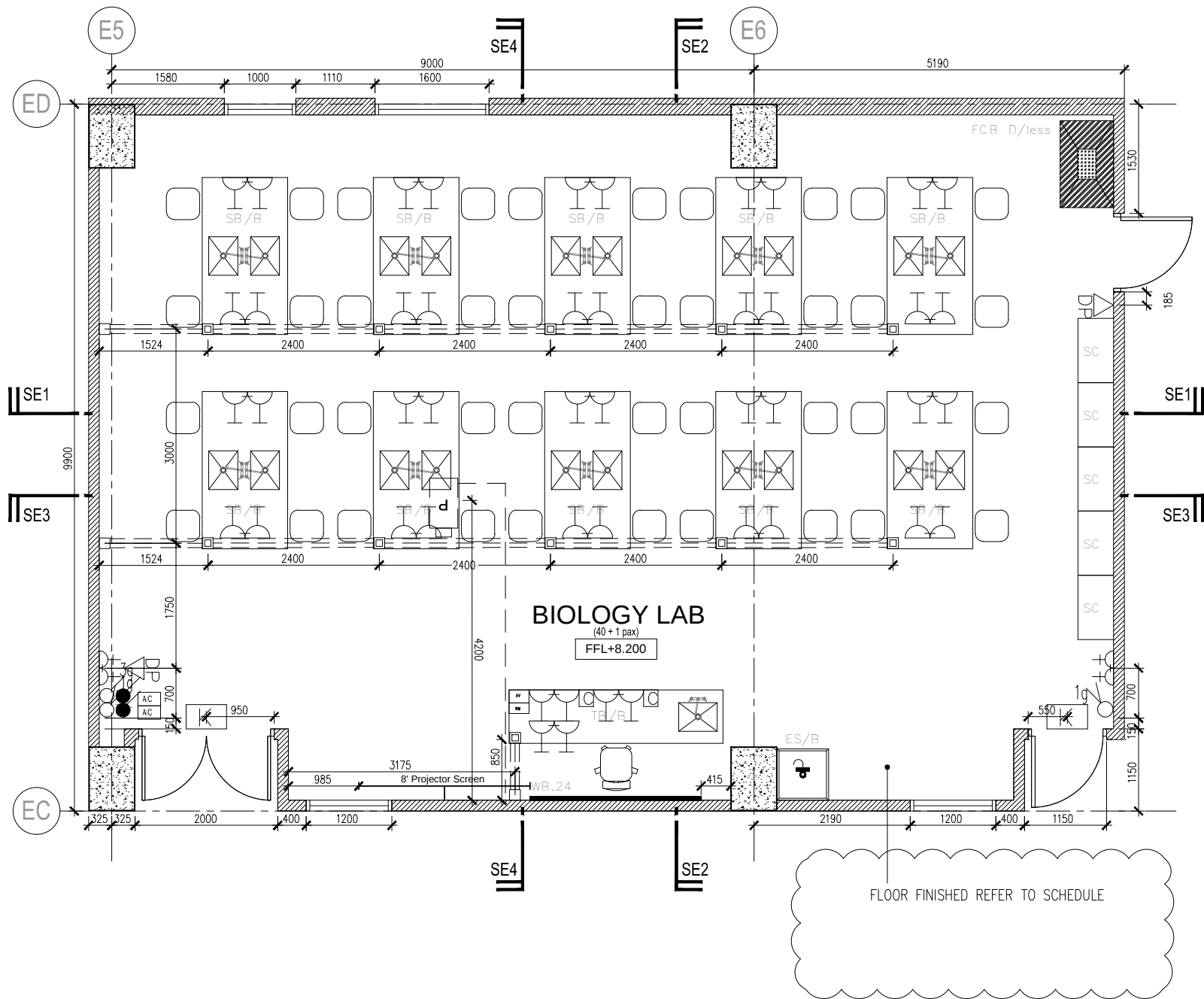




LEGEND : LAB EQUIPMENT & REQUIREMENT (BY LAB CONTRACTOR)

- SB/B:**
10x Lab Table
Electro-Galvanised Steel Construction with Epoxy Powder Coated Finish
Dim: W=1200MM x L=2200 H=900mm
Thk= 16mm, Light Grey Color Phenolic Resin Worktop
2x PP Sink(W=560 x D=428 x H=260mm)
2x PP Dilution Tanks 10Ltr
2x Single way lab top
2x 2-gang switch socket outlet
Volt: 240V/1ph
- TB/B:**
Teacher Bench + Chair
Fixed Type Wall Bench
Electrogalvanised Steel Construction With Epoxy Powder Coated Finish
Dim: L=3000 x D=750 x H=900mm
1 knee-space for workstation
16mm Thk Light Grey Color Phenolic Resin Worktop
Comes with 100mm Backsplash
1x PP Sink (W=560 x D=428 x H=260)
1x PP Dilution Tank 10Ltr
1x Single way lab top
2x 2-gang Switch Socket Outlet
Volt: 240V/1ph
- SC:**
5x Storage Cabinet
Electrogalvanised Steel Construction With Epoxy Powder Coated Finish With Glazed Glass Door
Dim: L=900 x D=500 x H=2100 mm
- SL:**
Student Lab Stool
PU Cushioned Type
Min. H=550 x Max. H=870mm
Adjustable seat height
- WB,24:**
Wall Mounted White Board
Dim: W=1200MM x L=2400mm
Weight: 10kg Volt: N/A
- ES/B:**
EMERGENCY SHOWER / EYEWASH, FLOOR MOUNTING, ABS SHOWER HEAD / BOWL
MATERIALS: Galvanized steel piping, Brass fittings.
COATING: Anti-corrosive polyamide 11 plastic in high-visibility yellow color.
WATER INLET: G1-1/4" BSP
WATER INLET PRESSURE: Recommended 2 bar / Min. 1.5 bar / Max. 8 bar
SHOWER MATERIALS: Shower head in ABS plastic.
FLOW RATE: Regulated at 110 l/min.
OPERATION: Pull rod.
VALVE: Full bore valve 1"
EYEWASH MATERIALS: Eyewash assembly and eyewash bowl in ABS plastic. Two high-flow aerated water sprays at low pressure with automatic opening anti-dust cover.
FLOW RATE: Regulated at 22 l/min.
OPERATION: Push handle.
VALVE: Full bore valve 1/2"
WASTE: G1-1/4" BSP
- FCB D/Less:**
Ductless Fume Hood
Dim: L=1220 x W=750 x H=2420mm
Worktop: Phenolic resin, laboratory grade, light grey
Services: 2x Pre wired 13 Amp Switch socket outlets (BS)
Standard Complied: ASHRAE 110-95 airflow requirement (0.5m/s +/-20% as installed)
Controls: Fan - ON/OFF switch
Light - ON/OFF switch
Body: Electrogalvanised steel with heavy powder coated finish
Airfoil: SS 304
Design Velocity: 0.5m/s at 500mm sash height
Extract Volume at 500mm Height Sash Opening: 900 CMH
**Ducting and Exhaust Blower does not included

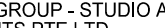
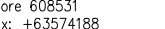
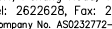
LEGEND : ELECTRICAL INSTALLATION

SYMBOL	DESCRIPTION(S)	QTY
	2 X 28W RECESSED TYPE TS FLUO. FTG. C/W MIRROR REFLECTOR & ALUMINIUM CROSS BLADE. (ELECTRONIC BALLAST)	18
	10A 1/2/3 GANG TWO WAY LIGHTING SWITCH AT 1450mm AFFL.	2
	10A 1/2/3/ GANG ONE WAY LIGHTING SWITCH AT 1450mm AFFL.	1
	13A TWIN SWITCH SOCKET OUTLET AT 300mm AFFL.	2
	13A TWIN SWITCH SOCKET OUTLET (RUN IN FLOOR TRUNKING) MOUNTED AT TABLE / LOW HEIGHT PARTITION. (ACTUAL POSITION TO BE DETERMINE ON SITE)	23
	13A SWITCH SOCKET OUTLET AT ABOVE CEILING LEVEL FOR PROJECTOR	1
	13A SWITCH SOCKET OUTLET AT ABOVE CEILING LEVEL FOR WFI SYSTEM	1
	13A SWITCH SOCKET OUTLET AT BELOW CEILING LEVEL FOR SPEAKER	2
	20A 1 GANG ONE WAY DOUBLE POLE SWITCH (FOR PROJECTOR & SPEAKER)	2
	UNDER FLOOR JUNCTION BOX (250mm X 250mm X 56mm) FOR POWER, TELEPHONE & DATA CAST IN FLOOR SLAB. - DATA - 150mm X 25mm X 3.2mm UNDERFLOOR UPVC TRUNKING/CONDUIT. (CAST IN FLOOR SLAB) - POWER - 150mm X 25mm X 3.2 mm UNDERFLOOR UPVC TRUNKING/CONDUIT. (CAST IN FLOOR SLAB)	AS SHOWN
	150mm X 25mm METAL TRUNKING DROPPER	AS SHOWN
	-25MM PVC CONDUIT FOR AUDIO AND VISUAL C/W INSPECTION BOX (BY ELECTRICAL CONTRACTOR)	AS SHOWN

LEGEND : ACMV INSTALLATION

SYMBOL	DESCRIPTION(S)	QTY
	SUPPLY AIR GRILLE (600 x 600 UNLESS OTHERWISE STATED) 4 WAY TYPE C/W OPPOSED BLADE VOLUME CONTROL DAMPER (UNLESS OTHERWISE STATED)	14
	1200MMmm X 600mm RETURN AIR GRILLE	2
	A/C CONTROL MODULE	2
	FAN COIL UNIT (FCU)	2
	PLENUM BOX	2
	300MM X 300MM FRESH AIR GRILLE C/W VOLUME CONTROL DAMPER	2

CONSTRUCTION DRAWING

PROJECT TITLE : CADANGAN MEMBINA SEBUAH KOLEJ UNIVERSITI SWASTA DI ATAS PT 5828, PERSIARAN CASSIA BARAT 3, BATU KAWAN, MK. 13, SEBERANG PERAI SELATAN YANG MENGANDUNGI : BLOK A – PUSAT PENTADBIRAN 5 TINGKAT BLOK B – PERPUSTAKAAN DAN BILIK KULIAH 6 TINGKAT BLOK C – BANGUNAN AKADEMIK DAN DEWAN SERBAGUNA B3 TINGKAT DENGAN PODIUM BLOK D – DEWAN KULIAH DAN KAFETERIA 3 TINGKAT BLOK E – BANGUNAN AKADEMIK 5 TINGKAT 2 UNIT PONDOK PENGAWAL DAN 1 UNIT TNB 11 KV STESEN SUIS UTAMA UNTUK: TETUAN KDU COLLEGE (PG) SDN. BHD	LAND OWNER & BUILDING OWNER SIGNATURE : NAME : DR.CHONG BENG KEOK CHIEF EXECUTIVE OFFICER (CEO) IC. NO : 610612-02-5048 ALAMAT :KDU COLLEGE (PG) SDN.BHD. 32, JALAN ANSON, 10400 GEORGE TOWN, PULAU PINANG. TEL. NO : 604-2386368	DESIGN ARCHITECT : ARCHITECTURE GROUP - STUDIO A CPG CONSULTANTS PTE LTD 1 Gateway Drive #23-01 Westgate Tower, Singapore 608531 Tel : +63574888 ; fax: +63574188 ARCHITECT SIGNATURE : 15TH FLOOR, BANGUNAN AMMETLIFE, NO.1, JLN. LUMUT, 50400 KUALA LUMPUR. TEL: (30)-4046-1346 FAX: (03) 4043-1349 EMAIL: ybhwa@nrasb.com.my	C&S CONSULTANT : PERUNDING KELANA CIVIL & STRUCTURAL ENGINEERS Level 12, Unit 12(D), Wisma Boon Siew, No.1, Penang Road, 10000 Penang. Tel: 2622628, Fax: 2641618 (Company No. A50232772-W) PERUNDING P.L.A. Consulting Mechanical & Electrical Engineers. 8-01, WISMA PANTAI, JALAN WISMA PANTAI, 12200 BUTTERWORTH, PENANG. TEL. NO. : (604) 3337990 TEL. : (603)-872-71201 FAX NO. : (604) 3317337 E-MAIL : project@pla-group.com	QS CONSULTANT : UNITECH QS CONSULTANCY SDN. BHD. 12A-A, MENARA NORTHAM, 55, JALAN SULTAN AHMAD SHAH, 10050 PENANG DISHES SDN BHD NO. 21-1, JALAN SEMENYIH SENTRAL 1, SEMENYIH SENTRAL, SEMENYIH, 43500 SELANGOR TEL. : +603-872-71201 email : info@dishes.com.my webmail : www.dishes.com.my	DRAWING TITLE : BLOCK E_1ST FLOOR BIOLOGY LAB FURNITURE LAYOUT PLAN					
					DATE : 09.03.16	SCALE : 1:75	CHECK BY : Ej/EDM			
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					55314		CA	E	P001	A