

KERAJAAN MALAYSIA
MAJLIS SUKAN NEGARA
DOKUMEN SEBUT HARGA

**KERJA-KERJA PEMBAIKAN KOMPLEKS SUKAN
MSN SETIAWANGSA, KUALA LUMPUR UNTUK
MAJLIS SUKAN NEGARA MALAYSIA.**

-KERJA-KERJA MEMBAIKPULIH, MENGECHAT PERMUKAAN
BUMBUNG DAN DINDING BANGUNAN KOMPLEKS TERMASUK ASTAKA
serta BERKAITAN

NO. SEBUT HARGA :



**KETUA PENGARAH
MAJLIS SUKAN NEGARA MALAYSIA
KOMPLEKS SUKAN NEGARA
BUKIT JALIL, SRI PETALING
57000 KUALA LUMPUR**

KERJA-KERJA PEMBAIKAN KOMPLEKS SUKAN MSN SETIAWANGSA, KUALA LUMPUR UNTUK MAJLIS SUKAN NEGARA MALAYSIA.

-KERJA-KERJA MEMBAIKPULIH, MENGECHAT PERMUKAAN BUMBUNG DAN DINDING BANGUNAN KOMPLEKS TERMASUK ASTAKA SERTA BERKAITAN

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SENARAI SEMAKAN

SENARAI SEMAK

Sila Tandakan bagi Dokumen-dokumen yang disertakan.

Bil	Perkara/ Dokumen	Untuk di tanda oleh Syarikat	Untuk di tanda oleh Jawatankuasa Pembuka Sebut Harga
1	Salinan Sijil Perolehan Kerja Kerajaan (SPKK)		
2	Salinan Perakuan Pendaftaran Kontraktor (PPK)		
3	Salinan Sijil Taraf Bumiputera (STB) - PKK		
4	Salinan Penyata Akaun Bank (3 Bulan) Terkini Yang Disahkan Oleh Pihak Bank		
5	Borang Sebut Harga telah diisi dengan lengkap (termasuk nilai tawaran dan tempoh siap) dan ditandatangani oleh Penama seperti tertera dalam Sijil Pendaftaran dari CIDB/PKK (BSH/1)		
6	Ringkasan Sebut Harga telah diisi dengan lengkap (RSH/1)		
7	Senarai Kerja 5 tahun yang telah disiapkan (BRG-D/1)		
8	Senarai Kakitangan Teknikal (BRG-E/1)		
9	Senarai Keempunyaan Loji dan Peralatan Utama (BRG-F/1)		
10	Prestasi Kerja Semasa (BRG-G/GA/GA1)		
11	Senarai Sub-Kontraktor Pakar (BRG-H/1-2)		
12	Profil Syarikat (Lengkap dan Sempurna)		
13	Surat Akuan Pembida (Lampiran A1)		
14	Addenda Sebutharga (jika berkaitan)		
15	Lain-lain sekiranya ada:		

PENGESAHAN OLEH SYARIKAT

Dengan ini saya mengesahkan bahawa saya telah membaca dan memahami semua syarat-syarat dan termasuk yang dinyatakan di dalam dokumen sebut harga. Semua maklumat yang dikemukakan adalah benar.

Tandatangan:

Nama:

Jawatan:

Tarikh:

UNTUK KEGUNAAN MAJLIS SUKAN NEGARA

Jawatankuasa Pembuka Sebut Harga mengesahkan penerimaan dokumen bertanda kecuali bagi perkara bil.....(jika ada).

Tandatangan:

Nama:

Jawatan:

Tarikh:

Tandatangan:

Nama:

Jawatan:

Tarikh:

ARAHAN KEPADA 彭年裕

ARAHAN KEPADA PENYEBUT HARGA

1. HAK KERAJAAN UNTUK MENERIMA / MENOLAK SEBUT HARGA

Kerajaan adalah tidak terikat untuk menerima sebut harga yang terendah atau mana-mana sebut harga atau memberi apa-apa sebab di atas penolakan sesuatu sebut harga. Keputusan Jawatankuasa Sebut Harga adalah muktamad.

2. CARA-CARA MELENGKAPKAN DOKUMEN SEBUT HARGA

2.1. Penyediaan Sebut Harga

Kontraktor adalah dikehendaki mengisi dengan dakwat segala maklumat berikut dengan sepenuhnya:-

- (a) Harga dan tandatangan Kontraktor di Ringkasan Sebut Harga,
- (b) Harga, tempoh dan tandatangan dalam Borang Sebut Harga,
- (c) Senarai Kerja Dalam Tangan,
- (d) Senarai Kerja Pengalaman 5 Tahun,
- (e) Senarai Kakitangan Teknikal,
- (f) Senarai Loji dan Peralatan Utama,
- (g) Jadual Kadar Harga (jika ada),
- (h) Butir-butir Spesifikasi (jika ada),
- (i) Surat Akuan Pembida.
- (j) Jika berlaku kesilapan dalam mengisi maklumat-maklumat di atas Penyebut Harga hendaklah menandatangani ringkas semua pembetulan.
- (k) Kegagalan mengisi/menandatangani Borang Sebut Harga akan mengakibatkan Sebut Harga ditolak.
- (l) Sekiranya terdapat percanggahan di antara maklumat yang dinyatakan dalam Ringkasan Sebut Harga dan Borang Sebut Harga, maklumat di dalam Borang Sebut Harga diberi keutamaan.
- (m) Sekiranya Penyebut Harga didapati memberikan maklumat palsu atau sengaja menyorok atau tidak memberikan mana-mana maklumat yang memberikan kesan negatif terhadap keupayaannya, Sebut Harganya akan ditolak dan tindakan tatatertib akan diperakukan terhadapnya.

2.2. Dokumen-dokumen lain yang mesti dikemukakan (Dokumen Wajib/Sokongan)

- (a) Salinan Sijil Perolehan Kerja Kerajaan (SPKK)
- (b) Salinan Sijil Perakuan Pendaftaran Kontraktor (PPK)
- (c) Salinan Sijil Taraf Bumiputera (PKK)
- (d) Senarai sub-kontraktor pakar (jika berkaitan)

2.3. Penyerahan Dokumen Sebut Harga

- (a) Dokumen Sebut Harga yang telah diisi dengan lengkap hendaklah dimasukkan ke dalam sampul surat berlakri yang dicatatkan dengan bilangan Sebut Harga serta tajuk sebut harga dan hendaklah dimasukkan ke dalam peti sebut harga pada masa dan tempat yang ditetapkan dalam Notis Sebut Harga.
- (b) Jika Dokumen Sebut Harga tidak diserahkan dengan tangan, Penyebut Harga hendaklah menghantar Dokumen tersebut secara pos berdaftar supaya tiba pada atau sebelum masa dan di tempat yang ditetapkan seperti berikut :

**Lobi (Aras Bawah),
Majlis Sukan Negara Malaysia,
Kompleks Sukan Bukit Jalil,
Seri Petaling,
57000 Kuala Lumpur**

sebelum jam 12.00 tengahari

- (c) Sebut Harga yang diserahkan selepas masa yang ditetapkan, berbangkit atas sebarang sebab, tidak akan dipertimbangkan.

2.4. Penjelasan Lanjut

Sekiranya terdapat maklumat dalam Dokumen Sebut Harga yang tidak jelas atau bercanggah, Penyebut Harga boleh menghubungi pejabat yang menjual/mengeluarkan Dokumen Sebut Harga untuk penjelasan lanjut.

2.5. Tandatangan Oleh Penyebutharga

Sebutharga hendaklah ditandatangan oleh pegawai yang ditauliahkan oleh syarikat seperti penama yang dinyatakan dalam Sijil Perolehan Kerja Kerajaan (SPKK) yang dikeluarkan oleh CIDB, Pusat Khidmat Kontraktor (PKK) atau PUKONSA/ UPKJ yang mana berkenaan.

3. TEMPOH SIAP KERJA

Kerja ini hendaklah disiapkan dalam tempoh tidak melebihi **12 Minggu**. Mana menyebut harga yang menawarkan tempoh siap kerja melebihi tempoh siap kerja maksimum yang ditetapkan tidak akan dipertimbangkan.

4. BAYARAN DOKUMEN SEBUT HARGA

* Dokumen Sebut Harga ini adalah **PERCUMA** atau;

* ~~Dokumen Sebut Harga ini dijual dengan harga RM..... (Ringgit Malaysia : sahaja)~~

Note

* Potong tidak berkenaan

5. PERBELANJAAN PENYEDIAAN SEBUT HARGA

Semua Perbelanjaan bagi penyediaan sebut harga ini hendaklah ditanggung oleh Penyebut Harga sendiri.

6. TEMPOH SAH SEBUT HARGA

Sebut Harga ini sah selama sembilan puluh (90) hari dari tarikh tutup sebut harga. Penyebut harga tidak boleh menarik balik sebut harganya sebelum tamat tempoh sah sebut harga. Tindakan tatatertib akan diambil sekiranya penyebut harga menarik balik sebut harganya sebelum tamat sah sebut harga. Laporan mengenai penarikan balik Sebut Harga oleh penyebut harga akan dikemukakan kepada CIDB/BPKU untuk tindakan.

7. PELAKSANAAN INTEGRITY PACT DALAM PEROLEHAN KERAJAAN

Penyebut harga wajib mengemukakan **Surat Akuan Pembida** bersama-sama dengan Dokumen Sebutharga di mana penyebut harga berwaad untuk tidak akan menawarkan atau memberi rasuah kepada mana-mana individu lain sebagai sogokan untuk dipilih dalam sebut harga tersebut. Surat Akuan Pembida ini hendaklah dilengkapkan dan ditandatangani oleh Pegawai Syarikat yang ditauliahkan.

Surat Akuan Pembida tersebut adalah menjadi salah satu dokumen mandatori dalam penilaian sebut harga peringkat pertama. Sekiranya penyebut harga gagal mengemukakan **Surat Akuan Pembida** yang telah dilengkapkan dan ditandatangani, penyebut harga tersebut akan dinilai sebagai gagal dalam penilaian peringkat pertama (gagal kriteria mandatori sebut harga) dan penilaian seterusnya tidak akan dilaksanakan.

Penyebut harga yang berjaya wajib mengemukakan **Surat Akuan Pembida Berjaya** beserta dengan Borang Perjanjian Inden Kerja/Surat Setuju Terima yang telah ditandatangani di mana ia berwaad tidak akan memberi rasuah sebagai ganjaran kerana mendapatkan kontrak. Surat Akuan ini akan menjadi sebahagian daripada Kontrak.

Pemalsuan maklumat dokumen dan rekod untuk mengaburi penilaian perolehan adalah kesalahan jenayah dan boleh disabitkan di bawah Kanun Keseksaan (Akta 574).

8. DASAR CUKAI JUALAN DAN CUKAI PERKHIDMATAN (CJCP)

Kerajaan memutuskan untuk melaksanakan Cukai Jualan dan Cukai Perkhidmatan (CJCP) bagi mengantikan Cukai Barang dan Perkhidmatan (GST) mulai 1 September 2018 berdasarkan Akta Cukai Jualan 2018 [Akta 806] dan Akta Cukai Perkhidmatan 2018 [Akta 807].

Akta Cukai Jualan 2018 [Akta 806] dan Akta Cukai Perkhidmatan 2018 [Akta 807] telah berkuat kuasa mulai 1 September 2018. Selaras dengan peruntukan dalam Akta tersebut, perolehan kerja pembinaan tidak dikenakan Cukai Perkhidmatan. Bagi perolehan kerja lain antaranya pengurusan fasiliti dan lain-lain, Agensi Kerajaan hendaklah merujuk kepada Jadual Pertama di bawah Peraturan Cukai Perkhidmatan 2018 dan peraturan semasa yang berkuat kuasa.

Agensi Kerajaan hendaklah menggunakan anggaran jabatan tanpa kenaan CJCP untuk menentukan kaedah perolehan.

Bagi pengeluaran Surat Setuju Terima (SST), Agensi hendaklah merujuk kepada 1PP/PK4.2 atau pekeliling berkaitan SST yang berkuat kuasa.

Bagi memastikan urusan perolehan dan pembayaran dapat dilaksanakan dengan lancar selaras dengan perkembangan dan peraturan terkini, satu panduan perlu disediakan.

9. PERINGATAN MENGENAI KESALAHAN RASUAH

Semua Penyebut Harga adalah diingatkan supaya tidak terlibat dalam aktiviti jenayah rasuah berkaitan dengan perolehan ini. Sehubungan dengan itu, para Penyebut Harga diberi peringatan berikut:

- 9.1 Sebarang perbuatan atau percubaan rasuah untuk menawar atau memberi, meminta atau menerima apa-apa suapan secara rasuah kepada dan daripada mana-mana orang berkaitan perolehan ini merupakan satu kesalahan jenayah di bawah Akta Suruhanjaya Pencegahan Rasuah Malaysia 2009 (Akta 694).
- 9.2 Sekiranya mana-mana pihak ada menawar atau memberi apa-apa suapan kepada mana-mana anggota perkhidmatan awam, maka pihak yang ditawar atau diberi suapan dikehendaki membuat aduan dengan segera ke pejabat Suruhanjaya Pencegahan Rasuah atau balai polis yang berhampiran. Kegagalan berbuat demikian adalah merupakan suatu kesalahan di bawah Akta Suruhanjaya Pencegahan Rasuah Malaysia 2009 (Akta 694).
- 9.3 Tanpa prejudis kepada tindakan-tindakan lain, tindakan tatatertib terhadap anggota perkhidmatan awam dan menyenaraikan Kontraktor boleh diambil sekiranya pihak-pihak terlibat dengan kesalahan rasuah di bawah Akta Suruhanjaya Pencegahan Rasuah Malaysia 2009 (Akta 694).
- 9.4 Mana-mana Kontraktor yang membuat tuntutan bayaran berkaitan perolehan ini walaupun tiada kerja dibuat mengikut spesifikasi yang ditetapkan dan mana-mana anggota perkhidmatan awam yang mengesahkan tuntutan berkenaan adalah melakukan kesalahan di bawah Akta Suruhanjaya Pencegahan Rasuah Malaysia 2009 (Akta 694).

10. PEMATUHAN AKTA 342 DAN NORMA BAHARU DALAM SEKTOR PEMBINAAN DAN DALAM MENANGANI EPIDEMIK DAN PANDEMIK COVID 19

- 10.1 Penyebutharga yang berjaya dikehendaki mematuhi Akta Pencegahan dan Pengawalan Penyakit Berjangkit 1988 (Akta 342) dan semua Garis Panduan dan Prosedur Operasi Piawai yang berkaitan dalam menangani Epidemik dan Pandemik seperti wabak Covid 19 yang dikeluarkan oleh Kementerian Kesihatan Malaysia, CIDB dan Jabatan Kerja Raya Malaysia.
- 10.2 Penyebutharga dikehendaki mengambilkira dalam harga tawaran untuk pematuhan perkara 60.1.
- 10.3 Kegagalan mematuhi Akta, Garis Panduan dan Prosedur Operasi Piawai yang telah ditetapkan menyebabkan tindakan boleh di ambil oleh agensi agensi yang berkenaan dan sebarang tuntutan akibat tindakan ini tidak akan dipertimbangkan

11. ADDENDA SEBUTHARGA

- 11.1 Sebelum tarikh akhir bagi penyerahan sebutharga, Jabatan/Agensi boleh mengeluarkan Addenda Sebutharga untuk menerangkan, membetulkan, mengurangkan atau membuat tambahan mana-mana bahagian Kandungan dokumen sebutharga. Semua Addenda Sebutharga akan dikeluarkan secara rasmi kepada semua penyebutharga melalui Jabatan/Agensi yang memanggil sebutharga.
- 11.2 Setiap Addenda Sebutharga yang dikeluarkan akan diedarkan kepada semua penyebutharga dan akan menjadi sebahagian daripada dokumen sebutharga. Penerimaan setiap Addenda Sebutharga hendaklah diakui melalui Borang Bukti Penerimaan yang disertakan bersama-sama Addenda Sebutharga. Borang Bukti Penerimaan bagi Addenda Sebutharga yang terlibat hendaklah dikembalikan bersama-sama dengan dokumen sebutharga bagi tujuan penilaian dan tindakan selanjutnya. Ianya menjadi sebahagian daripada syarat wajib dalam proses penilaian sebutharga yang dilakukan. Kegagalan berbuat demikian boleh menyebabkan sebutharga berkenaan ditolak.
- 11.3 Penyebutharga hendaklah juga mengesahkan penerimaan semua Addenda Sebutharga yang dikeluarkan dalam Senarai Semakan Mengemukakan Sebutharga. Kegagalan berbuat demikian boleh menyebabkan sebutharga berkenaan ditolak. Semua Addenda Sebutharga yang dikeluarkan adalah menjadi sebahagian dari Kontrak.
- 11.4 Penyebutharga hendaklah mengambil tindakan sewajarnya terhadap apa-apa maklumat atau arahan yang dinyatakan dalam Addenda Sebutharga.

12. HARGA INDIKATIF JABATAN

- 12.1 Harga Indikatif Jabatan bagi sebutharga ini adalah Ringgit Malaysia : **EMPAT RATUS SEMBILAN PULUH RIBU (RM490,000.00)**
- 12.2 Harga Indikatif Jabatan ini merupakan suatu anggaran sahaja dan amaun tersebut tidak mengikat Kerajaan atau mana-mana pihak lain juga bagi maksud mengelakkan kekeliruan yang mungkin berbangkit.
- 12.3 Pihak Kerajaan tidak menjamin bahawa syarikat akan dipilih atau boleh menyiapkan kerja dengan bersandarkan Harga Indikatif Jabatan.

SURAT AKUAN PEMBIDA

LAMPIRAN A1
(SAP bertarikh 1 April 2010)

SURAT AKUAN PEMBIDA

Bagi

**KERJA-KERJA PEMBAIKAN KOMPLEKS SUKAN MSN SETIAWANGSA, KUALA
LUMPUR UNTUK MAJLIS SUKAN NEGARA MALAYSIA.**
**-KERJA-KERJA MEMBAIKPULIH, MENGECHAT PERMUKAAN
BUMBUNG DAN DINDING BANGUNAN KOMPLEKS TERMASUK ASTAKA
serta berkaitan**

NO SEBUTHARGA :.....

Saya, nombor K.P..... yang mewakili
..... nombor

Pendaftaran..... atau mana-mana individu yang mewakili syarikat ini tidak akan menawar atau memberi rasuah kepada mana-mana individu dalam **MAJLIS SUKAN NEGARA** atau mana-mana individu lain, sebagai sokongan untuk dipilih dalam Sebut Harga seperti di atas. Bersama-sama ini dilampirkan Surat Perwakilan Kuasa bagi saya mewakili syarikat seperti tercatat di atas untuk membuat pengisytiharan ini.

2. Sekiranya saya atau mana-mana individu yang mewakili syarikat ini didapati bersalah menawar atau memberi rasuah kepada mana-mana individu dalam **MAJLIS SUKAN NEGARA** atau mana-mana individu lain sebagai sogokan untuk dipilih dalam Sebut Harga seperti di atas, maka saya sebagai wakil syarikat bersetuju tindakan-tindakan berikut diambil:

- 2.1 Penarikan balik tawaran kontrak bagi Sebut Harga di atas ; atau
- 2.2 Penamatan kontrak bagi Sebut Harga di atas;
- 2.3 Disabitkan dibawah Kanun Keseksaan (Akta 574); dan
- 2.4 Tindakan tatatertib lain mengikut peraturan perolehan Kerajaan.

3. Sekiranya terdapat mana-mana individu cuba meminta rasuah daripada saya atau mana-mana individu yang berkaitan dengan syarikat ini sebagai sogokan untuk dipilih dalam Sebut Harga seperti di atas, maka saya berjanji akan dengan segera melaporkan perbuatan tersebut kepada pejabat Suruhanjaya Pencegahan Rasuah Malaysia (SPRM) atau balai polis yang berhampiran.

Yang Benar,

.....
Nama :

No.K.P :

Cop Syarikat :

Catatan: * Potong mana yang tidak berkaitan

SAP/1

SYARAT² SEBUT HARGA

SYARAT-SYARAT SEBUT HARGA

1. PEMERIKSAAN TAPAK BINA

Kontraktor disifatkan telah memeriksa dan meneliti tapak bina dan sekitarnya, bentuk dan jenis tapak bina, takat dan jenis kerja, bahan dan barang yang perlu bagi menyiapkan kerja, cara-cara perhubungan dan laluan masuk ke tapak bina dan hendaklah mendapatkan sendiri segala maklumat yang perlu tentang risiko, luar jangkaan dan segala hal-keadaan yang mempengaruhi dan menjelas sebut harganya. Sebarang tuntutan yang timbul akibat daripada kegagalan Kontraktor mematuhi kehendak ini tidak akan dipertimbangkan.

2. INSURANS

- 2.1. Kontraktor hendaklah atas nama bersama Kerajaan dan Kontraktor mengambil Insurans Liabiliti Awam dan Insurans Kerja (sekiranya dinyatakan di dalam Butir-butir Ringkasan Sebut Harga) bagi tempoh pelaksanaan Kerja termasuk tempoh kecacatan dan ditambah tiga (3) bulan dan empat belas (14) hari. Kontraktor hendaklah juga mengemukakan Nombor Kod Pendaftaran dengan PERKESO.
- 2.2. Kontraktor hendaklah mengemukakan kepada Pegawai Inden semua polisi insurans dan Nombor Kod Pendaftaran dengan PERKESO yang tersebut di atas sebelum memulakan Kerja. Bagaimanapun untuk tujuan memulakan Kerja sahaja Nota-nota Perlindungan dan resit-resit bayaran premium adalah mencukupi. Sekiranya Kontraktor gagal mengemukakan semua polisi insurans selepas tempoh sah nota-nota perlindungan, tanpa sebarang sebab yang munasabah, Pegawai Inden berhak mengambil tindakan.

3. BON PELAKSANAAN

Bon Pelaksanaan dikekualikan bagi perolehan yang bernilai sehingga **RM200,000.00**.

4. PERATURAN PERLAKSANAAN KERJA

- 4.1. Kerja-kerja yang dilaksanakan hendaklah mematuhi Spesifikasi, pelan-pelan, butir-butir kerja dalam Ringkasan Sebut Harga dan Syarat-syarat yang dinyatakan dalam Dokumen Sebut Harga ini dan Pegawai Inden atau Wakilnya.

4.2. Kerja-kerja elektrik yang dilaksanakan di samping mematuhi kehendak di perenggan 4.1 di atas, hendaklah juga mematuhi semua peraturan dan pekeliling, undang-undang dan undang-undang kecil yang diluluskan oleh:

- 4.2.1. Suruhanjaya Tenaga
- 4.2.2. Jabatan Keselamatan Pekerjaan dan Kesihatan (JKKP)
- 4.2.3. Pemegang Lesen dan Pihak Berkuasa Bekalan Elektrik
- 4.2.4. Jabatan Bomba dan Penyelamat
- 4.2.5. Pihak Berkuasa Tempatan
- 4.2.6. Suruhanjaya Pengurusan Air Negara (SPAN)

5. KEGAGALAN KONTRAKTOR MEMULAKAN KERJA

Sekiranya Kontraktor gagal memulakan kerja selepas tujuh (7) hari dari tarikh akhir tempoh mula kerja yang dinyatakan dalam Inden, tanpa sebab-sebab yang munasabah, Inden akan dibatalkan oleh Pegawai Inden dan tindakan tataterib akan diambil terhadap kontraktor.

6. SUB-SEWA DAN MENYERAH HAK KERJA

Kontraktor tidak dibenarkan mengsub-sewakan Kerja kepada Kontraktor-kontraktor lain. Kontraktor tidak boleh menyerah hak apa-apa faedah di bawah Inden ini tanpa terlebih dahulu mendapatkan persetujuan bertulis daripada Pegawai Inden.

7. PENOLAKAN BAHAN, BARANG DAN MUTU HASIL KERJA OLEH PEGAWAI INDEN

- 7.1. Pegawai Inden atau Wakilnya berhak menolak bahan, barang dan mutu hasil kerja dari jenis piawaian yang tidak menepati seperti diperihalkan dalam spesifikasi. Kontraktor hendaklah, apabila diminta oleh Pegawai Inden, memberi kepadanya baucar-baucar dan/ atau perakuan ujian pengilang untuk membuktikan bahawa bahan-bahan dan barang-barang itu mematuhi spesifikasi. Bahan, barang dan kerja-kerja yang ditolak hendaklah diganti dan sebarang kos tambahan yang terlibat hendaklah ditanggung oleh Kontraktor sendiri.
- 7.2. Kontraktor hendaklah dengan sepenuhnya atas perbelanjaan sendiri menyediakan sampel bahan dan barang-barang untuk ujian.
- 7.3. Tiada penggantian untuk peralatan, bahan dan cara kerja yang telah ditentukan di dalam spesifikasi atau ditawarkan dan telah diterima, dibenarkan kecuali mendapat persetujuan daripada Pegawai Inden secara bertulis.

8. RINGKASAN SEBUT HARGA

- 8.1. Ringkasan Sebut Harga hendaklah menjadi sebahagian daripada Borang Sebut Harga ini dan hendaklah menjadi asas Jumlah Harga Sebut Harga.
- 8.2. Harga-harga dalam Ringkasan Sebut Harga hendaklah mengambil kira semua kos termasuk kos pengangkutan, cukai, duti, levi, bayaran dan caj-caj lain yang perlu dan berkaitan bagi penyiapan Kerja dengan sempurnanya.
- 8.3. Tiada sebarang tuntutan akan dilayan bagi pelarasan harga akibat daripada perubahan kos buruh, bahan-bahan dan semua duti dan cukai kerajaan, sama ada dalam tempoh sah sebut harga atau dalam tempoh Kerja.
- 8.4. Harga-harga dalam ringkasan Sebut Harga yang dikemukakan oleh Kontraktor hendaklah tertakluk kepada persetujuan sebelumnya itu daripada Pegawai Inden tentang kemunasabahannya. Persetujuan sebelumnya itu dan apa-apa pelarasan kemudiannya kepada harga-harga dalam Ringkasan Sebut Harga hendaklah dibuat sebelum Inden Kerajaan dikeluarkan.
- 8.5. Apa-apa pelarasan harga dalam Ringkasan Sebut Harga menurut perenggan 8.4 tersebut di atas dan apa-apa kesilapan hisab dalam Ringkasan Sebut Harga hendaklah dilaraskan dan diperbetulkan sebelum Inden Kerajaan dikeluarkan. Jumlah amaun yang dilaraskan hendaklah sama dengan amaun jumlah harga pukal dalam Borang Sebut Harga. Amaun jumlah harga pukal dalam Borang Sebut Harga hendaklah tidak berubah.
- 8.6. **Sekiranya sebut harga berasaskan senarai kuantiti sementara, pengukuran semula hendaklah dibuat dan harga sebut harga diselaraskan.**

9. PERCANGGAHAN DAN KECUKUPAN DOKUMEN SEBUT HARGA

- 9.1. Borang Perjanjian Inden Kerja, Surat Akuan Pembida Berjaya yang ditandatangani oleh Kontraktor dan Dokumen Sebut Harga hendaklah disifatkan menjadi dan dibaca serta ditafsirkan sebagai sebahagian daripada Kontrak ini.
- 9.2. Dokumen Sebut Harga adalah dikira sebagai saling jelaskan antara satu sama lain. Kontraktor hendaklah mengadakan segala yang perlu untuk melaksanakan kerja dengan sewajarnya sehingga siap mengikut tujuan dan maksud sebenar. Dokumen Sebut Harga pada keseluruhannya sama ada atau tidak tujuan dan maksud itu hendaklah difahamkan dengan munasabahnya dari Dokumen Sebut Harga itu.

9.3. Jika Kontraktor mendapati apa-apa percanggahan dalam Dokumen Sebut Harga dia hendaklah merujuk kepada Pegawai Inden untuk mendapatkan keputusan.

10. KEGAGALAN KONTRAKTOR MENYIAPKAN KERJA DAN PENAMATAN PERLANTIKAN KONTRAKTOR

Pegawai inden berhak membatalkan Inden sekiranya Kontraktor berada dalam keadaan berikut dan setelah menerima surat amaran daripada Pegawai Inden:

- (a) Kontraktor masih gagal menyiapkan Kerja dalam tempoh masa yang telah ditetapkan;
- (b) Kemajuan Kerja terlalu lembap di mana Kontraktor didapati gagal menjalankan kerja dengan tekun dan teratur tanpa apa-apa sebab yang munasabah
- (c) Penggantungan pelaksanaan seluruh atau sebahagian Kerja, tanpa apa-apa sebab yang munasabah;
- (d) Tidak mematuhi arahan Pegawai Inden tanpa apa-apa alasan yang munasabah;
- (e) Pegawai Inden berhak membatalkan Inden sekiranya Kontraktor diisyiharkan bankrap oleh pihak yang sah.

11. BAYARAN PENDAHULUAN

Bayaran pendahuluan dibenarkan bagi kontrak yang bernilai melebihi RM 200,000.00 hingga RM 500,000.00

12. BAYARAN INTERIM/ KEMAJUAN

Pegawai Inden dibenarkan membuat bayaran interim sehingga kerja-kerja siap dilaksanakan.

13. KERJA PERUBAHAN

- 13.1. Pegawai Inden boleh menurut budi bicaranya mengeluarkan arahan-arahan yang berkehendakkan sesuatu perubahan kerja dengan secara bertulis. Tiada apa-apa perubahan yang dikeluarkan oleh Pegawai Inden atau yang disahkan kemudian oleh Pegawai Inden boleh membatalkan Sebut Harga ini.
- 13.2. Semua kerja perubahan dan/ atau tambahan yang diluluskan oleh Pegawai Inden akan diukur atau dinilai dengan menggunakan kadar harga yang ada dalam Senarai Kuantiti/ Ringkasan Sebut Harga. Jika tidak terdapat sebarang kadar harga yang bersesuaian, kadar harga yang dipersetujui oleh Pegawai Inden dan Kontraktor hendaklah digunakan.

14. PENGUKURAN KUANTITI SEMENTARA

Setelah kerja-kerja yang melibatkan Kuantiti Sementara disiapkan di tapak, pengukuran semula kuantiti hendaklah dibuat secara bersama.

15. LANJUTAN MASA

Pelanjutan masa adalah tertakluk kepada Jawatankuasa Sebut Harga terlebih dahulu.

16. TEMPOH TANGGUNGAN KECACATAN (DLP)

- 16.1. Tempoh Tanggungan Kecacatan bagi sebut harga hendaklah sekurang-kurangnya enam (6) bulan dari tarikh kerja diperakurkan siap. Bagi kerja-kerja mekanikal dan elektrikal di mana tempoh waranti ke atas alat-alat dan loji-loji adalah dua belas (12) bulan dan dalam kes-kes tertentu oleh sebab jenis dan kerumitan kerja, tempoh tanggungan kecacatan yang lebih lama daripada enam bulan (6) boleh dikenakan.
- 16.2. Kontraktor dipertanggungjawabkan untuk membaiki kecacatan, ketidaksempurnaan, kekecutan atau apa-apa juga kerosakan lain seperti yang mungkin kelihatan dan yang disebabkan oleh bahan atau barang atau mutu hasil kerja yang tidak menepati sebut harga ini apabila diarahkan oleh Pegawai Inden dan dalam masa yang berpatutan. Kontraktor hendaklah membaiki kecacatan, ketidaksempurnaan, kekecutan atau apa-apa juga kerosakan lain atas Kos Kontraktor sendiri.

-
- 16.3. Sekiranya Kontraktor gagal membaiki kecacatan, ketidaksempurnaan, kekecutan atau apa-apa juga kerosakan lain seperti yang diarahkan, Pegawai Inden berhak memotong kos membaiki dari baki wang yang akan dibayar kepada kontraktor atau, jika baki itu tiada mencukupi, mengeluarkan surat pengesyoran kepada Lembaga Pembangunan Industri Pembinaan Malaysia (CIDB) dan Pusat Khidmat Kontraktor (PKK) untuk menggantungkan pendaftaran Kontraktor, dan menghantar salinan-salinan tersebut kepada Pengarah Kerja Raya Negeri/ Ketua Jabatan, Bahagian Pembangunan Bumiputera, Kementerian Kerja Raya dan Lembaga Pembangunan Industri Pembinaan. Bagi Kerja-kerja elektrik/ mekanikal, salinan surat hendaklah dihantar kepada Pengarah Cawangan Kerja Elektrikal/ Pengarah Cawangan Kerja Mekanikal.
 - 16.4. Tempoh tanggungan liabiliti kecacatan (DLP) sepertimana yang dinyatakan pada Surat Iringan Kepada Inden Kerajaan/Surat Setuju Terima iaitu bermula dari tarikh diambil milik dan penyerahan projek.

17. PERATURAN MEMBAYAR SELEPAS SIAP

Bayaran sepenuhnya hanya akan dibayar setelah kontraktor menyiapkan kerja dengan sempurnanya dan Perakuan Siap Kerja dikeluarkan. Walaubagaimanapun Pegawai Inden hendaklah membuat potongan atau menahan sejumlah amaun dari wang yang akan dibayar kepada Kontraktor sebagai kos untuk membaiki apa-apa kecacatan yang tidak dapat dibaiki oleh Kontraktor di dalam tempoh tanggungan kecacatan. Kontraktor hendaklah mengembalikan Inden Kerajaan (Pelaksanaan Kerja) dan Inden Kerajaan (Penyiapan Kerja) sepertimana yang telah ditetapkan dalam Pekeliling Perbendaharaan Malaysia (PK 4.2) kepada Pegawai Inden.

18. PERAKUAN SIAP KERJA

Pegawai Inden hendaklah mengeluarkan Perakuan Siap Kerja sebaik sahaja kerja disiapkan dengan sempurna dan memuaskan sejajar dengan syarat-syarat Dalam Dokumen Sebut Harga. Tempoh Tanggungan Kecacatan bermula daripada tarikh siap kerja.

19. PERAKUAN SIAP MEMPERBAIKI KECACATAN

Pegawai Inden hendaklah mengeluarkan Perakuan Siap Membaiki Kecacatan sebaik sahaja kontraktor telah membaiki kecacatan, ketidaksempurnaan, kekecutan atau apa-apa juga kerosakan lain.

20. PEMATUHAN KEPADA UNDANG-UNDANG OLEH KONTRAKTOR

Kontraktor hendaklah mematuhi segala kehendak Undang-undang Kecil dan Undang-undang Berkanun dalam Malaysia semasa pelaksanaan Kerja. Kontraktor tidak berhak menuntut sebarang kos dan bayaran tambahan kerana pematuhannya dengan syarat-syarat ini.

21. PENAMATAN BERSABIT RASUAH, AKTIVITI MENYALAHİ UNDANG-UNDANG ATAU AKTIVITI HARAM

Tanpa menjelaskan apa-apa hak Kerajaan yang lain, jika kontraktor, personel, kakitangan atau pekerjanya disabitkan bersalah oleh mahkamah kerana rasuah atau aktiviti menyalahi undang-undang atau aktiviti haram yang berkait dengan Perjanjian/ Kontrak ini atau mana-mana perjanjian lain yang Kontraktor mungkin ada dengan Kerajaan, Kerajaan berhak untuk menamatkan Perjanjian / Kontrak ini pada bila-bila masa, dengan memberi notis bertulis dengan segera yang membawa maksud sedemikian kepada Kontraktor.

Setelah penamatan tersebut, Kerajaan berhak terhadap semua kerugian, kos, ganti rugi dan perbelanjaan (termasuk apa-apa kos dan perbelanjaan sampingan) yang ditanggung oleh Kerajaan yang timbul daripada penamatan tersebut.

Bagi mengelakkan keraguan, kedua-dua pihak Kerajaan dan Kontraktor bersetuju bahawa Kontraktor tidak layak terhadap sebarang bentuk kerugian termasuk kehilangan keuntungan, ganti rugi, tuntutan atau apa sekalipun setelah penamatan Kontrak ini.

22. PERAKUAN KERJA TIDAK SIAP

Pegawai Inden hendaklah mengeluarkan Perakuan Kerja Tidak Siap apabila penyiapan Kerja didapati telah terlambat dan sebab kelambatan tidak melayakkan Kontraktor mendapat lanjutan masa, maka kerugian atau ganti rugi yang dialami oleh Kerajaan akibat daripada kelambatan tersebut adalah ditanggung oleh Kontraktor. Kerugian atau ganti rugi yang dialami oleh Kerajaan akan diperolehi semula daripada Kontraktor melalui Ganti Rugi Tertentu dan Ditetapkan.

23. KENAAN DENDA/TOLAKAN/ LIQUIDATED AND ASCERTAINED DAMAGE (LAD) BAGI SEBUT HARGA KERJA

Kelewatan dalam menyiapkan projek boleh menyebabkan peningkatan kos projek. Jika syarikat gagal memenuhi obligasi kontrak, denda/ganti rugi hendaklah dituntut daripada syarikat. Jika syarikat gagal membayarnya, denda/ganti rugi hendaklah dituntut daripada bayaran kemajuan atau daripada sebarang baki bayaran yang syarikat berhak menerima.

* Pengenalan LAD boleh ditetapkan berdasarkan formula seperti berikut :

$$\text{LAD} = \frac{\text{Base Landing Rate (BLR)}}{100} \times \frac{\text{Harga Kontrak}}{365 \text{ (hari)}}$$

* 'Prime Rate' yang dikeluarkan oleh mana-mana bank perdagangan

BORANG SEBUT HARGA

BORANG SEBUTHARGA

Sebutharga Bil :

BAHAGIAN KEWANGAN
MAJLIS SUKAN NEGARA
KOMPLEKS SUKAN BUKIT JALIL
SERI PETALING
57000 KUALA LUMPUR
MALAYSIA

Tuan,

Sebut Harga untuk :-

KERJA-KERJA PEMBAIKAN KOMPLEKS SUKAN MSN SETIAWANGSA, KUALA LUMPUR UNTUK MAJLIS SUKAN NEGARA MALAYSIA.

-KERJA-KERJA MEMBAIKPULIH, MENGECHAT PERMUKAAN BUMBUNG DAN DINDING BANGUNAN KOMPLEKS TERMASUK ASTAKA SERTA BERKAITAN

Di bawah dan tertakluk kepada Arahan Kepada Penyebut Harga, Syarat-syarat Sebutharga untuk kerja, Spesifikasi Kerja dan Lukisan, saya yang bertandatangan di bawah ini adalah dengan ini menawarkan untuk melaksanakan dan menyiapkan kerja-kerja tersebut bagi jumlah harga pukal sebanyak Ringgit Malaysia:

..... (RM)

2. Saya bersetuju menyiapkan kerja-kerja ini dalam masa minggu dari tarikh mula kerja seperti yang ditetapkan di bawah Perenggan 2 Borang Perjanjian Inden Kerajaan.

Bertarikh pada haribulan 20.....

.....
(Tandatangan Kontraktor)

Nama Penuh :
No. K/P :
Alamat :
.....
Atas sifat :

.....
(Tandatangan Saksi)

Nama Penuh :
No. K/P :
Alamat :
.....

.....
Meteri atau Cap Kontraktor

SENARAI KUANTITI

RINGKASAN SEBUTHARGA

BIL	SPESIFIKASI KERJA	JUMLAH	
		RM	SEN
1.	KERJA-KERJA PEMBAIKAN KOMPLEKS SUKAN MSN SETIAWANGSA, KUALA LUMPUR UNTUK MAJLIS SUKAN NEGARA MALAYSIA. -KERJA-KERJA MEMBAIKPULIH, MENGECHAT PERMUKAAN BUMBUNG DAN DINDING BANGUNAN KOMPLEKS TERMASUK ASTAKA SERTA BERKAITAN		
	Jumlah		
Ringgit Malaysia :			

Tandatangan Penyebutharga

Tandatangan Saksi

Nama Penyebutharga

Nama Saksi

No. K/P Penyebutharga

No. K/P Saksi

Jawatan

Jawatan

Cop Syarikat

Alamat:

Alamat:

Telephone :

Telephone :

Facsimile :

Facsimile :

E-Mail :

E-Mail :

Tarikh :

Tarikh :

**KERJA-KERJA PEMBAIKAN KOMPLEKS KOMPLEKS SUKAN MSN SETIAWANGSA, KUALA LUMPUR
UNTUK MAJLIS SUKAN NEGARA MALAYSIA.**

**-KERJA-KERJA MEMBAIKPULIH DAN MENGECHAT PERMUKAAN BUMBUNG DAN DINDINGBANGUNAN
KOMPLEKS TERMASUK ASTAKA SERTA BERKAITAN**

BIL	BUTIRAN KERJA	UNIT	KUANTITI	KADAR HARGA (RM) / KUANTITI	JUMLAH (RM)
1.	<u>KERJA-KERJA AWALAN</u>				
1.1	Kerja-kerja permulaan (Preliminaries) mengikut spesifikasi am, spesifikasi tambahan termasuk Insurans Tanggungan Awam, Insurans Kerja, Insurans Pampasan Kerja dengan membayar premium atau nombor pendaftaran PERKESO bagi semua pekerja.	Pukal	Pukal		
1.2	Menyediakan pekerja, peralatan keselamatan dan kebersihan semasa kerja-kerja sedang dijalankan seperti tali-tali halangan, kon, tanda amaran dan tali merah-putih sehingga kerja-kerja disiapkan mengikut arahan Pegawai Penguin.	Pukal	Pukal		
1.3	Menyediakan laporan foto kemajuan kerja (sebelum, semasa dan selepas) sebanyak dua (2) set bewarna pada setiap tuntutan bayaran (Hard copy & soft copy – dalam thumb drive).	Pukal	Pukal		
1.4	Mengadakan dan menyediakan tong sampah mudah alih menggunakan lori mengikut kesesuaian tapak bagi menampung kapasiti sampah agar kebersihan tapak adalah sentiasa terjamin . sampah sarap ini perl dibawa keluar daripada tapak bina yang diluluskan oleh pihak berkuasa tempatan apabila penuh atau di atas arahan Pegawai Penguin.	Pukal	Pukal		
2.	<u>BANGUNAN KEMUDAHAN SUKAN</u>				
2.1	<u>KERJA-KERJA CAT BUMBUNG</u>				
2.1.1	Menyediakan pekerja mahir/buruh, kelengkapan, bahan dan jentera bagi mencuci keseluruhan bumbung dari segala bendasing dengan menggunakan semburan bertekanan tinggi (<i>high pressure water jet</i>). Membaiki kebocoran yang terlibat pada keseluruhan bumbung dan menyediakan permukaan bagi kerja-kerja yang berkaitan dengannya.	Pukal	Pukal		
2.1.2	Menyediakan pekerja mahir/buruh, kelengkapan, bahan dan jentera bagi kerja-kerja mengecat dengan dua (2) lapisan cat primer@anti karat (<i>anti rust</i>) pada keseluruhan bumbung.	M2	3500		

2.1.3	<p>Menyediakan pekerja mahir/buruh, kelengkapan, bahan dan jentera bagi kerja-kerja mengecat dengan dua (2) lapisan cat kilat@kemasan pada keseluruhan bumbung termasuk menyediakan surat jaminan bertulis 5 tahun</p> <p>Senarai Wajib Dilampirkan :-</p> <p>1.Katalog Cat : _____</p> <p>2.Tempoh Jaminan Kerja : _____</p> <p>3.Katalog Bahan Kalis Air : _____</p> <p>4.Tempoh Jaminan Kerja : _____</p>	M2	3500		
2.2	<u>KERJA-KERJA CAT DINDING LUAR</u>				
2.2.1	Menyediakan pekerja mahir/buruh, kelengkapan, bahan dan jentera bagi mencuci keseluruhan dinding dari segala bendasing dan kotoran dengan menggunakan semburan bertekanan tinggi (<i>high pressure water jet</i>). Membaiki keretakan yang terlibat pada keseluruhan dinding dan menyediakan permukaan bagi kerja-kerja yang berkaitan dengannya.	Pukal	Pukal		
2.2.2	Menyediakan pekerja mahir/buruh, kelengkapan, bahan dan jentera bagi kerja-kerja mengecat dengan dua (2) lapisan cat asas@sealer pada keseluruhan dinding	M2	2400		
2.2.3	Menyediakan pekerja mahir/buruh, kelengkapan, bahan dan jentera bagi kerja-kerja mengecat dengan dua (2) lapisan cat kalis cuaca (<i>weathershield</i>) pada keseluruhan permukaan dinding luar termasuk menyediakan surat jaminan bertulis 5 tahun	M2	2400		
	Senarai Wajib Dilampirkan :-				
	1.Katalog Cat : _____				
	2.Tempoh Jaminan Kerja : _____				
2.3	<u>KERJA-KERJA CAT DINDING DALAM</u>				
2.3.1	Menyediakan pekerja mahir/buruh, kelengkapan, bahan dan jentera bagi mencuci keseluruhan dinding dari segala bendasing dan kotoran dengan menggunakan semburan bertekanan tinggi (<i>high pressure water jet</i>). Membaiki keretakan yang terlibat pada keseluruhan dinding dan menyediakan permukaan bagi kerja-kerja yang berkaitan dengannya.	Pukal	Pukal		

2.3.2	Menyediakan pekerja mahir/buruh, kelengkapan, bahan dan jentera bagi kerja-kerja mengecat dengan dua (2) lapisan cat asas@sealer pada keseluruhan dinding	M2	2900		
2.3.3	Menyediakan pekerja mahir/buruh, kelengkapan, bahan dan jentera bagi kerja-kerja mengecat dengan dua (2) lapisan cat kemasan (<i>Emulsion Paint</i>) pada keseluruhan permukaan dinding dalam termasuk menyediakan surat jaminan bertulis 5 tahun	M2	2900		
<i>Senarai Wajib Dilampirkan :-</i>					
2.4	1.Katalog Cat : _____ 2.Tempoh Jaminan Kerja: _____				
<u>KERJA-KERJA CAT SILING LUAR & DALAM</u>					
2.4.1	Menyediakan pekerja mahir/buruh, kelengkapan, bahan dan jentera bagi kerja-kerja mengecat dengan dua (2) lapisan cat kemasan pada keseluruhan permukaan siling termasuk menyediakan surat jaminan bertulis 5 tahun	M2	2200		
<i>Senarai Wajib Dilampirkan :-</i>					
2.5	1.Katalog Cat : _____ 2.Tempoh Jaminan Kerja : _____				
<u>KERJA-KERJA CAT STRUKTUR, KERANGKA, JERIJI, 'RAILING' DAN 'LOUVERS' SERTA YANG BERKAITAN</u>					
2.5.1	Menyediakan pekerja mahir/buruh, kelengkapan, bahan dan jentera bagi mencuci keseluruhan dari segala bendasing dengan menggunakan semburan bertekanan tinggi (<i>high pressure water jet</i>). dan menyediakan permukaan bagi kerja-kerja yang berkaitan dengannya.	Pukal	Pukal		
2.5.2	Menyediakan pekerja mahir/buruh, kelengkapan, bahan dan jentera bagi kerja-kerja mengecat dengan dua (2) lapisan cat primer@anti karat (<i>anti rust</i>) pada keseluruhan yang berkaitan	Pukal	Pukal		
2.5.3	Menyediakan pekerja mahir/buruh, kelengkapan, bahan dan jentera bagi kerja-kerja mengecat dengan dua (2) lapisan cat kilat@kemasan pada keseluruhan yang berkaitan termasuk menyediakan surat jaminan bertulis 5 tahun	Pukal	Pukal		

	<p>Senarai Wajib Dilampirkan :-</p> <p>1.Katalog Cat : _____</p> <p>2.Tempoh Jaminan Kerja : _____</p>			
2.6	<p><u>KERJA-KERJA PENYELENGGARAAN SALURAN AIR HUJAN & SALUR TEGAK AIR HUJAN</u></p>			
2.6.1	Kerja-kerja menyelenggara salur air hujan dari bendasing dan pokok renek serta berkaitan	M	78	
2.6.2	Kerja-kerja menyelenggara salur tegak air hujan dari bendasing dan pokok renek serta berkaitan	No	20	
2.7	<p><u>LANDSKAP</u></p>			
2.7.1	Kerja-kerja membuang permukaan dari segala bendasing dan pokok sediada, membekal dan memasang jubin mengikut spesifikasi yang ditetapkan Majlis	Pukal	Pukal	
2.7.2	Membekal dan memasang longkang mengikut spesifikasi longkang sediada yang ditetapkan Majlis	Pukal	Pukal	
2.8	<p><u>PLANTER BED</u></p>			
2.8.1	Kerja-kerja membuang permukaan dari segala bendasing dan pokok sediada, membekal dan memasang lapisan jubin 'homogenous' mengikut spesifikasi yang ditetapkan Majlis	Pukal	Pukal	
3.	<p><u>PONDOK PENGAWAL</u></p>			
3.1	<p><u>KERJA-KERJA CAT DINDING LUAR</u></p>			
3.1.1	Menyediakan pekerja mahir/buruh, kelengkapan, bahan dan jentera bagi mencuci keseluruhan dinding dari segala bendasing dan kotoran dengan menggunakan semburan bertekanan tinggi (<i>high pressure water jet</i>). Membaiki keretakan yang terlibat pada keseluruhan dinding dan menyediakan permukaan bagi kerja-kerja yang berkaitan dengannya.	Pukal	Pukal	
3.1.2	Menyediakan pekerja mahir/buruh, kelengkapan, bahan dan jentera bagi kerja-kerja mengecat dengan dua (2) lapisan cat asas@sealer pada keseluruhan dinding	M2	40	
3.1.3	Menyediakan pekerja mahir/buruh, kelengkapan dan jentera bagi kerja-kerja mengecat dengan dua (2) lapisan cat kalis cuaca (weathershield) pada keseluruhan permukaan dinding luar termasuk menyediakan surat jaminan bertulis 5 tahun	M2	40	

3.2	KERJA-KERJA CAT DINDING DALAM				
3.2.1	Menyediakan pekerja mahir/buruh, kelengkapan, bahan dan jentera bagi mencuci keseluruhan dinding dari segala bendasing dan kotoran dengan menggunakan semburan bertekanan tinggi (<i>high pressure water jet</i>). Membaiaki keretakan yang terlibat pada keseluruhan dinding dan menyediakan permukaan bagi kerja-kerja yang berkaitan dengannya.	Pukal	Pukal		
3.2.2	Menyediakan pekerja mahir/buruh, kelengkapan, bahan dan jentera bagi kerja-kerja mengecat dengan dua (2) lapisan cat <i>asas@sealer</i> pada keseluruhan dinding	M2	18		
3.2.3	Menyediakan pekerja mahir/buruh, kelengkapan, bahan dan jentera bagi kerja-kerja mengecat dengan dua (2) lapisan cat kemasan (<i>Emulsion Paint</i>) pada keseluruhan permukaan dinding dalam termasuk menyediakan surat jaminan bertulis 5 tahun	M2	18		
<i>Senarai Wajib Dilampirkan :-</i>					
1.Katalog Cat : _____					
2.Tempoh Jaminan Produk : _____					
3.3	KERJA-KERJA CAT PAGAR				
3.3.1	Menyediakan pekerja mahir/buruh, kelengkapan, bahan dan jentera bagi kerja-kerja mengecat dengan dua (2) lapisan cat <i>primer@anti karat (anti rust)</i> pada keseluruhan yang berkaitan	Pukal	Pukal		
3.3.2	Menyediakan pekerja mahir/buruh, kelengkapan, bahan dan jentera bagi kerja-kerja mengecat dengan dua (2) lapisan cat <i>kilat@kemasan</i> pada keseluruhan yang berkaitan termasuk menyediakan surat jaminan bertulis 5 tahun	Pukal	Pukal		
<i>Senarai Wajib Dilampirkan :-</i>					
1.Katalog Cat : _____					
2.Tempoh Jaminan Produk : _____					

4.	<u>BANGUNAN ASTAKA</u>				
4.1	<u>KERJA-KERJA CAT BUMBUNG</u>				
4.1.1	Menyediakan pekerja mahir/buruh, kelengkapan, bahan dan jentera bagi mencuci keseluruhan bumbung dari segala bendasing dengan menggunakan semburan bertekanan tinggi (<i>high pressure water jet</i>). Membaiki kebocoran yang terlibat pada keseluruhan bumbung dan menyediakan permukaan bagi kerja-kerja yang berkaitan dengannya.	Pukal	Pukal		
4.1.2	Menyediakan pekerja mahir/buruh, kelengkapan, bahan dan jentera bagi kerja-kerja mengecat dengan dua (2) lapisan cat primer@anti karat (<i>anti rust</i>) pada keseluruhan bumbung.	M2	270		
4.1.3	Menyediakan pekerja mahir/buruh, kelengkapan, bahan dan jentera bagi kerja-kerja mengecat dengan dua (2) lapisan cat kilat@kemasan pada keseluruhan bumbung termasuk menyediakan surat jaminan bertulis 5 tahun	M2	270		
<i>Senarai Wajib Dilampirkan :-</i>					
1.Katalog Cat : _____					
2.Tempoh Jaminan Produk : _____					
3.Katalog Bahan Kalis Air : _____					
4.Tempoh Jaminan Produk : _____					
4.2	<u>KERJA-KERJA CAT DINDING LUAR</u>				
4.2.1	Menyediakan pekerja mahir/buruh, kelengkapan, bahan dan jentera bagi mencuci keseluruhan dinding dari segala bendasing dan kotoran dengan menggunakan semburan bertekanan tinggi (<i>high pressure water jet</i>). Membaiki keretakan yang terlibat pada keseluruhan dinding dan menyediakan permukaan bagi kerja-kerja yang berkaitan dengannya.	Pukal	Pukal		
4.2.2	Menyediakan pekerja mahir/buruh, kelengkapan, bahan dan jentera bagi kerja-kerja mengecat dengan dua (2) lapisan cat asas@sealer pada keseluruhan dinding	M2	300		
4.2.3	Menyediakan pekerja mahir/buruh, kelengkapan, bahan dan jentera bagi kerja-kerja mengecat dengan dua (2) lapisan cat kalis cuaca (<i>weathershield</i>) pada keseluruhan permukaan dinding luar termasuk menyediakan surat jaminan bertulis 5 tahun	M2	300		

	<p>Senarai Wajib Dilampirkan :-</p> <p>1.Katalog Cat : _____</p> <p>2.Tempoh Jaminan Kerja : _____</p> <p>4.3 KERJA-KERJA CAT DINDING DALAM</p> <p>4.3.1 Menyediakan pekerja mahir/buruh, kelengkapan, bahan dan jentera bagi mencuci keseluruhan dinding dari segala bendasing dan kotoran dengan menggunakan semburan bertekanan tinggi (<i>high pressure water jet</i>). Membaiki keretakan yang terlibat pada keseluruhan dinding dan menyediakan permukaan bagi kerja-kerja yang berkaitan dengannya.</p> <p>4.3.2 Menyediakan pekerja mahir/buruh, kelengkapan, bahan dan jentera bagi kerja-kerja mengecat dengan dua (2) lapisan cat asas@sealer pada keseluruhan dinding</p> <p>4.3.3 Menyediakan pekerja mahir/buruh, kelengkapan, bahan dan jentera bagi kerja-kerja mengecat dengan dua (2) lapisan cat kemasan (<i>Emulsion Paint</i>) pada keseluruhan permukaan dinding dalam termasuk menyediakan surat jaminan bertulis 5 tahun</p> <p>Senarai Wajib Dilampirkan :-</p> <p>1.Katalog Cat : _____</p> <p>2.Tempoh Jaminan Kerja : _____</p> <p>4.4 KERJA-KERJA CAT SILING DALAM (ASBESTOS)</p> <p>4.4.1 Menyediakan pekerja mahir/buruh, kelengkapan, bahan dan jentera bagi kerja-kerja mengecat dengan dua (2) lapisan cat kemasan pada keseluruhan permukaan siling termasuk menyediakan surat jaminan bertulis 5 tahun</p> <p>Senarai Wajib Dilampirkan :-</p> <p>1.Katalog Cat : _____</p> <p>2.Tempoh Jaminan Kerja : _____</p>	Pukal	Pukal		
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4.5	KERJA-KERJA CAT STRUKTUR, KERANGKA DAN JERIJI SERTA YANG BERKAITAN				
4.5.1	Menyediakan pekerja mahir/buruh, kelengkapan, bahan dan jentera bagi mencuci keseluruhan dari segala bendasing dengan menggunakan semburan bertekanan tinggi (<i>high pressure water jet</i>). dan menyediakan permukaan bagi kerja-kerja yang berkaitan dengannya.	Pukal	Pukal		
4.5.2	Menyediakan pekerja mahir/buruh, kelengkapan, bahan dan jentera bagi kerja-kerja mengecat dengan dua (2) lapisan cat primer@anti karat (<i>anti rust</i>) pada keseluruhan yang berkaitan	Pukal	Pukal		
4.5.3	Menyediakan pekerja mahir/buruh, kelengkapan, bahan dan jentera bagi kerja-kerja mengecat dengan dua (2) lapisan cat kilat@kemasan pada keseluruhan yang berkaitan termasuk menyediakan surat jaminan bertulis 5 tahun	Pukal	Pukal		
	<i>Senarai Wajib Dilampirkan :-</i>				
	1. Katalog Cat : _____				
	2. Tempoh Jaminan Kerja : _____				
4.6	KERJA-KERJA PENYELENGGARAAN SALURAN AIR HUJAN & SALUR TEGAK AIR HUJAN				
4.6.1	Kerja-kerja menyelenggara salur air hujan dari bendasing dan pokok renek serta berkaitan	M	33		
4.6.2	Kerja-kerja menyelenggara salur tegak air hujan dari bendasing dan pokok renek serta berkaitan	No	2		
5.	KERJA KERJA MEMBEKAL DAN MEMASANG LOGO				
	BANGUNAN KEMUDAHAN SUKAN				
	1. LOGO MSN, KBS DAN JATA NEGARA Ukuran : 900mm x 900mm Jenis : Stainless Steel	No	3		
	2. KOMPLEKS SUKAN MSN SETIAWANGSA Ukuran : 600mm x 400mm Jenis : Stainless Steel	No	1		
	BANGUNAN ASTAKA				
	3. LOGO MSN, KBS DAN JATA NEGARA Ukuran : 400mm x 400mm Jenis : Stainless Steel	No	3		
	4. KOMPLEKS SUKAN MSN SETIAWANGSA Ukuran : 250mm x 150mm Jenis : Stainless Steel	No	1		

6.	<u>PAPAN TANDA</u>				
6.1	Kerja-kerja membuka, membekal dan measang papan tanda baru dari jenis 'arcylite' mengikut ukuran sediada termasuk lengkap tulisan dan dan logo seperti sediada	Pukal	Pukal		
7.	<u>LABEL ASET TAK ALIH</u>				
7.1	Membekal dan memasang label daftar premis aset tak alih				
	Label Daftar Premis Aset	No	1		
	Label Blok	No	4		
	Label Binaan Luar	No	12		
	Label Aras	No	6		
	Label Ruang	No	72		
	JUMLAH KESELURUHAN				

Notis makluman :-

*Kadar Kuantiti Yang Dinyatakan Dalam Sebutharga Ini **HANYALAH ANGGARAN UKURAN KUANTITI SEMENTARA**. Pihak Penyebutharga Dinasihatkan Membuat Ukuran Sendiri Di Tapak *

PERHATIAN :

Sebarang pertanyaan boleh dimajukan kepada ;

MUHAMAD FAEZAL MD NOH
(Bahagian Fasiliti Sukan)
Tel : 03-89929600/89929837
Fax : 03-90583380

Nota :

1. Kontraktor dinasihatkan melihat sendiri tapak cadangan untuk mengetahui selok-belok kerja.
2. Harga tawaran sah selama 3 bulan dari tarikh tutup panggilan sebutharga dibuat.
3. Bersama-sama ini juga sila lampirkan profile syarikat untuk rujukan.
4. Majlis tidak terikat dengan mana-mana sebutharga yang terendah.

.....
(Tandatangan Kontraktor)

Nama : _____
Cop/Alamat : _____

No. Tel. : _____
No. Fax. : _____

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1. General

- 1.1. Unless otherwise stated, the pitch and batten gauge for each type of roof covering shall be strictly in accordance with the manufacturer's recommendation.
- 1.2. Unless otherwise approved, all roof covering pieces or accessories such as eaves, hips, ridges, valley et cetera, shall be of the same material as the general covering.

2. Interlocking Concrete Tiles

- 2.1. Interlocking concrete roof tiles shall be laid on timber or steel battens approved for roofing at spacing and tightly nailed or screwed as recommended by the manufacturer.
- 2.2. Unless otherwise specified, the concrete roof tiles shall be laid to slope in accordance to the manufacturer's recommended pitch and to the S.O.'s approval. The roof tiles shall conform to MS797 and unless otherwise specified on the Drawings, it shall be laid on metal trusses system to engineer's detail and S.O.'s approval.
- 2.3. Water repellent materials backed with weatherproof self-adhesive compound for ridges and hips solution laid in accordance with manufacturer's instruction.
- 2.4. Verges, ridges, hips, valley tiles and complete with all roofing accessories shall be provided and laid to bond with the general roof tiling works in accordance with the manufacturer's recommendation.
- 2.5. Unless otherwise stated in the drawings, where skylight roofing sheets are to be used, they shall be of transparent skylight roofing sheets [acrylic/polycarbonate (PC)/unplasticized poly vinyl chloride (UPVC) multilayer/laminated glass] or translucent skylight roofing sheets [fibreglass reinforced polyester (FRP)] of concrete roof tiles profiles. The minimum thickness gauge and fixing system of the skylight roofing sheets is accordance with the manufacturer's recommendation.

3. Clay Tiles

- 3.1. Unless otherwise stated in the Drawings, clay tiles shall be of 425mm to 490mm (length) x 280mm to 300mm (horizontal width) pattern confirming to BS 402 or SS 70 and shall be free from cracks, chips and warps.
- 3.2. Clay tiles shall be laid with a minimum head lap of 75mm to 95mm on timber or steel battens approved for roofing at spacing as recommended by the tile manufacturer. The tiles shall be firmly screwed or nailed at intervals as recommended by the roofing tile manufacturer and as approved by the S.O..
- 3.3. Ridge capping, hip and valley tiles complete with all roofing accessories shall be provided to match the general tiling works in accordance with the manufacturer's recommendation. All these shall be bedded in matching water repellent materials backed with weatherproof self-adhesive compound.
- 3.4. Roofing components at roof eave to allow airflow and prevents the entry of birds and vermin into the batten cavity is recommended.
- 3.5. Unless otherwise stated in the drawings, where skylight roofing sheets are to be used, they shall be of transparent skylight roofing sheets [acrylic/polycarbonate (PC)/unplasticized poly vinyl chloride (UPVC) multilayer/laminated glass] or translucent skylight roofing sheets [fibreglass reinforced polyester (FRP)] of clay



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roof tiles profiles. The minimum thickness gauge and fixing system of the skylight roofing sheets is accordance with the manufacturer's recommendation.

4. Pre-painted Aluminium Roofing Sheet

- 4.1. Unless otherwise stated, where aluminium roofing sheets are to be used, they shall be of the type, gauge and finish as shown in the Drawings and to be fixed strictly in accordance with the manufacturer's recommendation.
- 4.2. Unless otherwise stated in the drawings, where skylight roofing sheets are to be used, they shall be of transparent skylight roofing sheets [acrylic/polycarbonate (PC)/unplasticized poly vinyl chloride (UPVC) multilayer/laminated glass] or translucent skylight roofing sheets [fibreglass reinforced polyester (FRP)] of aluminium roof sheets profiles. The minimum thickness gauge and fixing system of the skylight roofing sheets is accordance with the manufacturer's recommendation.

5. Concrete Flat Roofs

Concrete flat roofs shall be as specified under SECTION D: CONCRETING.

6. Pre-painted Steel Roofing Sheet

- 6.1. Unless otherwise stated, the metal roof decks shall comply with the following:

6.1.1. Materials

- 6.1.1.1. The roofing sheets shall be produced from zinc coated steel conforming to MS2385 and AS 1397: "Hot-Dip Zinc-Coated Carbon Steel Sheet of Commercial and Drawing Qualities", MS 2384: "Hot-Dip Zinc-Coated Carbon Steel Sheet of Structural Quality" and JIS G3302: "Hot-Dip Zinc-Coated Steel Sheet and Strip" OR be produced from aluminium/zinc alloy coated steel conforming to MS 1196: "Continous Hot-Dip Aluminium/Zinc Coated Steel Sheet of Commercial, Drawing and Structural Qualities" and AS 1397 "Steel Sheet and Strip: Hot-Dip Zinc Coated or Aluminium/Zinc Coated".

- 6.1.1.2. The pre-painted finish over the zinc coated base steel OR aluminium/zinc alloy coated base steel shall conform to MS 2383: "Prefinished/Pre-painted Sheet Metal Products for Interior/Exterior Building Applications – Performance Requirements" under product type 3 conforming to ISO 9223 Category 3 (C3) environment, and AS/NZS 2728: "Prefinished/Pre-painted Sheet Metal Products for Interior/Exterior Building Applications – Performance Requirements".

- 6.1.1.3. The exterior finish coat shall have a nominal film thickness of 20µm over 5µm thick corrosion inhibitive primer on top side or weather side. The backing coat shall be with nominal film thickness of 5µm over 5 µm corrosion inhibitive primer.

- 6.1.1.4. Minimum steel yield strength shall be 300 or 550MPa.



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- 6.1.1.5. The minimum aluminium/zinc alloy coating mass shall be 150g/m² (Coating Class AZ 150) on both surfaces conforming to ISO 9223 Category 3 (C3) environment.
- 6.1.1.6. The Contractor shall submit material warranty from the manufacturer in accordance with ISO 9223: "Corrosion of Metals and Alloys – Corrosivity of Atmosphere - Classification" of the project site and the format approved by the S.O. Material warranty shall be up to 25 years against perforation by corrosion, 15 years against flake and peel, 10 years against colour fading and 5 years against dirt staining.
- 6.1.1.7. The Contractor shall submit shop drawings for the S.O.'s approval prior to commencement of installation works.
- 6.1.1.8. Unless otherwise stated in the drawings, where skylight roofing sheets are to be used, they shall be of transparent skylight roofing sheets [acrylic/polycarbonate (PC)/unplasticized poly vinyl chloride (UPVC) multilayer/laminated glass] or translucent skylight roofing sheets [fibreglass reinforced polyester (FRP)] of steel roof sheets profiles. The minimum thickness gauge and fixing system of the skylight roofing sheets is accordance with the manufacturer's recommendation.

6.1.2. Metal Sheet Profiles

- 6.1.2.1. Unless otherwise specified or shown in the Drawings, the metal sheet profile shall be of a concealed fixing system complying with MS2500 as approved by the S.O.. The roofing sheets shall have the following-requirements:
- (i) Base Metal Thickness (BMT) = 0.42mm.
 - (ii) Total Coating Thickness (TCT)= 0.47mm
 - (iii) Cover width = 430mm to 680 mm.
 - (iv) Rib height = 25mm to 43 mm.
 - (v) Coating = Pre-painted aluminium/zinc coated steel with AZ150 (150g/m²) or AZ200 (200g m²/) on both surfaces.
- 6.1.2.2. Where pierced fixing system complying with MS 2500 is specified or shown in the Drawings, the roofing sheet shall have the following requirements:
- (i) Base Metal Thickness (BMT) = 0.42mm.
 - (ii) Total Coating Thickness (TCT) = 0.47mm
 - (iii) Cover width = 750 to 1015mm
 - (iv) Rib height = 16mm to 38mm
 - (v) Coating = Pre-painted aluminium/zinc coated steel with AZ150 (150g/m²) or AZ200 (200g m²/) on both surfaces.



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6.1.3. Fixing

6.1.3.1. Installation procedures shall conform to the recommendation of the manufacturer.

6.1.3.2. The roofing sheets shall be installed and fixed according to the following method:

- (i) Concealed fixing using approved clips compatible with the roofing sheet.
- (ii) Pierced fixing using approved fasteners compatible with the roofing sheet.

6.1.3.3. The roofing installer shall be registered with CIDB.

6.1.3.4. Metallic swarf and all other debris including nail, screws, mortar, construction materials et cetera shall be swept away from the roof area and gutters regularly, particularly at the end of each day's work and at completion of the installation works.

6.1.4. Clips and Fasteners

6.1.4.1. Fasteners type shall comply with AS 3566 Class 3 and be certified as such by the supplier of fasteners.

6.1.4.2. The recommended type of fasteners shall conform to the following test:

- (i) Salt spray test - 1000 hours
- (ii) Kesternich test - 15 cycles.
- (iii) Humidity test - 1000 hours.
- (iv) UV test - 2000 hours.

6.1.4.3. All fasteners and screws shall be of the self-drilling type either concealed or screwed fixing, complete with preassembled ethylene propylene diene monomer (EPDM) rubber washers.

6.1.5. Flashing and Capping

Approved 0.42mm BMT ridge capping, flashing, capping and trimming shall be manufactured to the required shape and sizes. The flashing and capping materials used shall be from the same material as the roofing sheets.

6.1.6. Sealants

Only neutral cure silicone rubber sealant type Dow Corning 780 or equivalent shall be used conforming to AS 3902.

6.1.7. Lightning Conductors

Aluminum lightning conductor is recommended for use on steel roof system.



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- 6.2. All fixing accessories shall be rust-resistant and of suitable design and construction as recommended by the manufacturer for the roofing system and as approved by the S.O.. All fasteners and screws shall be of the self-drilling type either concealed or screwed fixing, complete with preassembled EPDM rubber washers.
- 6.3. Identification, storage and packaging of alum/zinc steel roof decking shall be strictly in accordance with the manufacturer's recommendation and comply with the S.O.'s requirements.
- 6.4. All roof decking sheets, capping, flashing et cetera or wall cladding shall be new, clean, regular, straight and true to shape with sharp defined profiles, free from cracks, chips, bends and defects detrimental to practical use or from other surface imperfections.
- 6.5. At Site, the sheets shall be lifted from the transport carrier by a crane and properly stacked clear of the ground, ready to be lifted up to the roof structure for laying. Where sheets are to be manually lifted, care should be taken not drag the sheets to avoid scraping away the surface coating.
- 6.6. Where storage is necessary, stack heights shall be kept to a minimum and the sheets shall be stacked in a sloping position. Sheets shall be stacked off a dry firm ground, under cover by tarpaulin or polythene sheets but ventilated and away from building operations. Should the stack sheets become wet, they shall be immediately dried to prevent staining and degradation of the surface coatings.
- 6.7. The Contractor shall be responsible for the absolute water-tightness of the roof and must ensure that the method of installation, fixing and fastening decking sheets, caps, flashings et cetera including acoustical, insulation and expansion joints, whenever required shall conform strictly to the manufacturer's recommendation.
- 6.8. The completed portions of the roof shall be clear of all metallic particles such as blind rivet shanks, screws, nuts, nails et cetera and dirty foot prints should be wiped off to avoid early deterioration/corrosion and discolouration. Damages to the coating shall be repaired with touch-up paint as recommended by the manufacturer and approved by the S.O..

7. Roofing Sheet for Marine Environment (Coastal Areas)

- 7.1. The Contractor shall select the correct type of metal sheet profile to be installed for coastal areas as recommended by the roof manufacturer and approved by the S.O..
- 7.2. Unless otherwise specified or shown in the Drawings, the roofing sheet for marine environment shall be metallic coated steel with minimum zinc coating mass of 350g/m² (Coating Class Z350) OR minimum aluminium/zinc alloy coating mass of 200g/m² (Coating Class AZ 200) on both surfaces.conforming to ISO 9223 Category 4 (C4) and Category 5 (C5) environment.
- 7.3. Metallic coated steel with zinc or aluminium/zinc alloy shall be manufactured and certified by SIRIM according to MS2385:"Hot-Dip Zinc-Coated Carbon Steel Sheet of Commercial and Drawing Qualities"or MS 2384:"Hot-Dip Zinc-Coated Carbon Steel Sheet of Structural Quality" OR MS 1196 'Continuous Hot-Dip Aluminium/Zinc Coated Steel Sheet of Commercial, Drawing and Structural Qualities' or AS 1397 'Steel Sheet and Strip: Hot-Dip Zinc Coated or Aluminium/Zinc Coated'.
- 7.4. The pre-painted finish (super polyester paint or PVDF paint) type shall be used over the zinc coated base OR aluminium/zinc alloy coated base steel shall conform to MS 2383: "Prefinished/Pre-painted Sheet Metal Products for Interior/Exterior

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Building Applications - Performance Requirements" and AS/NZS 2728: "Prefinished/Pre-painted Sheet Metal Products for Interior/Exterior Building Applications - Performance Requirements" under product type 5 and 6 conforming to ISO 9223 Category 5 (C-5) environment.

- 7.5. Fasteners used shall comply with AS 3566 Class 4 and be certified as such by the supplier of fasteners and to the approval of the S.O..
- 7.6. All fixings and associated components shall be manufactured from compatible metals and coated conforming to ISO 9223 Category 4 (C4) and Category 5 (C5) environment. Flashings shall be made from the same material as the roofing sheets.
- 7.7. Unless otherwise stated in the drawings, where skylight roofing sheets are to be used, they shall be of transparent skylight roofing sheets [acrylic/polycarbonate (PC)/unplasticized poly vinyl chloride (UPVC) multilayer/laminated glass] or translucent skylight roofing sheets [fibreglass reinforced polyester (FRP)] of roof sheets profiles. The minimum thickness gauge and fixing system of the skylight roofing sheets is accordance with the manufacturer's recommendation.

8. Bituminous Corrugated Roofing Sheets

- 8.1. Unless otherwise shown on the Drawing, the bituminous corrugated roofing sheets shall have the following minimum requirements:
 - 8.1.1. Length = 2000mm
 - 8.1.2. width = 950mm
 - 8.1.3. cover width = 855mm
 - 8.1.4. thickness = 3mm
 - 8.1.5. weight of material = 3.3kg/m²
 - 8.1.6. thermal resistance R- value = 0.04mK/W
 - 8.1.7. thermal conductivity = 0.066W/mk
- 8.2. Unless otherwise shown on the Drawings, the Bituminous Corrugated Roofing Sheets shall be laid at a minimum roof pitch of 5° on timber battens at spacing and tightly nailed/screwed as recommended by the manufacturer.
- 8.3. Ridge capping, nails and screws shall be provided to match the roofing sheets while ridges, verges, eaves, hips, valleys, side-wall and end-wall details shall be fixed strictly in accordance with the manufacturer's recommendation.

9. Bituminous Corrugated Roofing Tiles

- 9.1. Unless otherwise shown on the Drawing, the bituminous corrugated roofing tiles shall have the following minimum requirements:
 - 9.1.1. Length = 1060mm
 - 9.1.2. Width = 400mm
 - 9.1.3. Wave Height = 40mm



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- 9.1.4. thickness = 3mm
- 9.2. Bituminous roofing tiles shall be laid at a minimum roof pitch of 9° and on timber or steel battens approved for roofing at spacing and tightly nailed/screwed as recommended by the manufacturer.
- 9.3. Ridge capping, nails and screws shall be provided to match the roofing tiles while ridges, verges, eaves, hips, valleys, side-wall and end-wall details shall be fixed strictly in accordance with the manufacturer's recommendations.

10. Fibre-cement Corrugated Sheets

- 10.1. Fibre-cement corrugated sheets shall comply with MS 1224. The thickness of the sheets shall be 3mm thick for shallow corrugation and 4mm thick for medium corrugation. The cement shall comply with MS 522: Part 1. Asbestos processed or unprocessed shall not be added to fibre-cement sheets.
- 10.2. The surface intended to be exposed to the weather shall have a generally smooth finish. Variations of the surface appearance which do not impair the characteristics of the sheets as defined in MS 1224 are permitted.
- 10.3. Unless otherwise stated in the drawings, where skylight roofing sheets are to be used, they shall be of transparent skylight roofing sheets [acrylic/polycarbonate (PC)/unplasticized poly vinyl chloride (UPVC) multilayer/laminated glass] or translucent skylight roofing sheets [fibreglass reinforced polyester (FRP)] of corrugated roof tiles profiles. The minimum thickness gauge and fixing system of the skylight roofing sheets is accordance with the manufacturer's recommendation.

11. Heat Insulation

11.1. General

Heat insulation system shall comply with MS 1020 and MS 1525. Samples of the insulation material shall be submitted to the S.O. for approval before they are used, and subsequent delivery shall be up to the standard of samples approved.

11.2. Reflective Foil

- 11.2.1. Reflective foil shall be fire retardant double sided aluminium reflective foil bonded to reinforced high density polyethylene woven fabric comply with MS2095 : 2014

- 11.2.2. The reflective foil materials used shall conform to fire safety requirements and BS 476 Part 6 & Part 7 (Class O): Fire Test on Building Materials and Structures on the following test:

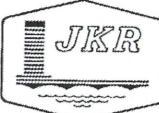
- 11.2.2.1. Part 6: Method of test for fire propagation for products conforming to BS 476

- 11.2.2.2. Part 7: Method of test to determine the classification of the surface spread of flame confirming to BS 476

- 11.2.3. Reflective foil properties shall conform to the following:

- 11.2.3.1. Thickness : 137 ± 20 micron thick.

- 11.2.3.2. Grammage : 163 ± 10g/m².

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11.2.3.3. Tensile strength : 500 N/ 50mm (MD), 500 N/50mm (Cross Direction) MD≥9.5 ; CD≥6.0.

11.2.3.4. Emissivity ASTM E408 ≤ 0.05(97±2%) / Reflectivity = 95%
ASTM C1371 ≤0.05

11.2.3.5. Initial Tear resistance: ASTM D1004 >30N ≥65.0

11.2.4. Reflective foil material may be used on its own with all types of roofs except with metal decking roof. Where roof is of metal decking, the reflective insulation material shall be laid below stone wool or glass wool for effective thermal and acoustic performance.

11.2.5. The reflective foil material shall be installed strictly in accordance with the manufacturer's recommendation. A uniform air space of 20mm to 50mm between the tile roof covering and the insulation material shall be provided to ensure the effectiveness of the reflective surface. All punctures shall be effectively sealed with similar reflective material to prevent air leakage and moisture transfer.

11.2.6. The reflective foil surface shall be free from any thin film of oil, plastic or lacquer coatings. All dust and/or moisture, if any, shall be thoroughly cleaned prior to installation. All dust and/or trademarks shall be limited to a maximum of 5% of the total reflective area. The insulation material shall be fitted closely around electrical outlet boxes, plumbing and et cetera, and taped securely to eliminate gaps or voids through which air or water vapour might pass into the cooler space.

11.3. Glass Wool Insulation

11.3.1. Unless otherwise shown in the Drawings, It shall have R-Value @ R2.0 to R2.3 m²KW (tested at a mean temperature of 20°C based MS1020 and MS1525 tested according to ASTM C177/C518). The glass wool insulation material used shall conform to BS 476 for Fire tests on building materials and structures on the following:

11.3.1.1. Part 6: Method of test for fire propagation for products conforming to BS 476

11.3.1.2. Part 7: Method of test to determine the classification of the surface spread of flame confirming to BS 476

11.3.2. The glass wool insulation material used shall be of no added urea formaldehyde and as approved by the S.O.. Glass wool insulation shall be fixed in accordance with the manufacturer's recommendations and to the approval of the S.O..

11.3.3. Where single skin metal roof is applied, galvanized wire mesh BRC 3316 or equivalent shall be used to support the reflective foil and the glass wool insulation.

11.4. Mineral Wool Insulation

11.4.1. Unless otherwise shown in the Drawings, it shall have R-Value @ R2.0 to R2.3 m²KW (tested at a mean temperature of 20°C based MS1020 and MS1525 tested according to ASTM C177/C518). The mineral wool insulation material used shall conform to BS 476 for Fire tests on building materials and structures on the following:



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11.4.1.1. Part 6: Method of test for fire propagation for products conforming to BS 476.

11.4.1.2. Part 7: Method of test to determine the classification of the surface spread of flame confirming to BS 476.

11.4.2. The mineral wool insulation material used shall be of no added urea formaldehyde and as approved by the S.O.. Mineral wool insulation shall be fixed in accordance with the manufacturer's recommendations and to the approval of the S.O..

11.4.3. Where single skin metal roof is applied, galvanized wire mesh BRC 3316 or equivalent shall be used to support the reflective foil and the mineral wool insulation.

11.5. Stone Wool Insulation

11.5.1. Unless otherwise shown in the Drawings, stone wool insulation shall be 50mm thick minimum. It shall have R-Value @ R2.0 m²·KW (tested at a mean temperature of 20°C based MS1020 and MS1525 tested according to ASTM C177/C518). The stone wool insulation material used shall conform to BS 476 for Fire tests on building materials and structures on the following:

11.5.1.1. Part 6: Method of test for fire propagation for products conforming to BS 476.

11.5.1.2. Part 7: Method of test to determine the classification of the surface spread of flame confirming to BS 476.

11.5.2. The stone wool insulation shall conform to the following:

11.5.2.1. Thermal conductivity 0.034 - 0.036 W/mK at 20°C mean temperature tested in accordance to ASTM C518.

11.5.2.2. Noise reduction coefficients (NRC) of up to 1.0 tested to BS EN ISO354 at 50mm thickness.

11.5.2.3. Non-combustible according to BS 476 Part 4 or EN 13501-1 and melting point of at least 1000°C in accordance to ASTM E794.

11.5.2.4. No CFCs, HFCs, HCFCs or asbestos shall be used in the manufacture of the product.

11.5.2.5. No perceptible odor shall be present when tested in accordance to ASTM C665.

11.5.2.6. Not sustaining fungus growth under normal conditions according to ASTM C1338.

11.5.2.7. The metal plates (steel and aluminium) in contact with the insulation shall show no corrosion greater than that observed on the comparative plates in contact with sterile cotton according to ASTM C665.

11.5.2.8. Flame spread index less than zero (0) and smoke developed index less than five (5) according to ASTM E84.



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- 11.5.2.9. Total VOC emission shall be less than 0.25 mg/m³ and particles emission shall be less than 0.02 mg/m³ tested according to ASTM D5116.
- 11.5.2.10. Moisture absorption shall be less than or equal to 0.04%vol. according to ASTM C1104/C1104M and water absorption shall be less than or equal to 0.5kg/m² (short-term immersion) according to EN1609.
- 11.5.3. The stone wool insulation material used shall be of no added urea formaldehyde and as approved by the S.O.. Stone wool insulation shall be fixed in accordance with the manufacturer's recommendation and to the approval of the S.O..
- 11.5.4. The insulation material must be protected from the exposure of rain, water immersion and chemical contamination during the storage and installation. If the insulation is in contact with water, adequate drying time must be allowed to ensure that the insulation is completely dried prior to covering of the roof covers.
- 11.5.5. The stone wool insulation shall be installed to the thickness specified and place butt jointed. Wherever possible the Contractor shall avoid the compression of the insulation material.
- 11.5.6. Where single skin metal roof is applied, galvanized wire mesh BRC 3316 or equivalent shall be used to support the reflective foil and the stone wool insulation.

11.6. Cellulose Insulation

- 11.6.1. Unless otherwise shown in the Drawings, spray applied cellulose insulation shall be 30mm thick minimum. It shall have K-Value of 0.029 W/mK based MS1020 and MS1525 tested according to ASTM C177. The spray applied cellulose insulation material used shall conform to BS 476 Part 6 &7 for Fire tests on building materials and structures on the following:

- 11.6.1.1. Method of test for fire propagation for products.
 - 11.6.1.2. Method of test to determine the classification of the surface spread of flame.

- 11.6.2. Cellulose insulation shall be:

- 11.6.2.1. Thickness = 30mm
 - 11.6.2.2. Thermal conductivity (k-value) = 0.0029 W/mK tested to ASTM C-177.
 - 11.6.2.3. Fire retardant Class "O" complying with BS476 Part 6 & 7 and endorsed by Jabatan Bomba Dan Penyelamat Malaysia.
 - 11.6.2.4. Average moisture absorption of not more than 15% as per ASTM C739.
 - 11.6.2.5. Tested Noise Reduction Coefficient of NRC 0.75 at 30mm thickness.

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11.6.2.6. Tested to be non-toxic and asbestos free, contain no carcinogenic materials and shall not cause any skin irritation to humans

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1. General

- 1.1. All paints to be used shall be those supplied by approved manufacturers. The quality of paints shall comply with MS 125 in respect of oil/enamel paints and MS 134 in respect of emulsion paints/acrylic paint.
- 1.2. Prior to commencing painting work, the Contractor shall submit the following to the S.O.:
 - 1.2.1. Name of the paint manufacturer and the manufacturer's certification that the paint conform to the relevant standard as specified in sub-section 1.1 hereof together with the proof that such certification have been verified by tests carried out by SIRIM or ISO in the last three (3) years.
 - 1.2.2. The performance warranty by the manufacturer to the Government on the performance of the paint against any peeling, cracking, fungus/ algae growth and discoloration which may arise during a period of five (5) years or more from the date of practical completion due to insufficiency in material or workmanship. The terms of the performance warranty shall be as stipulated in APPENDIX O/1 and as approved by the S.O..
 - 1.2.3. Name of the painting applicator as approved by the paint manufacturer including written evidence of the current approval.
 - 1.2.4. A copy of the method statement including procedure for the painting works in accordance with these specification and manufacturer's instructions.
- 1.3. All paints shall be delivered to the Site in the manufacturer's original sealed containers unopened and shall be used strictly in accordance with the manufacturer's instructions.
- 1.4. Paints shall not be adulterated and any paint that has deteriorated shall not be used and shall be removed from the Site forthwith.
- 1.5. Unless otherwise specified in the Drawings, the types of paints to be sued for the work on exposed surfaces shall be as stated in the 'Schedule of Paint Finish' attached hereinafter.
- 1.6. The colours and tints of paints shall be selected by the S.O. and the priming, undercoats and finishing coats shall be of approved differing tints and shall be obtained from the same manufacturer.
- 1.7. No painting shall be done under conditions which may jeopardize the quality of finish paintwork.
- 1.8. During painting, care shall be taken to prevent stain or damage to other works.
- 1.9. Surfaces to be painted shall be dry, free from dirt, oil, grease, old loose paint and other deleterious matter. All cracks shall be raked out and stopped and all holes and dents shall be filled.
- 1.10. Unless otherwise specified in the manufacturer's instructions, each coat of paint applied on timber or metal surfaces shall be allowed to dry and subsequently rubbed down lightly with sandpaper before the next coat is applied. Any dirt or dust shall be removed from preceding coats immediately before proceeding with application of the next coat.



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- 1.11. All priming to shop fabricated components shall be done at shop.
- 1.12. All prime surfaces shall be inspected and approved by the S.O. before commencement of painting works.
- 1.13. Finish surfaces shall be uniform in finish and colour and be free from brush marks or other defects.
- 1.14. Sample areas showing all tints of paints to be used shall be prepared by the Contractor as and when required by the S.O..

2. Painting to Timber Work

2.1. Painting to New Timber Work

- 2.1.1. Unless otherwise as shown on the Drawings, all exposed wrot surfaces of timber shall be painted as specified hereinafter.
- 2.1.2. Before painting to new timber work, all knots shall be covered with knotting and all nail holes, cracks, et cetera shall be stopped with white lead and putty (1:3) and shall be primed with aluminium wood primer well brushed in.
- 2.1.3. Unless otherwise specified, the prepared surface shall be painted with one undercoat (alkyd undercoat) and shall be finished with two coats of premium semi-gloss fungus resisting alkyd paint or three (3) coats UV protection, low odour alkyd wood finish.
- 2.1.4. Timber decks shall be applied with three coats of scratch resistant, UV protection, fast drying urethane alkyd wood finish. Each preceding coat shall be allowed to dry thoroughly and rubbed down lightly with fine sand paper and thoroughly cleaned before applying the next coat.
- 2.1.5. All timber surfaces abutting concrete or brickwork shall be primed before fixing or assembling.
- 2.1.6. All ironmongerries except hinges shall be removed before painting begins and shall be carefully re-fixed.

2.2. Repainting Existing Timber Work

Where repainting to existing timber work is specified, the following procedure shall be adhered to. If the surface is intact, it shall be rubbed down with fine sand paper to the approval of the S.O.. Then one coat of undercoat shall be applied followed by two (2) coats of gloss enamel paint unless otherwise specified. Where cracking and flaking have occurred, the entire existing paint shall be removed by burning off or by use of paint remover as approved by the S.O.. The surfaces shall then be thoroughly cleaned and shall be applied with minimum one coat aluminum wood primer followed by one (1) undercoat and unless otherwise specified in the Drawings, shall be finished with two (2) coats of gloss enamel paint.



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3. Painting to Metal Work

3.1. Painting New Steel and Ironwork

The areas to be painted shall be cleaned down and be free from rust, scale, oil, grease, dirt and dust. One (1) coat of approved metallic primer shall be applied followed by one (1) coat of premium alkyd undercoat unless specified and shall be finished with two (2) finishing coats of gloss/semi-gloss fungus resisting alkyd paint.

Soil and vent pipes shall be primed as above and given two (2) coats of approved bituminous paint.

3.2. Repainting Existing Steel and Ironwork

3.2.1. Where repainting to existing steel or ironwork is stated in the Drawings, the following procedure shall be adhered to. Where a firm surface exists, it shall be scuffed with fine sand paper to the approval of the S.O. and spot primed if necessary, before the application of by one (1) coat of premium alkyd undercoat unless specified and shall be finished with two (2) finishing coats of gloss/semi-gloss fungus resisting alkyd or gloss enamel paint.

3.2.2. If the old paint is in a bad, deteriorated condition the whole paint shall be removed by the use of approved paint remover or by scraping as approved by the S.O.. The surface shall be thoroughly cleaned and shall be applied with one coat approved metallic primer, by one (1) coat of premium alkyd undercoat unless specified and shall be finished with two (2) finishing coats of gloss/semi-gloss fungus resisting alkyd or gloss enamel paint.

3.3. Painting New Galvanized Ironwork

Where painting to new galvanized ironwork is specified, the surfaces shall be applied with one coat of approved self-etching quick drying metallic primer unless otherwise specified and shall be finished with two finishing coats of gloss/semi-gloss fungus resisting alkyd paint or gloss enamel paint.

3.4. Repainting Existing Galvanized Ironwork

3.4.1. Where repainting to existing galvanized ironwork is specified, the following procedure shall be adhered to. If the surface is not corroded, it shall be slightly sanded and all dirt's, oil, and grease removed by washing with an approved solvent and applied with one (1) coat of approved metallic primer unless otherwise specified, shall be finished with two (2) finishing coats of gloss/semi-gloss fungus resisting alkyd paint or gloss enamel paint. If the surface has corroded, the whole paint shall be removed by the use of approved paint remover or by scraping as approved by S.O..

3.4.2. When the surface is completely clean, it shall be applied with one coat approved metallic primer, unless otherwise specified, shall be finished with two finishing coats of gloss/semi-gloss fungus resisting alkyd paint or gloss enamel paint.



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4. Painting to Masonry Work

4.1. Painting New Plastered/Masonry Surfaces

- 4.1.1. The new plastered or masonry surfaces shall be allowed to dry completely and shall be cleaned down to remove dust, dirt, plaster splashes, and the like. In case of old unpainted walls, all fungus, mosses, lichens and vegetative growth shall also be removed.
- 4.1.2. The cleaned surfaces of the external walls shall be applied with one coat of approved alkaline resisting primer and unless otherwise specified in the Drawings, followed with two (2) coats of ultra-violet (UV) weather resistant emulsion paint.
- 4.1.3. The external wall surfaces shall be applied with one (1) coat of approved alkaline resisting primer, unless otherwise stated in the Drawings, followed with two (2) coats of 100% acrylic with heat reflective and UV protected, and temperature reduction weather resistant acrylic emulsion paint for Green Ratings Certification as approved by the S.O..
- 4.1.4. The internal wall surfaces shall be applied with one (1) coat of approved modified acrylic sealer, and unless otherwise as shown on the Drawings, followed with two (2) coats of low VOC acrylic paint.

4.2. Repainting Existing Plastered or Masonry Surfaces

- 4.2.1. Where repainting to existing plastered or the masonry surface is specified, the following procedure shall be adhered to. All existing paint shall be removed by scraping and the surface shall be washed with high pressure water jet (for Non-Conservation Projects). All cracks and other imperfections shall be made good and the surface should be allowed to dry completely.
- 4.2.2. The surface shall then be applied with two (2) coats of any other type of water base emulsion paint as described hereinbefore for Painting New Plastered/Masonry Surfaces and as approved by the S.O..
- 4.2.3. However, for buildings which fall under heritage status, repainting works shall refer to *Garis panduan Pemuliharaan Bangunan Warisan 2016* (or latest version).

4.3. Textured Wall

- 4.3.1. Natural Spray Granite textured wall shall be applied with one (1) coat of approved alkaline resisting acrylic primer, unless otherwise stated in the Drawings, followed with two (2) layers natural fine stone and ceramic chips texture with high build acrylic resin and two (2) clear finish coats.
- 4.3.2. Spray Tile textured wall shall be applied with one (1) coat of approved alkaline resisting acrylic primer, unless otherwise specified in the Drawings, followed with one (1) coat of spray tiles texture and two (2) coats of pure acrylic based premium weather paint.

5. Treatment to Fair Face Surfaces

Surfaces that are to be left bare such as fair-face brickwork, fair-face concrete or stones and the like shall be thoroughly clean, dry and free from grease, dust and loose or flaking

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materials. The surfaces shall then be treated with an approved colourless silicon-based water repellent liquid applied in accordance with the manufacturer's instructions. The solution shall be applied in two (2) coats over the entire area and crevices by brushing.

6. Epoxy Coatings

Epoxy coatings shall be applied with one (1) coat of approved penetrative epoxy sealer, followed with two (2) coats epoxy topcoat.

7. Silicone Paint

Silicone paint for external walls and ceiling shall be applied with one (1) coat of Pigmented Water Base Penetration Water Repellent and two (2) finishing coats of Breathable Silicone Paint of approved colour applied strictly in accordance with manufacturer's instruction.

8. Painting on Floor Surfaces

- 8.1. Painting on concrete drive way shall be applied with one (1) coat of floor primer at 100 µm DFT, followed by one (1) coat of floor glass flake at 300 µm DFT or floor non-slip aggregate (fine/medium) and followed with two (2) coats of floor polyurethane (PU) topcoat at 50 µm DFT per coat.
- 8.2. Painting on car park parking bay floors shall be applied with one (1) coat of floor primer at 100 µm DFT, then followed with two (2) coats of floor polyurethane (PU) topcoat at 50 µm DFT per coat.
- 8.3. Painting on TNB sub-station internal floors shall be applied with one (1) coat of approved two-pack epoxy sealer, followed with two (2) coats of two pack epoxy floor coating at 50 µm DFT per coat, unless otherwise stated in the drawings.

9. Painting to Timber-based Products

9.1. Chipboard Surfaces

- 9.1.1. Before painting, all nail holes, crevices and the like shall be stopped with white lead and putty (1:3). The surface shall then be smoothened by rubbing down with fine sand paper and finally cleaned to remove dust. Where the board is to be finished with enamel paint, one (1) undercoat and two (2) finishing coats of gloss enamel paint shall be applied. If the board is to be finished with emulsion paint, one (1) undercoat and two (2) coats of emulsion paint shall be applied.
- 9.1.2. Where repainting to existing enamel paint finished chipboard is required, the following procedure shall be adhered to. If the paintwork is still intact, it shall be rubbed down with fine sand paper to the approval of the S.O.. Then one (1) coat of undercoat shall be applied followed by one (1) coat of gloss enamel paint.
- 9.1.3. Where cracking and flaking has occurred, the entire existing paint shall be removed by burning off, as approved by the S.O.. The surfaces shall then thoroughly clean and shall be applied with one (1) undercoat and finished with two (2) coats of gloss enamel paint.



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- 9.1.4. Where repainting to existing emulsion paint finished chipboard is required, the surface shall then be thoroughly cleaned and applied with two (2) coats of emulsion paint.

9.2. Hardboard Surfaces

Before painting to hardboard, all nail holes, crevices and the like shall be filled with approved putty. The surface shall then be applied with one (1) undercoat and two (2) coats of emulsion paint unless otherwise specified.

9.3. Wood Cement Board Surfaces

Before painting to wood cement board, all nail holes, crevices and the like shall be filled with approved filling compound of alkali resistant type. The surface shall then be lightly sanded, and any dust should be removed from the surface with a piece of clean, coarse cloth. The surface shall then be applied with one (1) undercoat and two (2) coats of emulsion paint unless otherwise specified.

10. Painting to Gypsum Board and The Like

- 10.1. Before painting the surfaces shall be clean and free from dirt. The surfaces shall then be applied with one (1) undercoat and two (2) coats of emulsion paint. Similar procedure shall be followed where repainting to existing painted surfaces is required.

11. Painting to Laboratory Bench Tops

- 11.1. Timber tops of benches in laboratories that are required to be painted shall be prepared as described hereinbefore for timber work. The surfaces shall then be applied with one (1) coat aluminum wood primer followed by one (1) coat approved chemical resistant primer and finished with two (2) coats of approved chemical resistant gloss enamel paint in accordance with manufacturer's instructions.

- 11.2. Where repainting to existing timber tops laboratory benches is required, the surfaces shall be rubbed down lightly with fine sand paper. The surfaces shall then be thoroughly cleaned and shall be applied with one (1) coat of approved chemical resistant primer followed by one (1) coat of approved chemical resistant gloss enamel paint.

12. Varnishing

12.1. Varnishing to New Timberwork

- 12.1.1. The surfaces to be varnished shall be smoothened with fine sand paper and all crevices, holes and the like, if any, shall be filled with approved whiting. It shall be clean, dry, free from dust, dirt and wax before the application of varnish. Unless otherwise approved by the S.O., the surfaces shall be applied with three (3) coats of approved UV protection, low odour alkyd wood finish or varnishing mixture used strictly in accordance with the manufacturer's instructions.

- 12.1.2. Where non patented products are allowed to be used, the varnishing mixture shall consist of methylated spirit, shellac and approved stain

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forming the first coat followed by one (1) coat of an approved mixture consisting of thinner and lacquer. The mixtures shall be of uniform consistency throughout. Unless otherwise specified in the Drawings, the finish shall be gloss and as approved by the S.O..

- 12.1.3. Timber deck surfaces shall be applied with three (3) coats of approved scratch resistant, UV protection, fast drying low odour urethane alkyd wood finish.

12.2. Re-varnishing To Existing Timberwork

Where re-varnishing to timberwork is specified in the Drawings or described in the B.Q., the surface shall first be thoroughly scuffed to remove the existing varnish. The surface shall then be smoothened with fine sand paper, cleaned, dried and free from dust, dirt and wax. It shall then be varnished as described hereinbefore for new timberwork.

13. Painting Works for Buildings in Coastal Areas.

- 13.1. External walls shall be applied with one (1) coat of approved pliolite based alkaline resisting primer sealer, unless otherwise specified in the Drawings, followed with two (2) coats of elastomeric weather resistant paint of approved colour applied strictly in accordance to manufacturer's instruction.
- 13.2. Unless otherwise specified in the Drawings, the internal walls shall be applied with one (1) coat of approved water based alkaline resisting acrylic wall sealer, followed with two (2) coats of low volatile organic compounds (VOCs), alkylphenolethoxylate (APEO) free, formaldehyde free acrylic premium emulsion paint of approved colour applied strictly in accordance to manufacturer's instruction.
- 13.3. Mild steel shall be applied with one (1) coat of zinc rich epoxy, one (1) coat of surface tolerance epoxy mastic and followed with two (2) coats of polyurethane topcoat.
- 13.4. Galvanized steel shall be applied with one (1) coat of surface tolerance epoxy mastic and followed with two (2) coats of polyurethane topcoat.
- 13.5. Roofing sheet coatings for marine environment shall refer to SECTION G: ROOFING.
- 13.6. Coatings of fasteners used shall comply with AS 3566 Class 4 and be certified as such by the supplier of fasteners and as approved by the S.O..

14. Painting Works to Clinical Areas (Hygienic Areas)

- 14.1. All external walls shall be applied with one (1) coat of approved siloxane primer sealer, unless otherwise stated in the Drawings, followed with two (2) coats of silicone emulsion water repellent paint applied strictly in accordance to manufacturer's instruction.
- 14.2. Internal walls shall be applied with one (1) coat of approved ultra-low VOCs alkaline resisting primer sealer, followed with two (2) coats of anti-bacteria, anti-fungus, low VOCs, 100% APEO free, formaldehyde free acrylic premium emulsion paint.



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- 14.3. Internal walls (clinical areas) shall be applied with one (1) coat of approved ultra-low VOCs epoxy primer sealer, followed with two (2) coats of anti-bacteria, anti-fungus, low VOCs, 100% APEO free, formaldehyde free epoxy paint.
- 14.4. Internal walls (clinical areas with 24 Hours Air-Conditioning) shall be applied with one (1) coat of approved ultra-low VOCs acrylic water-based primer sealer, followed with two (2) coats of anti-bacteria, anti-fungus, low VOCs, 100% APEO free, formaldehyde free Polyurethane paint.
- 14.5. Painting to Health Facility (Ministry of Health) Buildings shall also adhere to *Garis Panduan Skema Warna Luaran Bangunan Fasiliti Kesihatan KKM*.

15. Completion of Painting Works

On completion of paintwork, all paint marks inadvertently left on glass, floors, tiles and other surfaces shall be removed. Any stain or marking on finished paintwork shall be removed and touched up to the approval of the S.O..

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APPENDIX O/1

PAINT PERFORMANCE WARRANTY (SPECIMEN)

1. Coverage of Performance Warranty

We the paint Manufacturer hereby warrants that for a period of **five (5) years** from the date of Practical Completion, the paint system shall not be affected by the following defects:

- (i) Peeling
This condition is manifested when the paint film peels away or detaches from the substrate.
- (ii) Cracking
This condition is manifested by any visible cracking on the paint film other than that caused by plastering cracks and structural defects.
- (iii) Fungus/Algae Growth
This condition is established when there is a growth of micro-organisms on the surface of the paint films which would result in the marring of the appearance of the paint film through discolouration.
- (iv) Discolouration
This condition occurs when the coating loses its original colour in patches and excessive discolouration appears.

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2. Procedure for Claims

- (i) Any defect claims shall be made in writing and delivered by post or by hand to the Manufacturer.
- (ii) A technical team from the Manufacturer will be dispatched to evaluate the nature of the claim. Should our findings conclude the defects as within the scope of warranty, then the Manufacturer shall make good such defects.
- (iii) Should the Manufacturer's technical team conclude that the defects falls outside the scope of the warranty, the Manufacturer shall not be held responsible for the claim.
- (iv) Should the Government disagree with the conclusion of the technical team pertaining to the defects in particular, then an independent third party competent in such technical evaluation shall be appointed to investigate the disputed defects.
- (v) The appointment of independent third party competent in such technical evaluation shall only be appointed upon the mutual agreement between the Government and the Manufacturer.
- (vi) The findings of the third party shall be conclusive and mutually accepted by the Government and the Manufacturer.
- (vii) If the findings of the independent third party are within the coverage of this performance warranty, all cost shall be borne by the Manufacturer or otherwise such cost shall be borne by the Contractor.
- (viii) All claims for the defects must be received by the Manufacturer not later than fourteen (14) days from the expiry of the warranty period.

MANUFACTURER

Company Stamp

Signature

Name:
Date:**WITNESS**

Company Stamp

Signature

Name:
Date:

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1. General

- 1.1. All landscaping works shall be as shown on the Drawings. Turfing works and tree planting shall be carried out in such a manner as to minimize risks of damage to turfs and plants, and stunted growth. Turfing on all slopes shall be carried out immediately after slopes are formed. Tree planting shall be carried out as soon as practicable.
- 1.2. All landscaping works shall start as early as possible so that trees and plants are well-grown, and fully adapted to the new environment when the project concerned is handed over upon completion.
- 1.3. All landscaping works shall be furnished, installed and maintained by the Contractor as specified herein, or as shown on the Drawings, using the best horticultural management, giving special attention to planting practices, soil mixtures, and application of agricultural chemicals.
- 1.4. Existing water elements such as lakes, ponds and streams shall be incorporated into the landscape design. Unless otherwise specified, mature existing trees shall be retained and incorporated into the landscape design. Replantation and relocation of the trees removed shall be considered as part of the landscaping works.

2. Classifications and Characteristics of Plants

- 2.1. Plants shall mean trees, palms, shrubs, ground covers, and plants of other descriptions to be provided by the Contractor, as shown on the Drawings or listed in the plant schedules.
 - 2.1.1. Each tree shall possess characteristics of its variety and growth typical to such tree. All trees shall be well-branched, with straight trunks characteristic of the species, with well-shaped top and intact leader. The height shall be measured from the stem's earth line to the top of the tree.
 - 2.1.2. Palms shall have vigorous root system, crown of new leaves, proper color of leaves of adult palms, and sufficient hardlines. The height of palms shall be measured from the stem's earth line to the base of the first frond.
 - 2.1.3. Shrubs and vines shall possess characteristics and growth habits typical of their species. All shrubs shall be well-shaped and bushy, with well-spaced branches, and not skinny. The height of shrubs or vines shall be measured from the stem's earth line to the top branches.
 - 2.1.4. Ground cover is defined as any plant or groups of plant, other than grasses, which shall satisfactorily cover the ground, forming a compact and attractive cover.
- 2.2. All plants shall be in healthy growth condition, free from pests and diseases, and shall be representatives of their normal species or variety. All plants shall have well-branched heads and vigorous root systems and shall be injury-free. Unless otherwise shown or specified in the Drawings, only nursery-grown plants shall be used. Plants which are potted or plastic-bag-grown shall not be root-bound.

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3. Size of Plants

3.1. The size of plants refers to plant table size that is the size that is required for planting out on sites. All plants shall have the following sizes:

3.1.1. Ground Covers

Ground cover plants can be supplied in plastic bags. If supplied in 150mm - size bags they shall have at least nine (9) cuttings per bag, and not less than 150mm long.

3.1.2. Shrubs

Height of shrubs shall range between 150mm and 1000mm.

3.1.3. Trees

3.1.3.1. Trees shall be either container grown or grown on the open ground. They shall be of the following three types:

(i) Tree saplings

Tree saplings shall mean grown from seedlings or cuttings. They shall have straight main stems of not less than 1200mm in height from the soil level to the lowest branch, and a stem diameter of not less than 12mm, and a well-branching system.

(ii) Rooted Stump Cutting

These refer to plants which can be easily grown from stem cuttings instead of from seeds. They shall have straight main stems of 2400mm to 3000mm in height, with a diameter ranging from 37mm to 50mm.

(iii) Instant Trees

An instant tree is generally referred, to the semi-mature tree with a minimum trunk height of 2000mm for palms (measured from earth line to first frond) and 3000mm for other which shall have well-spread branches.

3.1.4. Palms

3.1.4.1. Palms shall be either container-grown on the open ground, and shall be of two types:

(i) Single-Stem Palm

These refer to palms with single main trunk. Their trunk height shall be not less than 1200mm measured from the earth line to the base of the first front.

(ii) Cluster Palms

The Palms referred to are those which grow in clusters. They shall have a minimum of three (3) palms clustered



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together, measuring 750mm to 1000mm from the earth line to the base of the first frond.

4. Handling and Planting

4.1. Handling

Plants shall be transported, handled and stored in such a manner as to prevent deterioration, damage or contamination. All plant materials shall be carefully protected and, if necessary, wrapped with hessian or gunny cloth during lifting, transportation, unloading and storage on site.

4.2. Planting

4.2.1. Pits/Holes

- 4.2.1.1. Generally, all pits for palms and trees shall not be less than 1000mm x 1000mm or 1/3 size bigger than the root ball, spaced at intervals as shown on the Drawings or approved by the S.O..
- 4.2.1.2. For shrubs, the pit size may be reduced to 500mm x 500mm deep (for big shrubs), or 300mm x 300mm x 300mm deep (for medium shrubs). Alternatively, continuous trench 500mm x 300mm deep respectively, shall be formed where required.
- 4.2.1.3. The bottom of all pits and trenches shall be forked loose to a depth of 300mm prior to backfilling with approved soil mixture before transplanting. All pits and trenches shall be soaked with water before planting.
- 4.2.1.4. Flower beds or trenches shall be made to the size as shown in the Drawings, and to a depth not exceeding 200mm.
- 4.2.1.5. The distance for planting trees and palms shall be between 3000mm to 5000mm unless otherwise specified.
- 4.2.1.6. The distance for planting shrubs shall be between 150mm to 300mm unless otherwise specified.
- 4.2.1.7. For ground covers, planting works shall be carried out in zig-zag manner at distance between 100mm to 150mm unless otherwise specified.
- 4.2.1.8. To install a minimum of 1000mm (H) x 750mm (L) x 750mm (W) of Polyethylene root barrier for trees planting at pavement/hardscape area. eg parking, walkway and sidewalks.

4.2.2. Transplanting

- 4.2.2.1. Transplanting shall not be carried out in very hot, dry weather conditions which may result in initial drying out of the root system and/or scorching of leaves.
- 4.2.2.2. Immediately before transplanting, the plants shall be carefully removed from the nursery bags or pots. The plants shall be placed into the pits and the surround filled with approved black earth making sure that the roots are not excessively disturbed.



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The earth around the base of the stems shall be recessed slightly to facilitate watering.

4.2.3. Plants Supports

All newly plants shall be supported either by staking, tying or guying. Stakes shall be of wood, still or plastic of an approved type, driven into the ground before planting so as not to damage the root ball or aerial parts of plants. Stakes shall be long enough to the plants, with one (1) tie per stake set 150mm from the bottom.

5. Soil Mixture, Soil Conditioners and Chemical Fertilizers

5.1. Soil Mixture

Soil mixture for ground planting and backfill shall be in the ratio of 1:3, i.e. 1 part to soil conditioner or organic materials to three (3) parts of top soil. Planter box soil mixture shall be in the ratio of 1:2:3, i.e. one (1) part of sand of sand to two (2) parts soil conditioner or organic materials to three (3) parts top soil.

5.2. Top Soil

Top soil shall consist of fertile and friable topsoil obtained from a well-drained flood-free site excavated from not more than 300mm deep from ground level. It shall be of medium texture and without admixture of stones, lumps, plants or roots, and other extraneous matter. Topsoil material shall be obtained from excavated topsoil sourced or, if not available, from other sources as approved by the S.O..

5.3. Soil Conditioners (Manure and Compost)

Soil Conditioners shall be organic materials such as composted coconut, fiber, peat or other approved materials which shall be composed in a stable condition, free from toxic impurities and containing no substance injurious to plants. The organic matter with 45% - 55% moisture content and with Ph adjusted to 5.5 - 6.5 shall be used. All manure or compost used as additive to the soil mixture shall be procured from an approved source.

5.4. Chemicals Fertilizers

Chemicals fertilizers shall be granular slow release compound fertilizers with a minimum four (4) months release period at 32°C. They shall be stored in waterproof sealed bags and kept under shelter. The Contractor shall submit manufacturer's technical data on the proposed fertilizer for the S.O.'s approval prior to the application of the fertilizer.

6. Turfing

- 6.1. Unless otherwise shown in the Drawings, turfing shall be provided to all exposed earth surfaces throughout the site. All surfaces to be turfed shall be completely cleared of all incidental Contractor's debris, stone and other obstructions.
- 6.2. The ground to be turfed shall be graded to fall toward surface water discharge line as shown in the Drawings, or approved by the S.O..
- 6.3. On level ground, minimum gradient of 1:60 shall be provided to eliminate ponding

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hollows. Any undesirable vegetation, debris, stumps or roots shall be grubbed up and removed from the site.

- 6.4. Top soil shall be provided on a prepared surface and compacted to provide a suitable tilt for the growth of the turf. Before spreading the topsoil, the ground is to be trimmed and leveled and all roots of bushes and undesirable growth grubbed up and removed from the site.
- 6.5. All turfs shall be of good, healthy, dense indigenous cow grass (Axon Opus Compresses) from an approved source. The grass shall be of even density, vigorous growth and green in color, forming a turf sufficiently fibrous to hold together when installed. They shall be free from mimosa, weeds or other foreign vegetation.
- 6.6. Each turf shall be approximately 300mm x 300mm x 50mm thick with roots still attached to the soil. They shall be kept moist and in shade and shall be planted within 24 hours of lifting. Samples of turfs to be used shall be submitted to the S.O. for approval before any turfs are brought in for use. The sources of material shall be stated by the Contractor.
- 6.7. Unless otherwise shown in the Drawings, close turfing shall be provided to slopes, and extending 2 m of the platform at the top and bottom of the slope, 1 m the sides of all drains, and 2 m wide of road shoulders, so that they cover the whole area without any space/gap between them.
- 6.8. Each sod shall be pegged in place with wooden/bamboo pegs 12mm diameter and 200mm long through the sod and into the soil base. These pegs shall be removed after the turf have firmly established. On steep slopes, netting in shall be laid onto the turfed areas for protection.
- 6.9. Unless otherwise shown in the Drawings, spot turfing shall be carried out on all level ground. The turf shall be laid at 450mm center, embedded 25mm in the top soil.
- 6.10. Turf shall be fertilized with approved slow release fertilizers high in Nitrogen content, one (1) month after planting at the rate of 60 gm/m² and evenly spread over the whole area. Turfs shall be well watered after each fertilizer application which shall be done once in every three months after grass cutting.
- 6.11. Grass cutting shall be done every three weeks after one (1) month growth/establishment by grass cutter/mover as often as is required to give a well trimmed sod not more than 25mm in height for flat surface and not less than 50mm on slope. All clippings shall be removed from the site before watering is carried out.

7. Football and Playing Fields

7.1. General

- 7.1.1. Unless otherwise specified hereinafter, turfing for football and playing fields shall be as specified hereinbefore. Turfing works shall start as soon as possible and shall be completed and fully established not later than three (3) months before the date of completion of the works.
- 7.1.2. The Contractor shall supply and install sub-soil drains as specified hereinafter at the locations and accordance with the lines, levels and grades shown in the Drawings and/or as directed by the S.O..

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7.2. Materials**7.2.1. Sub-soil Drain Pipes**

Subsoil drain pipes shall be of high-Density Polyethylene (HDPE) perforated corrugated drainage pipe to DIN 16961 PT 1 and 2:1989 or equivalent, or Polyvinyl Chloride (PVC) pipes for subsoil drains complying with AS Specification 2439.1 or BS 3656 or equivalent, of diameter and lengths of pipe as shown on the Drawings.

7.2.2. Filter Materials

Filter Materials shall consist of an angular, clean, hard and durable crush rock with uniformly sized particle of 14mm, free form lumps of clay or organic matter.

7.2.3. Geo Textile Fabric

Geo textile fabric shall be of non-woven type thermally bonded with minimum weight of 100 g/m² or equivalent and shall be of approved manufacturer.

7.3. Site Preparation

The site area shall be completely cleared of all debris, large stones, discarded gravel and other unacceptable materials. The site shall then be graded to form a crown at the centre of the field with a minimum gradient of 1:300. The soil shall be of good texture and structure with the majority of the crumbs of size 1mm to 2mm and not contaminated with seeds, stolon or rhizomes of noxious weeds.

7.4. Trenching for Sub-soil Drain Pipes

Trenches shall be excavated and trimmed clean true to grade and alignment and the geo textile fabric shall be laid as shown on the Drawings. The fabric shall overlap the full width of the trench at the top. Where the fabric requires jointing along the trench, it shall overlap a minimum of 500mm at the joint.

7.5. Laying and Jointing Subsoil Drain Pipe

Subsoil pipe shall be laid and bedded as shown on the Drawings. Subsoil drain pipe shall be jointed according to the manufacturer's recommendations.

7.6. Backfilling

The trench shall be backfilled with the filter material in layers not exceeding 150mm loose thickness and uniformly compacted by suitable method approved by the S.O. to the level as shown in the Drawings. Care shall be taken that the pipe is not damaged or displaced.

7.7. Outlets

Outlets shall be constructed as shown in the Drawings and to the S.O.'s approval.

7.8. Laying of Sand and Turf Mixture

7.8.1. The prepared surface of the field shall be laid with a first layer of 100mm thick river sand or other suitable coarse grained granular materials and a second layer of 100mm thick turf mixture before receiving the turf.

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- 7.8.2. The Contactor surface shall carry out final gradient check prior to the turfing works.
- 7.8.3. Before turfing works commence, the Contractor shall submit samples of the turf mixture for the approval of the S.O.. The turf mixture shall be laid to the required formation level and gradient.
- 7.8.4. The turf mixture shall have the following composition by weight of 4% - 5% organic matter, 12% - 15% clay and 81% - 85% river sand. The PH value for the root zone medium shall be 5 to 7.5.

7.9. Inspections

- 7.9.1. The Contractor shall give not less than twenty-four (24) hour notice prior to the commencement and upon completion of the under mentioned works. The Contractor shall not proceed with the next succeeding operation until specific approval has been given for the following:

- 7.9.1.1. Trench excavation.
- 7.9.1.2. Trench lining with geo textile fabric and laying of subsoil drain pipe
- 7.9.1.3. Filter material backfill
- 7.9.1.4. Sand laying
- 7.9.1.5. Turf mixture
- 7.9.1.6. Turfing work

7.10. Levelling of Field

- 7.10.1. The Contractors shall water the turf at least twice a day or as instructed by the S.O.. The rate of application and frequency of watering shall be sufficient to maintain the turf mixture in a moist condition to ensure proper and healthy growth of the turf even during the dry weather.
- 7.10.2. Water shall be applied as fine spray by means of suitable pumps and hose or sprinkler or any other method approved by the S.O. so as not to disturb the turf mixture.

7.11. Weed Control

Weeding shall be carried out on the newly turfed area about ten (10) days after planting to get rid of foreign species and maintain a pure culture of Axonopus Compressus (Cow Grass). Weeding on a Continuous basis shall be carried out to prevent weeds from growing.

7.12. Fertilization

The first fertilization shall be carried out two (2) weeks after planting, using mechanical spreader. Subsequently, the fertilizer shall be applied at three (3) weeks interval.



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7.13. Mowing

- 7.13.1. Mowing shall be carried out using properly sharpened and adjusted machine tools so that the turf is cut cleanly, and no tearing takes place.
- 7.13.2. The first cut shall be carried out when the turf reaches 50mm – 70mm in height. The turf shall be cut to 25mm – 30mm in height. Subsequently, mowing shall be done at least once in every two (2) weeks.

7.14. Top Dressing

The Contractor shall, from time to time or whenever directed by the S.O. check the flatness of the field and if found uneven, rectify by top dressing with turf mixture and followed by proper compaction.

7.15. Maintenance during Defect Liability Period

- 7.15.1. The Contractor shall be responsible for carrying out full-time intensive maintenance of the turfing works for the entire duration of the Defect Liability Period of the Works.
- 7.15.2. The maintenance includes watering, weed control, fertilization, moving and top dressing, all as specified hereinbefore.

7.16. Handing Over of the Works

On handing over of the works, the field shall be in good playable condition with all the full line markings to the dimensions as shown on the Drawings.

8. Relocation and Protection of Existing Trees

8.1. Relocation of Trees

- 8.1.1. Where shown in the Drawings or if directed by the S.O., all existing trees having girth of 300mm and below identified and marked for relocation, shall not be cut, but shall be dug up, prepared for, and relocated by the Contractor to other areas within, or in the vicinity of the site. In the event of any such trees being accidentally cut or damaged, the same shall be replaced with trees of equivalent size and species by the Contractor.
- 8.1.2. The Contractor shall protect and maintain the relocated trees by fencing to a height of 1.2m, watering, manuring, pruning, and other necessary treatments throughout the contract period (including the Defects Liability Period) until satisfactory growth is established. Any relocated trees which damage are accidentally or fail to re-grow satisfactorily within the Defect Liability Period, shall be replaced accordingly at the Contractor own cost.

8.2. Protection of Trees Retained on Site

- 8.2.1. All existing trees having girth of 800mm and above identified and marked by the S.O. or as shown in the Drawings to be retained on site, shall be protected and maintained by fencing to a height of 1.2m, watering, manuring, pruning and other necessary treatments throughout the contract (including the Defects Liability Period) so as not to jeopardize their growth.
- 8.2.2. The ground around the tree spread shall be protected to prevent contamination from materials and chemicals detrimental to plant growth.

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Method of protection shall be to the approval of the S.O. in the event of any such trees being accidentally or otherwise out or damaged, the same shall be replaced by the Contractor with trees equivalent size and species at his own cost.

9. Maintenance of Plant and Turf

9.1. General

9.1.1. After planting and prior to the onset of the maintenance period, the Contractor shall be responsible for carrying out all necessary measures to ensure that all plant materials and turfing thrive and become established, and that the landscaped areas are kept in a clean and tidy condition.

9.1.2. The Contractor shall protect and maintain the plants and turfing from any damage and destruction, by way of watering, manuring and tilling, any by staking and fencing, where necessary, to support and protect the plants, until the end of the Defects Liability Period. All plants and turfs which are defective and/ or fail to grow within the Defect Liability Period or as instructed by the S.O. shall be replaced immediately and/ or replanted accordingly, at the Contractor's own cost.

9.1.3. Unless otherwise specified, all maintenance works shall be carried out complying to the minimum standard as detailed out in the '*Garis Panduan Pengurusan Dan Penyelenggaran Projek Lanskap*' (latest edition) by Jabatan Perancang Bandar & Desa, Kementerian Perumahan Dan Kerajaan Tempatan. During the Defects Liability Period, the Contractor is required to implement the maintenance works as follows:

9.1.3.1. Water the plants twice (2) per day.

9.1.3.2. Feeding the plants with fertilizers (NPK Green) 15:15:15 once (1) every month for the first six (6) months and as needed after six (6) months onwards. Application of the fertilizer shall be as specified hereinafter, and as recommended by the fertilizer manufacturer.

9.1.3.3. Weeding/Hoeing and Site Cleaning

9.1.3.4. Disease and Pest Control

9.1.3.5. Plants Replacement

9.1.3.6. Mulching

9.1.3.7. Trimming/Pruning

9.1.4. The Contractor shall provide persons who are competent and experienced for organizing and running the maintenance programs during the Defects Liability Period, at the Contractor's own cost.

9.1.5. The Contractor shall be responsible for the use of all materials, labour and equipment. Any injury to plants caused by such materials, labour and equipment shall be corrected and repaired at the Contractor's own cost.

9.1.6. The Contractor shall carry out all necessary measures to ensure that all plants thrive and become established within this period. All landscaped



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areas shall be inspected at monthly intervals and lists of remedial works shall be issued upon each inspection within seven (7) working days. All items on the remedial work list shall be executed before the next scheduled inspection.

9.2. Weeding and Hoeing

Weeding and hoeing shall be done frequently, depending on weed growth or whenever directed to do so by the S.O.. The Contractor shall be responsible for maintaining areas close the base of trees or shrubs. Weeding shall be done manually either by hand, hoe or garden tools at least once a month, with care taken not to wound plant stems.

9.3. Fertilizers and Application Rate

- 9.3.1. Feedings to plants shall be done with approved organic manure or slow release fertilizers at regular intervals to maintain healthy growth. The S.O. reserves the right to request the Contractors to use any kind of fertilizer, let it be straight mixture, complex or slow release, at the Contractor's own cost.
- 9.3.2. Six (6) applications shall be required during the maintenance period. The first shall be carried out during the second (2nd) month after planting. The second and subsequent applications shall be worked into the soil above the roots and lightly watered in. the fertilizer shall be applied, preferable, when the plants are in their active stage of growth.
- 9.3.3. Slow release fertilizers shall be applied strictly in accordance with the manufacturer's directions and recommendations.
- 9.3.4. The Contractor shall take note that plant feeding shall be carried out only after all other maintenance works like weeding, hoeing and trimming or pruning have been carried out.

10. Final Handing Over

- 10.1. Two weeks before the expiry of the Defects Liability Period a joint final inspection shall be held with the S.O. to review the requirements for any alteration or replacement in order to gain approval for Final Handing Over.
- 10.2. At the time of Final Inspection, all areas under this contract shall be free from weeds, neatly cultivated and raked, and all plant boxes in good order. Grass shall be neatly cut and all clippings removed. No bare patches of earth shall be visible in turf or planting areas unless otherwise specified.
- 10.3. If any portions of the works are found to be not acceptable, under the terms and intent of the Drawings and specifications, the Contractor shall carry out immediate remedial works to S.O.'s acceptance before the date of Final Handing Over. The cost of all remedial works shall be borne by the Contractor.

**REKOD PENGALAMAN KERJA
DALAM 5 TAHUN LEPAS –
BORANG D**

BORANG D – REKOD PENGALAMAN KERJA PENYEBUTHARGA
 (Senarai semua kerja yang disiapkan dalam 5 tahun lepas +)

Bil.	Nama	Nilai Kontrak (RM)	Nilai Penyebutharga* Bertanggungjawab	Tempoh Kontrak **	Tarikh Milik Tapak	Tarikh Siap		Nama dan Alamat Penguasa/Jurutera Perunding	NamaAlamat Majikan
						Kontrak	Sebenar		

- + Salinan Perakuan/Pengesahan Siap Kerja bagi setiap kerja yang disenaraikan hendaklah disertakan.
- * Hanya perlu diisi sekiranya penyebutharga melaksanakan kerja sebagai ahli syarikat gabungan.
- ** Tempoh kontrak hendaklah termasuk lanjutan masa yang diluluskan.

**SENARAI KAKITANGAN
TEKNIKAL - BORANG E**

BORANG E – KAKITANGAN TEKNIKAL
 (Butir-butir Kaktitangan Teknikal Yang Ada Dalam Penggajian Penyebutharga Masa Kini)

*Nama dan No. KIP	Umur	Kelulusan Professional/ Pendidikan**	Tahun Kelulusan	Tarikh Diambil Bekerja	Jawatan yang Disandang/ Tugas-Tugas semasa	Pengalaman Lepas (Jawatan disandang, Nama projek dan majikan dan tempoh Bekerja dan sebagainya
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						

* Salinan Borang KWSP 'A' setiap pekerja bagi bulan caruman terakhir dan salinan perjanjian perkhidmatan ahli profesional yang diambil khidmat secara kontrak hendaklah disertakan.
 Sila sertakan salinan Sijil Kelulusan atau Sijil Keahlian Badan-badan Professional

**

**SENARAI KEEMPUNYAAN LOJI
DAN PERALATAN UTAMA -
BORANG F**

BORANG F – KEEMPUNYAAN LOJI DAN PERALATAN PEMBINAAN UTAMA
 (Senarai Loji dan Peralatan Pembinaan Utama kepadaan penyebutharga yang sesuai yang boleh digunakan untuk projek)

Bil.	Butiran (Jenis, model, buatan dan keupayaan/ saiz)	Dimiliki, Disewa-beli Atau Disewapajak*	Bilangan Setiap satu	Nilai Semasa (RM)	Umur (dari tarikh belian asal)	Tempat simpanan/ digunakan sekarang	Catatan
A.	Loji dan Peralatan Asas ** :						
	i) Lorry / Tipper / Dumper / 4x4 ii) Sky lift						
B.	Loji dan Peralatan lain :						
	i) Drill and Cutter ii) Welding Machine iii) Pneumatic Jackhammers						

- * Salinan kad pendaftaran dan/ atau dokumen-dokumen lain bukti keempunyaan hakmilik penyebutharga atau perjanjian sewabeli/ sewapajak atas setiap Loji dan Peralatan yang disenaraikan hendaklah disertakan.
 Pegawai yang menyediakan Dokumen Sebutharga hendaklah menyenaraikan butiran-butiran Loji dan Peralatan Asas bagi projek berkenaan (tanpa bilangan AKM).
- **

PRESTASI KERJA SEMASA

BORANG G

BORANG G - SENARAI KERJA/ KONTRAK SEMASA PENYEBUTHARGA

(Senarai semua kerja di dalam tangan/sedang berjalan dan belum siap termasuk kontrak yang baru diawadkan)

Bil	Nama Kontrak/Projek+	Nilai Kontrak (RM)	Nilai Penyebutharga* Bertanggung jawab	Tempoh Kontrak **	Tarikh Milik Tapak	Tarikh Siap Kontrak	Kemajuan Kerja+		Nama dan Alamat Jurutera Projek	Nama dan Alamat Majikan
							Ikut Jadual (%)	Sebenar Dicapai (%)		

* Hanya perlu diisi sekiranya penyebutharga melaksanakan kerja sebagai ahli syarikat gabungan

** Tempoh Kontrak hendaklah termasuk masa yang diluluskan.

- + Peringatan Penting
Bagi setiap kerja semasa dalam tangan yang disenaraikan, penyebutharga wajib mengemukakan Laporan Penyelia Projek seperti format di Borang GA/GA1.

SULIT

BORANG GA – LAPORAN PENYELIA PROJEK ATAS PRESTASI KERJA (BUKAN PROJEK MSN) SEMASA PENYEPUTHARGA

(Borang ini hendaklah dilengkapkan oleh Penyelia Projek atau Pembantu Kanannya yang mengawasi projek dan diserahkan kepada Kontraktor dalam satu sampul berlakri untuk disertakan bersama-sama sebutharganya)

Kepada: Pengarah.....
.....
.....
(u/p:.....)

Nama Kontraktor:
Nama Projek Yang Dilaksanakan
.....

No. Kontrak :

Harga Kontrak (termasuk anggaran nilai kerja perubahan) : RM
Wang Kos Prima dan Peruntukan Sementara : RM
Nilai Kerja Pembina : RM

Tarikh Milik Tapak : Tempoh Kontrak: Minggu
Tarikh Penyiapan Asal :

Lanjutan Masa Yang Telah Diluluskan : hari

Lanjutan Masa Seterusnya:
Yang difikir/ dijangka layak diperakukan : hari
Atas Sebab-sebab : (i)
(ii)

Kemajuan Kerja (berdasarkan nilai kerja yang telah dilaksanakan):

Pencapaian sebenar: % Mengikut Jadual: %

Tarikh Kerja dijangka akan dapat disiapkan:

Nilai Bahagian Kerja Yang Telah Siap : RM
Nilai Baki Kerja Yang Belum Siap : RM

Ulasan-ulasan mengenai Prestasi Kontraktor:

(Nyatakan apa-apa kepujian dan/ atau kelemahan kontraktor dan juga apa-apa tindakan/ perakuan yang diambil/ dipertimbang berhubung dengan prestasi Kontraktor melaksanakan Kontrak)

Tandatangan Penyelia Projek :

Nama :
Jawatan : Tarikh:

SULIT

**BORANG GA1 – LAPORAN JURUTERA PROJEK ATAS PRESTASI KERJA SEMASA
PENYEBUTHARGA**

(Borang ini hendaklah dilengkapkan oleh Jurutera Projek atau Pembantu Kanannya yang mengawasi projek apabila diminta berbuat demikian oleh Pegawai Penilaian dan hendaklah dihantar segera dengan menggunakan mesin Fax/Email)

Kepada: Pengarah.....
.....
.....
(u/p:.....)

Nama Kontraktor:

Nama Projek Yang Dilaksanakan

No. Kontrak :

Harga Kontrak (termasuk anggaran nilai kerja perubahan) : RM
Wang Kos Prima dan Peruntukan Sementara : RM
Nilai Kerja Pembina : RM

Tarikh Milik Tapak : Tempoh Kontrak: minggu
Tarikh Penyiapan Asal :

Lanjutan Masa Yang Telah Diluluskan : hari

Lanjutan Masa Seterusnya:

Yang difikir/ dijangka layak diperakukan : hari
Atas Sebab-sebab : (i)
(ii)

Kemajuan Kerja (berdasarkan nilai kerja yang telah dilaksanakan):

Pencapaian sebenar: % Mengikut Jadual: %

Tarikh Kerja dijangka akan dapat disiapkan:

Nilai Bahagian Kerja Yang Telah Siap : RM
Nilai Baki Kerja Yang Belum Siap : RM

Ulasan-ulasan mengenai Prestasi Kontraktor:

(Nyatakan apa-apa kepujian dan/ atau kelemahan kontraktor dan juga apa-apa tindakan/ perakuan yang diambil/ dipertimbang berhubung dengan prestasi Kontraktor melaksanakan Kontrak)

Tandatangan Pegawai Penguasa/
Jurutera Projek/ Wakilnya :

Nama :
Jawatan : Tarikh:

SENARAI SUB-KONTRAKTOR

PAKAR - BORANG H

BORANG H

**SENARAI SUB KONTRAKTOR UNTUK KERJA PAKAR
(PEMBUAT / PEMBEKAL)**

SUB KONTRAKTOR DAN PEMBEKAL YANG DINIATKAN UNTUK KONTAK INI			
Penyebutharga hendaklah menyenaraikan nama-nama sub-kontraktor yang dicadangkan.			
No.	Bidang Kerja dan Maklumat Am Kontraktor Pakar	Pendaftaran Dengan CIDB (Gred / Kategori / Pengkhususan)	Pendaftaran Dengan Lain-Lain Jabatan Berkaitan / MOF
1	Skop Pembekalan a) Jenis Skop : b) Nama Pembekal : c) Alamat Pembekal :		
2	Pembuat Pakar a) Jenis Skop Kerja : b) Nama Pembuat : c) Alamat Pembuat :		
3	d) Profit Produk : e) Profit Projek Dilaksanakan : f) Sample : (wajib dikemukakan bersama dengan dokumen sebutharga)		
3	Pengesahan daripada sub-kontraktor pakar. Kami dengan ini mengesahkan bahawa penyebutharga telah mendapat maklumat kos dan kaedah pembinaan produk kami dan kami bersetuju untuk melaksanakan kerja ini untuk pihak Kerajaan.	(Tandatangan) Nama : Cop Syarikat : No. KP : Jawatan : Tarikh :	

Nota :

- 1 Sekiranya kontraktor gagal mengemukakan pengesahan daripada pembekal / pembuat pakar. Sebutharga kontraktor boleh tidak dipertimbangkan oleh Jawatankuasa berkaitan
- 2 Sekiranya sub-kontraktor pakar gagal untuk meyakinkan pihak Kerajaan tentang kualiti daya tahan dan pematuhan kepada syarat yang ditetapkan, kontraktor hendaklah bersetuju untuk menggunakan produk dan perkhidmatan sub-kontraktor pakar yang lain dengan tiada tambahan kos kepada kontrak

LIST OF SPECIALIST SUB-CONTRACTORS TO BE ENGAGED IN THIS PROJECT

NAME AND ADDRESS OF SUB-CONTRACTORS	REGISTRATION WITH CIDB / MOF (Submit copies of relevant registration)	TYPE OF WORK UNDERTAKEN	YEARS OF EXPERIENCE

LUKISAN