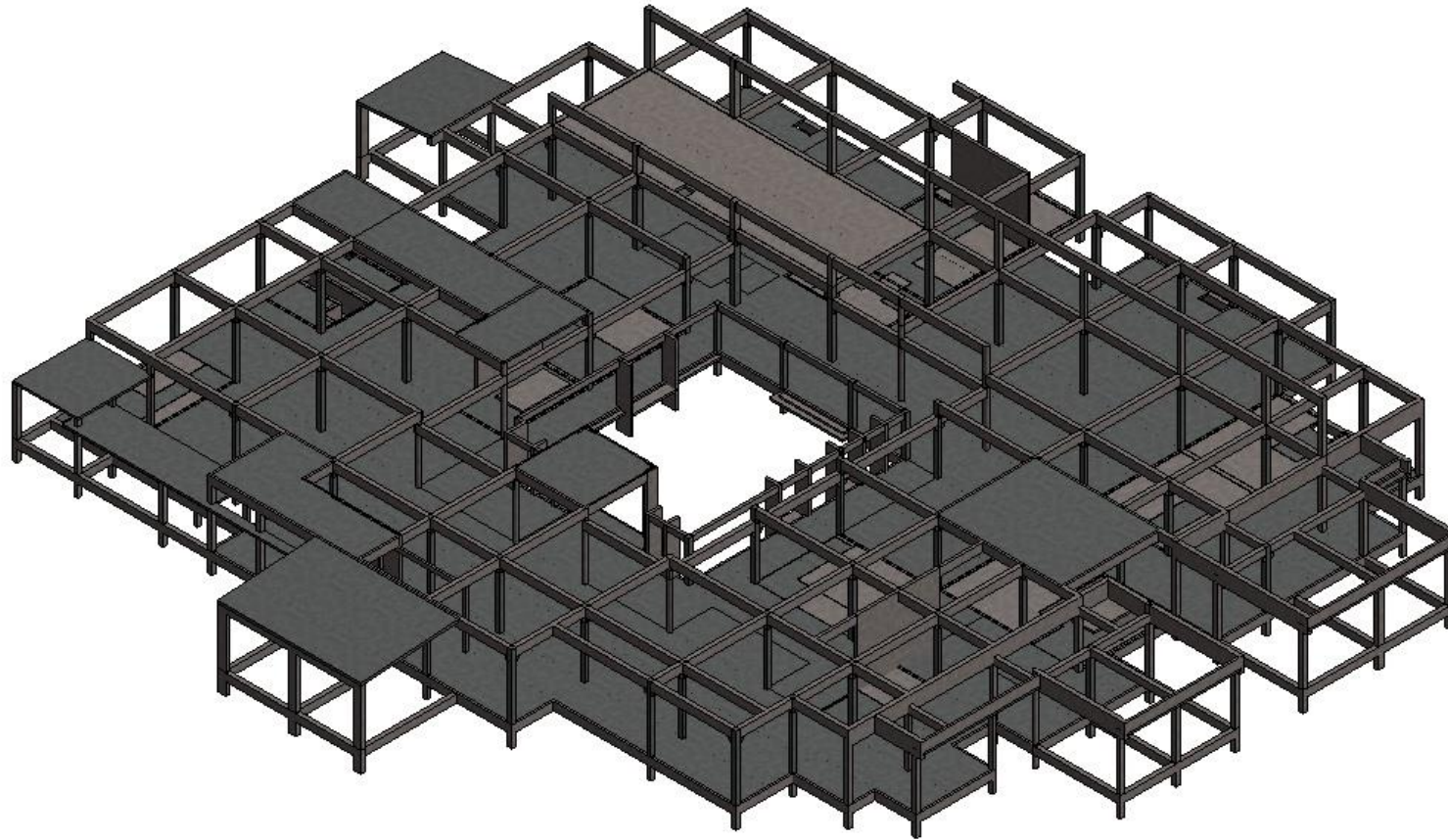


PRE-APPROVED PLAN (PAP) DARI PERSPEKTIF STRUKTUR

KLINIK KESIHATAN 4 (KK4) PIAWAI

MODEL STRUKTUR KLINIK KESIHATAN 4 (KK4) MENGGUNAKAN PERISIAN REVIT



JENIS DAN SAIZ KOMPONEN PRATUANG

Jenis dan Saiz Komponen Pratuang Yang Digunakan untuk KK4:

Bil.	Komponen	Saiz
1.	Rasuk	300 x 600
2.	Tiang	300 x 300 dan 350 x 350

KERJA STRUKTUR

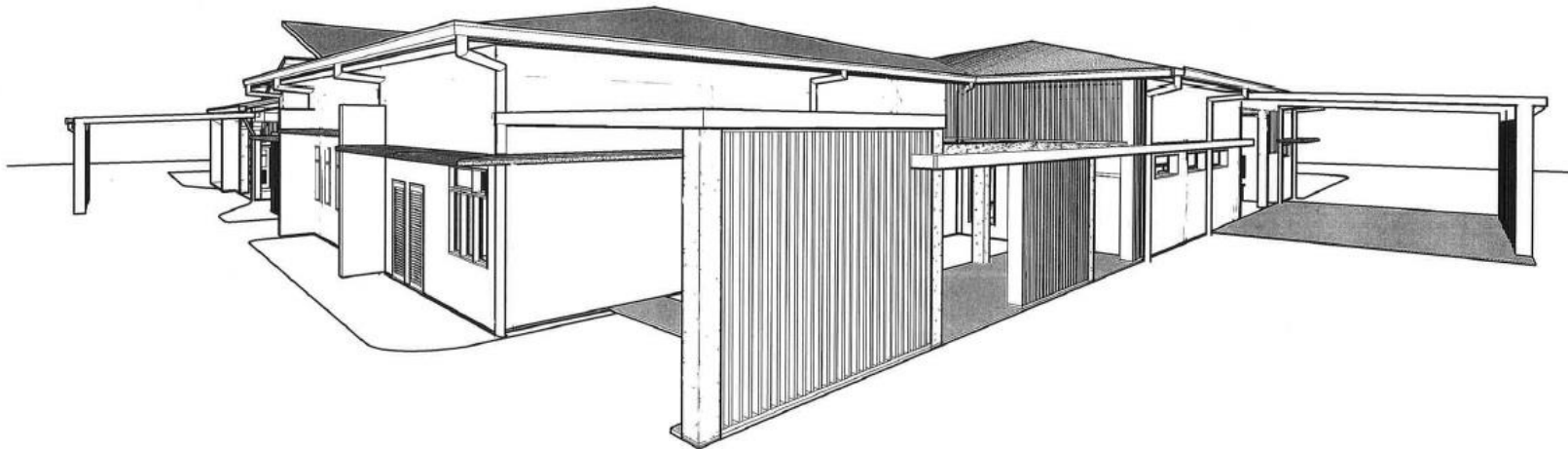
Untuk kerja struktur:

Bil.	Komponen	Saiz
1.	Gred Konkrit (Kekuatan Silinder/Kiub)	C30/37
2.	Reinforcement (Yield Strength)	'H': 500 N/mm ² 'R': 250 N/mm ² Fabric Mesh: 485 N/mm ²

PERSPEKTIF



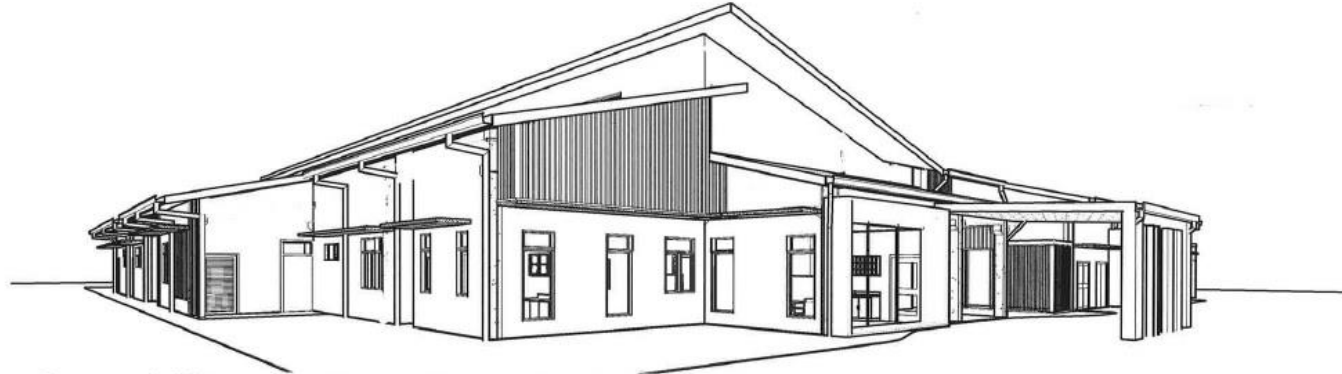
1 Perspektif Anjung Utama dan Anjung Kecemasan



2 Perspektif Anjung Utama dan Anjung Pentadbiran

 CAWANGAN ARKITEK IBU PEJABAT, JALAN TUN RUSIA RAYA MALAYSIA	CAWANGAN ARKITEK PELANGGAN Kementerian Kesihatan Malaysia		PENYARAH KAWAN, CAWANGAN ARKITEK Ar. Zairul Azidin Badri PENGARAH PENOLONG PENGARAH (ARKITEK) Nurnajdah Fatimah Mohd Najib	PENYARAH KAWAN, CAWANGAN ARKITEK Ar. Cheong Lai Ching PENOLONG PENGARAH KAWAN Mohd Fadhlan Ahmad PENOLONG PENGARAH (ARKITEK) Nurnajdah Fatimah Mohd Najib	PROJEK KLINIK KESIHATAN 4 (PIAWAI)	LUKISAN TERPERINCI NO LUKISAN JKR/CA/PAP/BM/kk4/PTF/01	TAJUK LUKISAN PERSPEKTIF NO LUKISAN ELEKTRONIK	KOD LUK PRDAAN JAB/ BLIK UKURAN RBL LUK

PERSPEKTIF



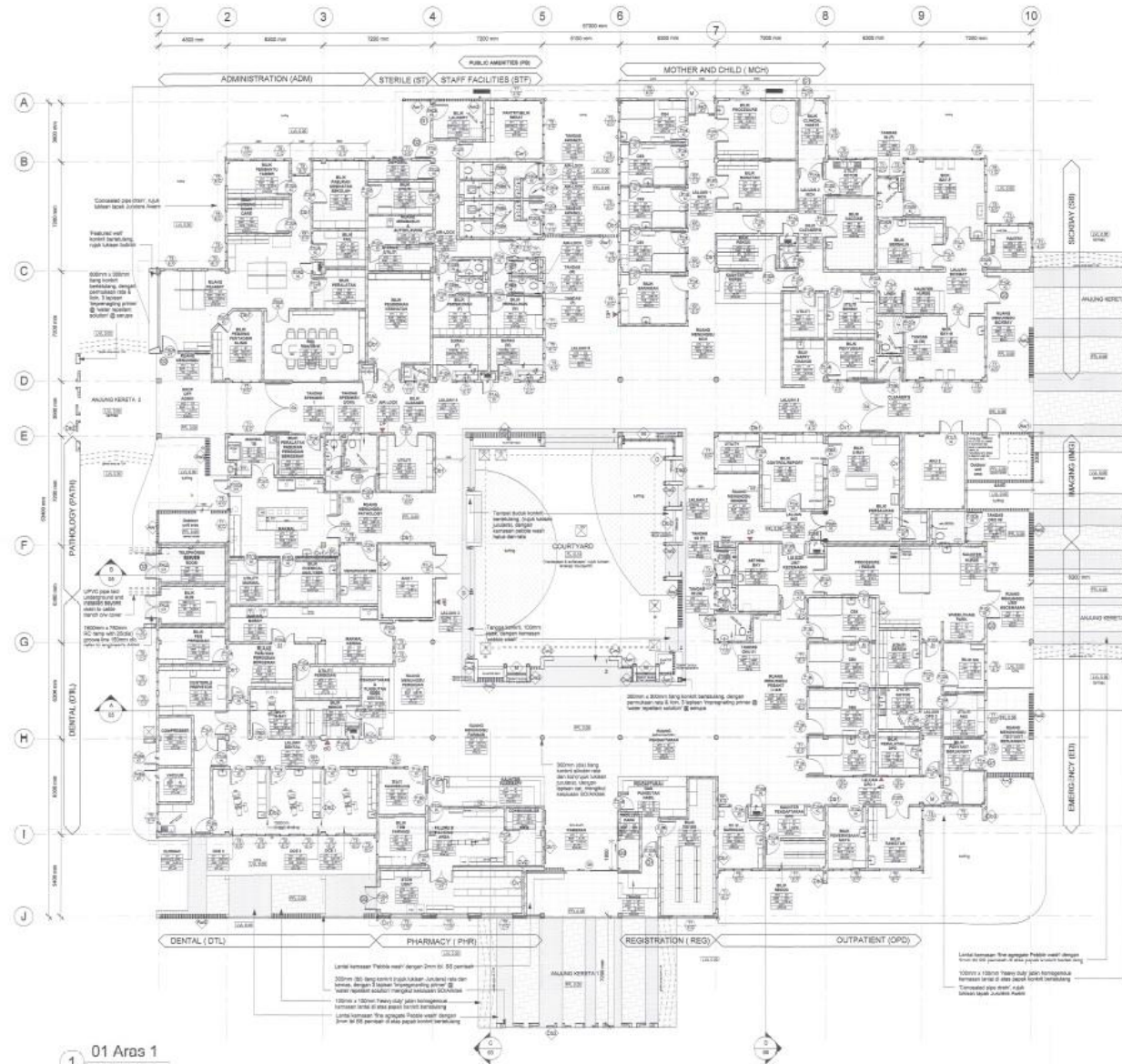
1 Perspektif Anjung Pentadbiran dan MCH



2 Perspektif Anjung Kecemasan dan Anjung ABC

 CAWANGAN ARKITEK IBU PEJABAT JABATAN KERJA RAYA MALAYSIA	CAWANGAN ARKITEK PELANGGAN Kementerian Kesihatan Malaysia		MENTERI PENGARAH KAWAN Ar. Cheong Lai Ching	PROJEK KLINIK KESIHATAN 4 (PIAWAI)	TAJUK LUKISAN PERSPEKTIF	NO. LUKISAN JKR/CA/PAP/IBM/kk4/PTF/02	NO. LUKISAN ELEKTRONIK	PINDAAN JAB. BELUK	KOD LUK
	PENGARAH KAWAN, CAWANGAN ARKITEK Ar. Zairul Azidin Badri	PENOLONG PENGARAH KAWAN Mohd Fadlan Ahmad	PENOLONG PENGARAH (ARKITEK) Nurmajdah Fatimah Mohd Najib	NO. LUKISAN JKR/CA/PAP/IBM/kk4/PTF/02	DILUKIS Tarikh	DISEMAK Checker	UKURAN Bil. LUK	PINDAAN JAB. BELUK	KOD LUK
	PENGARAH	PENOLONG PENGARAH (ARKITEK) Nurmajdah Fatimah Mohd Najib	NO. LUKISAN JKR/CA/PAP/IBM/kk4/PTF/02	DILUKIS Tarikh	DISEMAK Checker	UKURAN Bil. LUK	PINDAAN JAB. BELUK	KOD LUK	

PELAN ARAS 1



PETUNJUK SPESIFIKASI	
NAMA RUANG	KEMASAN
LANTAI / KAMI	KEMASAN
DINDING	SILING
SISTEM	RUANG
PUDARAN	BAZ RUANG
KOD RUANG	

KOD KEMASAN DINDING	
KD	Spesifikasi
BP	Baru / Papan & Panel
EP	Plaster & Emulsi / Plaster
EP	Plaster & Emulsi / Plaster
WDT	Kemaskan dinding 300x300mm Jalin Sempit
	Disap hingga ke area siling (nama & corak ditetapkan oleh arsitek)
KOD KEMASAN LANTAI	
KD	Spesifikasi
CR	Corment Harder
HT1	300mm x 600mm homogenous Tiles, Matt Finish (Size: MS 1234)
HT2	300mm x 600mm homogenous Tiles, 60% matt finish, 20 % Glossy finish
HT3	300mm x 600mm homogenous Tiles, Matt Finish, Anti-slip (Size: MS 1234)
PS	Plaster Finish
KOD KEMASAN SILING	
KD	Spesifikasi
AL	Aluminium siling panel
GB1	60mm x 60mm x 3mm (thk) Gypsum Board ceiling
GB2	60mm x 60mm x 3mm (thk) PVC Laminated Gypsum Board (PVC)
PC2	1220mm x 610mm x 12mm (thk) kanvas dengan sistem genteng selulosa yang dilubangi jenis genteng kanvas 2' asapan cat emulsi dengan kandungan aluminium 70% 20mm x 20mm dengan not pengaliran 3mm dia. Lapisan dengan 1/2" water resistant berfalan
PL	Form (PVC) primase plaster and painted fibre cement board ceiling
SK	Skid base and panel

PETUNJUK BAHAN DINDING	
KD	Spesifikasi
Aw1	30mm x 150mm x 1mm (thk) panel paku aluminium louvers, clearing 100%
Aw2	30mm x 300mm x 1mm (thk) panel paku aluminium louvers, clearing 100%
Aw3	30mm x 150mm x 1mm (thk) panel paku aluminium louvers dan MS Perforated Panel, clearing 100%
Cv1	Carly Wall, dua lapis 115mm thk, dinding kanvas 6' di atas dengan TOL, isolasi insulasi (pengaliran api) dengan lapisan kanvas cat pada kedua permukaan mengikut keluasan Arsitek dan SO
Cv2	Carly Wall, 20mm thk, dinding waterproof plasterboard dan dinding kanvas 6' di atas dengan TOL, isolasi insulasi (pengaliran api) dengan lapisan kanvas cat pada kedua permukaan mengikut keluasan Arsitek dan SO
Cv3	Concrete wall, 200mm thk, dinding kanvas dengan isolasi kanvas cat pada kedua permukaan mengikut keluasan Arsitek dan SO
UW1	Lockdown wall 220mm thk, 100% MS 100% panel (dari kanvas) dengan 3 lapis water repellent isolasi pada kedua permukaan
Ds1	110 mm thk, dinding batu-bata dengan 20mm thk, isolasi kanvas cat pada kedua permukaan mengikut keluasan Arsitek dan SO
Ds2	110 mm thk, dinding kanvas kanvas dinding batu-bata dengan 20mm thk, isolasi kanvas cat pada kedua permukaan mengikut keluasan Arsitek dan SO
Ds3	220 mm thk, dinding batu-bata dengan 20mm thk, isolasi kanvas cat pada kedua permukaan mengikut keluasan Arsitek dan SO
D	3mm (thk) fibre cement board, dua lapis (dapat pada kanvas kanvas)
N	Perforated metal with metal frame, dua lapis dengan not isapan kanvas

KOD KEMASAN KAMRI	
KD	Spesifikasi
ST	120mm (thk) Papan / Cement / Tiles to match (Size: MS 1234)

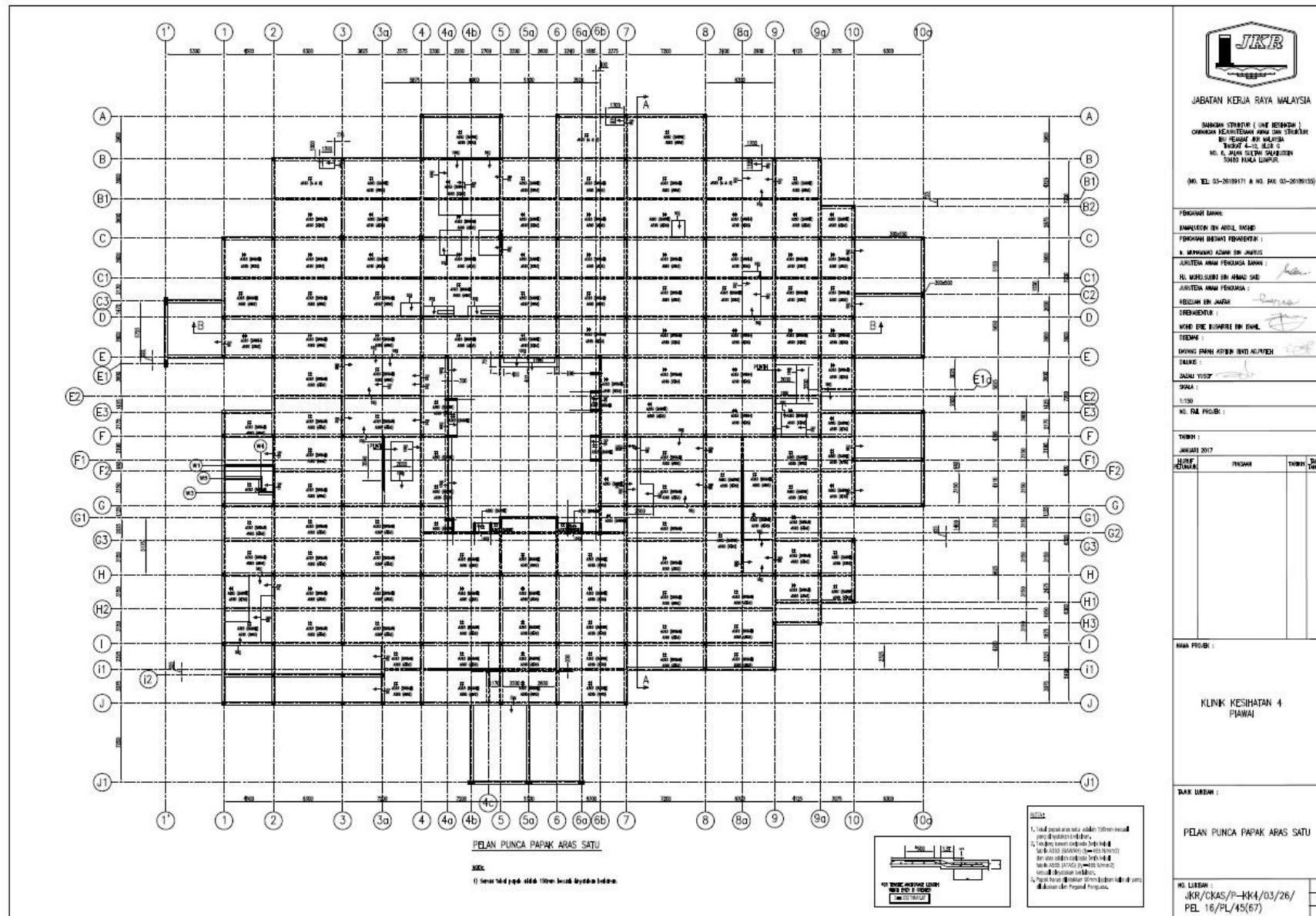
KOD RUANG	
BL	ASIA RUANG
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3	ASIA RUANG
4	ASIA RUANG
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99	ASIA RUANG
100	ASIA RUANG

CATATAN	
PELANGGAN Kementerian Kesihatan Malaysia	
TANDATANGAN & COP KEULUHAN PELANGGAN	
 CAWANGAN ARKITEK IBU PEJABAT JABATAN KERJA RAYA MALAYSIA	
PENGARAH KANAN, CAWANGAN ARKITEK	
Dr. JALILAH ADEEN BIN BASHIR PENGARAH	
ARKITEK PENGUASA KANAN AL. CHIEH LO CHIEH ARKITEK KANAN MOHD. FAHMI BIN AHMAD ARKITEK MUHAMMAD FATHI BIN MOHD. HAUS	
NOTA AM	
PINDAAN	
PETUNJUK	PINDAAN / TARIKH / OLEH
PROJEK	
KLINIK KESIHATAN 4 (PIAWAI)	
TAJUK LUKISAN	
Pelan Aras 1	
DI MUKUL / LUKIS	DI SEMBAK
NAZNI / NAJ	NAJ
UKURAN	TARIKH
As indicated	APRIL 2017
NO. LUKISAN JRUCAPIBIMBAKAPU1	
NO. MODEL BIM	
NO. LUKISAN ELEKTRONIK	
STATUS LUKISAN	
COP & TARIKH	

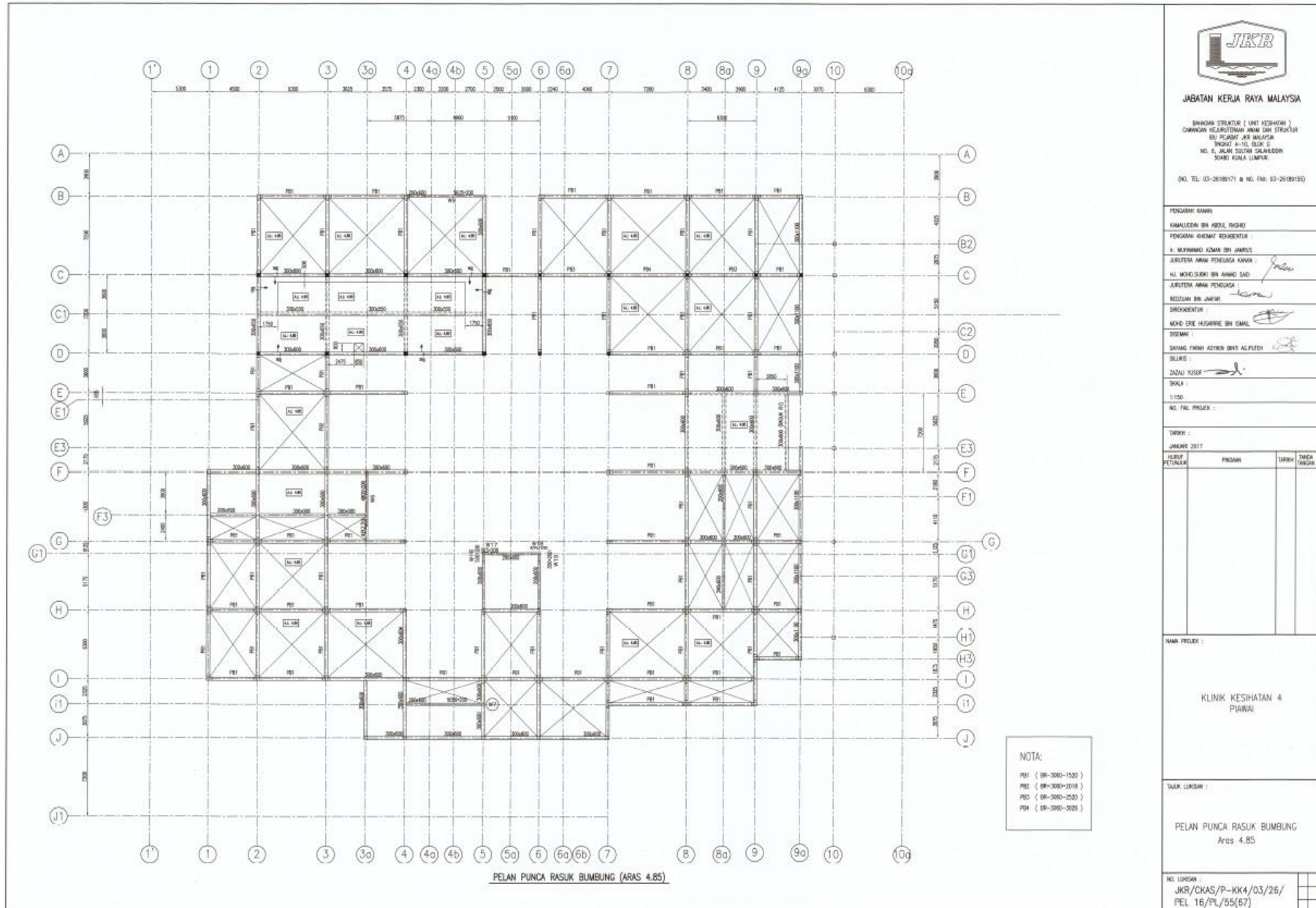


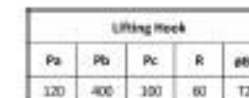


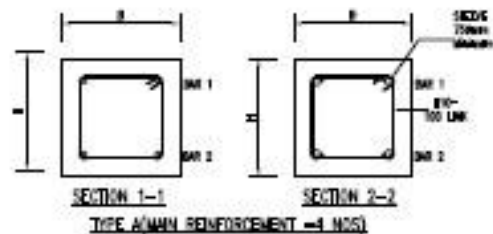
PELAN PUNCA PAPAK ARAS 1



PELAN PUNCA RASUK BUMBUNG



[illegible]



TYPE OF COLUMN	CODE OF COMPONENT	APPROX. SCORING (PERCENT)	FINAL STAGE DESIGN		REINFORCEMENT DATA		
			MAX. AXIAL LOAD	MAX. MOMENT	BAR 1	BAR 2	LAP
			KN/m	KN (KIP)			
C1	CS-3030-A18	2.18	520	29	240	240	400-
			1300	35			
			1400	35			
			800	47			
C2	CS-3035-A18	2.64	1300	37	240	240	400-
			1500	43			
			1800	59			
			800	105			
C3	CS-3035-A20	2.64	1300	34	340	270	400-
			1500	43			
			1800	57			
			800	87			

FORCES GIVEN IN THE TABLE REFER TO THE FINAL MOMENT AND AXIAL LOAD.

LAP SCHEDULE	
REPAIR/REPLACE SAR SIZE (mm)	LAP LENGTH (mm)
12	500
18	675
25	850
30	1000
38	1250

- COLUMN FIVE (2000)
- COLUMN FOUR & THREE (200 + 200 MM)
- COLUMN FIVE (2000)

[illegible]

TIANG PRATUANG SEGIEMPAT SAMA

TABLE 1
PRECAST SQUARE COLUMN

TYPE OF COLUMN	CODE OF COMPONENT	APPOX SELFWEIGHT (PRECAST)	FINAL STAGE DESIGN		REINFORCEMENT DETAIL		
			MAX AXIAL LOAD	MAX MOMENT	BAR 1	BAR 2	LINKS
		kN/m	Nf (kN)	Mxf OR Myf (kNm)			
C1	CS-3030-A16	2.16	630	59	2H16	2H16	H10-175
			1000	55			
			1400	36			
C2	CS-3535-A16		850	97	2H16	2H16	H10-175
			1000	97			
			1500	83			
			1800	59			
C3	CS-3535-A20	2.94	850	105	2H20	2TH20	H10-225
			1000	104			
			1500	93			
			1900	67			

NOTE:—

Mxf = MAXIMUM MOMENT CAPACITY DURING FINAL STAGE DESIGN IN X DIRECTION
 Myf = MAXIMUM MOMENT CAPACITY DURING FINAL STAGE DESIGN IN Y DIRECTION
 Nf = MAXIMUM AXIAL LOAD DURING FINAL STAGE DESIGN.

#FORCES GIVEN IN THE TABLE REFER TO THE FINAL MOMENT AND AXIAL LOAD

CODE OF COMPONENTS

CS-3030-A16

↑
 ↑
 ↑
 REBAR TYPE
 COLUMN WIDTH & DEPTH
 (300 x 300 MM)
 COLUMN TYPE (SQUARE)



SENARAI KUANTITI – PRECAST COLUMN

ELEMENT 2 - FRAME (INCLUDING INDUSTRIALISED BUILDING SYSTEM (IBS))

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	Precast Column <i>Precast Reinforced Concrete 30/37 columns design and cast in approved sizes and including all necessary jointing material: bearing pad, triangle wood block, G.I grout sleeve infilled with non-shrink grouting, four sided, three sided, two sided or single sided corbel (whichever is require) complete with dowel bar deliver to site complete with lifting loops, handling, lifting of precast concrete components to the required position all accordance with the manufacturer's specification.</i>				
A	<u>Ground to 1st Floor - 4.05m high</u> 300mm x 300mm	no	8		
B	<u>Ground to 1st Floor - 4.68m high</u> 300mm x 300mm	no	8		
C	<u>Ground to 1st Floor - 4.85m high</u> 300mm x 300mm	no	53		
D	350mm x 350mm	no	7		
E	Installation of Precast Concrete column including supply and lay of grouting material for filling the joints including starter bar all accordance with the manufacturer's specification and all necessary levelling, propping cutting of lifting loops and make good Precast Prestressed / RC beams <i>Precast Reinforced Concrete 30/37 beams design and cast in approved sizes and including all necessary accessories deliver to site complete with lifting loops, handling, lifting to the required position all accordance with the manufacturer's specification.</i> <u>Roof Beam - 4.05m high</u>	no	76		
F	Type PB1, 300mm x 600mm x 7200mm length	no	2		
G	Type PB1, 300mm x 600mm x 6550mm length	no	2		
H	Type PB1, 300mm x 600mm x 6300mm length	no	7		
J	Type PB1, 300mm x 600mm x 5100mm length	no	1		

KK4

KLINIK KESIHATAN 4 PIAWAI

To Collection :

KK4/2/2

	<u>Ground to 1st Floor - 4.05m high</u>		
A	300mm x 300mm	no	8
	<u>Ground to 1st Floor - 4.68m high</u>		
B	300mm x 300mm	no	8
	<u>Ground to 1st Floor - 4.85m high</u>		
C	300mm x 300mm	no	53
D	350mm x 350mm	no	7
E	Installation of Precast Concrete column including supply and lay of grouting material for filling the joints including starter bar all accordance with the manufacturer's specification and all necessary levelling, propping cutting of lifting loops and make good	no	76

SENARAI KUANTITI – PRECAST BEAM

ELEMENT 2 - FRAME (INCLUDING INDUSTRIALISED BUILDING SYSTEM (IBS))

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
A	Type PB1, 300mm x 600mm x 3900mm length	no	3		
B	Type PB1, 300mm x 600mm x 3600mm length	no	2		
<u>Roof Beam - 4.85m high</u>					
C	Type PB1, 300mm x 600mm x 7860mm length	no	1		
D	Type PB1, 300mm x 600mm x 7200mm length	no	24		
E	Type PB1, 300mm x 600mm x 6300mm length	no	24		
F	Type PB1, 300mm x 600mm x 5400mm length	no	1		
G	Type PB1, 300mm x 600mm x 5100mm length	no	2		
H	Type PB1, 300mm x 600mm x 4500mm length	no	3		
J	Type PB1, 300mm x 600mm x 4430mm length	no	1		
K	Type PB1, 300mm x 600mm x 4200mm length	no	1		
L	Type PB1, 300mm x 600mm x 4130mm length	no	6		
M	Type PB1, 300mm x 600mm x 3600mm length	no	4		
N	Type PB1, 300mm x 600mm x 3080mm length	no	1		
P	Type PB1, 300mm x 600mm x 2330mm length	no	2		
Q	Type PB2, 300mm x 600mm x 7200mm length	no	1		
R	Type PB3, 300mm x 600mm x 6300mm length	no	2		
S	Type PB4, 300mm x 600mm x 7200mm length	no	1		
T	Installation of Precast Concrete Beam including lay of grouting material for filling the joints all accordance with the manufacturer's specification and all necessary levelling, propping cutting of lifting loops and make good	no	91		
<u>IN-SITU CONCRETE</u>					
<u>Vibrated Reinforced Concrete Grade C30/37 with minimum cement content 320kg/m³ and maximum free water cement ratio 0.5 as specified in :-</u>					
U	Columns	m3	38		
V	Stiffeners	m3	5		
W	Roof beam	m3	119		
X	Shear wall	m3	33		

To Collection :

KK4

KLINIK KESIHATAN 4 PIAWAI

KK4/2/3

<u>Roof Beam - 4.85m high</u>					
C	Type PB1, 300mm x 600mm x 7860mm length	no	1		
D	Type PB1, 300mm x 600mm x 7200mm length	no	24		
E	Type PB1, 300mm x 600mm x 6300mm length	no	24		
F	Type PB1, 300mm x 600mm x 5400mm length	no	1		
G	Type PB1, 300mm x 600mm x 5100mm length	no	2		
H	Type PB1, 300mm x 600mm x 4500mm length	no	3		
J	Type PB1, 300mm x 600mm x 4430mm length	no	1		
K	Type PB1, 300mm x 600mm x 4200mm length	no	1		
L	Type PB1, 300mm x 600mm x 4130mm length	no	6		
M	Type PB1, 300mm x 600mm x 3600mm length	no	4		
N	Type PB1, 300mm x 600mm x 3080mm length	no	1		
P	Type PB1, 300mm x 600mm x 2330mm length	no	2		
Q	Type PB2, 300mm x 600mm x 7200mm length	no	1		
R	Type PB3, 300mm x 600mm x 6300mm length	no	2		
S	Type PB4, 300mm x 600mm x 7200mm length	no	1		
T	Installation of Precast Concrete Beam including lay of grouting material for filling the joints all accordance with the manufacturer's specification and all necessary levelling, propping cutting of lifting loops and make good	no	91		