KERAJAAN MALAYSIA

MAJLIS SUKAN NEGARA

DOKUMEN SEBUT HARGA

KERJA-KERJA MEMBAIKPULIH LOJI RAWATAN KUMBAHAN (STP) YANG MELIBATKAN MELIBATKAN SIVIL, ELEKTRIKAL, MEKANIKAL SERTA BERKAITAN DI PUSAT PERAHU LAYAR KEBANGSAAN LANGKAWI, KEDAH UNTUK MAJLIS SUKAN NEGARA MALAYSIA

NO. SEBUT HARGA :.....

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

MAJLIS SUKAN NEGARA MALAYSIA

Ke Arah Kecemerlangan Sukan

SURAT AKUAN PEMBIDA

Saya, ... No. Kad Pengenalan ..... yang mewakili (Nama Syarikat: ..... nombor Pendaftaran ..... dengan ini mengisytiharkan bahawa saya atau mana-mana individu yang mewakili syarikat ini tidak akan menawar atau memberi **rasuah** kepada mana-mana individu dalam ..... atau mana-mana individu lain, sebagai sogokan untuk dipilih dalam tender/sebutharga* seperti di atas. Bersama ini dilampirkan Surat Perwakilan Kuasa bagi saya mewakili syarikat seperti tercatat untuk membuat pengisytiharan ini.

2. Sekiranya saya, atau mana-mana individu yang mewakili syarikat ini didapati cuba menawar atau memberi **rasuah** kepada mana-mana individu dalam ..... atau mana-mana individu lain sebagai sogokan untuk dipilih dalam tender/sebutharga* seperti di atas, maka saya sebagai wakil syarikat bersetuju tindakan-tindakan berikut diambil:

Penarikan balik tawaran kontrak bagi tender/sebutharga* di atas; atau
Penamatan kontrak bagi tender/sebutharga* di atas; dan
Lain-lain tindakan tatatertib mengikut peraturan perolehan kerajaan yang berkuatkuasa.

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

Yang Benar

.....
Nama :
No. K/p:
Cop syarikat:

Catatan: i) *Potong mana yang tidak berkenaan.
ii) Surat akuan ini hendaklah dikemukakan bersama Surat Perwakilan Kuasa

No. Tawaran Sebutharga : ----------

Nama Tawaran Sebutharga : ----------

Tarikh Tutup : ----------

Cadangan Tempoh Siap/Penyerahan : - : ----------

BAHAWASANYA, saya mengaku bahawa butir-butir dan keterangan yang diberikan di bawah ini mengenai perniagaan/syarikat saya adalah betul dan benar, maka Kerajaan boleh mengambil apa-apa tindakan terhadap saya di bawah apa-apa undang-undang yang berkuatkuasa

1. <u>Maklumat Penyebutharga</u>

   a) Nama Penyebutharga : ----------

   b) Nama Syarikat : ----------

   c) Alamat Syarikat / Penyebutharga : ----------

   ---

   d) **Email (Wajib diisi)** : ----------

   e) No. H/P : ----------

2. **No. Pendaftaran Syarikat dengan Suruhanjaya Syarikat Malaysia (SSM) dan Kementerian Kewangan Malaysia (MOF)**

   (Sila lampirkan Sijil)

3. **Taraf Syarikat** : Bumiputra / Bukan Bumiputra / Sendirian Berhad /Berhad/ Perkongsian/ Milikan Tunggal

4. **Jenis Perniagaan** : ----------

5. **Bilangan Pekerja** : ----------

a) Pengurusan	
b) Profesional	
c) Teknikal	
d) Sokongan	

6. **Maklumat Pemilik dan Pengurusan Syarikat**

   a) Ahli-ahli Lembaga Pengarah

Nama	Jawatan	Peratus Pegangan Saham (%)

b) Ahli-ahli Pengurusan dan Profesional

Kategori Jawatan	Bilangan Pekerja
JUMLAH	

7. **Kedudukan Modal**

(a) Modal Dibenarkan :

(b) Modal Dibayar :

(sila lampirkan satu (1) salinan BAKI penyata akaun bank syarikat yang terkini)

(c) Kedudukan Saham Dalam Peratus

(i) Bumiputra : ---------- %

(ii) Bukan Bumiputra : ---------- %

(iii) Modal Asing (Foreign Investment) : ---------- %

(iv) Dalam Negeri : ---------- %

8. **Pengalaman Dalam Bekalan/Perkhidmatan/Kerja Yang Berkaitan**

Sila Senaraikan jenis bekalan/perkhidmatan/kerja dalam tempoh **tiga (3) tahun** terkini. (Jika ruang tidak mencukupi, sila sertakan lampiran).

Jenis Bekalan/ Perkhidmatan/Kerja	Nama Kerajaan/ Swasta	Nilai	Tempat	Tempoh/One Off

Saya akui bahawa butir-butir di atas adalah betul dan benar:

Tandatangan ----------

Nama Penyebutharga ----------

Jawatan ----------

Tarikh ----------

Borang Tawaran Harga dan Borang Maklumat Penyebutharga perlu cop syarikat dan ditandatangani oleh pihak syarikat.

Borang ini WAJIB diisi dengan LENGKAP dan sebarang kegagalan pengisian maklumat boleh menyebabkan tawaran sebutharga terbatal

NOTA: Dokumen yang telah lengkap hendaklah di klip atau tebuk lubang 2 sahaja (JANGAN GUNA BINDING/PELEKAT)

KERJA-KERJA MEMBAIKPULIH LOJI RAWATAN AIR KUMBAHAN (STP) YANG MELIBATKAN KERJA SIVIL, MEKANIKAL DAN ELEKTRIKAL DI KOMPLEKS MSN SAUJANA ASAHAN, MELAKA UNTUK MAJLIS SUKAN NEGARA MALAYSIA

ISI KANDUNGAN

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 Sijil Akuan Pendaftaran Syarikat Kementerian Kewangan Malaysia		
5	Salinan Sijil/Permit Suruhanjaya Perkhidmatan Air Negara (SPAN)		
6	Salinan Sijil Suruhanjaya Syarikat Malaysia (SSM)		
7	Salinan Penyata Akaun Bank (3 Bulan) Terkini Yang Disahkan Oleh Pihak Bank		
8	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)		
9	Ringkasan Sebut Harga telah diisi dengan lengkap (RSH/1)		
10	Senarai Kerja 5 tahun yang telah disiapkan (BRG-D/1)		
11	Senarai Kakitangan Teknikal (BRG-E/1)		
12	Senarai Keempunyaan Loji dan Peralatan Utama (BRG-F/1)		
13	Prestasi Kerja Semasa (BRG-G/GA/GA1)		
14	Senarai Sub-Kontraktor Pakar (BRG-H/1-2)		
15	Profil Syarikat (Lengkap dan Sempurna)		
16	Surat Akuan Pembida (Lampiran A1)		
17	Addenda Sebutharga (jika berkaitan)		
18	Lain-lain sekiranya ada:		

PENGESAHAN OLEH SYARIKAT	UNTUK KEGUNAAN MAJLIS SUKAN NEGARA
Dengan ini saya mengesahkan bahawa saya telah membaca dan memahami semua syarat-syarat dan terma yang dinyatakan di dalam dokumen sebut harga. Semua maklumat yang dikemukakan adalah benar. Tandatangan: Nama: Jawatan: Tarikh:	Jawatankuasa Pembuka Sebut Harga mengesahkan penerimaan dokumen bertanda kecuali bagi perkara bil.....(jika ada). Tandatangan: Nama: Jawatan: Tarikh: Tandatangan: Nama: Jawatan: Tarikh:

ARAHAN KEPADA PENYEBUTHARGA

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 penyebut harga yang menawarkan tempoh siap kerja melebihi temph 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 menggantikan 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 menyenaraihitamkan 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 : **(SATU RATUS SEMBILAN PULUH RIBU (RM190,000.00)**

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 MEMBAIKPULIH LOJI RAWATAN KUMBAHAN (STP) YANG MELIBATKAN MELIBATKAN SIVIL, ELEKTRIKAL, MEKANIKAL SERTA BERKAITAN DI PUSAT PERAHU LAYAR KEBANGSAAN LANGKAWI, KEDAH UNTUK MAJLIS SUKAN NEGARA MALAYSIA

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**

SYARAT^2 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 menjejas 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 dikecualikan 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 tatatertib 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 jelas-menjelas antara satu sama lain. Kontraktor hendaklah mengadakan segala yang perlu untuk melaksanakan kerja dengan sewajarnya sehinggalah 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 diisytiharkan 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 diperakukan 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 jua 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 jua kerosakan lain atas Kos Kontraktor sendiri.

16.3. Sekiranya Kontraktor gagal membaiki kecacatan, ketidaksempurnaan, kekecutan atau apa-apa jua 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 jua 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 MENYALAHI UNDANG-UNDANG ATAU AKTIVITI HARAM

Tanpa menjejaskan 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 :**

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

* '*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 MEMBAIKPULIH LOJI RAWATAN KUMBAHAN (STP) YANG MELIBATKAN MELIBATKAN SIVIL, ELEKTRIKAL, MEKANIKAL SERTA BERKAITAN DI PUSAT PERAHU LAYAR KEBANGSAAN LANGKAWI, KEDAH UNTUK MAJLIS SUKAN NEGARA MALAYSIA

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 MEMBAIKPULIH LOJI RAWATAN KUMBAHAN (STP) YANG MELIBATKAN MELIBATKAN SIVIL, ELEKTRIKAL, MEKANIKAL SERTA BERKAITAN DI PUSAT PERAHU LAYAR KEBANGSAAN LANGKAWI, KEDAH UNTUK MAJLIS SUKAN NEGARA MALAYSIA**		
	1.KERJA-KERJA AWALAN		
	2.KERJA-KERJA SIVIL		
	3.KANTIN (GREASETRAP)		
	4.KERJA-KERJA ELEKTRIKAL		
	5.KERJA-KERJA MEKANIKAL		
	JUMLAH		
Ringgit Malaysia :			

Tandatangan Penyebutharga

Nama Penyebutharga

No. K/P Penyebutharga

Jawatan

Cop Syarikat

Alamat:

Telephone :
Facsimile :
E-Mail :
Tarikh :

Tandatangan Saksi

Nama Saksi

No. K/P Saksi

Jawatan

Alamat:

Telephone :
Facsimile :
E-Mail :
Tarikh :

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. :_____

KERJA-KERJA MEMBAIKPULIH LOJI RAWATAN KUMBAHAN (STP) YANG MELIBATKAN MELIBATKAN SIVIL, ELEKTRIKAL, MEKANIKAL SERTA BERKAITAN DI PUSAT PERAHU LAYAR KEBANGSAAN LANGKAWI, KEDAH UNTUK MAJLIS SUKAN NEGARA MALAYSIA

BIL	BUTIRAN KERJA	UNIT	KUANTITI	KADAR HARGA (RM) / KUANTITI	JUMLAH (RM)
1.	**KERJA-KERJA AWALAN**				
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 Penguasa.	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 perlu dibawa keluar daripada tapak bina yang diluluskan oleh pihak berkuasa tempatan apabila penuh atau di atas arahan Pegawai Penguasa.	Pukal	Pukal		
1.5	Pihak kontraktor mestilah memindahkan segala peralatan sedia ada ke kawasan yang sesuai dan memindahkan semula termasuk kemasan ke tempat yang diarahkan oleh pihak MSNM	Pukal	Pukal		
				JUMLAH	

BIL	BUTIRAN KERJA	UNIT	KUANTITI	KADAR HARGA (RM) / KUANTITI	JUMLAH (RM)
2.	**KERJA-KERJA SIVIL**				
2.1	KERJA PEMBINAAN PAGAR BATA DAN BERKAITAN				
2.1.2	Kerja-kerja meroboh dan melupus pagar jejaring, pintu pagar utama, sisa-sisa konkrit dan berkaitan.	Pukal	Pukal		
2.1.3	Kerja penggalian tanah bagi kerja membina dan menyiapkan asas tapak (footing) Gred 30 berukuran 600mm x 600mm x 200mm termasuk Y12, acuan, *'Lean concrete'* dan berkaitan.	No	29		
2.1.4	Kerja membina dan menyiapkan bebendul konkrit *(Ground Beam)* Gred 30 berukuran 300mm x 200mm termasuk Y12, acuan, *'Lean concrete'* dan berkaitan.	M	70		
2.1.5	Kerja membina dan menyiapkan tiang konkrit Gred 30 berukuran 200mm x 200mm x 2400mm termasuk Y12, acuan dan berkaitan.	No	29		
2.1.6	Kerja membina dan menyiapkan dinding bata pasir 113mm tebal serta yang berkaitan.	M^2	160		
2.1.7	Kerja melepa 25mm tebal pada kedua-dua bahagian sisi luar dan dalam dinding bata termasuk yang berkaitan.	M^2	320		
2.1.8	Kerja mengecat satu lapisan cat asas *(Undercoat)* pada bahagian dinding luar dan dalam serta yang berkaitan.	M^2	320		
2.1.9	Kerja mengecat dua lapisan cat rintangan cuaca *(Wheather shield)* pada bahagian luar dan dalam serta berkaitan.	M^2	320		
2.1.10	Membekal dan memasang pintu pagar utama dua daun *(Anti climb)* berukuran 4.5m x 2.4m serta yang berkaitan.	Unit	1		
2.1.11	Kerja melabur dan merata *'Crusher run'* di atas permukaan tangki, ketebalan 100mm serta berkaitan	Pukal	Pukal		
2.2	RUMAH PAM *(PUMP HOUSE)*				
2.2.1	Kerja-kerja membersih dan mencuci segala sampah, rumput, kotoran pada dinding luar dan dalam, *'Flat roof'*, dinding tangki kumbahan dengan menggunakan *'High pressure jetter'* serta berkaitan.	Pukal	Pukal		
2.2.2	Kerja mengecat dua lapisan cat rintangan cuaca *(Wheather shield)* pada keseluruhan permukaan luar dan dalam Rumah Pam serta dinding tangki kumbahan.	Pukal	Pukal		
				JUMLAH	

BIL	BUTIRAN KERJA	UNIT	KUANTITI	KADAR HARGA (RM) / KUANTITI	JUMLAH (RM)
2.2.3	Membekal dan memasang Papan Tanda Amaran Keselamatan berukuran (4M X 3M) mengikut spesifikasi yang telah ditetapkan.	No	1		
3.	**KANTIN *'GREASE TRAP'***				
3.1	Kerja-kerja menebuk lapisan konkrit sediada dan membina lubang (ruang) baru serta berkaitan.	Lot	1		
3.2	Kerja-kerja menanggal dan mengalih 'Grease Trap' sediada dan membekal dan memasang *'Grease Trap'* jenis *'Stainless Steel'* yang baru termasuk *'Inlet'* dan *'Outlet Pipe'* serta yang berkaitan ke saluran keluar yang berdekatan,	Unit	1		
				JUMLAH	

BIL	BUTIRAN KERJA	UNIT	KUANTITI	KADAR HARGA (RM) / KUANTITI	JUMLAH (RM)
4.	**KERJA-KERJA ELEKTRIKAL**				
4.1	Kerja-kerja menanggal dan melupus *'Control Panel' (CP) sediada, 'Junction Box', 'Switch Box'* dan yang berkaitan.	No	1		
4.2	Membekal dan memasang 415V *'Control Panel' baru termasuk aksesori',' 'Junction Box', 'Switch Box', 10mm 'Armour Cable'* serta berkaitan di dalam Rumah Pam.	No	1		
4.3	Membekal dan memasang lampu kecemasan, kalimantang di dalam *'Pump House'* dan berkaitan.	No	1		
5.	**KERJA-KERJA MEKANIKAL**				
5.1	Kerja-kerja menanggal dan mengalih 'Raw Sewage Pump' sediada, dan membekal dan memasang *'100DML 51.5 Submersible Pump' termasuk '1.5kw 415V Motor', '1450RPM' yang baru mengikut spesifikasi sediada termasuk,'10m Cable', '100mm Duct Foot Bend', 'Float Regulator Switch', 'Stainless Steel Chain', 'Bolt' & 'Nuts'* dan yang berkaitan.	No	2		
5.2	Kerja menanggal dan mengalih 100mm *'Ductile Pipe'* sediada, dan membekal dan memasang 100mm *'Ductile Pipe' dari* 'Pump Sump' *ke 'Secondary Chamber' yang baru mengikut spesifikasi sediada termasuk 'Bend', 'Railing', 'Duct Foot Bend', 'Bolt' & 'Nuts', 'Bracket', 'Gasket'* dan berkaitan.	No	2		
5.3	Menanggal dan mengalih *'Air Blower'* sediada, dan membekal dan memasang *'Air Blower' termasuk 4kw (5.5Hp) 'Motor' yang baru mengikut spesifikasi sediada termasuk, 'Inlet Silencer', 'Safety Valve', 'Check Valve', 'Discharge Silencer', 'Pressure Gauge', 'Baseplate', 'Flexible Coupling', 'Bolt' & 'Nuts'* serta yang berkaitan.	No	2		
5.4	Menanggal dan mengalih *'Air Blower Pipe'*, dan membekal dan memasang 50mm & 25mm *'G.I Air Blower Pipe' yang baru termasuk 'Valve', 'Fittings', 'Bracket', 'Diffuser'* dan berkaitan.	No	1		
				JUMLAH KESELURUHAN	

Notis makluman :-

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

SPESIFIKASI

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1. General

The work to be done under this section unless otherwise shown or described in the B.Q.. shall consist of the supply, delivery, construction and testing of all sewerage works and ancillary works, and all necessary works up to the point of final discharge of the effluent. In the case of discharge into the public sewer or the package sewage treatment plant, the work shall terminate up to and including the last manhole or intercepting trap of the system. This section of the work shall be carried out strictly in accordance with the appropriate by-laws and to the approval of the S.O..

2. Material

2.1. Cement, Sand, Aggregates and Bricks

2.1.1. Cement, sand and aggregates shall be as specified in SECTION D: CONCRETING. All bricks used unless otherwise shown in the Drawings or described in the B.Q. shall be clay bricks as specified in SECTION E: WALL SYSTEM.

2.2. Sewerage Pipe

2.2.1. The Contractor shall only use sewer pipes from suppliers approved by SPAN and all materials shall be inspected and approved by the S.O. before being installed.

2.2.2. The Contractor shall submit the certificate and test report of sewer pipe to the S.O. for approval.

2.2.3. The Contractor shall make sure the sewer pipe is stored and/or stacked in such manner to prevent breakage.

3. Layout

The whole sewerage work shall be carried out according to the layout as shown on the Drawings.

4. Excavation

4.1. Generally, all excavation works in this section unless otherwise specified hereunder shall be as specified in SECTION B: EXCAVATION AND EARTHWORKS.

4.2. The Contractor shall carry out survey work to determine the sewer pipe alignment. Clearance from the building/road shall be 1m. The pipe alignment shall be approved by the S.O. before the contractor starts the excavation works.

4.3. The trench shall be excavated to the depths intended or as shown on the Drawings and shall be finished and trimmed to the correct level and grade. Unless indicated otherwise, the bottom of the trench shall be graded so that the pipe invert slopes evenly between the appropriate outlet invert of the preceding manhole and the inlet invert of the next manhole.

4.4. The trench shall be excavated to such width so as to ensure that a minimum working space of 300mm will be available on each side of the pipe when properly aligned. At all joints, the trench shall be excavated to give a minimum working space of not less than 300mm all-round the joint.

4.5. The sides of all excavation unless otherwise approved by the S.O. shall be cut vertical and where necessary shall be protected against caving in by timbering to the approval of the S.O.. If the trench is more than 1.5m, the contractor shall provide support for the trench to avoid collapse, settlement or movement of the banks.

4.6. The trench excavation shall not advance more than 100m ahead of the completed backfilled pipeline. Pipe shall be laid in all trenches that have been excavated at the end of each day's work, unless the Contractor get approval from the S.O. to do otherwise.

4.7. It shall be the responsibility of the Contractor to protect and support all existing water pipes, gas and other conduits crossed by the excavation or work to be performed and to arrange for their temporary removal and subsequent replacement.

4.8. The trench should be excavated precisely to ensure the sewer pipe will be in the centre of the trench. The bottoms of the trenches for all sewers shall be carefully and truly graded, formed and lined according to the grades and dimensions as shown on the Drawings.

4.9. Should the ground be so wet or soft and does not form a firm base for the pipe, if it is necessary in the opinion of the S.O. then the trench shall be excavated 225mm below the level intended or shown on the Drawings and then brought to the correct level with good selected earth, quarry dust or sand well rammed into place. Such deepening of pipe trench and filling back shall be treated as a variation under the terms of the Contract. Should the bottom of the trench be inadvertently excavated below the specified level, it shall be brought back at the Contractor's expense to the correct level with good selected earth, quarry dust or sand carefully rammed into place.

4.10. The Contractor shall remove any water which collects in the trenches while sewer pipes are being laid. Water encountered shall be disposed of by the Contractor in a manner satisfactory to the S.O..

4.11. Excess material from the trench excavation shall be located 600mm (minimum) away from the trench.

4.12. When excavating pipe trenches in roadway or other paved surfaces, the Contractor shall first remove all metal, slabs or bricks forming the existing pavement to the width of the trenches and reinstate to the approval of the S.O. after the trenches have been backfilled. The Contractor must make sure that not more than half of the width of a roadway shall be disrupted at any one time during the sewerage work.

4.13. Generally, where rock is encountered in the trench excavation, it shall be removed to the approval of the S.O.. Where layer of rock is encountered along the bottom of the excavation, it shall be cut and trimmed to the required level of the trench. All voids formed at the bottom of the trench by the removal of rocks shall be back filled to the required level with Grade 20P concrete or other suitable materials well rammed and compacted all to the approval of the S.O.. Uneven surfaces of rocks at the bottom of the excavation due to the trimming shall be levelled and smoothen with sand blinding to the approval of the S.O..

4.14. If the works required pipe jacking, the Contractor shall provide method statement for S.O.'s review and approval.

4.15. The Contractor shall ensure that the work performed is safe and in compliance with Occupational Safety and Health Act (OSHA).

5. Pipes and Fittings

5.1. Generally, all sewer pipes unless otherwise shown on the Drawings, shall be vitrified clay pipes (VCP) and fittings complying with *MS 1061* and *SPAN guidelines.*

5.2. Sewer pipes used for gravity types of sewer shall be a minimum size of 150mm for service connection and 225mm for public sewer complying with *Malaysian Sewerage Industry Guideline (MSIG).*

5.3. Sewer pipes for force mains (which require pump) shall comply with *Malaysian Sewerage Industry Guideline (MSIG).* The type and the diameter of pipe shall be of ductile iron (DI) as shown on the Drawings.

6. Joint for Sewer Pipes

6.1. Unless otherwise approved by the S.O., joints of flexible and watertight type shall be used on all sewer pipes. The spigot and socket of each pipe shall be cleaned and lubricated before the running of each joint.

6.2. Couplings shall be made either of the same materials as the pipe or other material to the approval of the S.O.. The pipes and coupling shall have accurately machined or moulded tapered ends, the internal taper of the couplings matching the external taper of the pipes.

7. Pipe Laying

7.1. All pipes shall be laid in compliance with *MS 1228* and in accordance with the sizes, locations, dimensions, grades and other particulars as shown in the Drawings. Each pipe shall be carefully inspected upon arrival at site. Sewer pipes shall be carefully stored. Defective pipes shall be marked and removed from the site forthwith.

7.2. Prior to fixing or laying all pipes and fittings shall again be carefully inspecting for damage and only those found to be sound in every aspect shall be fixed or laid. Any pipes, specials, et cetera found to be damaged in any way shall be clearly marked, set aside and removed from the site.

7.3. No pipe shall be laid until the trench has been inspected and approved by the S.O..

7.4. The pipes shall be gently lowered into the trench by means approved by the S.O.. No pipes shall be rolled or dropped into the trench. The pipe shall be laid true to alignment as shown in the Drawings or as instructed by the S.O.. Interior and exterior of each pipe at the joint shall be thoroughly cleaned before the joint is made. Pipes shall be laid from the downstream end towards the upstream end.

7.5. To prevent the entry of earth and other materials into the pipes, the Contractor shall provide and fix suitable stops for efficiently closing all open ends of pipes in the trench while work is not actually being carried out at such open ends.

7.6. Socketed pipes shall be laid with the sockets laid against the direction of flow. At every position of pipe joint's, the bedding shall be recessed sufficiently.

7.7. Where sewer pipes are to be laid on concrete bed, hunched or encased in concrete surrounds, these shall be as shown on the Drawings and as specified hereinafter.

7.8. The gravity sewer pipes shall be laid to the gradients as shown on the Drawings. Where the gradients are not shown in the drawings, the pipe shall be laid to the following gradients as shown in the **Table F1.**

Table F1. Gradient of Sewer Pipes

Size diameter (mm)	Gradient
100	1 : 60
150	1 : 80
225	1 : 110
250	1 : 120
300	1 : 140
375	1 : 170
450	1 : 200

NOTE: Not applicable for force mains.

7.9. The invert level of each pipe laid shall be checked during laying and immediately after laying as shown on the Drawings.

7.10. Where sewer pipes are laid above ground, they shall be supported at intervals to the details as shown on the Drawings or to the approval of the S.O..

7.11. All external underground sewer pipes shall have a minimum cover of 450mm unless otherwise shown on the Drawings.

7.12. Sewers pipes shall not be laid above the water pipes. A minimum vertical clearance of 1.0m shall be provided between the crown of a sewer pipe and the bottom of a water pipe. The horizontal clearance between sewer and water pipelines shall be 3.0m where applicable unless otherwise shown on the Drawings.

7.13. Other requirements

7.13.1. For easy identification of underground forced sewer mains, the layout shall be planted with marker posts at every 200m length and at every change of pipe direction. Valve chambers provided shall have adequate access for operations and maintenance.

8. Bedding, Haunching and Surround

8.1. Concrete bed, haunching and surround shall be of concrete Grade 20P.

8.2. Typical bedding is to be used for all pipes under normal site condition unless directed by the S.O..

8.3. Only approved materials are allowed to be used for pipe embedment.

8.4. The bedding material shall be placed as soon as possible after the base of the trench is prepared and excess water has been removed.

8.5. Whenever the bedding is disturbed, the pipe shall be raised to allow for repair works to be done.

8.6. Any pegs or other temporary aids for levelling works shall be removed before any pipe being laid.

9. Connections

9.1. The Contractor is to allow and provide for all bends, junctions, traps, gullies as shown on the Drawings or where necessary. If a gully is used, it shall be of the inlet type, and shall be set level on a concrete base, with a riser to finish 50mm above the surrounding surface level, complete with concrete surrounds rendered on all sides and galvanized iron grating. Bends turned up to receive various stacks shall be set on concrete bases to the approval of the S.O.. The bends at the foot of vertical stacks shall be of gentle radius type.

9.2. All underground fittings shall be completely surrounded in concrete and the Contractor shall allow for any additional excavation and jointing of pipes.

10. Manholes, Inspection Chambers and Valve Chambers

10.1. Manholes, inspection chambers and valve chambers shall be constructed with the sizes shown on the Drawings and *MSIG guidelines*. Unless otherwise shown or specified, all dimensions on the plan shall be the inside measurement.

10.2. Manholes and inspection chambers shall be protected by lining/coating to prevent corrosion of the concrete due to sulphide attack. Internal walls shall be either rendered with sulphate resistant cement mortar at least 20mm thick or lined with PVC, HDPE or epoxy coating.

10.3. Manholes

10.3.1. Manhole Covers and Frames

10.3.1.1. No manhole shall be constructed on the road and hard standing unless otherwise shown on the Drawings.

10.3.1.2. Manhole covers, and frames shall comply with Drawings and *MSIG guidelines*.

10.3.1.3. All surfaces of manhole's covers and frames supplied shall be coated as stated in *MSIG guidelines* with either:

(i) Hot applied bituminous material complying with BS EN 10300 (Steel tubes and fittings for onshore and offshore pipelines. Bitumen hot applied materials for external coating).

(ii) Cold applied bituminous material complying with BS 3416 (Specification for bitumen-based coatings for cold application, suitable for use in contact with potable water)

10.3.2. Manhole Testing (Before Backfilling)

10.3.2.1. Water-tightness test shall be conducted where no visible leakage shall occur between the manhole cover and its seating in the frame when tested in accordance with *MSIG guidelines.*

10.3.2.2. A visual inspection shall be conducted on all the external and internal section of each manhole in accordance with *MSIG guidelines.* Particular attention shall be given to:

(i) The slope of benching.

(ii) Joints to pipes.

(iii) Transitions at entry and exits.

(iv) Joints in the structure.

(v) Quality of concrete finish.

(vi) Water-tightness of manhole covers and surround.

10.4. Inspection Chambers

Unless otherwise as shown on the Drawings, inspection chambers shall be constructed in brickwork in cement mortar (1:2) and the brickwork shall be of clay bricks and constructed on Grade 20P concrete foundation. The thicknesses and sizes shall be as shown on the Drawings. Each inspection chamber shall have channels and open channel junctions of sizes as shown on the Drawings. Concrete benching shall be to a gradient of 1:6 and shall be of Grade 20P concrete finished with 19mm steel troweled water proofed cement and sand (1:3) rendering. The internal sides of the inspection chambers shall be lined with 20mm thick PVC, HDPE or epoxy coating. Externally, the exposed concrete or brick surfaces shall be rendered with 12mm cement and sand mortar (1:3) and terminated 150mm below the finished ground level. All internal angles shall be rounded off. Inspection chambers shall be provided with covers and unless specified or as shown on the Drawings, covers shall be medium duty 450mm x 600mm cast iron covers with air tight frames.

11. Septic Tank and Sewage Treatment System

11.1. Septic tank and sewage treatment system shall be constructed as shown on the Drawings and to the approval of the S.O..

11.2. All septic tank and sewage treatment system shall be approved only by SPAN. Prefabricated system by the S.P. shall be from the updated Treasury Contract Circular.

11.3. The quality limit for sewage effluent at the discharge point shall comply with *Environmental Quality Act (EQA) 1974* or latest. The limit for sewage effluent at the discharge point shall comply with Standard A of *EQA* as in **Appendix F/1.**

11.4. Sewage Treatment System

11.4.1. Prior to the installation of the sewage treatment system, the Contractor shall submit to the S.O. the approved drawings duly endorsed by the authority, system design, method of statement including structural, foundation, external work and M & E work duly certified by a

Professional Engineer with Practicing Certificate (P.E.P.C.) registered with the Board of Engineers Malaysia.

11.4.2. Sewage treatment system shall be approved by the Local Authority/Certified Agency before installation at site. The submission approval to the Local Authority/ Certified Agency is as per **Appendix F/1.**

11.4.3. The S.P. shall provide specification on construction and installation of the system and during these periods, the Local Authority/Certified Agency will carry out inspection to ensure the compliance of their requirements.

11.4.4. Upon the completion of the installation of the sewage treatment system and prior to the issuance of the Certificate of Practical Completion, the Contractor shall submit the following documents to the S.O. for information and record:

11.4.4.1. S.P.'s Guarantee against any defects or damages during a period of five (5) years from the date of Certificate of Practical Completion due to any defect, fault or insufficiency in design, material or workmanship or against any other failure which an experienced Contractor may reasonably contemplate but shall not include normal replacement and maintenance. The terms of the Guarantee shall be such as approved by the S.O..

11.4.4.2. As-built drawings and *Operation Manual and Maintenance (OMM)* of the sewage treatment system certified by a Professional Engineer with Practicing Certificate (P.E.P.C.) registered with the Board of Engineers Malaysia.

12. Connections to the Public Sewerage Line

Connections to the public sewerage line, if any, shall be strictly carried out in accordance with requirements of the *SPAN guidelines* and to the approval of the S.O..

13. Testing for Sewer Pipes Installation

13.1. The Contractor shall carry out tests to the sewer pipes installation in accordance with the method of statement and requirements as described hereinafter. The Contractor shall give reasonable notice in writing to the S.O. before such tests to be carried out.

13.2. Testing of pipework shall be carried out and wherever possible, such testing shall be carried out from manhole to manhole. Short branch pipes connected to a main sewer between manholes shall be tested as one system with the main sewer. Long branches and manholes shall be separately tested.

13.3. Subject to type of pipe and size, pipes shall be subjected to either low water pressure tests, CCTV test or any other test required by the *MSIG guidelines* and to the approval of the S.O..

13.4. Low water pressure test

13.4.1. The low water pressure test is commonly used for checking the water tightness of the joints and the integrity of the sewer pipes.

13.4.2. For the water test, the pipe shall be subjected to an internal test pressure of 2m head of water above the crown of the pipe at the higher end but

not more than 7m at the lower end. Steeply graded pipe shall be tested in such a manner that the above maximum heads are not exceeded.

13.4.3. The test shall be carried out by filling the sewer with water slowly to the required head and bleed air from behind the upstream plugs. Maintain the water head for two (2) hours. Top up the water as required.

13.4.4. Check the leakage at the plugs and the test apparatus during the pressurizing period and the constant pressure holding period. Release the water pressure if leakage occurs. Make the necessary repairs and adjustments before pressurizing again.

13.4.5. Commence the test immediately after the last adjustment of water head in the preceding two (2) hours period.

13.4.6. Add water to maintain the starting water head every five (5) minutes during the test period of 30 minutes. Record the total amount of water required for readjustment.

13.4.7. The test is considered pass when:

13.4.7.1. The loss of water does not exceed 1 litre per hour linear meter per meter internal diameter for VCP and reinforced concrete pipes.

13.4.7.2. There shall be no loss of water for pipe other than VCP and reinforced concrete pipes.

13.4.7.3. There is no visible leakage at the joints for all pipe types.

13.5. Closed-circuit Television (CCTV) Testing (if required)

13.5.1. General

CCTV inspection where required shall be carried out to enable detection of sewer defects such as cracks, deformations, collapse, dislocation et cetera which are not detected by normal means.

13.5.2. Inspection Requirements

13.5.2.1. A CCTV Inspection Contractor registered with SPAN shall be appointed to carry out the inspection works.

13.5.2.2. General Inspection Coverage

Initial CCTV testing and inspection shall be conducted for a minimum 10% random selection of sewer pipes including all manholes and connections in accordance with *SPAN guidelines.*

13.5.2.3. High Risk Areas

(i) 100% CCTV inspection shall be conducted for sewer pipes including manholes laid in the ground with high risk of failure and having the following characteristics:

a) Crossing under buildings, roads, railway, rivers and lakes including their reserve.

b) Crossing using pipe jacking method and horizontal drilling method.

13.5.3. Witness

Witness from the SPAN, S.O., consultant and contractor responsible for the construction of sewer shall be present during CCTV inspection.

13.5.4. Documentation

13.5.4.1. Within 7 days after completion of the inspection, the Contractor shall submit to the S.O. the following:

(i) Two (2) copies of digital records; and

(ii) One (1) copy of hardcopy report and recommendation

13.5.4.2. The format of the report and documentation shall be in accordance with *MSIG guidelines.* All documents shall be certified and duly signed by the qualified person responsible for the CCTV inspection declaring the authenticity of the recording submitted and done in accordance with the procedure stated in *MSIG guidelines.*

13.5.4.3. Documents shall be submitted to S.O. for the acceptance of completion of works.

(i) Photographs showing sewer pipe laying during and after construction.

(ii) Testing certificates.

(iii) Supervision report.

(iv) As–built drawings.

13.5.5. During Defects Liability Period

If any blockages, damages, seepages occur to the sewer networks during the Defects Liability Period, the S.O. may require the Contractor to carry out further CCTV inspection to determine the cause within 24 hours.

14. Backfilling

14.1. After the pipes have been tested and approved, the trench shall be backfilled with approved fill material, free from rock and other hard material, well compacted around the pipes up to a level of at least 300mm above the top of the pipes. After this has been approved, the remaining excavation shall be backfilled in 300mm layers, each layer being well compacted. The bedding details and the types of fill material shall in accordance to Drawings and *MSIG guidelines.*

14.2. Trench support shall be progressively removed during the backfill work.

14.3. There shall be at least 300mm of cover over the sewer pipe before light mechanical compaction can commence.

14.4. There shall be at least 1000mm of cover (depth of backfill) over the sewer before heavy mechanical compaction can commence.

APPENDIX F/1

Table F2. Parameter Limits for Sewage and Industrial Effluents

Parameter	Effluent discharge to rivers/stream				Effluent discharge to stagnant water bodies*			
	Standard A		Standard B		Standard A		Standard B	
	Absolute	Design	Absolute	Design	Absolute	Design	Absolute	Design
BOD5	20	10	50	20	20	10	50	20
SS	50	20	100	40	50	20	100	40
COD	120	60	200	100	120	60	200	100
AMN	10	5	20	10	5	2	5	2
Nitrate Nitrogen	20	10	50	20	10	5	10	5
Total Phosphorus	N/A	N/A	N/A	N/A	5	5	10	5
O&G	5	2	10	5	5	2	10	5

NOTES 1) N/A = not applicable.
2) All values in mg/l unless otherwise stated.
3) *Stagnant water bodies refer to enclosed water bodies such as lakes, ponds and slow-moving watercourses where dead zone occurs.
4) A: Discharge upstream of water supply sources.
5) B: Discharge downstream of water supply sources.

Table F3. Sewerage Work Submission

No.	Type of System	Allowable Population Equivalent (PE)	Document Requirement
1.	Individual Septic Tank (IST) Network Connection (Single Manhole directly connected to Existing Manhole)	6 - 30	Pre-Tender Sewerage Works Application (SWA) Post-Tender Sewerage Works Completion (SWC)
2.	Small Sewerage Treatment Plant (SSTS)	31 - 149	SWA (Pre-Tender) SWC (Post-Tender)
3.	Sewerage Treatment Plant (STP)	150 – 5,000	Refer Table F4

NOTE : The submission procedure might change due to authority requirement.

Table F4. Sewerage Work Submission for STP

No.	Item	Description	Submitting Person / Person in Charge
1.	PDC 1	Planning Approval	HODT
2.	PDC 2	(i) Sewer pipe reticulation (ii) SSTS/STP Detail Design	(i) HODT (ii) S.O./Contractor
3.	PDC 3	Detail for Structural Plans and Design Calculations	S.O./Contractor
4.	PDC 4	Detail for Electrical Design and Drawing	S.O./Contractor
5.	PDC 5	Details for Equipment and Material Data Sheets (EMDS)	S.O./Contractor
6.	PDC 6	Notice of Commencement Sewerage Works/Septic Tank Works	S.O./Contractor
7.	PDC 7	Notice of Intermediate Inspection of Sewerage Works	S.O./Contractor
8.	PDC 8	Notice of Final Inspection	S.O./Contractor
9.	PDC 9	Declaration by Competent Person Who Supervised the Septic Tank Works.	S.O./Contractor

NOTES 1) PDC – Planning, Design and Construction
2) The submission procedure might change due to authority requirement.

TABLE OF CONTENT

1. General

1.1. Non-structural wall (NSW) system hereby refers to vertical building element designed as non-loadbearing internal wall which serve with functions as cited in Uniform Building By-Laws (UBBL), and not being a party wall inside a building.

1.2. Non-structural wall system shall refer to solid wall, lightweight drywall partition, pre-cast/pre-fabricated panels, etc.

1.3. Structural wall (SW) system hereby refers to vertical building element designed as loadbearing internal wall which serve with functions as cited in Uniform Building By-Laws (UBBL) and being a party wall inside a building.

1.4. Structural wall system shall refer to blockwork system stated in sub-section 4..

1.5. Unless otherwise specified, all non-structural walls or infill walls shall be constructed using proprietary blocks. Building materials considered for non-structural wall construction may refer to sub-section 2. below. Each material type shall comply with the respective standard or manufacturer's specification. Build-up or configuration of NSW shall be strictly based on recommendations or/and design by solution provider.

1.6. Unless otherwise specified, design considerations of NSW shall take into consideration the following functional features, any one or in combination, and comply with relevant parts of the current Building Code:

1.6.1. Structural stability. This includes consideration of external loadings, if any such as lateral wind or traffic pressure, heavy fixtures etc.;

1.6.2. Thermal & fire resistance;

1.6.3. Water resistance;

1.6.4. Acoustic performance; and

1.6.5. Impact resistance.

1.7. Design for Wall Performances

1.7.1. Loading

1.7.1.1. All NSW shall be constructed only for their intended purposes and any additional loadings shall be referred to the S.O. for approval.

1.7.1.2. Proprietary internal lightweight partition, including secondary framing shall be designed to meet specification requirement to ensure structural sufficiency and safety. The governing factor shall be based upon allowable deflection limit shall be of L/240 or L/360 @ 250Pa or equivalent design code. L refers to height of wall in metre (m). 250Pa refers to lateral uniform pressure applying perpendicular to wall surface.

1.7.2. Thermal and Fire Rating

1.7.2.1. Material used for wall construction shall be classified as Class O building material in accordance with BS 476 Part 4 (non-combustible) or Part 6 & 7 (limited combustible), or at least has an A2 rating in accordance with EN 13501 Part 1.

1.7.2.2. Unless otherwise specified or shown on the Drawings, fire rated walls and partitions system shall be constructed and calculated according to requirements and approval of the DGFR and compliance to the Uniform Building By-Law (UBBL).

1.7.2.3. The glass wool, stone wool and cellulose insulation materials used shall comply with BS 476 - Fire tests on building materials and structures:

Part 4 : Non-combustibility test for materials;

Part 6 : Method of test for fire propagation for products; and

Part 7 : Method of test to determine the classification of the surface spread of flame of products.

1.7.3. Water proofing

Where necessary, NSW shall be properly treated with proprietary water proofing system as per respective manufacturer's recommendation, along with warranty coverage if applicable.

1.7.4. Acoustic rating

1.7.4.1. Where necessary, NSW shall be designed to have specific sound insulation rating in accordance with ISO or equivalent as below:

ISO 140-3 – Laboratory measurements of airborne sound insulation of building elements; and

ISO 717-1 – Acoustics – Rating of sound insulation in buildings and of building elements – Part 1: Airborne sound insulation.

1.7.4.2. Unless otherwise specified, designing architect shall determine the required acoustic performance for the wall structure based on intended usage.

1.7.5. Security and impact rating

1.7.5.1. Where applicable, wall shall be designed with some degree of security and impact resistance feature. While solid wall structure is naturally to have high impact resistance capability, for drywall partition this shall be evaluated in accordance with BS 5234: Partitions (including matching linings) – Part 2: Specification for performance requirements for strength and robustness including methods of test, or equivalent.

1.7.5.2. Where necessary, designing architect shall decide grade of duty rating for wall structure making reference to recommendation in Table 1 – Partition grades by categories of duty in BS 5324: Part 2.

2. Products, components and proprietary systems

2.1. Cement

The cement, unless otherwise described, shall be CEM 1 complying with MS EN 197-1 and as specified under SECTION D: CONCRETING.

2.2. Sand

Sand for mortar shall comply with MS EN 12620 and as specified in SECTION D: CONCRETING.

2.3. Mortar

2.3.1. Mortar shall consist of one (1) part of cement to six (6) parts of sand, with the addition of an approved mortar plasticizer used strictly in accordance with manufacturer's recommendation. The ingredients for mortar shall be measured in proper gauge boxes and shall be mixed on a clean boarded platform or in an approved mechanical batch mixer.

2.3.2. All mortar shall be used within forty-five (45) minutes of mixing and no remaking up of mortar shall be permitted thereafter.

2.3.3. Mortar for brickwork below damp proof course or ground floor level shall be in the proportion of one part of cement and three parts of sand.

2.4. Damp Proof Course

2.4.1. Unless otherwise shown on the Drawings, bituminous damp proof courses shall comply with BS 8215: Code of practice for design and installation of damp-proof courses in masonry construction. The bitumen damp proof membrane shall be two (2) ply with a nominal mass of 1840g/m^2.

2.4.2. Bitumen damp proof course shall be in rolls to suit the thickness of walls or brickwork. The damp proof course shall be bedded on a level bed of cement mortar (1:1) and lapped at least 150mm or the width of the damp proof course at running joints and intersections.

2.4.3. In all cases of doubt as to the exact location of the damp proof course, the Contractor shall refer to the S.O. before laying the damp proof course. The damp proof course above ground shall be continuous for the whole length and thickness of the wall and be at least 150mm above finished ground level to prevent moisture from the ground rising through the foundation to the wall above ground, which otherwise would make wall surfaces damp and damage wall finishes.

2.5. Bricks and Blocks

2.5.1. General

All brick walls shall have G.I expanded/exmet mesh reinforcement with 750mm x 5mm diameter brickwork dowel bar complete with 75mm right angle bent to hook onto brickwork at every 4th course.

2.5.2. Samples

Separate samples of each type of bricks and blocks taken at random from the load, shall be submitted to the S.O. for approval before the bricks and blocks

are used. All subsequent deliveries shall generally be up to the standard of the samples approved. No soft, broken, twisted or otherwise defective bricks and blocks will be permitted to be used.

2.5.3. Clay Bricks

All ordinary clay bricks shall be machine-made, wire cut and shall be hard, well burnt, sound, square and clean all in accordance with MS 76.

2.5.4. Cement Sand Bricks and Hollow Blocks

2.5.4.1. All cement sand bricks and hollow blocks shall comply with MS 27.

2.5.4.2. The dimensions of blocks shall comply with MS 1064.

2.5.4.3. Wherever blocks are used, a modular sized block shall be used and constructed in accordance with the manufacturer's standards, requirements and method statements.

2.5.4.4. The composition of cement sand bricks and hollow blocks shall consist of a uniform mixture of sand and cement. The sand cement shall be mixed in the ratio of six (6) parts of sand to one (1) part of cement by volume in a mechanical mixer capable of taking one (1) bag of cement (50 kg of cement shall be taken as 0.035 cube). The sand used shall be as described hereinbefore and the maximum size shall pass through a 4.8 mm mesh BS sieve. The cement used shall be CEM 1 as described under SECTION D: CONCRETING.

2.5.4.5. The Contractor shall only use cement sand bricks and hollow blocks supplied by approved manufacturer.

2.5.4.6. The minimum permissible average compressive strength shall be 5.2N/mm² for bricks and 2.8N/mm² for hollow blocks per 10 samples taken at random from the Contractor's stock pile of 1000 or part thereof. All rejected or condemned bricks shall be removed from site at the Contractor's expense.

2.5.5. Light Weight Concrete Block

2.5.5.1. Light weight concrete blocks shall comply with BS EN 6073-1 and shall be used and laid strictly in accordance with the manufacturer's instructions.

2.5.5.2. Light weight concrete blocks shall be free from asbestos or toxic substances.

2.5.5.3. Where light weight concrete blocks are used in lieu of clay bricks, a modular sized block shall be used according to manufacturer's standards, requirements and method statements.

2.5.5.4. The light weight concrete blocks shall have the following performance criteria:

Dry density of between 500kg/m³ and 1500kg/m³;

Dimensional accuracy of ± 1.5mm on all faces;

The permissible compressive strength shall be not less than 7N/mm² per 10 samples taken at random from the contractor's stock pile of 1000 or part thereof and tested at certified lab;

Ultimate tensile strength shall be 0.44 - 0.55 Mpa;

Thermal resistance (R-value) of not less than 1m^2K/W; and

Minimum working density for the blocks is 910kg/m³.

2.5.5.5. The infill wall thickness of light weight blocks shall be as follows:

100mm thickness for internal walls;

125mm thickness for external walls;

200mm thickness (fire rated) for party wall; and

Internal spaces with 24 hour air-condition should comply with the thermal resistance R-value of not less than 1m^2K/W.

2.6. Patented and Proprietary Brick and Block

2.6.1. Patented bricks and blocks shall comply with MS 2282 and shall be used and laid strictly in accordance with the manufacturer's instructions.

2.6.2. Cement Brick (Patented or Proprietary)

2.6.2.1. The cement brick wall partition system shall satisfy the performance requirements specified in Clause 5 of BS 476: Part 22, for non-load bearing wall partition for the following periods:

Integrity : 130 minutes
Insulation : 130 minutes

2.6.2.2. Minimum compressive strength shall be not less than 7 N/mm².

2.6.3. All patented or proprietary brick and block wall installation works shall strictly adhere to the manufacturer's method statement for installation works and to S.O.'s approval.

2.7. Large Prefabricated Panels.

Large prefabricated panels when used shall conform to MS 1313 and shall be installed strictly in accordance with the manufacturer's recommendations.

2.8. Gypsum Plasterboard

2.8.1. Gypsum plasterboard sheeting shall be a complete proprietary system, in accordance with the Product Data, approved sample and the relevant Standards.

2.8.1.1. BS EN 15283 (Series): Gypsum boards with fibrous reinforcement - Definitions, requirements and test methods; dan

2.8.1.2. BS EN 520: Gypsum plasterboards - Definitions, requirements and test methods.

2.8.2. Provide moisture-resistant, impact-resistant, fire-resistant and acoustic-rated plasterboard systems where indicated or required.

2.8.2.1. Moisture-resistant grade (MR) plasterboard shall be suitable proprietary products for use in moisture-resistant construction in wet areas where normal plasterboard would be unsuitable.

2.8.2.2. Fire-resistant grade (FR) plasterboard shall be suitable proprietary products for fire-resistant construction.

2.8.2.3. Impact-resistant grade (IR) plasterboard shall be suitable proprietary products for construction of system requiring robustness feature.

2.9. Fibre Cement Sheet

2.9.1. Fibre-cement (FC) sheeting shall be a complete proprietary system, asbestos-free, in accordance with the Product Data, approved samples, and the relevant Standards.

2.9.1.1. MS 1224: Specification for fibre cement symmetrically corrugated sheet and fittings - product specification and test method; and

2.9.1.2. MS 1296: Fibre-cement flat sheets- product specification and test methods.

2.10. Insulation (Acoustical and Thermal)

2.10.1. Unless otherwise specified or shown on the Drawings, acoustic wall panel and/or systems shall be constructed and calculated according to requirements of acoustic specialist and approved by S.O.'s approval.

2.10.2. Thermal insulation system shall comply with MS1020. 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.

2.10.3. Unless otherwise shown in the Drawings, glass wool insulation shall be made in Malaysia 50mm thick. It shall have a conductive value of maximum 0.035 W/m^2K (tested at a mean temperature of 20°C based MS1020 tested according to ASTM C518). Unless otherwise specified the size of the glass wool insulation shall be 600mm x 1200mm. Glass wool insulation shall be fixed in accordance with the manufacturer's recommendation and to the approval of the S.O..

2.10.4. Where stone wool insulation is to be used, it shall be made in Malaysia 50mm thick. It shall have a conductive value of maximum 0.035 W/m^2K (tested at a mean temperature of 20°C based MS1020 tested according to ASTM C518). Unless otherwise specified the size of the stone wool insulation shall be 600mm x 1200mm. Stone wool insulation shall be fixed in accordance with the manufacturer's recommendation and to the approval of the S.O..

2.10.5. The contractor shall submit the COO (certificate of origin) confirming made in Malaysia from the supplier/manufacturer to the S.O for approval prior to the commencement of the works. No installation works shall commence until approval is given in writing by the S.O..

2.10.6. Recommended type of spray applied cellulose insulation shall be:

2.10.6.1. Thickness - 30mm;

2.10.6.2. Thermal conductivity (k-value) = 0.0029 W/m·K tested to ASTM C-177;

2.10.6.3. Fire retardant Class "O" complying with BS476 Part 6 & 7 and endorsed by FRDM;

2.10.6.4. Average moisture absorption of not more than 15% as per ASTM C739;

2.10.6.5. Tested Noise Reduction Coefficient of NRC 0.75 at 30mm thickness; and

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

3. Type of Finishes to Walls and Partitions

3.1. Unless otherwise shown in the Drawings, all plastering works for brick walls shall include the wall surface area above ceiling finish level.

3.2. Unless otherwise specified or shown on the drawings, the appropriate type of finishes for walls and partitions shall be as specified in the Schedule of Finishes. Unless otherwise shown on the Drawings or described in the B.Q., The finishes and their dimensions shall be as specified in SECTION K: PLASTERING, PAVING, TILING AND CARPET and SECTION O: PAINTING.

4. Structural Wall (Blockwork System)

This clause shall apply to the construction of all load bearing blockworks with or without steel reinforcement. All lines, levels, grades, dimensions and cross-sections shall be as shown on the Drawings and/or directed by the S.O.. The full requirement is outlined in the *Specification for Load Bearing Blockwork System (JKR 20601-0252-18)* or the latest edition published by JKR.

4.1. Material

The block shall comply with the requirements of MS 2282 Part 3.

4.2. Compressive Strength

For all block units intended to be used in elements subject to structural requirements, the mean compressive strength shall not be less than 7N/mm². The manufacturer shall also declare the normalised compressive strength when relevant.

4.3. Density

The net dry density of the units shall be declared in kilogram per cubic meters (kg/m³) by the manufacturer in accordance with MS 1933 Part 13. The minimum dry density of unit shall not be less than 1500kg/m³.

4.4. Structural Mortar

4.4.1. Recommended minimum compressive strength for prescribed mortar shall be class M6. The proportion of materials by volume shall be referred to **TABLE E1.**

4.4.2. The compressive strength of masonry mortar shall be determined in accordance with BS EN 1015 Part 11. The adhesion between the mortar and the masonry units shall be adequate for the intended use. The ingredients for mortar shall be measured in proper gauge boxes and shall be mixed on a clean boarded platform or in an approved mechanical batch mixer.

4.4.3. The characteristic compressive strength of masonry bonded with thin layer mortar shall be taken as the values given for mortar strength class M12 (mortar designation (i) in **TABLE E1.** The contractor shall submit the manufacturer's specification and method statement to the S.O. for approval prior to the commencement of works.

4.5. Mortar Testing

The use of mortars shall be in accordance with the recommendation given in BS EN 1996. When samples are taken from a designed mortar in accordance with BS EN 1015 Part 2 and tested in accordance with BS EN 1015 Part 11, the compressive strength of the mortar shall not be less than the specified compressive strength. **TABLE E1** shows the relationship of compressive strength classes and the compressive strength of mortar at 28 days.

4.6. Concrete Infill

Concrete infill for reinforced masonry shall be of minimum grade C25/30 (designed mix) or 30P (prescribed) with 10mm nominal size aggregates and specified in accordance with MS 523 Part 2. The minimum cement content, maximum free water/cement ratio and the concrete cover shall conform to the requirement in **Table E2.**

4.7. Blocklaying

4.7.1. Unless otherwise specified, all blockworks shall be laid on a full bed of mortar, and vertical joints shall be filled up fully. The average thickness of the vertical and horizontal joints shall be 10mm, exclusive of any key in the jointing surfaces of the units.

4.7.2. Unless specified, as work proceeds do not rack back corners and other advanced work higher than 1.2m above the general level. For facing work complete the whole lift within one period of operation. Except where permitted by a proprietary system or by the designer, do not carry up any one leaf more than 1.5m height in one day.

4.8. Block Masonry Bonds

The running or stretcher bond of blocks are shown in **FIGURE E1** and **FIGURE E2.**

4.9. Services Holes and Chases

4.9.1. In order to eliminate unnecessary cutting away and making good, sleeves and chases should be provided during the erection of the masonry. In external walls, all sleeves and pipes should preferably be laid with a fall toward the

outside. The installation of services should be completed before plastering or other finishing work is begun.

4.9.2. Where chases have to be cut, suitable power tools which do not operate by heavy impact should be used so that the recommended depth is not exceeded. Fixing units (blocks) where required, should be built into the wall or partition in the correct positions for skirting, rails and other items of joinery, fittings, etc.

4.9.3. In walls or leaves constructed of solid units, the depth of horizontal chases should not exceed one-sixth of the thickness of the single leaf at any point whilst the depth of the vertical chases should not normally exceed one-third of the thickness of the single leaf at any point.

4.9.4. The cutting of holes up to approximately 300mm square in the wall to accommodate items of equipment may be permitted.

4.9.5. Where heavy fittings are to be fixed to a wall, the effect on the stability of the masonry should be considered.

5. Samples and Mock-up

5.1. Samples and mock-up of wall construction shall be provided and approved by the S.O. prior to the commencement of the actual construction works. The size of the samples shall be determined by the S.O..

5.2. The samples and mock-up for walls and partitions shall include connections between the following components where applicable:

5.2.1. Floor to floor to a minimum of 5m length;

5.2.2. Wall corners;

5.2.3. Lintels;

5.2.4. Stiffeners;

5.2.5. Door and window frames; and

5.2.6. All other walls between different materials.

5.3. Sample and Mock-Up Panels for Structural Wall (Blockwork System)

5.3.1. The contractor shall construct a mock-up panel for the project with total build-up area more than 100m^2 using load bearing blockworks system.

5.3.2. Sample panels shall be built on site in a protected position to provide an agreed standard for the work and treatment of joints before the commencement of the works subjected to the S.O. approval. Such panels shall be maintained throughout the contract and removed on completion.

5.3.3. The mock-up panel needs to be constructed to expose not less than 2m length x 1m height, selected as follows:

6. Walling / Construction

6.1. Brick Walling

6.1.1. Unless otherwise specified or shown on the Drawings, the whole of the brickwork shall be constructed with standard size clay bricks in mortar as described and the surface left ready for plastering.

6.1.2. All clay bricks shall be soaked in a suitable tank or pit to be provided by the Contractor for at least half an hour before being laid and shall be kept wet whilst being laid. The top of walls left off shall be thoroughly wet before work is resumed. All constructed walling must be left wet and properly protected from the direct sunlight during the following day. The Contractor shall provide sufficient means to ensure that this is done.

6.1.3. Cement sand bricks shall not be soaked but dipped in water before being laid and all constructed brickwork shall be protected from direct sunlight during the day on which it is laid and also during the following day and the contractor shall provide sufficient means to ensure that this is done.

6.1.4. All bricks shall be properly bedded in mortar and all joints shall be thoroughly flushed up and raked out to a depth of 13mm as the works proceeds. No joint shall exceed 10mm in thickness.

6.1.5. Brickwork shall be carried up perfectly true and plumb in a uniform manner. No one portion being raised more than 1m above another at one time. No overhand work shall be permitted, and scaffolding shall be carried up as the work proceeds. The vertical points of every alternate course shall be kept perpendicular over one another, and all perpends, quoins, et cetera shall be kept strictly true and square.

6.1.6. All intersections and angles of walls shall be properly bonded together, and all walls and piers of lengths not multiples of brick sizes shall be cut and bonded in the best approved manner. No broken bricks shall be used except where required to form bonds.

6.1.7. All half brick (113mm) walls shall be reinforced at every fourth course with approved reinforcement (for example exmet) commencing two courses above floor level. For block walling, reinforcement shall be at every second course commencing one course above floor level.

6.1.8. All brick walls shall be constructed on reinforced concrete beams in accordance with the Drawings. No brick walls except lightweight partitions are allowed to be constructed on reinforced concrete slabs.

6.1.9. Unless otherwise specified, all toilet perimeter walls shall be constructed using clay bricks. Cement sand bricks shall not be used for toilet walls.

6.1.10. All half brick walls shall be built in Stretcher Bond.

6.1.11. All other brickwork shall be built in English Bond or as shown on the Drawings.

6.2. Facing Brickwork

6.2.1. All facing brickwork shall be executed in first quality approved facing bricks in Stretcher or Flemish Bond as shown on the Drawings, properly bonded into any backing walls, piers, et cetera. Joints shall be racked out to a depth of 13

mm and point up in coloured cement mortar to approved tints, finished with a neat struck weathered joint.

6.2.2. Facing brickwork shall be kept perfectly clean and no rubbing down of brickwork will be allowed.

6.3. Stonework

6.3.1. Unless otherwise shown on the Drawings or described in the B.Q., all stone blocks used shall be of limestone or granite whichever is more readily available within the locality of the Site and shall be free from cracks, fissures or other defects to the approval of the S.O.. The stone blocks shall in general, have their largest faces parallel. Unless otherwise required, the maximum thickness of the stone blocks shall in no case exceed the thickness of the wall or portion of the structure into which it is being built.

6.3.2. Stone walling shall be laid random un-coursed or random coursed as shown on the Drawings. Through or bonded stones shall be used at one stone per meter square for random coursed. Where backing brick wall is shown, the through stone shall be properly bonded in such brick wall.

6.3.3. Unless otherwise shown on the Drawings, all stonework shall be bedded in cement and sand mortar (1:3) mix and finished with a flushed joint rubbed down with sacking. All interstices between individual stones shall be filled with mortar. Finish to exposed surfaces or random walling shall be hammer-dressed.

6.4. Hollow Block Walling

The cement sand block wall shall be laid in the manner specified for brick wall. The hollow block shall not be soaked but dipped in water before laying. The hollow block wall shall be reinforced at every second course with reinforcement commencing one course above floor level.

6.5. Autoclaved Aerated Concrete (AAC) Block Walling

6.5.1. Where shown on the Drawings and/or described in the B.Q. or as an alternative to clay bricks, the Contractor may use AAC blocks for non-load bearing walls and partitions. The AAC block work shall be constructed strictly in accordance with the manufacturer's recommendations. Any extra cost in connection therewith shall be borne by the Contractor.

6.5.2. Only proprietary thin bed adhesive shall be used assembling AAC block wall. The AAC block work shall be installed using an approved thin layer of proprietary thin bed adhesive mortar with minimum flexural strength of 0.44 MPa to all horizontals and perpends. The first course must be made true and level using a normal layer of mortar with thin layer of adhesive to fully seal the perpends. The thin layer of proprietary adhesive shall be applied using notched trowel to obtain an even distribution of adhesive to achieve joint thickness of 2mm to 3mm.

6.5.3. A damp-proof course slip-joint membrane shall be laid on top of the floor slab or beams before receiving the mortar bedding to allow for differential movement between the blocks and the supporting structure.

6.5.4. The AAC block work shall be laid in a manner that the vertical joint of the lower course shall be staggered at least 100mm relative to the vertical joint of the overlaying course.

6.5.5. Unless otherwise directed and/or shown, where concrete block walls abut concrete faces, the face shall be flushed.

6.5.6. Control joints should be built into walls at spacing not greater than 8m centres, and at locations in accordance with manufacturer's recommendation.

6.5.7. Care must be taken to keep the walls clean, strictly in accordance with the manufacturer's recommendation. Excess adhesive must be removed progressively.

6.5.8. The wall surfaces may be finished with suitable surface coating that has the dual properties of being waterproof and water vapour permeable and shall be applied in accordance with the manufacturer's recommendation.

6.5.9. Only proprietary cement plaster of the same AAC block shall be used for external rendering of an external wall. The minimum thickness for the rendering of the external wall shall be 12mm thick.

6.5.10. Only proprietary skim coat base and skim coat finish of the same AAC block shall be used for internal wall application. The recommended thickness of the skim coat base shall be between 2 - 4mm thickness and the skim coat finish of an internal wall shall be of 1 - 2mm thickness. Both are coatings shall be applied as a two-coat system and applied according to manufacturer's instruction and to the S.O's approval.

6.5.11. All AAC block wall installation works shall strictly adhere to the manufacturer's method statement for installation works and to S.O.'s approval.

6.6. Parapet and Freestanding Wall

6.6.1. Any parapet and freestanding wall consisting of 155mm thick brick wall including plastering on both sides shall only be constructed to a maximum height of 900mm.

6.6.2. Where shown on the Drawings, freestanding walls above 900mm in height shall be constructed as per the engineer's detail Drawings or to the S.O.'s approval.

6.6.3. Precast reinforced concrete copings shall be constructed on all external parapet and free-standing walls. The reinforced concrete coping shall be laid to fall, complete with 12mm half round throating.

6.6.4. Freestanding walls more than 3m length vertically and horizontally shall be constructed with reinforced concrete stiffeners to engineer's detail and with the S.O.'s approval.

6.7. Lintel and Stiffener

6.7.1. Unless otherwise specified or shown on the Drawings, lintels shall be provided to all openings and to be sized accordingly by the Contractor to the S.O.'s approval.

6.7.2. Reinforced concrete stiffeners shall be constructed at every minimum of 3m vertically and horizontally to strengthen brick and block wall system construction according to engineer's detail.

6.8. Fasteners

Unless otherwise shown on the Drawings, fasteners or cramps for frames, metal windows and precast units shall be built in at 1m centres on the vertical side of the frame. Mild steel cramps shall be 25mm x 3mm x 225mm long for fixing wooden frames, etc. One end of the cramp shall be turned up and screwed to back of the frame and the other end shall be split and fish-tailed for building in. Cramps which are to be fixed to concrete shall be embedded in concrete and built into brickwork as the work proceeds.

6.9. Cutting

All cuttings such as arches, sinks, setbacks, and projections shall be properly formed. Chases and holes through walls and slabs for the passage of pipes, wiring and the like shall be neatly cut or formed. Upon the installation of the services pipes, the chases and holes through walls shall be properly sealed (Fire Stop) to prevent fire spread as required by the DGFR and UBBL. Where plastering works are done on the cuttings, the surface shall be smooth and seamless.

6.10. Partitioning

6.10.1. Timber Framed Partition

6.10.1.1. All timber used for the timber stud framings for partition walls shall be as specified in SECTION H: TIMBER, JOINERY AND IRONMONGERY.

6.10.1.2. Wall partition consisting of timber frames shall consist of vertical and horizontal studs. The studs shall consist of approved timber hardwood with a minimum size of 50mm x 50mm unless otherwise specified. All horizontal and vertical studs shall be constructed at a maximum nominal spacing of 610mm centres.

6.10.1.3. The top most horizontal frame, referred to as the top plate shall be bolted or nailed to the ceiling and continuously erected using timber or metal stiffener securely fixed to the slab to the S.O.'s approval. The timber and metal stiffeners shall be spaced at 1220mm centres maximum.

6.10.1.4. The lowest horizontal frame, referred to as the bottom plate, shall be securely fixed using bolts or nails. Unless otherwise advised, all fixing to slabs, M12 expansion bolts shall be used at 1220mm centres maximum with galvanized mild steel strap, or equivalent, to the floor to the S.O.'s approval. All fixings to timber slabs shall be fixed at 600mm centres maximum.

6.10.1.5. Unless otherwise specified, dimension for timber panels shall comply with MS 1064.

6.10.1.6. Where proprietary timber partitions are used, they shall be constructed in accordance with the manufacturer's recommendations and to the S.O.'s approval.

6.10.1.7. Partitions, screens and vent panels, shall be constructed as detailed in the Drawings. Where shown, galvanized welded wire mesh or expanded metal of the required sizes and patterns shall be fixed to vent panels and window openings. The mesh shall be secured in position using rebated and mitred timber battens and screws.

6.10.2. Metal Framed Partition

6.10.2.1. Steel sections such as, but not limited to metal framing and studs shall comply with ASTM C645, BS EN 14195, BS 7364 or other approved equivalent standards as appropriate, and to the approval of the S.O..

6.10.2.2. Unless otherwise specified, all metal framing for partitions shall be either galvanized or zinc alum coated steel 62mm C-Studs (vertical) and 64mm U-tracks (horizontal) of 0.5mm base metal thickness. The steel stud shall be manufactured from mild steel strip, with material specification complying to either one of the following:

Steel grade Z2 with minimum yield strength of 210N/mm² and zinc coating type Z275 minimum, complying with BS EN 10143;

Steel grade G300, with minimum yield strength of 300N/mm² and zinc-alum coating type AZ150 minimum, complying with AS 1397.

6.10.2.3. The stud which is to support a joint shall have a minimum fixing face width of 32mm for screw fixing and all other framing members shall not be less than 30mm. Drywall screws shall be at least 10mm longer than total thickness of plasterboards on each side of the partition wall. The plasterboards are laid staggered and fixed to the metal frames using drywall screws not exceeding 300mm centres.

6.10.2.4. The top most U-track (horizontal) shall be screwed to the ceiling and continuously erected using metal stiffener securely fixed to the slab. The metal studs directly supporting plasterboard sheets shall be spaced at 610mm centres maximum. The bottom U-track (horizontal) shall be securely fixed to the floor slab using bolts or screws. Unless otherwise advised, all fixing to slabs, M12 expansion bolts shall be used at 1200mm centres maximum with galvanized mild steel strap to the floor and to the S.O.'s approval.

6.10.2.5. Unless otherwise shown on the Drawings, the partitions shall not be erected more than 3000mm height. Partitions which are more than 3000mm height shall be supported by additional structural members, to structural engineer's detail and S.O.'s approval.

6.10.2.6. Partition above ceiling shall allow for cut out opening for service ducts or trunks and cable trays. The contractor shall coordinate with all subcontractors on the exact location and size of the openings. For fire rated partition, any gaps around any pipe ducts through the partition shall be properly sealed with approved fire/smoke stop system by the fire stopping specialist.

6.10.2.7. If full height partition has to be terminated below ventilation duct route parallel to the partitions, the stud of the partition shall be secured to the support frame of the duct or extended secondary frame support. In such cases, space between the duct and reinforced concrete soffit need not be sealed up, unless it is of fire rated type of partition.

6.10.2.8. The deflection of the metal frame partition system under service condition shall be controlled by the limit for the calculated deflection of the element chosen for the system and its intended use. The

deflection shall not exceed L/240 or L/360 subject to the finishing material attached to the partition. Any system wall partition selected shall be installed strictly according to the manufacturer's specifications and details to the S.O.'s approval.

6.10.3. Plasterboard lining

6.10.3.1. The type of plasterboard used shall comply with BS EN 520. The specified plasterboard shall carry class 'O' approval from DGFR. Unless otherwise specified the plasterboards used for the works shall be minimum 12.5mm thick with standard length of 2440mm and shall be free of defects.

6.10.3.2. The deviations and tolerances shall be in accordance with BS 8212. When required, the deflection under load shall be determined in accordance with BS EN 520.

6.10.3.3. The appropriate type of sealant shall be used for the required type of plasterboard. Elastomeric sealants shall be used at the perimeter of the dry lining or partitioning to provide an airtight construction and to the approval of the S.O..

6.10.3.4. Jointing compound shall be of air drying or setting type, in accordance with BS EN 13963, and to the approval of the S.O.. Jointing compound shall be applied as per manufacturer's recommendation and S.O.'s approval. The use of any additives to modify any of the properties of compounds shall not be permitted.

6.10.3.5. Jointing tape for plasterboards shall not be less than 48mm wide and not exceeding 60mm in accordance with ASTM C475 or equivalent, and the approval of the S.O..

6.10.3.6. Control joints shall be provided for a long continuous run of plasterboard wall spaced at not more than 10m apart.

6.10.3.7. Corner beads shall be provided as reinforcement to permit construction of true, concealed angles with gypsum base and panels.

6.10.3.8. Provision shall be allowed for the plasterboard partition system to support surface mounted fixtures by incorporating independent support framing hidden behind or exposed on the partition surface to provide adequate and appropriate support and to the approval of the S.O..

6.10.3.9. Wherever possible, full length plasterboard sheets shall be used to eliminate the need for sheet end butt joints. Where possible, joints on opposite sides of framing should be arranged to occur between different framing members.

6.10.3.10. Plasterboard sheets shall be laid out to minimize butt joints and waste. Butt joints on adjoining sheets shall be staggered. Butt joints on opposite sides of the wall shall be staggered. The sheet shall be laid so that the vertical joints fall a minimum of 200mm from the edge of the opening.

6.10.3.11. Fire resisting systems comprising of more than one layer of plasterboards, the joints in successive layers should be staggered.

In the case of walls sheeted on both sides' joints should be staggered on opposite sides of the wall.

6.10.3.12. Penetrations in the system shall only be allowed if installed in accordance to manufacturer's recommendation and tested at the Contractor's expenses. Penetration shall be strictly carried out in accordance with the requirements of the DGFR and to the approval of the S.O..

6.10.3.13. Fasteners shall have a corrosion-resistant finish and be appropriate for intended use, also in accordance with BS EN 14566 and BS 8212, or any relevant standards. The heads of fasteners shall be shaped so that they can be driven slightly below the surface of the plasterboard without punching through the paper liner.

6.10.3.14. Impact resistance of a partition system including gypsum plasterboard shall be determined in accordance with ISO 7892 and BS 5234-2.

6.10.3.15. The Contractor shall submit to the S.O., a manufacturer's warranty against any defect or damage to the proprietary plasterboard partition system which may arise during the period of five (5) years from the date of Certificate of Practical Completion. Terms of the warranty shall be such as shall be approved by the S.O..

6.11. Insulation Installation

6.11.1. Where necessary, insulation shall be installed so that:

6.11.1.1. It abuts or overlaps adjoining insulation other than at supporting members such as studs, noggings, joists, furring channels and the like where the insulation must butt against the member;

6.11.1.2. It forms a continuous barrier with ceilings, walls, bulkheads, floors or the like that inherently contribute to the thermal barrier; and

6.11.1.3. It does not affect the safe or effective operation of a service or fitting.

6.11.2. Reflective insulation shall be installed so that:

6.11.2.1. The necessary airspace to achieve the required R-value between a reflective side of the reflective insulation and a building lining or cladding;

6.11.2.2. The reflective insulation closely fitted against any penetration, door or window opening;

6.11.2.3. The reflective insulation adequately supported by framing members; and

6.11.2.4. Each adjoining sheet of roll membrane being overlapped not less than 50mm; or taped together.

6.11.3. Bulk insulation shall be installed so that:

6.11.3.1. It maintains its position and thickness, other than where it crosses roof battens, water pipes, electrical cabling or the like; and

6.11.3.2. In a ceiling, where there is no bulk insulation or reflective insulation in the wall beneath, it overlaps the wall by not less than 50mm.

6.11.4. Fixing methods of insulation material shall be as below, or as recommendation of manufacturer:

6.11.4.1. Use proprietary fixing methods which prevent long term sag, collapse or dislodgement; and

6.11.4.2. Fasteners shall be suitable non-corrosive types.

6.12. Glass Partitions

6.12.1. Unless otherwise specified or shown on the Drawing, all fixed glass wall systems shall be 8mm thick minimum, erected with stainless steel framing system for sizes up to 1200mm x 4800mm maximum installed to manufacturer's recommendation and to S.O.'s approval. For sizes more than 4800mm, the panels shall be constructed according to manufacturer's recommendation and the installation shall be certified by a P.E.

6.12.2. Glass doors shall be installed complete with accessories as recommended by the manufacturer and to the S.O.'s approval.

TABLE E1 – MASONRY MORTARS

	Mortar designation	Compressive strength class	Prescribed mortars (proportion of materials by volume) (see notes 1 and 2)		Compressive strength at 28 days N/mm²
			Cement **(a)**: sand with or without air entrainment	masonry cement **(b)**: sand	
Increasing ability to accommodate movement, e.g. due to settlement, temperature and moisture changes ↓	(i)	M12	-	-	12
	(ii)	M6	1 : 3 to 4	1 : 2½ to 3½	6

a. Cement, or combination of cements except masonry cements.

i) Combinations produced in the mortar mixer from Portland cement CEM I conforming to MS EN 197 Part 1 and ground granulated blastfurnace slag conforming to MS EN 15167 Part 1 where the proportions and properties conform to CEM II/A-S or CEM II/B-S of MS EN 197 Part 1, except Clause 9 of that standard.

ii) Combinations produced in the mortar mixer from Portland cement CEM I conforming to MS EN 197 Part 1 where the proportions and properties conform to CEM II/A-L or CEM II/A-LL of MS EN 197 Part 1, except Clause 9 of that standard.

iii) Combinations produced in the mortar mixer from Portland cement CEM I conforming to MS EN 197 Part 1 and pulverized fuel ash conforming to MS EN 450 Part 1, where the proportions and properties conform to CEM II/A-V or CEM II/B-V of MS EN 197 Part 1, except Clause 9 of that standard.

b. Masonry cement (inorganic filler other than lime)

NOTE 1 Proportioning by mass will give more accurate batching than proportioning by volume, provided that the bulk densities of the materials are checked on site.

NOTE 2 When the sand portion is given as, for example, 5 to 6, the lower figure should be used with sands containing a higher proportion of fines whilst the higher figure should be used with sands containing a lower proportion of fines.

TABLE E2 - MINIMUM CONCRETE COVER FOR CARBON STEEL REINFORCEMENT

Exposure situations	*Concrete grade in MS EN 206 and MS 523 Part 2 & MS 523 Part 3*				
	C25/30	C28/35	C32/40	C35/45	C40/50
	Minimum cement content (kg/m^3)				
	300	320	340	360	380
	Maximum free water/cement ratio				
	0.65	0.6	0.55	0.50	0.45
	Thickness of concrete cover				
	mm	mm	mm	mm	mm
E1[a]	20	20	20[b]	20[b]	20[b]
E2	—	35	30	25	20
E3	—	—	40	30	25
E4	—	—	—	60	50

Exposure situation E1. Internal work and the inner skin of ungrouted external cavity walls and behind surfaces protected by an impervious coating that can readily be inspected, or external parts built.

Exposure situation E2. Buried masonry and masonry continually submerged in fresh water or external parts built.

Exposure situation E3. Masonry exposed to freezing whilst wet, subjected to heavy condensation oe exposed to cycles of wetting by fresh water and drying out or external parts built.

Exposure situation E4. Masonry exposed to salt or moorland water, corrosive fumes, abrasion or the salt used for de-icing.

a Alternatively, 1: 0 to ¼ : 3: 2 cement: lime : sand: 10 mm nominal aggregate mix may be used to meet exposure situation E1 when the cover to reinforcement is 15 mm minimum.

b These covers may be reduced to 15 mm minimum provided that the nominal maximum size of aggregate does not exceed 10mm.

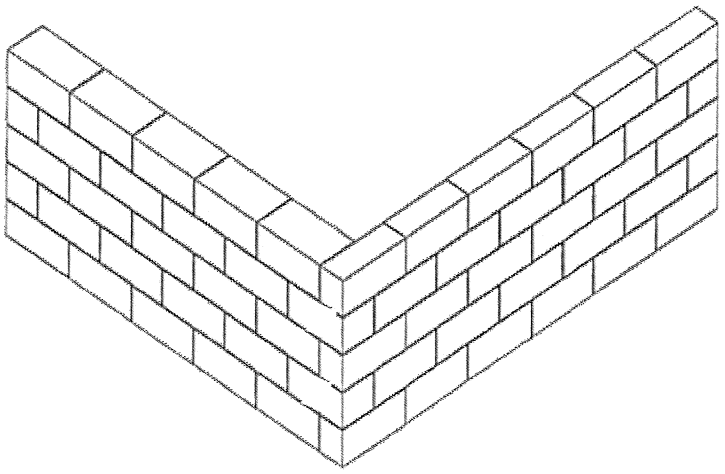

FIGURE E1: RUNNING OR STRETCHER BOND

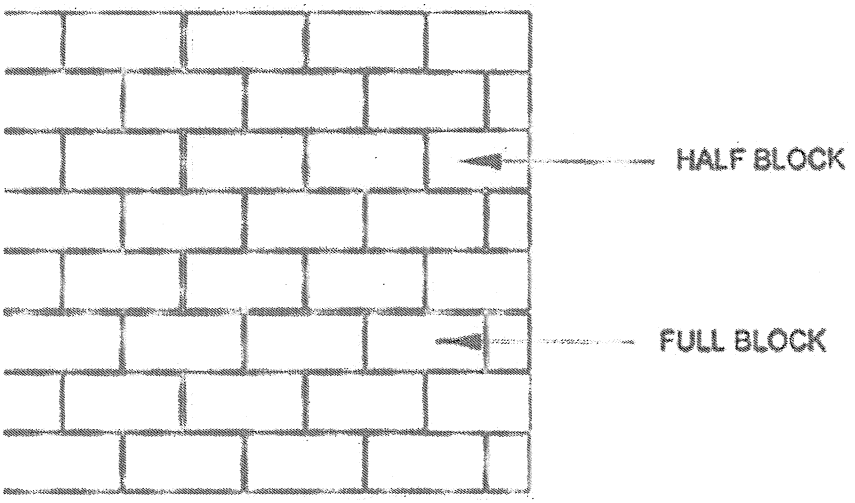

FIGURE E2: RUNNING OR STRETCHER BOND

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	Nama Alamat 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 Kakitangan Teknikal Yang Ada Dalam Penggajian Penyebutharga Masa Kini)

*Nama dan No. K/P	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 professional 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 kepunyaan 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 lanjutan 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 PENYEBUTHARGA

(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 nilaian 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 nilaian 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 : No. KP : Jawatan : Tarikh : Cop Syarikat :		

Nota :

1 Sekiranya kontraktor gagal mengemukan 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 menggunapakai produk dan perkhidmatan sub-kontraktor pakar yang lain dengan tiada tambahan kos kepada kontrak

BORANG H

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

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