

KERAJAAN MALAYSIA

CADANGAN PEMBINAAN PROJEK BALAI BOMBA & KUATERS PUTATAN
DI ATAS SEBAHAGIAN LOT N.T 213059771,
JALAN SAILAN IMBAAN PUTATAN, DAERAH PUTATAN, SABAH

KEMENTERIAN PERUMAHAN DAN KERAJAAN TEMPATAN
Aras 2-38, No.51,
Persiaran Perdana,
Presint 4, 62100, Putrajaya.

JABATAN BOMBA DAN PENYELAMAT MALAYSIA
Bahagian Pembangunan, Aras 4,
Lebuh Wawasan, Presint 7,
62250, Putrajaya.

LAPORAN KAWALAN KUALITI PERUNDING

ALASIM OMAR ARCHITECT
F-27-1, Royal Plaza Putatan,
KM11.2, Jalan Putatan,
88200, Kota Kinabalu, Sabah.

Dikemaskini pada 13/10/2022

KANDUNGAN:

1.0 Status kelulusan PBT
2.0 Status kelulusan Bahan
3.0 NCR (Non-Compliance Record)
4.0 RFI (Request for Information)
5.0 WPS (Wang Peruntukan Sementara)
6.0 Lukisan Pembinaan (Pindaan)
7.0 Method Statement
8.0 Inspection and testing plan
9.0 Laporan COW

ITEM	AUTHORITY	SUBMISSION TYPE	SUB NO.1	TARIKH & ULASAN	SUB NO.2	COMMENTS
1.	**MAJLIS DAERAH PUTATAN** Bangunan Mini Dewan, Pejabat Daerah Putatan, 88200, Putatan, Sabah. **PIC:** 1. Abd Said Ombok - Pegawai Eksekutif (Cuti Pencen) 2. Ahmad Helmi bin Mohd Taib - Pemangku Pegawai Eksekutif 3. Nizal Othman - Penolong Jurutera	DP 16 set BP 14 set	08/08/2020 MDPTN: 200-0/8(2020)(01)	- 04/02/2021 Masuk tapak (Pembersihan) - 08/03/2021 AOA – Rayuan Setback - 10/03/2021 MDPTn to JPBW MDPtn tiada halangan - 16/03/2021 JPBW to MDPtn JPBW kekalkan komen 6.1m - 22/03/2021 MDPtn to AOA Ikut balik komen JPBW - 30/03/2021 AOA to MDPtn Akan mematuhi semua komen Jabatan Teknikal - 31/03/2021 MDPtn to AOA Minta Revised Plan	- 30/04/2021 Revised Plan 7 set DP 7 set BP - 15/06/2021 Pn Umi (MDPtn) Menunggu kome JKR untuk pindaan DP/BP. - 29/06/2021 Pn. Umi (MDPtn) Belum ada komen JKR. - 23/08/2021 - 05/10/2021 - 08/4/2022 Kehendak kelulusan diberi dan menunggu panggilan daripada MDPTN untuk mengambil DP yang telah disahkan.	1. DP – (lulus) 8/4/2022 2. Pelan – Lulus 11/4/2022 3. BP – menunggu pengesahan dalam mesyuarat majlis. Takwim mesyuarat ialah pada **17 Oktober 2022 (Isnin).**
2.	**JABATAN PERANCANGAN BANDAR DAN WILAYAH** Tingkat 3, 4 & 5 Wisma Tuan Fuad Stephens 88646, Kota Kinabalu. **PIC:** 1. Carolyn C. Tay - b.p. Pengarah	DP BP	13/12/2020	19/01/2021 JPBW: 21/12/60(71) Ulasan – 3(i) sehingga 3(ix) 11/06/2021 JPBW to MDPtn	05/10/2021 kelulusan Interim Development Control Power (IDCP) dikecualikan	

ITEM	AUTHORITY	SUBMISSION TYPE	SUB NO.1	TARIKH & ULASAN	SUB NO.2	COMMENTS
3.	**IBU PEJABAT JABATAN BOMBA DAN PENYELAMAT MALAYSIA NEGERI SABAH** Jalan Lintas, Likas, Beg Berkunci 30, 88990 Kota Kinabalu. **PIC:** 1. Jemros bin Olin - Penolong Pengarah, Bahagian Keselamatan Kebakaran	DP BP	08/08/2020 JBPM/SB/BKK:700-2/1/2/623(4)	08/08/2020 JBPM/SB/BKK:700-2/1/2/623(4) Ulasan: Lulus mengikut kehendak-kehendak kelengkapan menentang kebakaran atau pepasangan keselamatan yang perlu dipatuhi oleh pihak tuan bagi projek di atas.		
4.	**JURUTERA BAHAGIAN (DIVISIONAL ENGINEER) PANTAI BARAT TENGAH** Jabatan Kerja Raya Bandaraya, 88863, Kota Kinabalu, Sabah. **PIC:** 1. Ir. Liaw Vui Phing - Jurutera Bahagian	DP BP	16/11/2020	07/01/2021 JKR.KBU.DL/415/Jld. 10(58) Ulasan di perkara 2.		
5.	**JABATAN ALAM SEKITAR NEGERI SABAH** Aras 4, Blok A, Kompleks Pentadbiran Kerajaan Persekutuan Sabah, Jalan UMS, 88450, Kota Kinabalu, Sabah. Tel: 088-488166 Fax: 088-488177 **PIC:** 1. Yaras bin Hj. Yusup - Ketua Penolong Pengarah	DP	05/02/2021	10/02/2021 ASSH(B)91/110/907/213 Ulasan – 2.1 sehingga 2.8		

ITEM	AUTHORITY	SUBMISSION TYPE	SUB NO.1	TARIKH & ULASAN	SUB NO.2	COMMENTS
6.	**PEJABAT KESIHATAN KAWASAN PENAMPANG** Lot 13 A-2, Pusat Dagangan Donggongon, 89500, Penampang, Sabah. **PIC:** 1. Dr. Omar Kwang Kugan - Pegawai Kesihatan Daerah	DP BP	25/11/2020 PKPD/KPAS/ 09/01/58 Ulasan Tiada halangan 2.0 syarat			
7.	**JABATAN TANAH DAN UKUR** Pantai Barat Selatan 88576, Kota Kinabalu, Sabah. Tel: 088-527655 Fax: 088-413706 **PIC:** 1. Ahmad Shah bin A.Kallon- Jurukur Daerah	DP	23/11/2020	22/12/2020 JUD.PB(S):D(13)-26(39)/13/(JB/…) Ulasan – 2a sehingga 2f		

2.0 STATUS KELULUSAN BAHAN – M/S 1/4

ITEM	BAHAN BANGUNAN (MM)	TARGETTED SUBMISSION DATE	SUPPLIER/ BRAND/ CODE	SUB 1 (MTR TO AOA)	COMMENTS (ARCH)	SUB 2 (AOA TO KPKT)	COMMENTS (USB KPKT)	STATUS
1.	Anti Termite		Pestgroup Synergy Sabah S/B	04/05/2021		03/09/2021 06/09/2021		**LULUS**
2.	Water Proofing		Sika Kimia Sdn Bhd	19/11/2021		14/12/2021		**LULUS**
3.	Homogenous/Ceramic Tiles Floor – HT, JH, JH1 & JH2 Wall - JS		Niro Ceramic Sales & Services(M) Sdn Bhd	02/09/2021 29/11/2021		14/12/201		**LULUS**
4.	Roll Carpet CA – Roll carpet dengan 100% fiber sintetik BCF berat pile minimum 850gb/sqm 'PVC FiberGlass Reinforce Backing' dengan Kambi Kayu.		Loca Broadloom Carpet	30/3/2022		7/4/2022	26/04/2022	**LULUS**
5.	Rubber Tiles RM – 500 x 500 x 25 thickness Rough surface Rubber mat tiles		Pending					
6.	Batu Bata BB – 110 tebal dinding batu bata dengan lepa simen pada kedua-dua permukaan 20 tebal (dalam dan luar) serta di cat atau mana-mana kemasan seperti dinyatakan.		CHRB Building Materials SB (Sabah) Sdn Bhd	18/08/2021		07/09/2021 04/10/2021		**LULUS**
7.	Roller Shutter		LCP TRADING SDN BHD	25/10/2021		22/11/2021		**LULUS**

ITEM	BAHAN BANGUNAN (MM)	TARGETTED SUBMISSION DATE	SUPPLIER/ BRAND/ CODE	SUB 1 (MTR TO AOA)	COMMENTS (ARCH)	SUB 2 (AOA TO KPKT)	COMMENTS (USB KPKT)	STATUS
8.	Fire Door		FITTERS MARKETING SDN BHD	06/09/2021	09/09/2021 Approved	04/10/2021 Dipersetujui		**LULUS**
9.	Paint CE – Dalaman 1: coat basecoat sealer Strax, APEO (Alkyphenol Ethoxylate) free dan rendah VOC (Volatile Organic Compound) serta dengan kelulusan 'Green Label' oleh SIRIM. CTC – Luaran: 1 coat alkaline resisting primer diikuti dengan 2 coat cat 2X UV Protected Colours, Dirst Resistant, Temperature Reduction, Weather Resistant, 100% acrylic anti kulat, rendah VOC (Volatile Organic Compound) serta dengan kelulusan 'Green Label' oleh SIRIM dan fade colour dengan 6 tahun warranty.		NIPPON	17/09/2021 12/03/2022	- Menunggu cadangan warna dari Nippon	18/03/2022	Komen Bomba: Aluminium cladding hendaklah berwarna merah. Tidak bersetuju dengan cadangan Arkitek, warna putih. 05/04/2022	**LULUS**
10a.	Door Leaf		Yang Chuan Trading	21/02/2022	- Katalog tidak lengkap - Plywood flush door & solid door			**LULUS**
10b.	Aluminium Sliding & Aluminium Casement Window		LB Aluminium Berhad	30/11/2021		08/02/2022		**LULUS**
10c.	Metal Door Frame		Yang Chuan Trading	19/11/2021		14/12/2021		**LULUS**
11.	Iron Mongery		Concorde	10/12/2021		14/12/2021		**LULUS**

ITEM	BAHAN BANGUNAN (MM)	TARGETTED SUBMISSION DATE	SUPPLIER/ BRAND/ CODE	SUB 1 (MTR TO AOA)	COMMENTS (ARCH)	SUB 2 (AOA TO KPKT)	COMMENTS (USB KPKT)	STATUS
12.	Sanitary Fittings		Econax by Johnson Suisse	22/02/2022		03/03/2022		DALAM SEMAKAN
13.	Sanitary Ware							
14.	Floor Traps							
15.	Ventilation Block		Pionnier Block Industries Sdn Bhd			21/09/2021		LULUS
16.	UPVC Gutter & Rainwater down pipe 100ø rainwater down pipe		TTS Pipes & Fittings Sdn Bhd	17/09/2021		14/12/2021		LULUS
17.	Metal Roofing PC – 0.5 tebal bumbung jenis kepingan Polycarbonate 'Heat Ray Cut (HRC) Series type Solid Sheet with atau setara dengan warna 'tinted', l/d system bingkai keluli sederhana keras 3 tebal.		NS BlueScope Lysaght Sabah Sdn. Bhd.	09/07/2021	Approved (24/08/2021)	04/10/2021	Dipersetujui	LULUS
18.	Epoxy VHD – Very heavy-duty Epoxy floor to manuf.'s spec.							TIADA KEPERLUAN
19.	Ceiling 1. PF – Plaster Board Ceiling dengan ketebalan 12mm yang diluluskan Arkitek 2. AL – 0.55 tebal Siling Jalur Aluminium 'Aluminium Strip Ceiling' rujuk butiran pengeluar dengan corak/warna.		Saint-Gobaint Malaysia Sdn Bhd Colform Sdn Bhd	14/12/2021 27/12/2021	-softcopy catalogue -Tiada sijil SIRIM	08/02/2022		LULUS

ITEM	BAHAN BANGUNAN (MM)	TARGETTED SUBMISSION DATE	SUPPLIER/ BRAND/ CODE	SUB 1 (MTR TO AOA)	COMMENTS (ARCH)	SUB 2 (AOA TO KPKT)	COMMENTS (USB KPKT)	STATUS
20.	Pagar Rujukan – Lukisan Pembinaan 200413/JBPMput/P1-50 200413/JBPMput/P2-51		POLYRON INDUSTRIES SDN BHD	29/03/2022 02/06/2022 24/06/2022	- Anti Climb (Hot Dip Galvanised (75x200mm) - Katalog - Chain link fencing belum dikemukakan - Resubmission Anticlimb Fence	11/04/2022	- Material sample 26/4/2022 Fencing (*Hot Dip Galvanised* ditolak kerana tiada sijil sirim)	**LULUS**
21.	Fire Door		FITTERS MARKETING SDN BHD	06/09/2021	09/09/2021 Approved		04/10/2021 Dipersetujui	**LULUS**
22.	Aluminium		POLYRON INDUSTRIES SDN BHD	16/03/2022		28/03/2022	05/04/2022 Dipersetujui	**LULUS**
23.	Roller Shutter		LCP TRADING SDN BHD	25/10/2021		22/11/2021		**LULUS**
24.	Wall Climbing		AGC OUTDOOR SPORT	18/03/2022		22/03/2022	05/04/2022 Dipersetujui	**LULUS**
25.	Roller Blind		CITY CURTAIN SDN BHD	21/03/2022				**LULUS**
26.	Lockset Fire Door		GAYADOR SDN BHD	23/08/2022		09/09/2022	15/09/2022 Dipersetujui	**DITOLAK**
27.	Skylight		AMPLITE (MALAYSIA) SDN BHD	02/06/2022		09/09/2022	15/09/2022 Dipersetujui	**LULUS**
28.	Solid Door/ Plywood Door		MAN KIN TRADING SDN BHD	19/08/2022				

3.0 NCR – NON-COMPLIANCE RECORD

NCR Number	Data	Issues	Status

RFIT Number	Date	Information	Status
MTR-RFIT-01-2021-01-AOA	21/12/2021	Balai Bomba Window Schedule descriptency. Correct the elevation for the window in ground floor.	CLOSED
MTR-RFIT-01-2021-02-AOA	04/01/2021	Menara Latihan door schedule descriptency. According to layout plan, D1 cannot seem to fit for its width.	CLOSED
MTR-RFIT-01-2021-03-AOA	26/01/2022	Comparison between Architect plan of Balai Bomba & BQ The window detail is not found in the BQ	CLOSED
MTR-RFIT-01-2021-04-AOA	26/01/2022	The layout plan and structure plan of Balai Bomba (Ruang Jentera). There seems to be a clash between layout plan & structure plan of Balai Bomba. (Ruang Jentera)	CLOSED
MTR-RFIT-01-2021-05-AOA	26/01/2022	The partition of Tandas Lelaki in Aras Satu. (Balai Bomba) The detail of partition of tandas lelaki in Aras Satu is not found.	CLOSED

Item	Rujukan	Status
wps1	LOOSE FURNITURE Rujukan - Lukisan Pembinaan 200413/JBPMput/LF01 Meja Bilik Mesyuarat Loker Individu Roller Blind	
wps2	CURTAIN - LULUS Roller Blind - LULUS	
wps3	SIGNAGES Rujukan - Lukisan Pembinaan 200413/JBPMput/S-00 200413/JBPMput/S-01 200413/JBPMput/S-02 200413/JBPMput/S-03 200413/JBPMput/S-04 Papan Tanda Piawai Balai Bomba 200413/JBPMput/PTP46 200413/JBPMput/PTP47 200413/JBPMput/PTU48 200413/JBPMput/PT1&2-49	
wps4	Soft Landscaping - LULUS	

Dwg No.	Size	Date	Information	Status	
200413/JBPMput/M-01 200413/JBPMput/M-06 200413/JBPMput/M-08 200413/JBPMput/RS-40	A1	30/04/2021	Site Plan Stor 1, Stor 2, Rumah Pam & SSTS Tempat Letak Kereta Berbumbung Rumah Sampah	Perunding mengemukakan 6 Salinan Pelan Pindaan kepada USB KPKT untuk pengesahan sebagai lukisan pembinaan	**LULUS** **LULUS**
200413/JBPMput/TG-53	A3	09/09/2021	Drawing list Change from Tiang Bendera Balai Bomba to Tiang Gelungsur (Sliding Pole)	Tiada perubahan kos	**LULUS**
AoA/BBPut/rcp01	A3	18/03/2022	Kuarters Ceiling Plan : - Pelan Lantai bawah - Pelan Aras Satu	Ada perubahan kos	**LULUS**
200413/JBPMput/M-09	A3	12/08/2022	Menara Latihan - RWDP - Dry Riser Door	Ada perubahan kos	
200413/JPBMput/TE&F-30	A3	12/08/2022	Kuarters - Toilet Tiles	Ada perubahan kos	**DALAM PROSES**
200413/JPBMput/DUF-29	A3	12/08/2022	Kuarters – Kitchen Ceiling GF	Ada perubahan kos	
200413/JPBMput/CP1b	A3	12/08/2022	Balai – Aluminium Strips	Ada perubahan kos	
200413/JPBMput/T-31	A3	12/08/2022	Balai – Aluminium Cladding	Ada perubahan kos	**DITOLAK**

NO.	ITEM	SUBMITTED DATE
1.	Brickworks	10.09.2021
2.	Plastering Works (Without Skim Coat Finished)	02.12.2021

8.0 INSPECTION AND TESTING PLAN
- ARCHITECTURAL WORKS

BIL	TRADE
1	CEILING WORKS
2	DOOR, WINDOW AND IRON MONGERY
3	ROOF
4	PLASTERING WORKS
5	PAINTING WORKS
6	TILING WORKS (FLOOR/WALL TILES)
7	SANITARY WARE & FITTINGS
8	INTERIOR, SIGNAGE AND GRAPHIC
9	SOFT LANDSCAPE WORKS
10	HARD LANDSCAPE WORKS
11	ANTI TERMITE

ITEM	DESCRIPTION OF WORK	POINT OF INSPECTION/ TEST	STANDARD/ REQUIREMENT	TOOLS/ EQUIPMENT	STAGE/ FREQUENCY	COMMENTS
1.	Receive and check shop drawings from supplier. Ceiling type: - Plaster ceiling - Suspended ceiling Fixed ceiling	catalog / drawings / sample	Check as per contract document and take into account factors such as: Plaster & suspended ceiling - Check the thickness, stiffness, weight and ceiling board pattern. - Other components such as - 'main T & cross T' , 'wall angle', 'soffit cleat', 'hanging C channel' and 'comice' Fixed ceiling - Check the thickness, stiffness, weight and ceiling board pattern. - Other components such as- 'comice' Other requirement - SIRIM Certificate and warranty, fire rated and sound insulation (acoustic ceiling).	Contract Dokumen / SPK Tools / Shop Dwg.	Ealier / months before the ceiling installation works or after roof structure works done.	
2.	Receive and check sample for approval	Sample material	Check as per contract document and shop drawings.	Visual	Ealier construction works or after superstructure works finish.	
3.	Ceiling mock-up at site.	Set mock-up	Check the mock-up as per construction drawings & shop drawings together with the sample that have been approved and verified.	Mock-up / Sample material	3 months before ceiling work.	

ITEM	DESCRIPTION OF WORK	POINT OF INSPECTION/ TEST	STANDARD/ REQUIREMENT	TOOLS/ EQUIPMENT	STAGE/ FREQUENCY	COMMENTS
4.	Check material that is sent to site	Random check by batch / lab test	Check material whether is the same as per approved sample. Store in a close area that free from dirt and moisture.	Measuring Tape / Laser measure	All Stages	
5.	Ceiling Installation	Random check installation / similar to mock-up.	Check the ceiling installation as per construction drawings and for each space: - Installation technique as per approved mock-up. - Design and pattern of the ceiling shall be aligned with the roof fall. - Floor to ceiling height must be enough to cater the ceiling space for mechanical and electrical wirings. 'ceiling manhole' for fix ceiling as required.	Visual	All Stages	
6.	After the installation	Check room by room / Audit before handing over	Final inspection for: - electrical & mechanical fixtures such as air-cond diffusers, lightings, ceiling fans and fire requirements are not directly fix to the ceiling boards. Finished of the ceilings must be made good after the work is completed.	Visual	All Stages	

ITEM	DESCRIPTION OF WORK	POINT OF INSPECTION/ TEST	STANDARD/ REQUIREMENT	TOOLS/ EQUIPMENT	STAGE/ FREQUENCY	COMMENTS
1.	Submit sample / catalogue / shop drawing / method statement for approval and prepared mockup at site.	Catalog / Shop drawings / Sirim cert. / Sample material	- Submit within 'x' month from commencement of building works - As specified in contracts document - To ensure only specified item submitted for approval	Shop drawing / Certified material.	Once before delivery.	
2.	Material delivered to site.	Lab material test	- As specified in contract document and as per approved proposal		All	
3.	Contractor to measure opening provided at site for windows and doors.	Random Check	- To check prior to fabrication of any deviation to the specified size and report to the SO	Measuring tape / Laser measure	All	
4.	Fix Sub frame in position.	Random Check	- As specified in contract document and method statement. - To fix sub frame before plastering and check the alignment with level before fixing in position	Spirit level	All	
5.	Fix frame in position	Random Check	- Check defect on the frame if any, rectify or reject.	Visual	All	
6.	Install door window panel / install iron mongery	Random Check	- As specified in contract document and method statement.	Visual	All	

ITEM	DESCRIPTION OF WORK	POINT OF INSPECTION/ TEST	STANDARD/ REQUIREMENT	TOOLS/ EQUIPMENT	STAGE/ FREQUENCY	COMMENTS
1.	Sample	Catalog / Shop drawings / Sirim cert. / Sample material	- Submission of shop drawing and sample for approval prior to mock-up fabrication on site 2 months before commencement on site. - As specified in contract document	Shop drawing / Certified material.	Once (before delivery)	
2.	Material delivery	Check material at random	- Ensure only approved items are delivered at as specified in contract document. - Items should be kept unexposed for long before installation process commences. - Reject all damage items and items that does not confirm to specifications. - Handling & storage of roofing sheets/ tiles / related items shall comply to the approved Method Statement.	Visual	Delivery stages	
3.	Installation	Approved installer and Certified by roof Supplier	- Finishing No Stain marks shall be visible Finishing shall be in good paint works -Falls Roof fall shall look smooth with no tool marks Even and level especially no potential in stripping Falls in right direction -Physical Damage No visible damage / defects eg. crack, chip, etc Joint / Sealant / Alignment shall be consistent, neat and aligned Inspect exterior for continuity of roof covering, deterioration of fascias, gutters and soffits; and performance of flashings Inspect interior finishes (ceilings and walls) for signs of water penetration, and structural distress -Chockage / Ponding No sign of chockage or ponding - Construction No sign of leaking Proper dressing for protrusion if any Neat and secured installation of fixture	Visual	All	

ITEM	DESCRIPTION OF WORK	POINT OF INSPECTION/ TEST	STANDARD/ REQUIREMENT	TOOLS/ EQUIPMENT	STAGE/ FREQUENCY	COMMENTS
4.	Flat/ Membrane Roof/ Water proofing installation.	Ponding test as per audit check list.	- Proding shall be not more than 3mm high - No blisters shall be on the roof (either broken or not), which may allow water to enter the roof - Look for depressions around vent pipes where water can collect and begin leaking through cracks in the surface. - No gap / separations of flashing by the parapet that rings the flat roof - Surface to level to avoid tripping - Proper dressing for any protrusion - Openings to be sealed to prevent pest invasion - Clean and no stain marks	Spirit Level	ALL	
5.	Sloped Roof Installation	Audit check list	- All purlins are in the right level, and none is out of line (structure tolerance shall meet roofing manufacturer recommendation) - Final coating of paint has been applied to roof structural members - Layers of insulation shall as specified in contract document, approved construction/shop drawings or other relevant documents. - Thickness (BST) of metal roofing sheet shall as specified in contract document, approved construction/ shop drawings or other relevant documents. - Roof tiles in alignment - Openings to be sealed to prevent pest invasion - Consistent colour tone - Proper dressing for any protrusion	Visual	All	
6.	Roof Features - Fascia - Soffit - Flashing - Gutters / Drains / RWDP - Skylights - Vents - Others	Audit check list	- No ponding and chockage - No cracks, chips and any other visible damage - RWDP inlet shall be lower than the surrounding gutter invert level - Gutter and RWDP inlet to be covered to prevent chockage where practical - Clean and no cement stains - No physical damage of all roof flashing and the flashing around vent stacks, roof edges, dormers, and skylights.	Visual	All	

ITEM	DESCRIPTION OF WORK	POINT OF INSPECTION/ TEST	STANDARD/ REQUIREMENT	TOOLS/ EQUIPMENT	STAGE/ FREQUENCY	COMMENTS
1.	Preparation for Plastering	Check mock-up preparation / random check	At least 3 days after the completion of brick wall as specified in the contract drawing	Visual / Laser equipment	Once	
2.	Clean Surface	Random Check	The surface shall be cleaned and wetted before plastering. As Specified in the contract document.	Visual	All	
3.	Plaster Mix	Preparation / external test	1 part of cement to 6 parts of sand by volume. As Specified in the contract document.	Visual / Sample	All	
4.	Alignment	Random Check	Set out alignments on brick wall surface before commencement of plastering works.	Measurement tools	All	
5.	Apply the first coat	Random Check	Averaging 10 mm thick applied to the area having greater deviation from the intended finish surface. As specified in the document.	Measurement tools	All	

ITEM	DESCRIPTION OF WORK	POINT OF INSPECTION/ TEST	STANDARD/ REQUIREMENT	TOOLS/ EQUIPMENT	STAGE/ FREQUENCY	COMMENTS
1.	Submit sample / Catalogue / Colour scheme proposal	Catalog / Shop drawing / Sirim cert. / Sample material	- Submit within 'x' month from commencement of building works - As specified in contracts document - To ensure only specified or equivalent paint are submitted for approval.	Colour scheme	Once before delivery	
2.	Material delivered to site	Random Check	As specified in contract document and as per approved proposal	Visual	All	
3.	Wall / Surface perparation	Random Check	- Make sure all surfaces are clear from dirt, smoothly plastered and completely dry	Visual	All	
4.	Site readiness	Random Check	- Other construction works overlapped are well planned on site to avoid conflict - No other site activity to take place near painting area to disrupt painting quality	Visual	All	
5.	Apply base coat	Random Check	- To make sure wall surface is free from unevenness - Make sure base coat applied is as specified in contract document	Visual	All	
6.	Applying paint	Approved applicator and Certified by Paint Supplier	- To make sure walls are coated with 2 layers of emulsion acrylic paint for internal, and weather resistance acrylic paint with anti fungus for external - Paint must be in good condition, maintenance free with good aesthetics, APEO free (alkylphenol ethoxylate) and low VOC (Volatile Organic Compound) with green label by SIRIM - Minimum 5 years warranty	Visual / Certification	All	

ITEM	DESCRIPTION OF WORK	POINT OF INSPECTION/ TEST	STANDARD/ REQUIREMENT	TOOLS/ EQUIPMENT	STAGE/ FREQUENCY	COMMENTS
1.	Submit sample / Catalogue / Colour scheme proposal	Catalog / Shop drawing / Sirim cert. / Sample material	- Submit within 'x' month from commencement of building works - As specified in contracts document - To ensure only specified or equivalent paint are submitted for approval	Mock-up / Sample / Certified material		
2.	Check quality of tiles upon delivery	Random Check	- As specified in contract document and as per approved proposal, and tile installation guideline - Check on tonality, crack, chip, wasp and surface unevenness	Visual		
3.	Confirm tiles dimension	Sample / Mock-up	- As specified in contract document and drawing specification - Width and length tolerance to be +/- 1%, thickness +/- 10%	Measurement tools / Spirit level		
4.	Wall / surface preparation	Random Check	- Make sure all surfaces are clear from dirt, ready to accept tiles and completely dry	Visual		
5.	Floor surface preparation	Random Check	- Make sure all surfaces are clear from dirt, ready to accept tiles and completely dry	Visual		
6.	Tiles Installation	Random Check and Test	- Check mortar/glue thickness as stated in tiles installation guideline - As specified in contract document	Visual		
7.	Site inspection	Audit check list construction	- As specificed in contract document and tiles installation guideline	Visual		

ITEM	DESCRIPTION OF WORK	POINT OF INSPECTION/ TEST	STANDARD/ REQUIREMENT	TOOLS/ EQUIPMENT	STAGE/ FREQUENCY	COMMENTS
1.	Submit sample / Catalogue / Colour scheme proposal	Catalog / Shop drawing / Sirim cert. / Sample material	- Submit within '6' month before installation of works. - As specified in contracts document - To ensure only specified or equivalent material are submitted for approval.	Mock-up / Sample	6 months before the completion work	
2.	Factory visit / Fabricate material in factory / in site / Mock-up for Furniture and signage.	Random Check / Material	- Inspection the material used and fabricate at factory - As specified in contract document and as per approved proposal - Mock-up for Furniture, signage, and other related.	Visual	3 months before the completion work	
3.	Site readiness	Random Check	- To make sure all material delivered in good condition / inspect the materials on site. - Make sure the site is ready / clear for major work - Measured the site area to be constructed.	Visual	All Stages	
4.	Material delivered to site / site preparation / confirms I.D works dimension	Random Check / Lab Test	- To make sure all material approved delivered as specified and approve contract document. - Provide protection and secured storage.	Visual	All Stages	
5.	Site Preparation	Random Check	- Make sure the site ready / clear for major work. - Measured the site area to be constructed.	Visual	All Stages	
6.	Installation materials	Random Check	- To make sure all materials in good condition / inspect the material on site. - check mortar / glue / carcass thickness in ID works and related works. - As specified in contract document	Visual	All Stages	
7.	Site Inspection	Audit check list construction	- As specified in contract document and installations guideline.		All Stages	

ITEM	DESCRIPTION OF WORK	POINT OF INSPECTION/ TEST	STANDARD/ REQUIREMENT	TOOLS/ EQUIPMENT	STAGE/ FREQUENCY	COMMENTS
1.	Nursery visit	Approval of selected plant	- Check the specification - Visit nursery and mark all plants with paint - Only select good quality of plants	Visual	Once before delivery	
2.	Material Delivery	Random check the type, size and height of plants	- Ensure only approved and marked plants are delivered at site as specified in the contract document - Plant should be stored at shed or temporary covered nursery - Plant should not be left under the sun at site more than 2 days. - Reject all damage or unhealthy or unhealthy plants	Visual / Measurement tools	Delivery stages	
3.	Planting preparation	Random Check	- Ensure all hole are excavated as per specified in the drawing and left for one week to eliminate fungus and parasites. - Ensure soil mixture is from ratio of 3 topsoil : 1 organic compound.	Visual	All	
4.	Planting Process	Random Check	- For palms, make sure all fronds are tied to avoid moisture loss. - Water immediately after planting - Ensure mulching and stakes are provided as per detail drawing provided.	Visual	All	
5.	Maintenance	Audit Check List	- Ensure all plants are watered twice a day and fertilize fortnightly for first six month. - Check all dead and unhealthy plants to be replaced.	Visual	All	

TRADE 10: HARD LANDSCAPE WORKS

ITEM	DESCRIPTION OF WORK	POINT OF INSPECTION/ TEST	STANDARD/ REQUIREMENT	TOOLS/ EQUIPMENT	STAGE/ FREQUENCY	COMMENTS
1.	Nursery visit	Approval of selected plant	- Check the specification - Visit nursery and mark all plants with paint - Only select good quality of plants	Visual	Once before delivery	

TRADE 11: ANTI TERMITE

ITEM	DESCRIPTION OF WORK	POINT OF INSPECTION/ TEST	STANDARD/ REQUIREMENT	TOOLS/ EQUIPMENT	STAGE/ FREQUENCY	COMMENTS
1.	Submit ~~sample~~ / Catalogue / ~~Colour scheme proposal~~	Catalog / ~~Shop drawing~~ / Sirim cert. / ~~Sample material~~	- Submit within '1' month before installation of works. - As specified in contracts document - To ensure only specified or equivalent material are submitted for approval	Catalogue	1 month before the completion work	

9.0 LAPORAN COW M/S 1/4 - (13/10/2022)
Balai Bomba



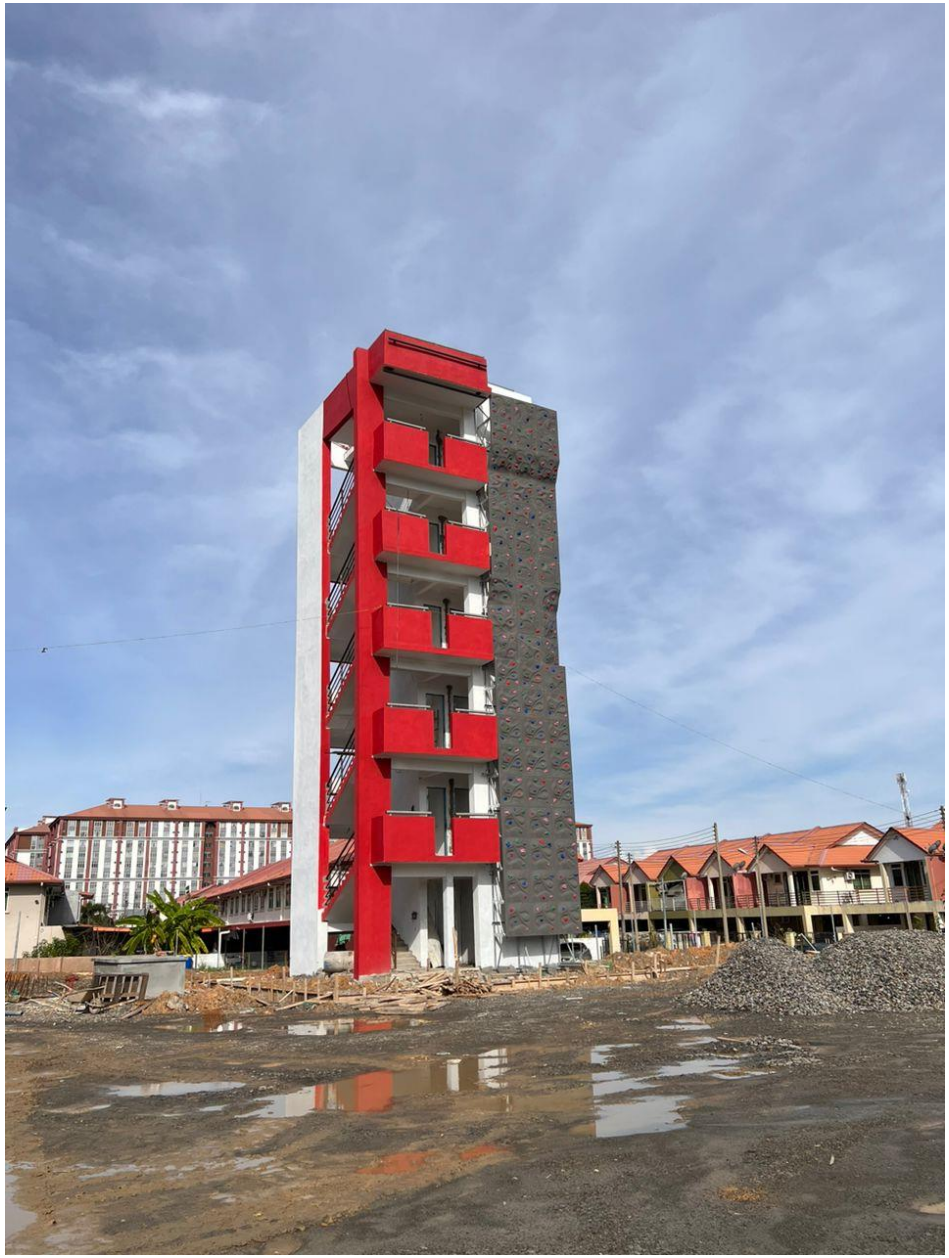


9.0 LAPORAN COW M/S 2/4 – (13/10/2022)
Kuarters





9.0 LAPORAN COW M/S 3/4 – (13/10/2022)
Menara Latihan



9.0 LAPORAN COW M/S 4/4 – (13/10/2022)
Bilik Pam, Stor 1 & Stor 2

