

SULIT



KEMENTERIAN PENDIDIKAN TINGGI
JABATAN PENDIDIKAN POLITEKNIK DAN KOLEJ KOMUNITI

BAHAGIAN PEPERIKSAAN DAN PENILAIAN
JABATAN PENDIDIKAN POLITEKNIK DAN KOLEJ KOMUNITI
KEMENTERIAN PENDIDIKAN TINGGI

JABATAN KEJURUTERAAN AWAM

PEPERIKSAAN AKHIR

SESI II : 2022/2023

DCQ50244: BUILDING WORKS MEASUREMENT 5

TARIKH : 07 JUN 2023

MASA : 8.30 PG – 10.30 PG (2 JAM)

Kertas ini mengandungi **LAPAN (8)** halaman bercetak.

Bahagian A: Subjektif (2 soalan)

Bahagian B: Subjektif (4 soalan)

Dokumen sokongan yang disertakan : Kertas Dimensa / Kertas Billing /
Lukisan

JANGAN BUKA KERTAS SOALAN INI SEHINGGA DIARAHKAN

(CLO yang tertera hanya sebagai rujukan)

SULIT

SECTION A: 50 MARKS**BAHAGIAN A :50 MARKAH****INSTRUCTION:**

This section consists of **TWO (2)** subjective questions. Answer **ALL** questions.

ARAHAN:

Bahagian ini mengandungi DUA (2) soalan subjektif. Jawab SEMUA soalan.

Notes:

1. Taking off refers to the rules in Standard Method of Measurement for Building Works Second Edition (SMM2).

Pengiraan hendaklah merujuk kepada Kaedah Pengukuran Kuantiti Piawai Edisi Kedua (SMM2).

2. Candidate is allowed to make any assumption if the information given in the drawing is inadequate.

Pelajar boleh membuat andaian yang munasabah jika maklumat di dalam lukisan tidak memadai.

3. Marks will be given for the knowledge of the subject and systematic setting of dimensions, adequacy and accuracy of description and dimensions.

Markah akan diberikan berdasarkan pengetahuan tentang subjek dan dimensi yang sistematik, kecukupan dan ketepatan penerangan dan dimensi.

QUESTION 1**SOALAN 1**

- CLO1 (a) Describe the method of designation for the sizes and components of steelwork members according to Standard Method of Measurement for Building Works Second Edition (SMM2).

Huraikan kaedah penetapan untuk saiz dan komponen bagi kerja keluli mengikut Kaedah Pengukuran Kuantiti Piawai Edisi Kedua (SMM2).

[5 marks]

[5 markah]

- CLO1 (b) Based on Drawing No. **DCQ50244/STEELWORK/AQ1/01**, prepare the quantities measurement for universal beams (I BEAM 2) and universal column (C2).

*Berdasarkan Lukisan No. **DCQ50244/STEELWORK/AQ1/01**, sediakan pengukuran kuantiti bagi rasuk universal (I BEAM 2) dan tiang universal (C2).*

[10 marks]

[10 markah]

- CLO1 (c) Based on Drawing No. **DCQ50244/STEELWORK/AQ1/02**, prepare the quantities measurement for structural steelwork for item column and top tier beam of water tank.

*Merujuk kepada lukisan No. **DCQ50244/STEELWORK/AQ1/02**, sediakan kuantiti untuk kerja struktur besi untuk item tiang dan rasuk utama bagi tangki air.*

[10 marks]

[10 markah]

QUESTION 2

SOALAN 2

- CLO1 (a) Referring to Standard Method of Measurement 2 (SMM 2), explain clause V.5.1 which refer to method of measurement of pipe works.

Merujuk kepada Kaedah Pengukuran Kuantiti Piawai (SMM 2), terangkan klausa V.5.1 yang menerangkan kaedah pengukuran bagi kerja-kerja paip.

[5 marks]

[5 markah]

- CLO1 (b) Referring to Drawing No. **DCQ50244/WATERREC/AQ2/01-02**, complete the Table 1 for preparation of Bill of Quantities based on the provisions in Standard Method of Measurement 2 (SMM2).

*Merujuk kepada lukisan No. **DCQ50244/WATERREC/AQ2/01-02**, lengkapkan Jadual 1 dalam penyediaan Senarai Kuantiti dengan merujuk kepada peruntukan di dalam Kaedah Pengukuran Kuantiti Piawai 2 (SMM2).*

Table 1
Jadual 1

No/ Bil	Item/ Item	Unit/ Unit	Description /Keterangan Kerja
1	600mm HDPE / 600mm HDPE		
2	Hydrant / Pili bomba		
3	Sluice Valve/ Injap		
4	Granular bedding / Alas Granular		

[10 marks]

[10 markah]

- CLO1 (c) Based on Drawing No. **DCQ50244/WATERREC/AQ2/01-02**, calculate the quantities measurement for water reticulation works for 600mm diameter High Density Polyethylene (HDPE) pipe and hydrant.

*Merujuk kepada Lukisan No. **DCQ50244/WATERREC/AQ2/01-02**, kirakan pengukuran kuantiti bagi kerja sistem bekalan air untuk 600mm diameter paip jenis politena ketumpatan tinggi (HDPE) dan pili bomba.*

[10 marks]

[10 markah]

SECTION B: 100 MARKS**BAHAGIAN B :100 MARKAH****INSTRUCTION:**

This section consists of **FOUR (4)** subjective questions. Answer **TWO (2)** questions only.

ARAHAN:

Bahagian ini mengandungi EMPAT (4) soalan subjektif. Jawab DUA (2) soalan sahaja.

QUESTION 1**SOALAN 1**

- | | |
|------|--|
| CLO1 | <p>(a) Referring to Drawing No. DCQ50244/LANDSCAPE/BQ1/01, prepare the quantities measurement for planting <i>Tristanopsis</i> Spp and <i>Caesalpinia Ferrea</i>.
<i>Merujuk kepada Lukisan No. DCQ50244/LANDSCAPE/BQ1/01, sediakan pengukuran kuantiti bagi kerja-kerja penanaman pokok Tristanopsis Spp dan Caesalpinia Ferrea.</i></p> <p style="text-align: right;">[8 marks]
[8 markah]</p> |
| CLO1 | <p>(b) Referring to Drawing No. DCQ50244/LANDSCAPE/BQ1/02, conclude a bill of quantities complete with quantities measurement for mulching and spot turfing.
<i>Merujuk kepada Lukinas No. DCQ50244/LANDSCAPE/BQ1/02, rumuskan satu senarai kuantiti lengkap dengan pengukuran kuantiti bagi kerja-kerja 'mulching' dan rumput tompok.</i></p> <p style="text-align: right;">[17 marks]
[17 markah]</p> |

QUESTION 2**SOALAN 2**

- CLO1 (a) Referring to Drawing No. **DCQ50244/ DRAINAGE/BQ2/01**, measure the quantities of excavation for 350mm diameter precast concrete drain (S1 to S4).
*Merujuk kepada lukisan No. **DCQ50244/DRAINAGE/BQ2/01**, ukurkan kuantiti pengorekan bagi 350mm ukur lilit longkang konkrit pratuang (S1 hingga S4).*

[8 marks]

[8 markah]

- CLO1 (b) Based on Drawing No. **DCQ50244/DRAINAGE/BQ2/01**, conclude a bill of quantities complete with quantities measurement for 350mm diameter precast concrete drain and weepholes (S1-S4).
*Merujuk kepada lukisan No. **DCQ50244/DRAINAGE/BQ2/01**, rumuskan senarai kuantiti lengkap dengan pengukuran kuantiti bagi 350mm ukur lilit longkang konkrit pra tuang dan lubang sesalir (S1 hingga S4).*

[17 marks]

[17 markah]

QUESTION 3**SOALAN 3**

- CLO1 (a) Based on Based on Drawing No. **DCQ50244/SEWERAGE/BQ3/01**, prepare the quantities measurement for manhole and lean concrete to receive manhole. *Berdasarkan lukisan bernombor **DCQ50244/SEWERAGE/BQ3/01**, sediakan pengukuran kuantiti bagi pengorekan dan konkrit alas dalam lurang.*

[8 marks]

[8 markah]

- CLO1 (b) Based on Drawing No. **DCQ50244/SEWERAGE/BQ3/02**, conclude a bill of quantities complete with quantities measurement for sewerage works for MH1, MH2, and MH3 (Excavation and concrete base only). *Berdasarkan kepada Lukisan Bernombor **DCQ50244/SEWERAGE/BQ3/02**, rumuskan satu senarai kuantiti lengkap dengan pengukuran kuantiti bagi kerja-kerja pembentungan untuk MH1, MH2, dan MH3 (Kerja pengorekan dan konkrit asas sahaja).*

[17 marks]

[17 markah]

QUESTION 4**SOALAN 4**

- CLO1 (a) Based on Drawing No. **DCQ50244/FENCING&DEMOLISH/BQ4/01-02**, calculate the quantities measurement for barb wire and PVC coated chain link fencing.

*Merujuk kepada lukisan No. **DCQ50244/FENCING&DEMOLISH/BQ4/01-02**, ukur kuantiti 'barb wire' dan pagar rantai bersalut PVC.*

[8 marks]

[8 markah]

- CLO1 (b) Based on Drawing No. **DCQ50244/FENCING&DEMOLISH/BQ4/01-02**, conclude a bill of quantities complete with quantities measurement for demolition and renovation works.

*Merujuk kepada lukisan No. **DCQ50244/FENCING&DEMOLISH/BQ4/01-02**, rumuskan senarai kuantiti lengkap dengan pengukuran kuantiti bagi kerja-kerja perobohan dan pengubahsuaian.*

[17 marks]

[17 markah]

SOALAN TAMAT

SECTION A: 50 MARKS**BAHAGIAN A :50 MARKAH****INSTRUCTION:**

This section consists of **TWO (2)** subjective questions. Answer **ALL** questions.

ARAHAN:

Bahagian ini mengandungi DUA (2) soalan subjektif. Jawab SEMUA soalan.

Notes:

1. Taking off refers to the rules in Standard Method of Measurement for Building Works Second Edition (SMM2).

Pengiraan hendaklah merujuk kepada Kaedah Pengukuran Kuantiti Piawai Edisi Kedua (SMM2).

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Markah akan diberikan berdasarkan pengetahuan tentang subjek dan dimensi yang sistematik, kecukupan dan ketepatan penerangan dan dimensi.

QUESTION 1**SOALAN 1**

CLO1

- (a) Describe the method of designation for the sizes and components of steelwork members according to Standard Method of Measurement for Building Works Second Edition (SMM2).

Huraikan kaedah penetapan untuk saiz dan komponen bagi kerja keluli mengikut Kaedah Pengukuran Kuantiti Piawai Edisi Kedua (SMM2).

[5 marks]

[5 markah]

- CLO1 (b) Referring to Drawing No. **DCQ50244/WATERREC/AQ2/01-02**, complete the Table 1 for preparation of Bill of Quantities based on the provisions in Standard Method of Measurement 2 (SMM2).

Merujuk kepada lukisan No. DCQ50244/WATERREC/AQ2/01-02, lengkapkan Jadual 1 dalam penyediaan Senarai Kuantiti dengan merujuk kepada peruntukan di dalam Kaedah Pengukuran Kuantiti Piawai 2 (SMM2).

Table 1
Jadual 1

No/ Bil	Item/ Item	Unit/ Unit	Description /Keterangan Kerja
1	600mm HDPE / 600mm HDPE		
2	Hydrant / Pili bomba		
3	Sluice Valve/ Injap		
4	Granular bedding / Alas Granular		

[10 marks]

[10 markah]

- CLO1 (c) Based on Drawing No. **DCQ50244/WATERREC/AQ2/01-02**, calculate the quantities measurement for water reticulation works for 600mm diameter High Density Polyethylene (HDPE) pipe and hydrant.

Merujuk kepada Lukisan No. DCQ50244/WATERREC/AQ2/01-02, kirakan pengukuran kuantiti bagi kerja sistem bekalan air untuk 600mm diameter paip jenis politena ketumpatan tinggi (HDPE) dan pili bomba.

[10 marks]

[10 markah]

QUESTION 2**SOALAN 2**

- CLO1 (a) Referring to Drawing No. **DCQ50244/ DRAINAGE/BQ2/01**, measure the quantities of excavation for 350mm diameter precast concrete drain (S1 to S4).
Merujuk kepada lukisan No. DCQ50244/DRAINAGE/BQ2/01, ukurkan kuantiti pengorekan bagi 350mm ukur lilit longkang konkrit pratuang (S1 hingga S4).

[8 marks]

[8 markah]

- CLO1 (b) Based on Drawing No. **DCQ50244/DRAINAGE/BQ2/01**, conclude a bill of quantities complete with quantities measurement for 350mm diameter precast concrete drain and weepholes (S1-S4).
Merujuk kepada lukisan No. DCQ50244/DRAINAGE/BQ2/01, rumuskan senarai kuantiti lengkap dengan pengukuran kuantiti bagi 350mm ukur lilit longkang konkrit pra tuang dan lubang sesalir (S1 hingga S4).

[17 marks]

[17 markah]

QUESTION 4**SOALAN 4**

- CLO1 (a) Based on Drawing No. **DCQ50244/FENCING&DEMOLISH/BQ4/01-02**, calculate the quantities measurement for barb wire and PVC coated chain link fencing.

*Merujuk kepada lukisan No. **DCQ50244/FENCING&DEMOLISH/BQ4/01-02**, ukur kuantiti 'barb wire' dan pagar rantai bersalut PVC.*

[8 marks]

[8 markah]

- CLO1 (b) Based on Drawing No. **DCQ50244/FENCING&DEMOLISH/BQ4/01-02**, conclude a bill of quantities complete with quantities measurement for demolition and renovation works.

*Merujuk kepada lukisan No. **DCQ50244/FENCING&DEMOLISH/BQ4/01-02**, rumuskan senarai kuantiti lengkap dengan pengukuran kuantiti bagi kerja-kerja perobohan dan pengubahsuaian.*

[17 marks]

[17 markah]

SOALAN TAMAT

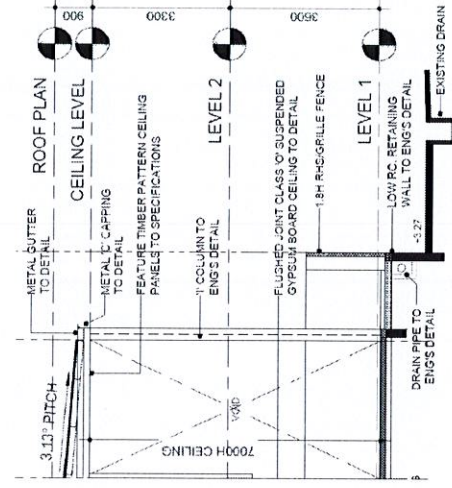
NOTES:

**YOU CAN MAKE
ALL NECESSARY
ASSUMPTIONS
WHERE APPLICABLE**

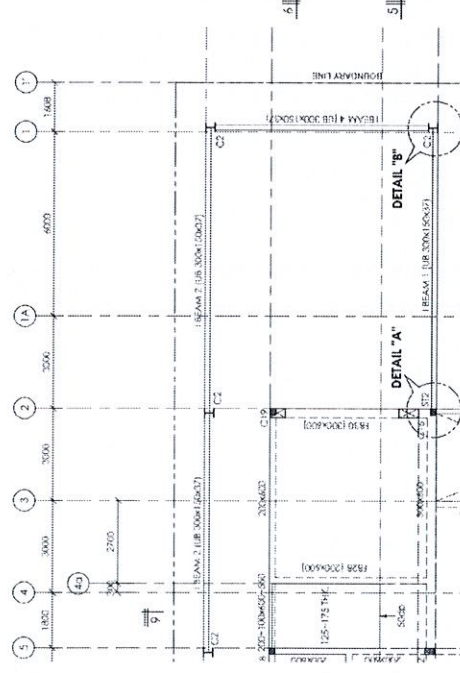
PROJECT TITLE:

DRAWING TITLE:
KEY PLAN/COLUMN
& BEAM DETAILS

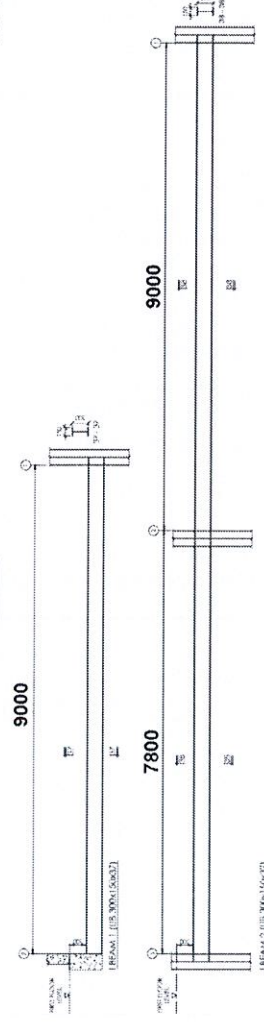
DRAWING NO:
DCQ50244/STEELWORK/AQ1/01



SECTION(LEFT ELEVATION)

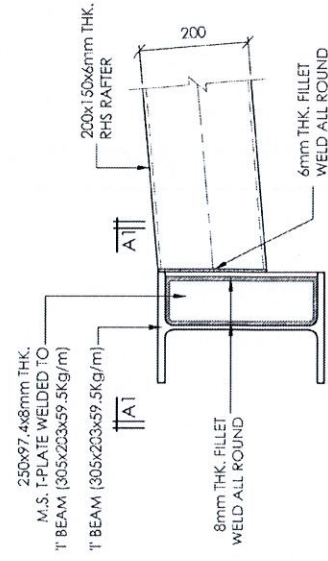


FIRST FLOOR KEY PLAN

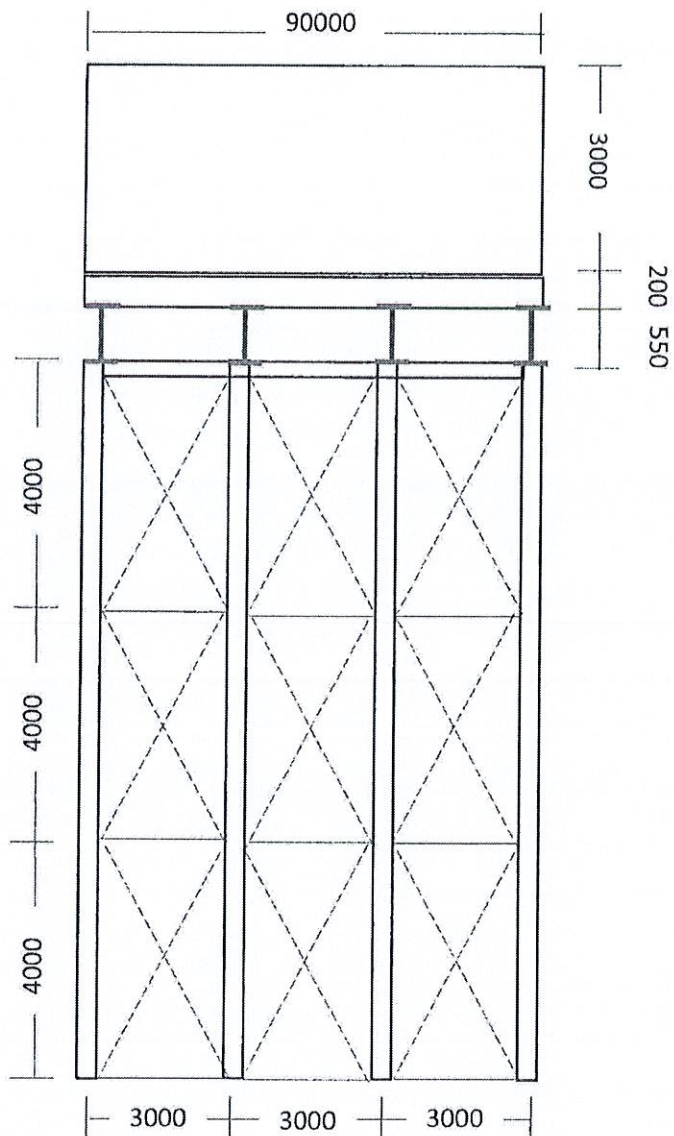


COLUMN REINFORCEMENT SCHEDULE

FLOOR COLUMN MARK	C1	C2	C3
[FLOOR F.F.±0]			
			
			
			
[FLOOR G.F.F.]			
			
			
			
[TO ROOF FLOOR]			
			
			
			



ENLARGEMENT OF DETAILS "A"



PROJECT:
CADANGAN MEMBINA & MENYIAPKAN
TANGKI AIR DI KAWASAN PERUMAHAN DI
LOT 53 DAERAH MUALLIM, PERAK.

NOTE:

1. Horizontal bracing 80 x 80 x 8kg/m
2. Bracing 80 x 80 x 8kg/m
3. Column 205 x 205 x 46kg/m
4. Top tier beam 254 x 102 x 28kg/m
5. Bottom tier beam 475 x 152 x 74 kg/m



DRAWING TITLE:
ELEVATION FOR ALL SIDE OF WATER TANK

SCALE:
NOT TO SCALE

DRAWING NO:
DCQ50244/STEELWORK/AQ1/02

Notes:

1. 600mm HDPE Pipe - - - - -

2. Fire Hydrant (H)

3. Sluice Valve (X)

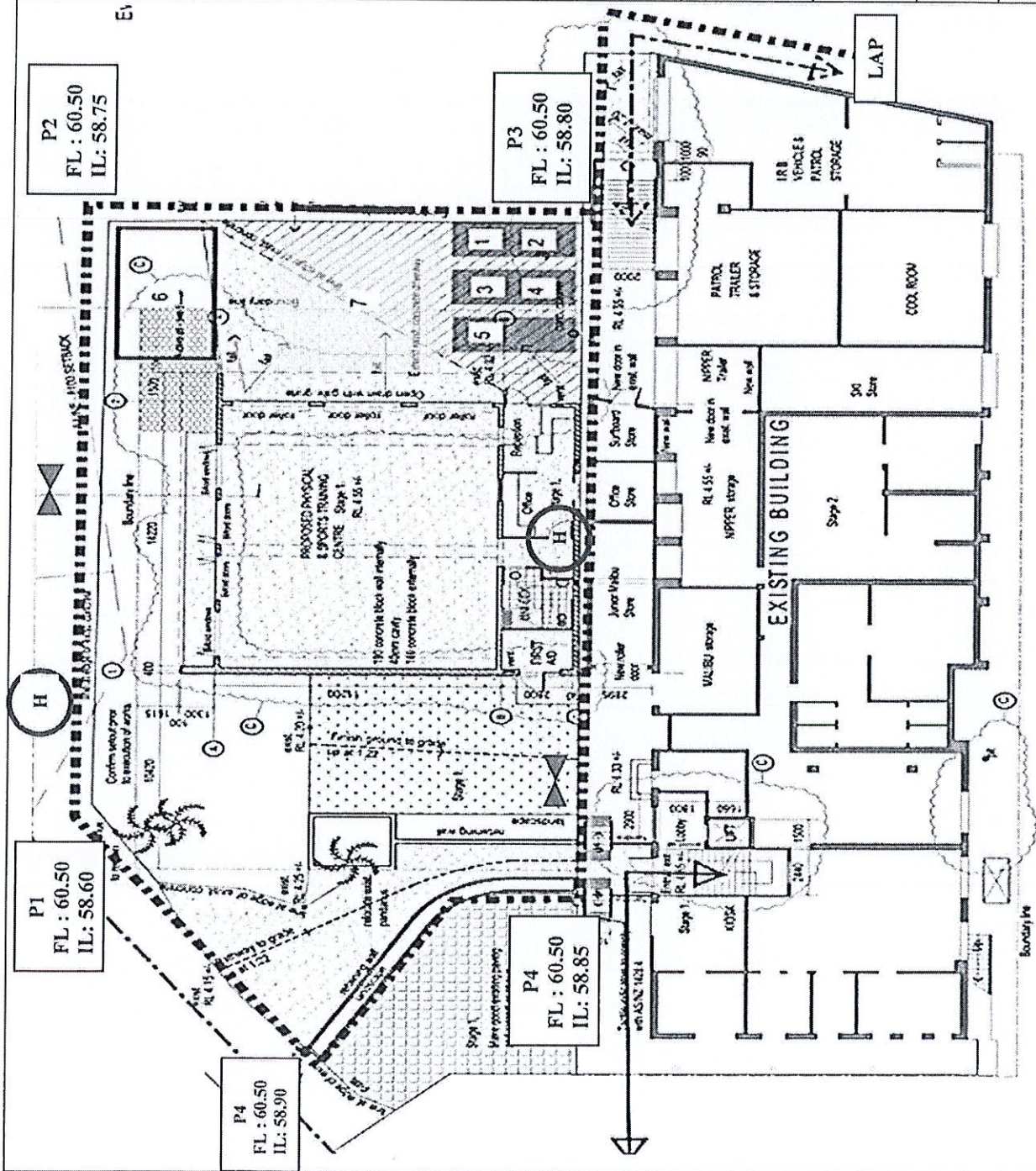


PROJECT:
CADANGAN MENYIAPKAN SISTEM
PERPAIPAN DI PUSAT SUKAN & LATIHAN,
BEHRANG STESEN, PERAK

DRAWING TITLE:
WATER RETICULATION SYSTEM

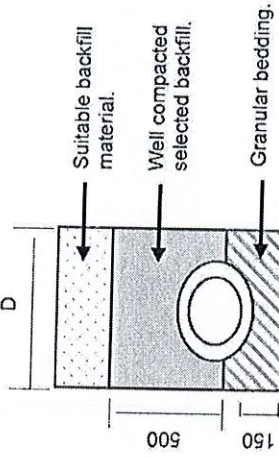
DRAWING NO:
DCQ50244/WATERREC/AQ2/01

SCALE:
1:300



Notes:

1. 600mm HDPE Pipe
2. Fire Hydrant
3. Sluice Valve
4. Selected fill shall be uniform readily compactible material free from tree roots, vegetable matter, building rubbish and preferably excluding clay lump retained on sieve and stone.



POLITEK

PROJECT:

CADANGAN MENYIAPKAN SISTEM PERPAIPAN DI PUSAT SUKAN & LATIHAN, BEHRANG STESEN, PERAK

DRAWING TITLE:

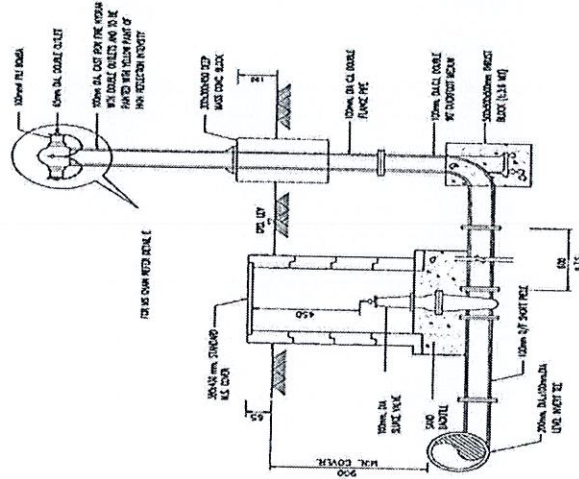
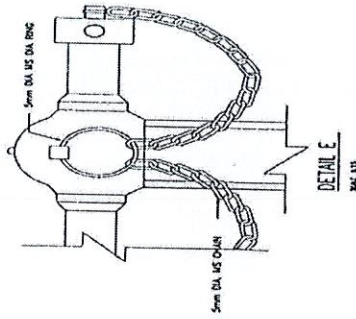
WATER RETICULATION SYSTEM DETAILS

DRAWING NO:

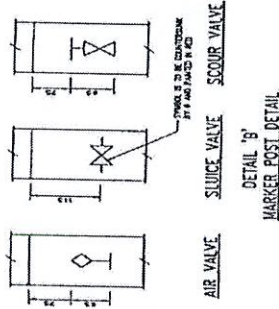
DCQ50244/WATERREC/AQ2/02

SCALE:

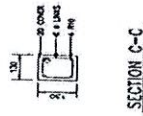
NOT TO SCALE



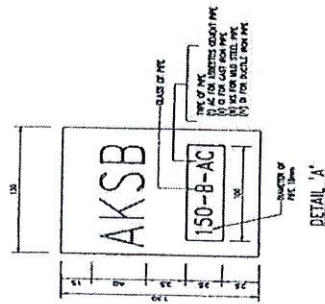
TYPICAL DETAIL OF PILLAR HYDRANT WITH 65mm DIA DOUBLE OUTLET



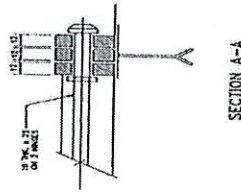
DETAIL 'B' MARKER POST DETAIL



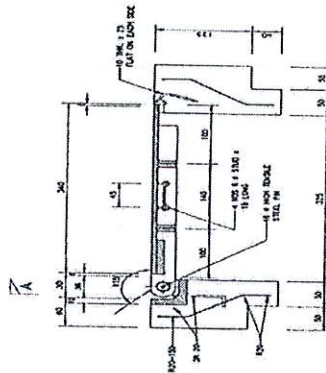
SECTION C-C



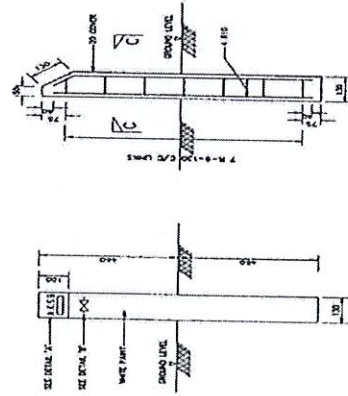
DETAIL 'A' OF BLOCK 'A'



SECTION A-A

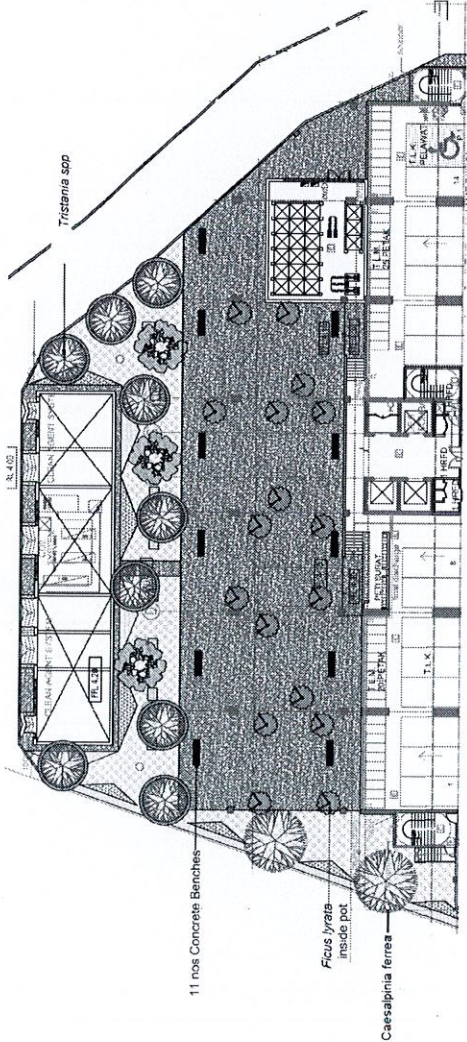


DETAIL OF BLOCK 'A'



FRONT ELEVATION

END ELEVATION SECTION SHOWING REINFORCEMENT CONCRETE MARKER



PELAN LANDSKAP
SCALE : 1 TO 300

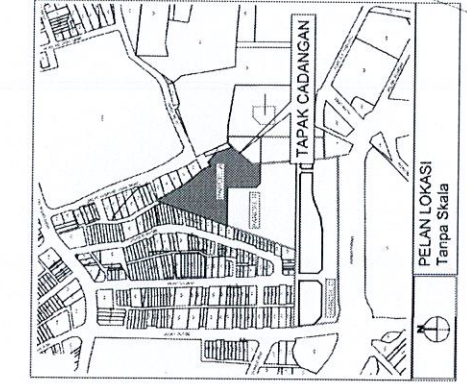
PETUNJUK

1) POKOK

ITEM	SIMBOL	NAMA BOTANI	NAMA BIASA	KETINGGIAN POKOK HT. (M)	MIN DIA BTG. (MM)
1.		<i>Tristania</i> spp	Rivor Tristania, Palawan	2.5	50
2.		<i>Caesalpinia ferrea</i>	Leopard Trees	2.5	50
3.		<i>Ficus lyrata</i>	Fiddle-leaf fig	2.5	50
4.		<i>Jacaranda obtusifolia</i>	Jacaranda	2.5	50

- D. LAPISAN RUMPUT (TURFING)
- Turfing sebagaimana bentuk meletakkan dari 'sow grass' dan diampirkan lebih dari 12X12 di antaranya dan meletakkan sehingga rumput tumbuh. Turf mengandung lalang atau mimosa akan dibuang manakala mana-mana lalang atau mimosa yang mula tumbuh akan dicabut atau dikenalkan sebarang bayaran kepada majikan tersebut.

- B. PENANAMAN POKOK (TREE PLANTING)
- Sebelum penanaman pokok atau meratakan tanah kepada tahap yang rata dan bebas dari objek-objek yang mengganggu.
 - Penggalan lubang bagi penanaman pokok (3' X 3') adalah kemasadu menggunakan bahan tanah. Penggalan lubang mestilah dilakukan dengan menggunakan 'hand auger' atau kerdas biasa yang lain.
 - Tanah yang dikorek mestilah diganti dengan tanah 'top soil' yang subur dan kaya dengan humus. Campuran organik ini mestilah 1:1:1 kepada 10 dari tanah yang digali.
 - Penanaman pokok mestilah mempunyai ketinggian 2 meter dari aras tanah (minima) dengan ukur illi 50 mm.
 - Pokok-pokok yang ditanam mestilah diperuntukkan kepada pokok pada jarak 25mmX50mmX2.5mm serta tali pengikat disatukan dengan sub dengan kerdas 5'.
 - Kesemua pokok-pokok yang ditanam disepanjang jalan mestilah pada jarak 5' juaunya dari kesemua longkang, pili bomba dari lain-lain kemudahan awam.
 - Kesemua pokok-pokok mestilah ditanam di atas kaki lina (pavement) atau di antara berendak jalan (road curb) dan longkang (road drainage).
 - Pokok-pokok yang ditanam di atas jalan tar atau bahu jalan yang dipremix perlu dibina kerb konkrit berbentuk kotak empat segi (1 m X 1 m).
 - Pokok-pokok yang ditanam di atas jalan di kawasan tempat lelak kerela perlu dibina dengan m/s grating 1mX1m di sok pokok. m/s grating hendaklah menggunakan saiz 20mm lebar 12.5mm tebal X 50mm jarak.

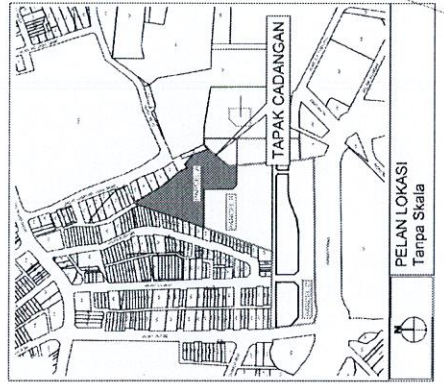


NOTES:
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WHERE APPLICABLE

PROJECT TITLE:

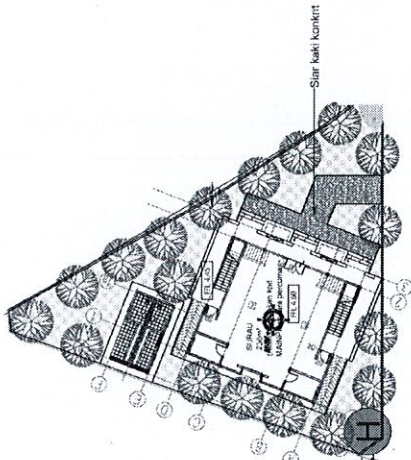
DRAWING TITLE:
LANDSCAPE LAYOUT
& DETAILS

DRAWING NO:
DCQ50244/LANDSCAPE/BQ1/01



PELAN LOKASI
Tarpa Skala

- B. PENANAMAN POKOK (TREE PLANTING):
1. Menentukan penanaman pokok atau meratakan tanah kepada tahap yang dikehendaki.
 2. Penggalian lubang bagi penanaman pokok (3' X 3') adalah termasuk memindahkan bahan. Penggalian lubang mestilah dilakukan dengan menggunakan alat yang sesuai.
 3. Tanah yang dikorek mestilah diganti dengan tanah 'top soil' yang diperkayakan dengan 'compost' dan 'organic fertilizer' dalam nisbah 1:1:1 kepada 10' dan aras tanah.
 4. Penambahan baji seperti 'rock prostrate' dan lain-lain lagi.
 5. Penanaman pokok mestilah dilakukan dengan jarak 2 meter dari aras tanah (minima) dengan lebar 50 mm.
 6. Kayu pancung dan jaring dawai mestilah diperuntukan kepada pokok pada ketinggian 5' dimana perlu sahaja. Kayu pancung untuk pokok utama laian 20mmX50mmX2.75m serta tali pengikat disalut dengan tub getah.
 7. Kesemua pokok-pokok yang ditanam sepanjang jalan mestilah pada jarak 5'.
 8. Kesemua pokok-pokok mestilah ditanam di atas kaki lima (pavement) atau di antara bebundul jalan (road curb) dan longkang (road drain).
 9. Pokok-pokok yang ditanam di atas jalan tar atau batu jalan yang dipancurkan mestilah dengan jarak 10'.
 10. Pokok-pokok yang ditanam di atas jalan di kawasan tempat tidak kereta perlu dipasang dengan m.s grating 1mX1m di kaki pokok. (m.s grating hendaklah sekurang-kurangnya saiz daripada 25mm lebar 12.5mm tebal X 50mm jarak).



SCALE : 1 TO 300

D. LAPISAN RUMPUT (TURFING)

1. "Turfing" sebagaimana berikut mestilah dari 'cow grass' dan diamparkan tidak lebih dari 12X12' di antaranya dan mestilah disejajarkan sehingga tumbuh. Turf mengandungi lalang atau mimosa akan dibuang manakala man-man lalang atau mimosa yang mula tumbuh akan dicabut atau dikenakan sebarang bayaran kepada majikan tersebut.

PETUNJUK

i) POKOK

ITEM	SIMBOL	NAMA BOTANI	NAMA BIASA	KETINGGIAN MIN DIA. POKOK HT. (M)	MIN DIA. BTG. (MM)
1		<i>Cassipouia ferrea</i>	Leopard Trees	2.5	50

ii) RUMPUT

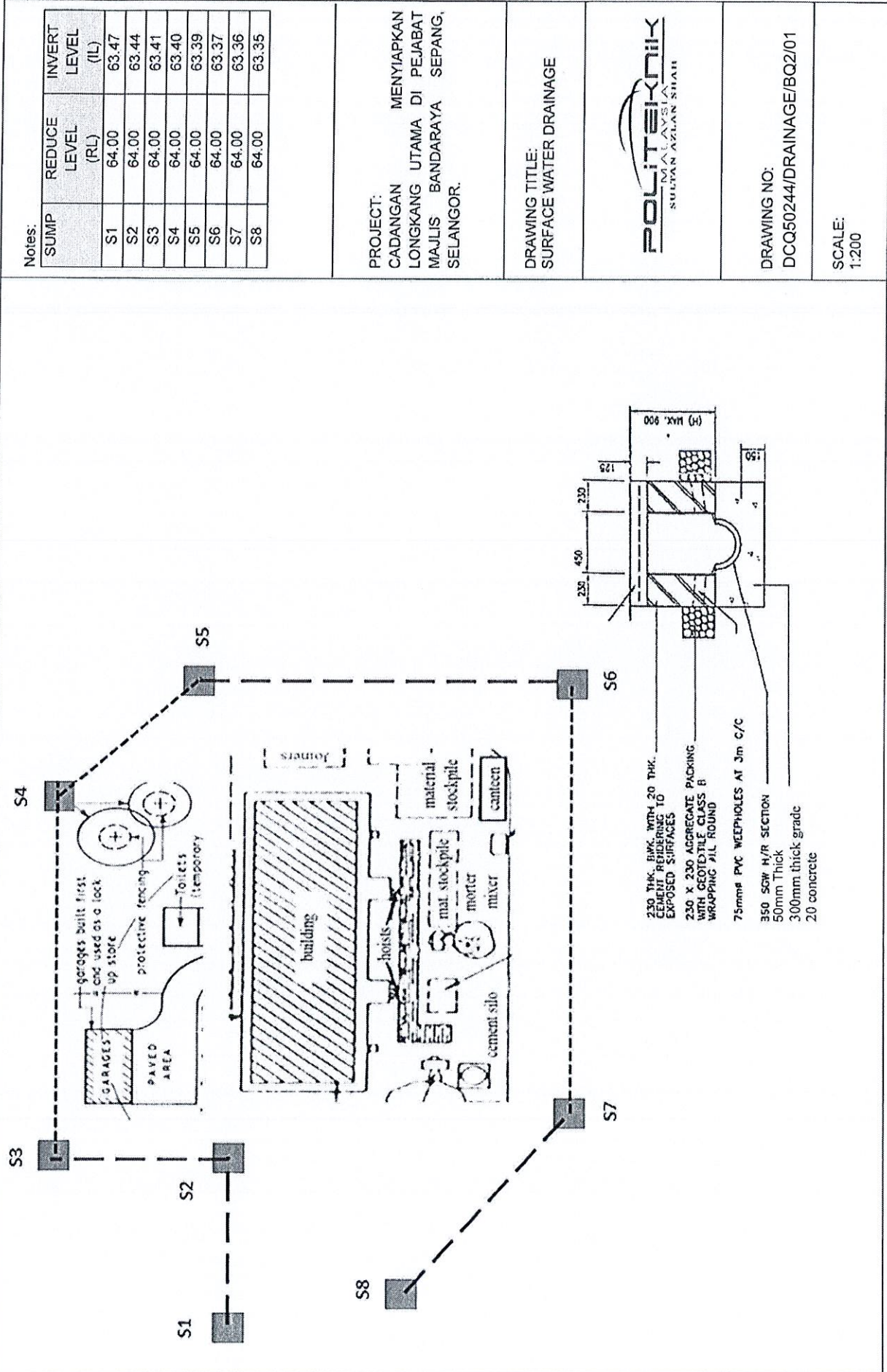
ITEM	SIMBOL	NAMA BOTANI	NAMA BIASA
1.		<i>Axonopus compressus</i>	Cow grass

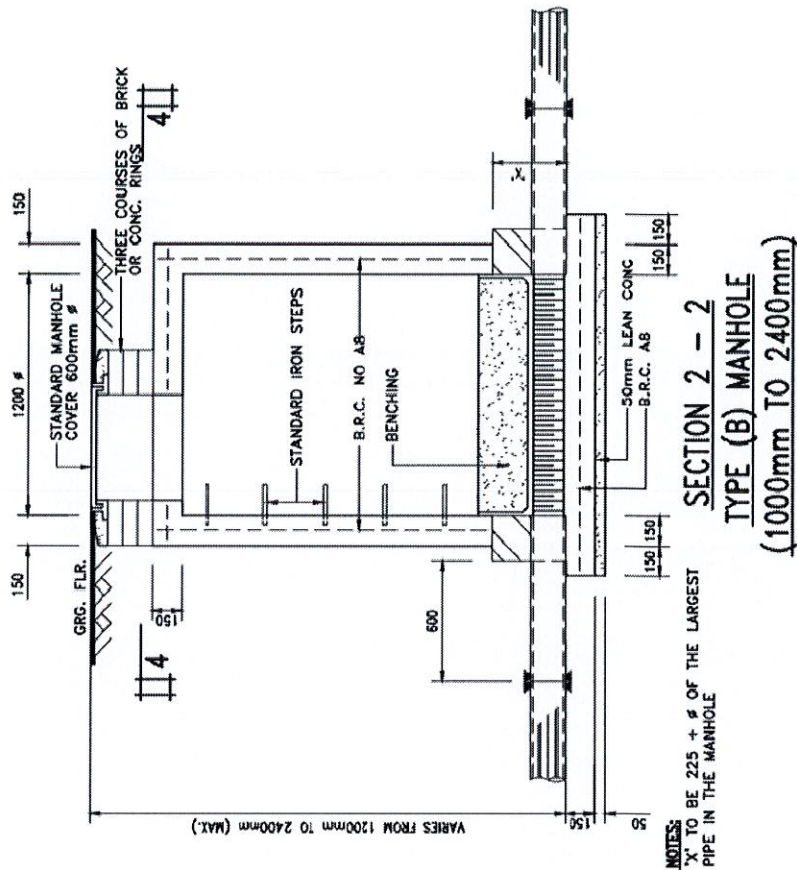
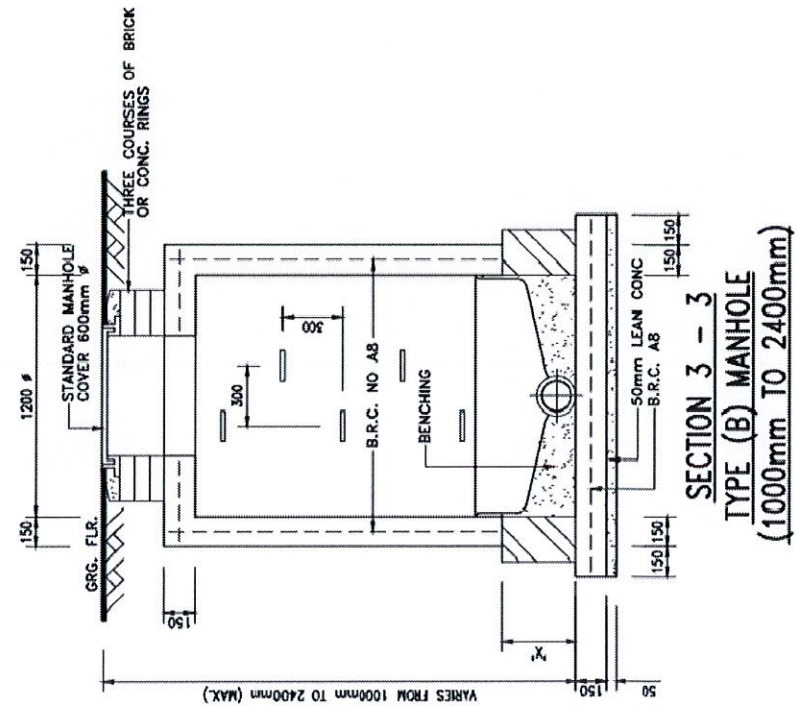
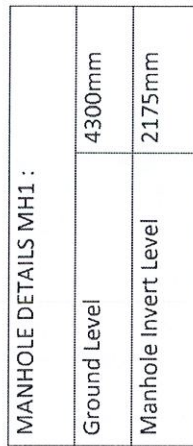
NOTES:
YOU CAN MAKE
ALL NECESSARY
ASSUMPTIONS
WHERE APPLICABLE

PROJECT TITLE:

DRAWING TITLE:
LANDSCAPE LAYOUT
& DETAILS

DRAWING NO:
DCQ50244/LANDSCAPE/BQ1/02





NOTES:

**YOU CAN MAKE ALL
NECESSARY AND
REASONABLE
ASSUMPTIONS
WHERE APPLICABLE**

DRAWING TITLE ;

SEWERAGE WORKS
LAYOUT PLAN AND
DETAILS FOR
MANHOLE 1 (MH1)

DRAWING NO. ;

DCQ50244/SEWERAGE
/BQ3/01

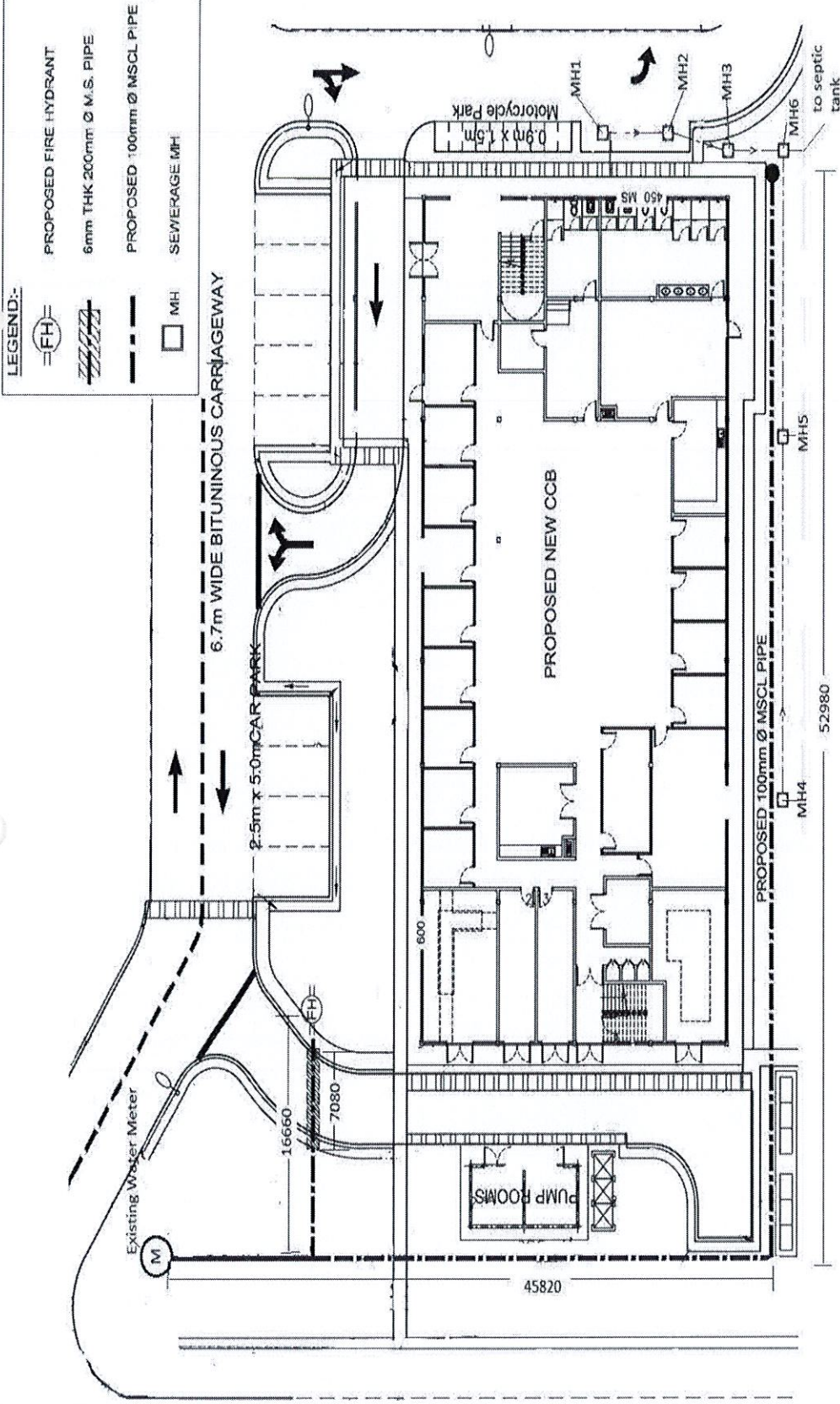
NOTES:

YOU CAN MAKE ALL
NECESSARY AND
REASONABLE
ASSUMPTIONS WHERE
APPLICABLE

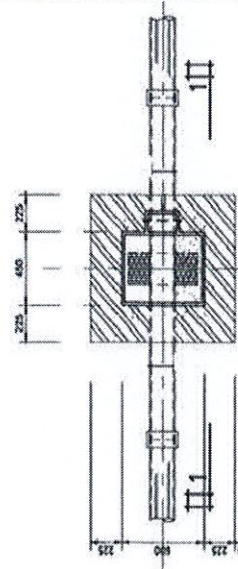
PROJECT TITLE ;
NEW CCB

DRAWING TITLE ;
SEWERAGE WORKS,
WATER RETICULATION
SYSTEM LAYOUT
PLAN AND DETAILS

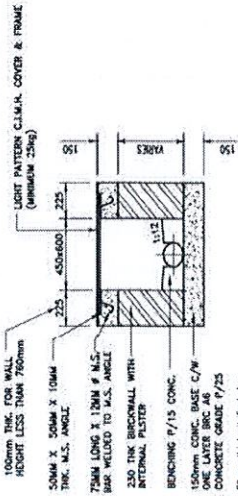
DRAWING NO ;
DCQ50244/SEWERAGE
/BQ3/02



MANHOLE	GROUND LEVEL	MANHOLE INVERT LEVEL
MH1	4.25	2.75
MH2	4.25	2.83
MH3	4.25	2.96
MH4	4.25	2.71
MH5	4.25	2.8
MH6	4.25	2.98



DETAILS OF MANHOLE
TYPE (A)



SECTION 1 - 1
TYPE (A) MANHOLE

NOTES:

1. All brickworks shall be 225mm thick common brick unless otherwise stated.
2. Assumption shall be made if the information is not sufficient.
3. Chain links fencing - - - - -

DOOR SCHEDULE

D1	1800mm x 2100mm	Timber flush door
D2	2000mm x 2100mm	Timber flush door
D3	3150mm x 2100mm	Timber flush door

WINDOW SCHEDULE

W1	2100mm x 1200mm	Louvers
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RENOVATION TABLE

1.	D1 are to be replaced with 1800mm x 2100mm Panel Door.
2.	W1 are to be replaced with 1200mm x 1200mm Aluminium Casement Window.

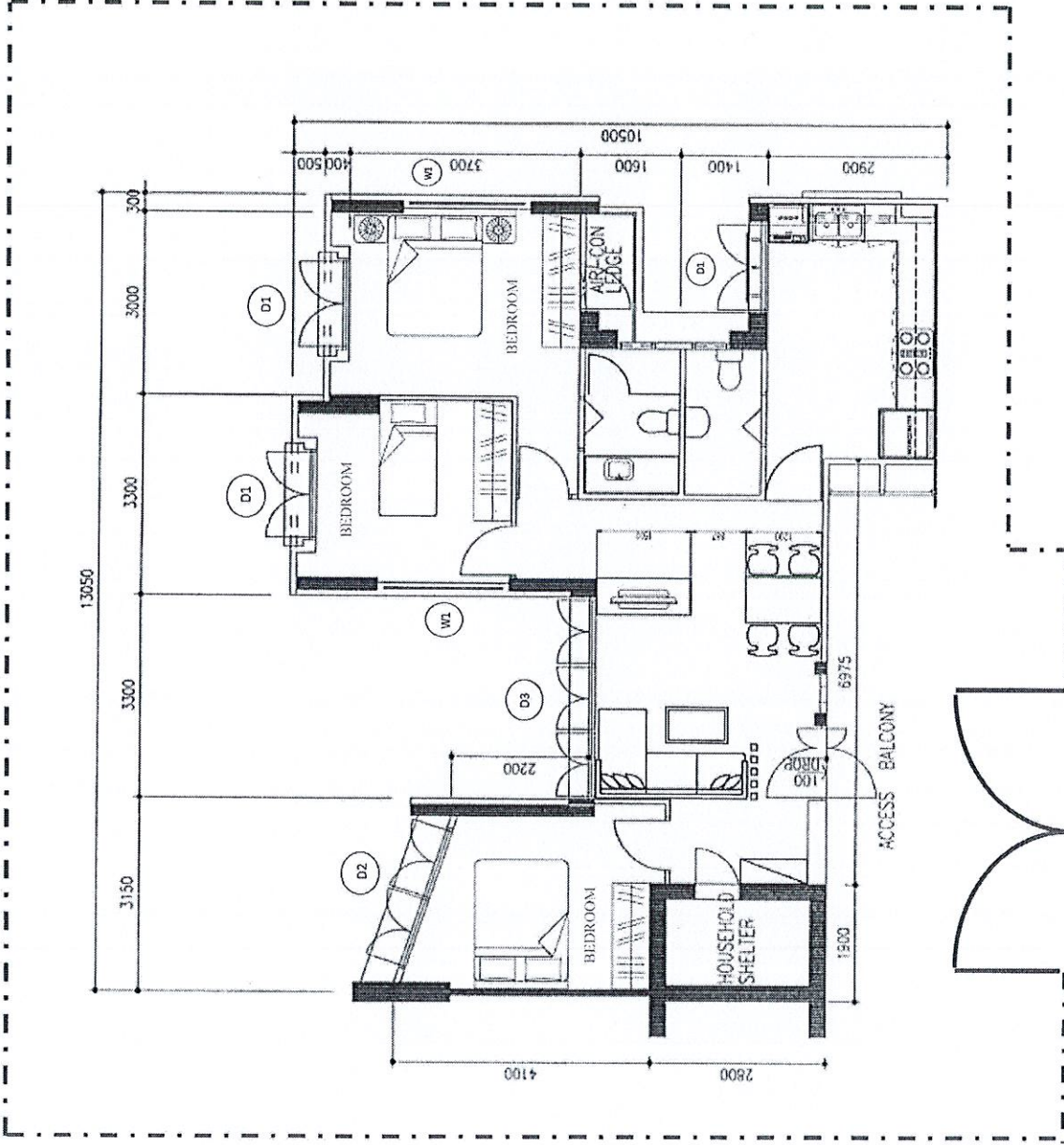
TAJUK PROJEK:
KERJA-KERJA PENGUBAHSUAIAN
RUMAH BUNGLOW
DI BEHRANG SENTRAL

POLITEKNIK
MALAYSIA

DRAWING TITLE:
DEMOLISH & RENOVATION
FENCING & GATE

SCALE:
1 : 500

NO. LUKISAN :
DCQ50244/FENCING&DEMOLISH/BQ4/01



NOTES:

1. 2100mm 2100mm high 63x63 SWG 10 G.I PVC Coated Chain Link Fencing.
2. 3 nos barb wire complete barbed tape with 600mm high.
3. 50x50 x 6mm M.S 'L' Angle Post @ 3000mm internal
4. 300x300x600mm depth concrete footing (1:3:5)
5. In situ concrete grade 20 with size 150 x 200mm as a concrete kerb complete with one layer of BRC A7
6. 2400mm Wide Double Leaf Vehicular Access Gate complete with horizontal & vertical bracing CHS 48.3 x 4mm.
7. 600x600x1300mm depth concrete footing for gate post (1:3:5)

TAJUK PROJEK:
KERJA-KERJA PENGUBAHSUAIAN
RUMAH BUNGLOW
DI BEHRANG SENTRAL

POLITEKNIK
MALAYSIA

DRAWING TITLE:
FENCING & GATE DETAILS

SCALE:
NOT TO SCALE

NO. LUKISAN :
DCQ50244/FENCING&DEMOLISH/BQ4/02

