasi biaya & waktu, pembahasan. ✓

• Bab 5 → kesimpulan 1 + 2.

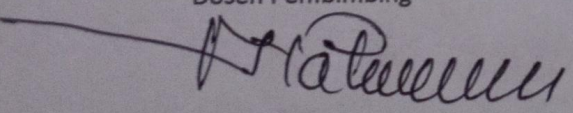
Perbaikan Tugas Akhir wajib diselesaikan paling lambat 14 hari terhitung sejak Pelaksanaan Seminar Hasil Tugas Akhir dilaksanakan.

Dosen Pembahas 2

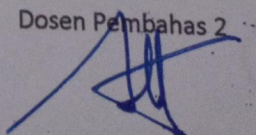

Maranatha Wijayaningtyas, ST., M.MT., PhD.

Tugas Akhir Telah diperbaiki dan disetujui :

Dosen Pembimbing


Ir. Togi Nainggolan, MS

Dosen Pembahas 2


Maranatha Wijayaningtyas, ST., M.MT., PhD.



INSTITUT TEKNOLOGI NASIONAL
Kampus I : Jl. Bendungan Sigura-gura 2
Kampus II : Jl. Raya Karanglo Km. 2
MALANG

**UJIAN TUGAS AKHIR
PRODI TEKNIK SIPIL S1**

FORM REVISI/ PERBAIKAN

Nama Mahasiswa : Marzeina Da Costa Silva
NIM : 1821009
Hari, tanggal : Rabu, 15 Februari 2023
Judul Tugas Akhir : Evaluasi Penjadwalan Waktu dan Biaya Pada Pembangunan Gedung Bank Nasional Komersil Dili

Perbaikan Tugas Akhir Meliputi :

- Melengkapi revisi tersebut
- Error diperbaiki
- Cek total ini TA secara keseluruhan

Perbaikan Tugas Akhir wajib diselesaikan paling lambat 14 hari terhitung sejak Pelaksanaan Ujian Tugas Akhir dilaksanakan.

Dosen Pembahas 1

Dr. Lila Ayu Ratna Winanda, ST., MT.

Tugas Akhir Telah diperbaiki dan disetujui :

Dosen Pembimbing

Ir. Togi Nainggolan, MS

Malang _____ 2022

Dosen Pembahas 1

Dr. Lila Ayu Ratna Winanda, ST., MT.



INSTITUT TEKNOLOGI NASIONAL
Kampus I : Jl. Bendungan Sigura-gura 2
Kampus II : Jl. Raya Karanglo Km. 2
MALANG

**UJIAN TUGAS AKHIR
PRODI TEKNIK SIPIL S1**

FORM REVISI/ PERBAIKAN

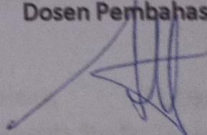
Nama Mahasiswa : Marzeina Da Costa Silva
NIM : 1821009
Hari, tanggal : Rabu, 15 Februari 2023
Judul Tugas Akhir : Evaluasi Penjadwalan Waktu dan Biaya Pada Pembangunan Gedung Bank Nasional Komersil Dili

Perbaikan Tugas Akhir Meliputi :

- Proses analisis tambahan jam kerja di Bab IV
- Pemilihan metode percepatan di Bab II

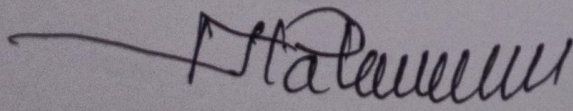
Perbaikan Tugas Akhir wajib diselesaikan paling lambat 14 hari terhitung sejak Pelaksanaan Ujian Tugas Akhir dilaksanakan.

Dosen Pembahas 2


Maranatha Wijayaningtyas, ST., M.MT., PhD.

Tugas Akhir Telah diperbaiki dan disetujui :

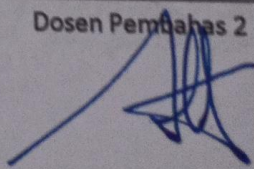
Dosen Pembimbing



Ir. Fogi Nainggolan, MS

Malang _____ 2022

Dosen Pembahas 2


Maranatha Wijayaningtyas, ST., M.MT., PhD.