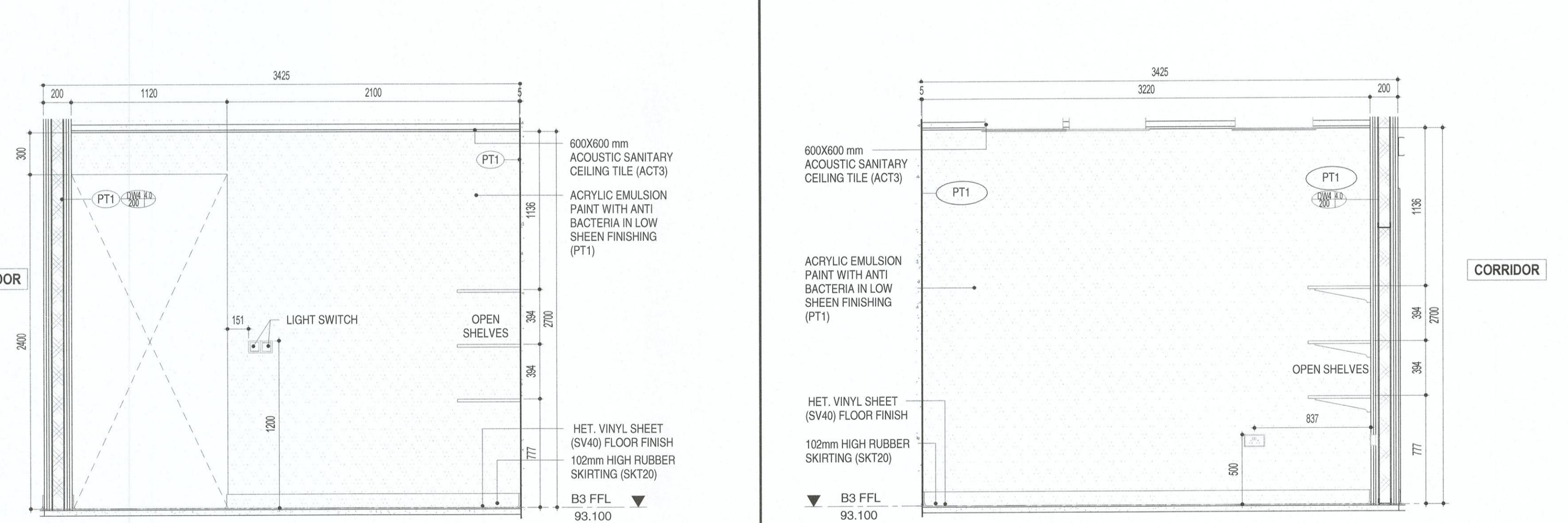
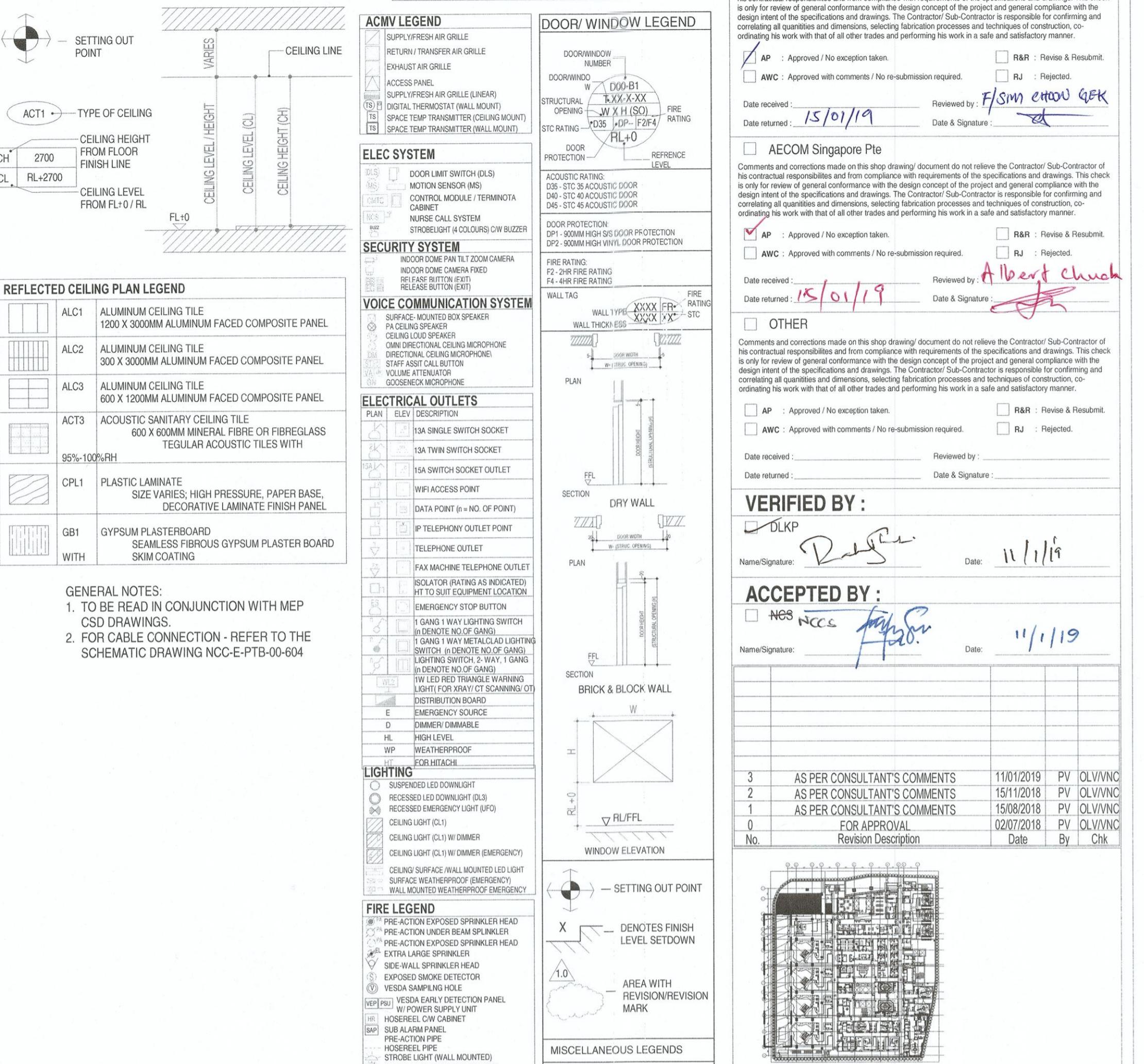


1 B3 ACCELERATOR CONTROL ROOM & MAIN. OFFICE RCP  
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2 ELEVATION ACR-E  
1 : 25

3 ELEVATION ACR-F  
1 : 25



GENERAL NOTES:  
1. TO BE READ IN CONJUNCTION WITH MEP CSD DRAWINGS;  
2. FOR CABLE CONNECTION - REFER TO THE SCHEMATIC DRAWING NCC-E-PTB-00-604

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<input type="checkbox"/> AWC : Approved with comments / No re-submission required.	<input type="checkbox"/> RJ : Rejected.
Date received : 15/01/19	
Reviewed by : F/SIM ETCHOU GEK	
Date & Signature :	

<input type="checkbox"/> AECOM Singapore Pte	
Comments and corrections made on this shop drawing document do not relieve the Contractor/Sub-Contractor of his contractual responsibilities and from compliance with requirements of the specifications and drawings. This check is only for review of general conformance with the design concept of the project and general compliance with the design intent of the specifications and drawings. The Contractor/Sub-Contractor is responsible for confirming and correlating quantities and dimensions, selecting fabrication processes and techniques of construction, co-ordinating his work with that of all other trades and performing his work in a safe and satisfactory manner.	
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<input type="checkbox"/> AWC : Approved with comments / No re-submission required.	<input type="checkbox"/> RJ : Rejected.
Reviewed by : Albert Chua	
Date & Signature :	

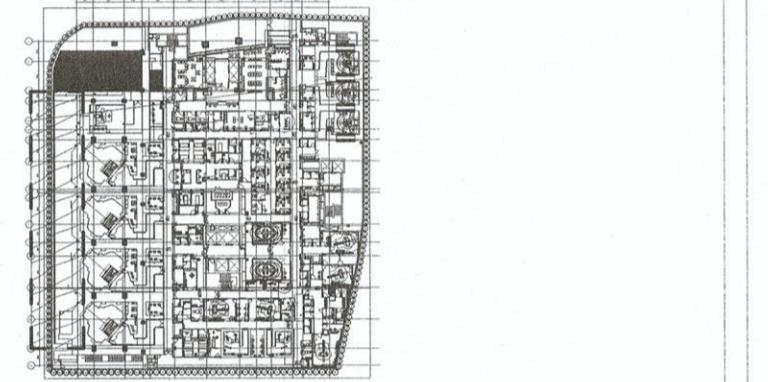
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<input type="checkbox"/> AWC : Approved with comments / No re-submission required.	<input type="checkbox"/> RJ : Rejected.
Reviewed by : Date & Signature :	

<input checked="" type="checkbox"/> VERIFIED BY :
DILKP
Name/Signature : Date : 11/1/19

<input type="checkbox"/> ACCEPTED BY :
NES NCC
Name/Signature : Date : 11/1/19

3 AS PER CONSULTANT'S COMMENTS	11/01/2019	PV / OLV/NOC
2 AS PER CONSULTANT'S COMMENTS	15/11/2018	PV / OLV/NOC
1 AS PER CONSULTANT'S COMMENTS	15/08/2018	PV / OLV/NOC
0 FOR APPROVAL	02/07/2018	PV / OLV/NOC

No. Revision Description Date By Chk



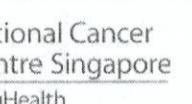
Owner : MINISTRY OF HEALTH  
Ministry of Health Building  
16 College Road  
Singapore 169854



Owner's Agent : MOH HOLDINGS PTE LTD  
1 Maritime Square Harbourfront Centre  
11 Marina Bay Street  
Singapore 098253



Operator : NATIONAL CANCER CENTRE SINGAPORE  
11 Hospital Drive Singapore 168810



Project Management : Davis Langdon KPK (S) Pte Ltd  
865 Mountbatten Road #07-01 Keling Shopping Centre  
Singapore 437844



Architect : CIAP Architects Pte Ltd  
1 North Bridge Road, #05-01 High Street Centre, S179094  
Tel: (65) 6336 3900 Fax: (65) 6336 0250  
www.ciap-sg.com



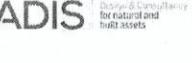
C&E Engineer : ARUP Singapore Pte Ltd  
10 Ho Chi Minh Road, #05-01 One Marina Bay, Singapore 039567  
Tel: (65) 6411 2505 Fax: (65) 6411 2501  
www.arup.com



M&E Consultant : AECOM Singapore Pte Ltd  
3 Beach Road #05-01 The Concourse, Singapore 019955  
Tel: (65) 6336 2468 Fax: (65) 6228 0297  
www.aecom.com



QS Consultant : Arcadis Singapore Pte Ltd  
1 Magazine Road #05-01 One Marina Bay, Singapore 039567  
Tel: (65) 6336 3898 Fax: (65) 6228 7088  
www.arcadis.com



Main Contractor : SHIMIZU CORPORATION  
8 Keling Ave, #05-01 Apia Tower 1, Singapore 039509  
Tel: (65) 6336 3900 Fax: (65) 6336 0250  
ncc-pj@shimz.biz www.shimz-global.com



Project Title : PROPOSED NEW ERECTION OF 24 STOREY WITH 4 BASEMENTS NEW NATIONAL CANCER CENTRE OF LOT 00467K TS22 AT OUTRAM MEDICAL CAMPUS, 20 OUTRAM ROAD (BUKIT MERAH PLANNING)

Drawing Description : BASEMENT 3  
B3 BUNKER PT ROOMBOOK  
PT ACCELERATOR CONTROL ROOM LAYOUT PLAN

FILENAME : C:\Users\pratibha.verma\Documents\NCC\_SHIMZ\_BUNK\_ARCH\_L00-SHEET\_pratibha.verma.dwg  
SCALE : As indicated DATE : 11 JAN 2019 REV.  
DRAWN : PRATIBHA CHECKED : OLLIVHAL / VNC 03  
DRAWING NO. : NCC-A-RB-B3A-008-502-04

FOR APPROVAL

**CIAP Architects Pte**  
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<input type="checkbox"/> AWC : Approved with comments / No re-submission required.	<input type="checkbox"/> RJ : Rejected.

Date received : 15/01/19 Reviewed by : F/SIM CHON GEEK  
Date returned : 15/01/19 Date & Signature :

**AECOM Singapore Pte**  
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<input type="checkbox"/> AWC : Approved with comments / No re-submission required.	<input type="checkbox"/> RJ : Rejected.

Date received : 15/01/19 Reviewed by : Albert Chua  
Date returned : 15/01/19 Date & Signature :

**OTHER**  
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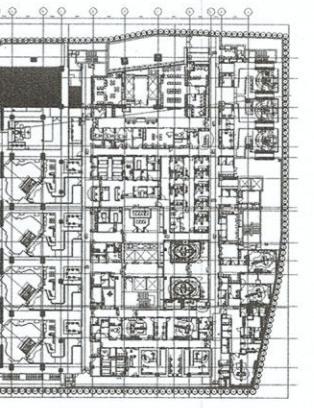
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<input type="checkbox"/> AWC : Approved with comments / No re-submission required.	<input type="checkbox"/> RJ : Rejected.

Date received :  Reviewed by :   
Date returned :  Date & Signature :

**VERIFIED BY :**  
Dilip Date: 11/1/19

**ACCEPTED BY :**  
NCSCCS Fayyaz Date: 11/1/19

3 AS PER CONSULTANT'S COMMENTS 11/01/2019 PV OLV/INC  
2 AS PER CONSULTANT'S COMMENTS 15/11/2018 PV OLV/INC  
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No. Revision Description Date By C/I/C

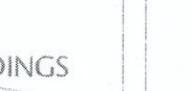


KEYPLAN

Owner : **MINISTRY OF HEALTH**  
College of Medicine Building  
10 College Road  
Singapore 169854



Owner's Agent : **MOH HOLDINGS PTE LTD**  
1 Maritime Square Marinafront Centre  
#11-25 Lobby C Singapore 099253



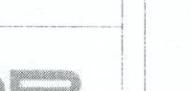
Operator : **NATIONAL CANCER CENTRE SINGAPORE**  
11 Hospital Drive Singapore 169610



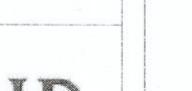
Project Management : **Davis Langdon KPK (S) Pte Ltd**  
Davis Langdon KPK  
An AECOM Company



Architect : **CIAP Architects Pte Ltd**  
1 North Bridge Road, #05-01 High Street Centre, S179094  
Tel: (65) 6336 3800 Fax: (65) 6328 0258  
info@ciap.sg www.ciap.sg



C&S Engineer : **Arup Singapore Pte Ltd**  
885 Mountbatten Road #07-01 Keppel Towers, S099315  
Tel: (65) 6399 0200 Fax: (65) 6311 2501  
www.arup.com



M&E Consultant : **AECOM Singapore Pte Ltd**  
380 Beach Road #05-01 The Concourse, S199555  
Tel: (65) 6399 0468 Fax: (65) 6399 0297  
6031349@aecom.com www.aecom.com



QS Consultant : **Arcadis Singapore Pte Ltd**  
1 Magazine Road, #05-01 Central Mall, S059567  
Tel: (65) 6222 3888 Fax: (65) 6224 7089  
rec-qs@arcadis.com www.arcadis.com



Main Contractor : **SHIMIZU CORPORATION**  
8 Kallang Ave, #05-01 Aperia Tower 1, S329900  
Tel: (65) 6278 5266 Fax: (65) 6224 8990  
rec-pt.s@shimizu.biz www.shimz-global.com



Project Title : PROPOSED NEW ERECTION OF 24 STOREY WITH 4 BASEMENTS NEW NATIONAL CANCER CENTRE OF UNIT 00467K TS22 AT OUTRAM MEDICAL CAMPUS, 20 OUTRAM ROAD (BUKIT MERAH PLANNING)

Drawing Description :

BASEMENT 3  
B3 BUNKER PT ROOMBOOK  
PT ACCELERATOR CONTROL ROOM ELEVATIONS

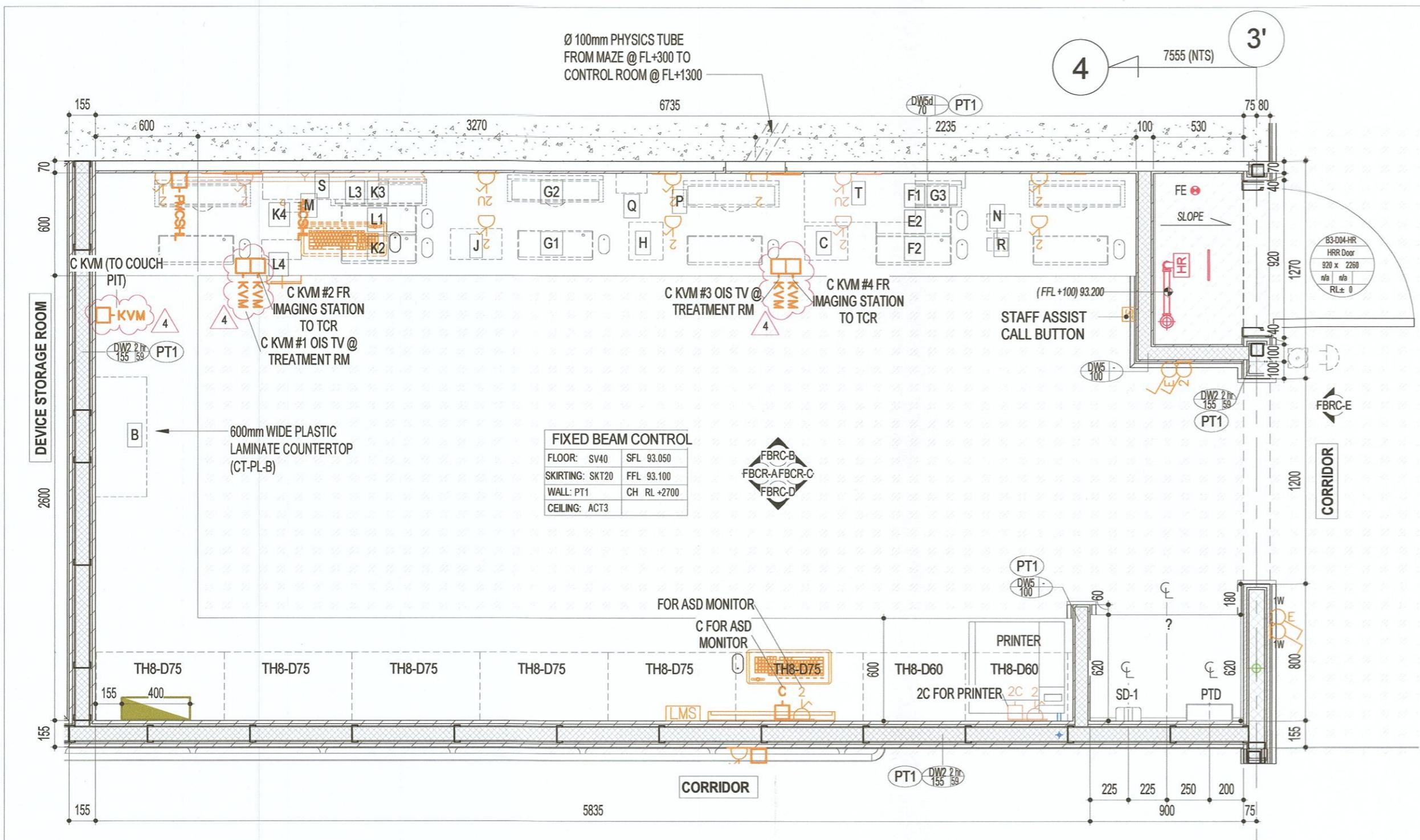
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SCALE : As Indicated DATE : 11 JAN 2019 REV : 03

DRAWN : PRATIBHA CHECKED : OLIVIHAL / VNC

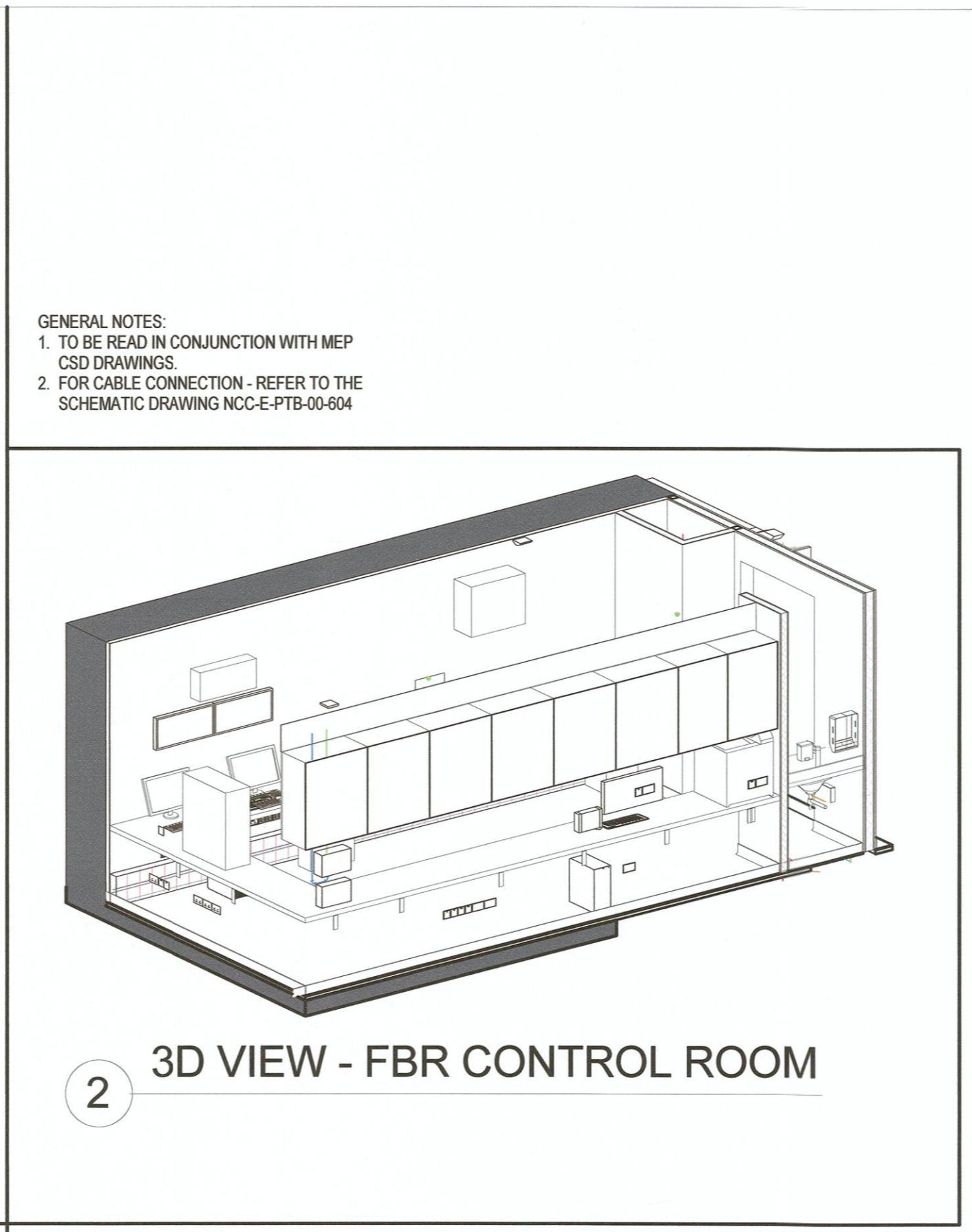
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FOR APPROVAL

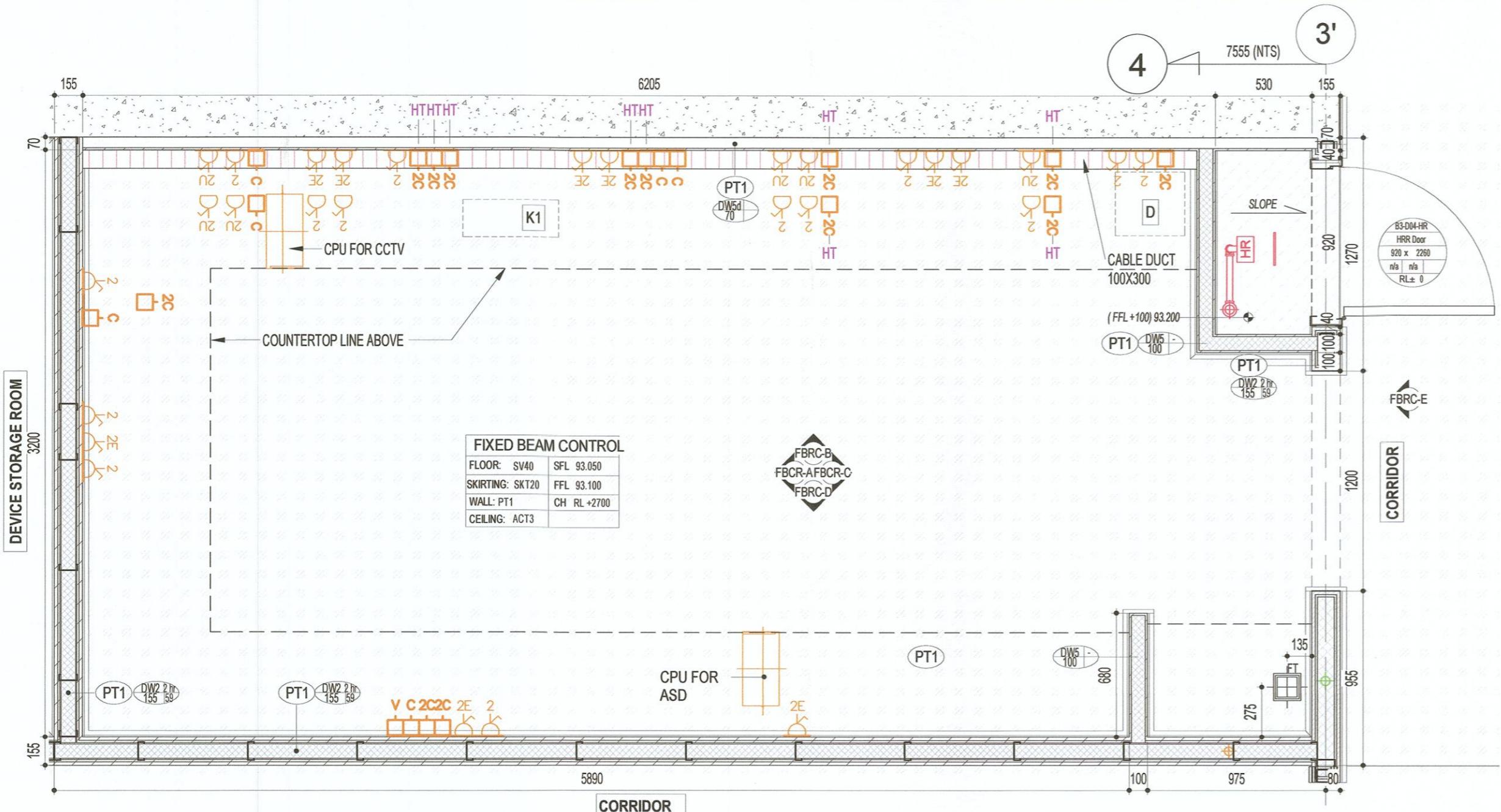


1 B3 FBR CONTROL ROOM LAYOUT ABOVE COUNTER

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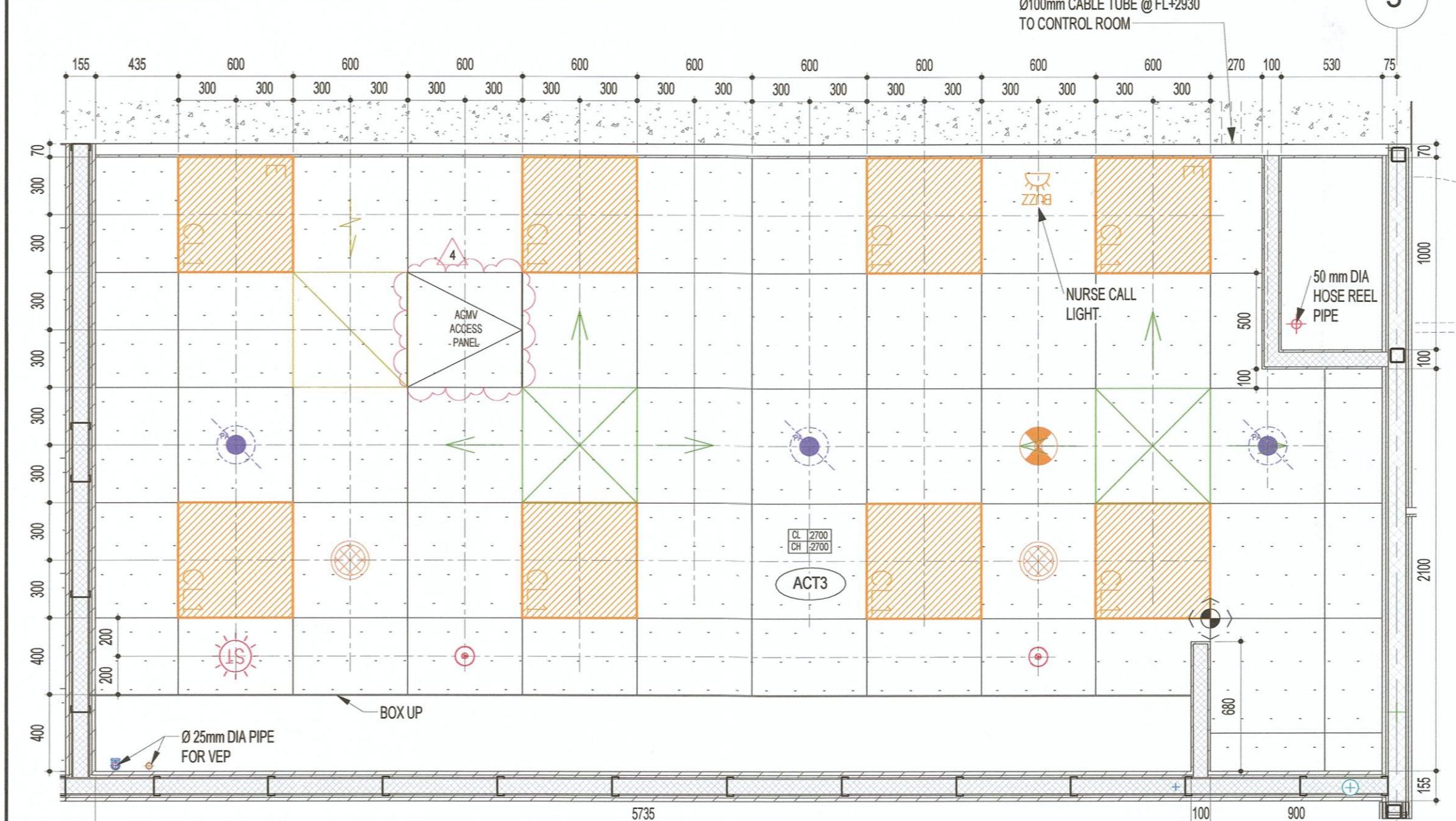


2 3D VIEW - FBR CONTROL ROOM



3 B3 FBR CONTROL ROOM LAYOUT PLAN BELOW COUNTER

1 : 25

4 B3- FBR CONTROL ROOM RCP  
1 : 30

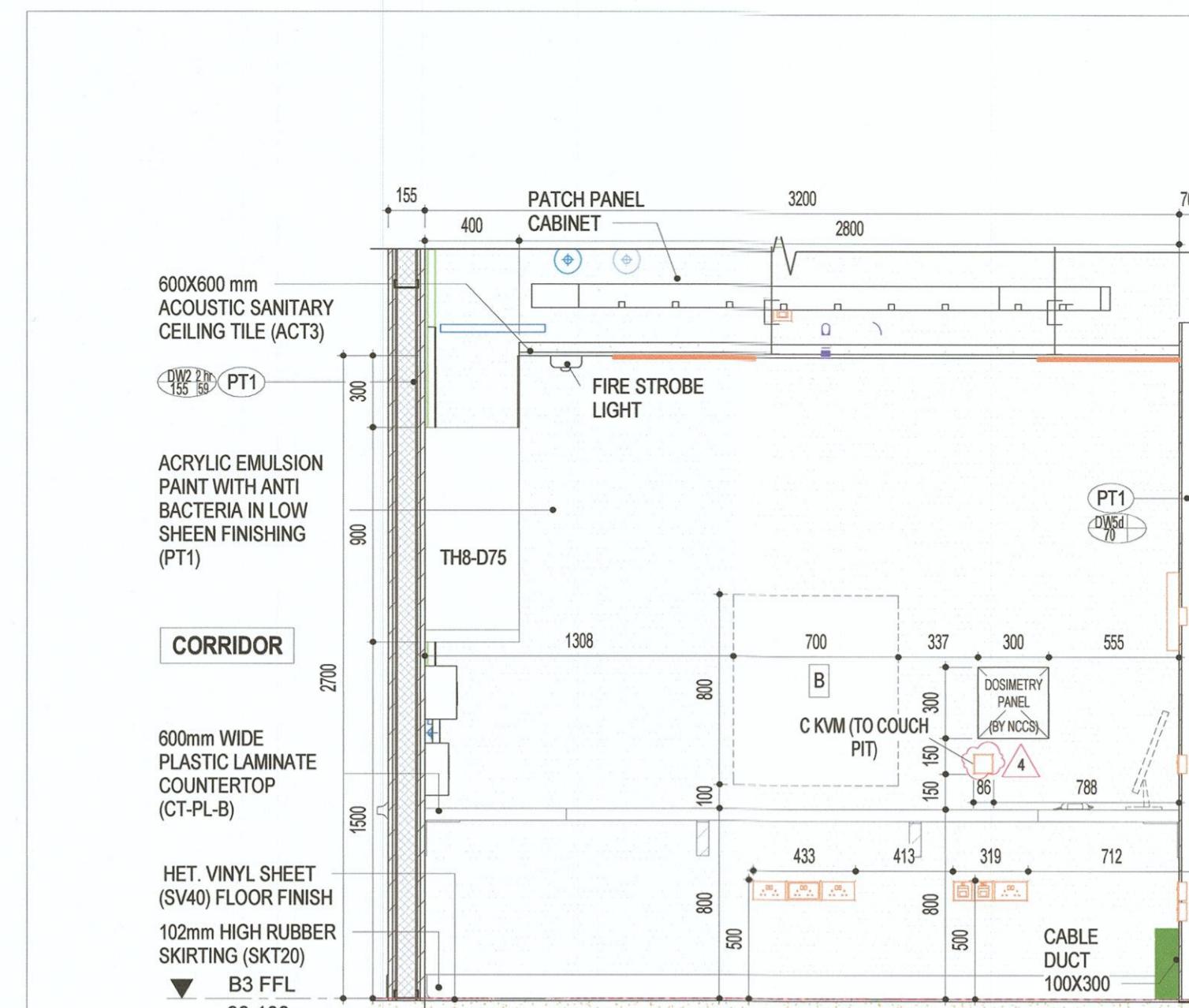
FBR Control Room Equipments (Hitachi)						
Mark	Description	Mass (kg)	W	D	H	RL/+/- By SC
A	FBR Distribution Panel	510	155	1270		
B	Beam Test Terminal Board FBCR	60	800	300	700	
C	FBCR Operational Panel	6	74	200	251	
D	FBCR Console Converter Box	17	366	347	380	
E1	Keyboard & Mouse	5.8	403	548	164	
F1	Flat Display					
F2	Keyboard & Mouse					
G1	Keyboard & Mouse					
G2	Monitor	5.8	403	548	164	
G3	Extender	0.8	42	110	220	
H	FBR X-Ray Really Panel Operation Console 2	4	110	220	200	
J	FBR X-ray Beam Limiting Device Control Box	2.6	102	180	300	
K1	Gif Imaging (KIS/RTPT/CIRS) Workstation	22.8	444	525	203	
K2	Keyboard & Mouse					

FBR Control Room Equipments (Hitachi)

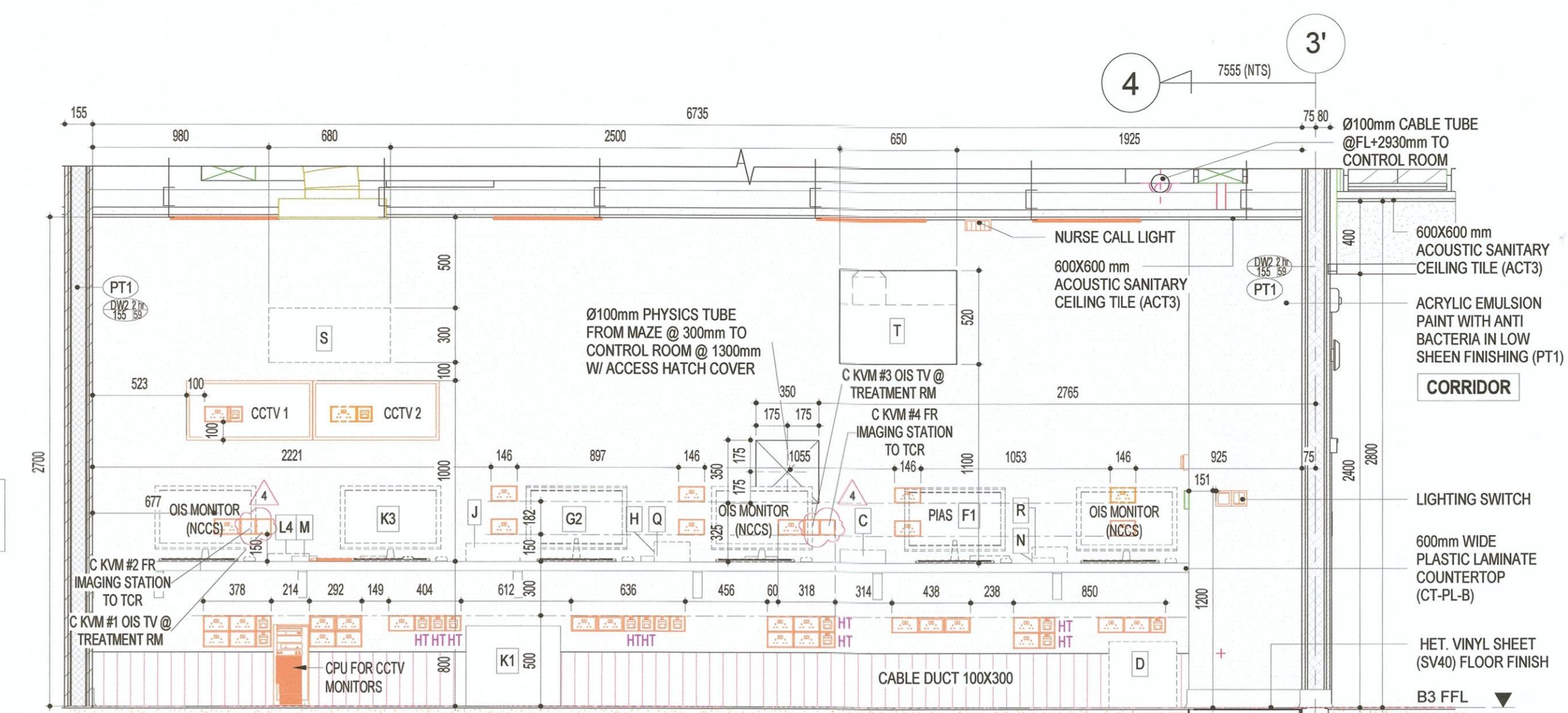
Mark	Description	Mass (kg)	W	D	H	RL/+/-	Remarks
K3	Monitor	6.96	444	548	164		
L1	Keyboard & Mouse	0.5	29	103	143		
L3	FBR ISIS KVM Extender (Remote)	0.5	29	103	143		
L4	FBR ISIS KVM Switch	0.7	44	115	233		
M	FBR PIAS KVM Extender (Remote) 1	0.5	29	103	143		
N	FBR Barcode Reader	0.2	29	75	121		
P	FBR Camera Link Converter 1-2	0.45	31	138	178		
Q	FBR Camera Link Converter 2-2	0.45	31	138	178		
R	FBR Buzzzer	0.5	110	90	195		
S	Gamma Area Monitor	13	300	155	660		
T	Neutron Area Monitor	25	520	285	650		

FIRE LEGEND

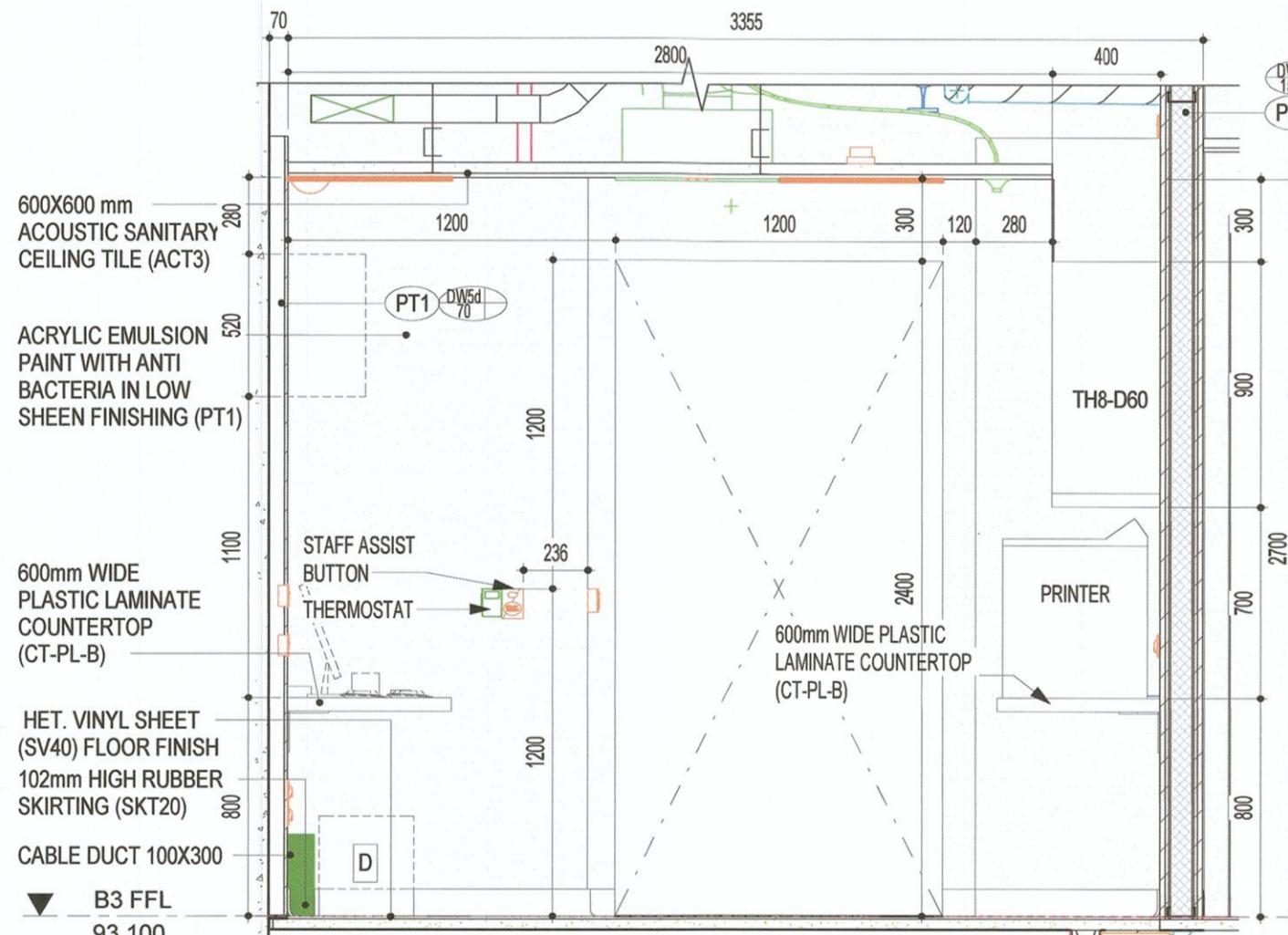
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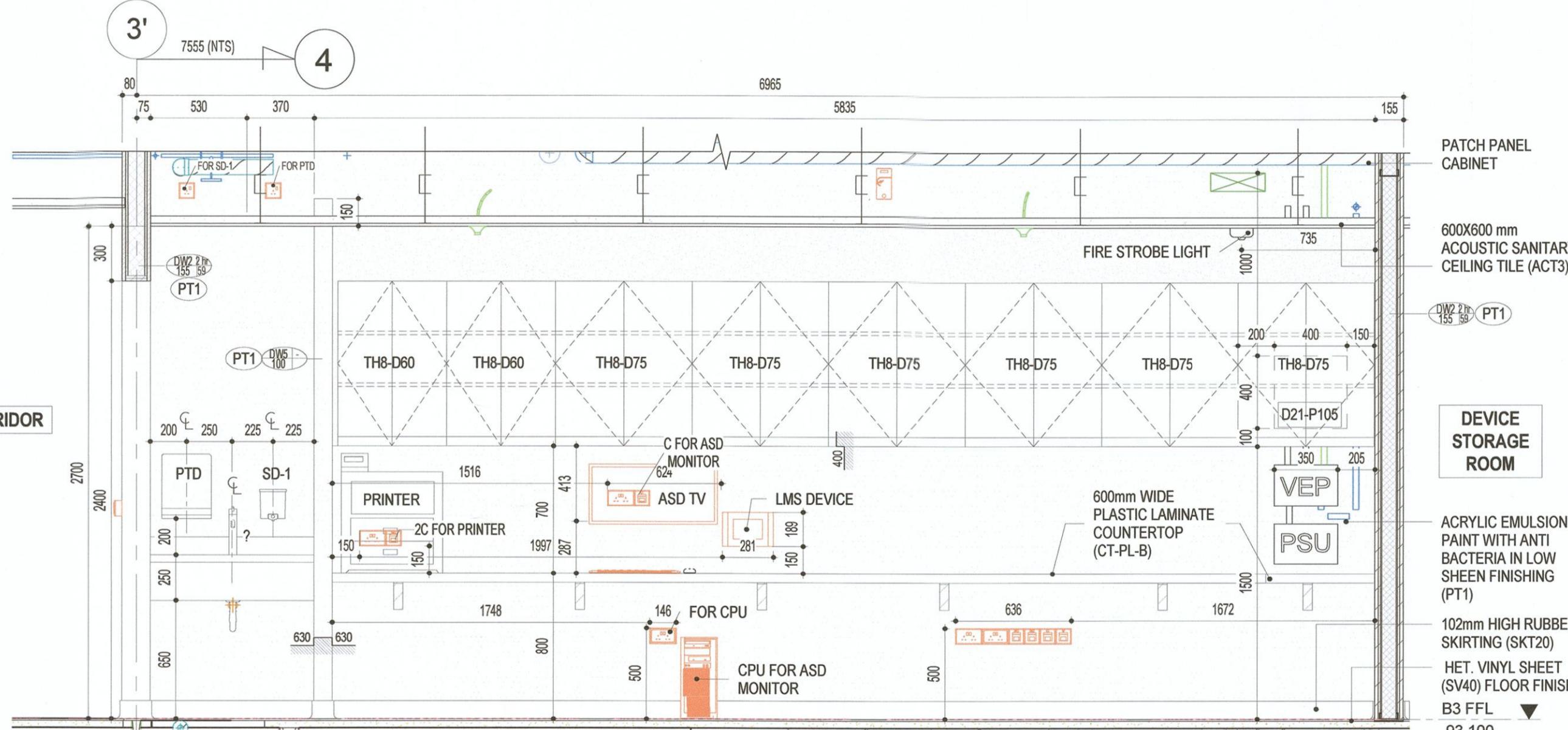
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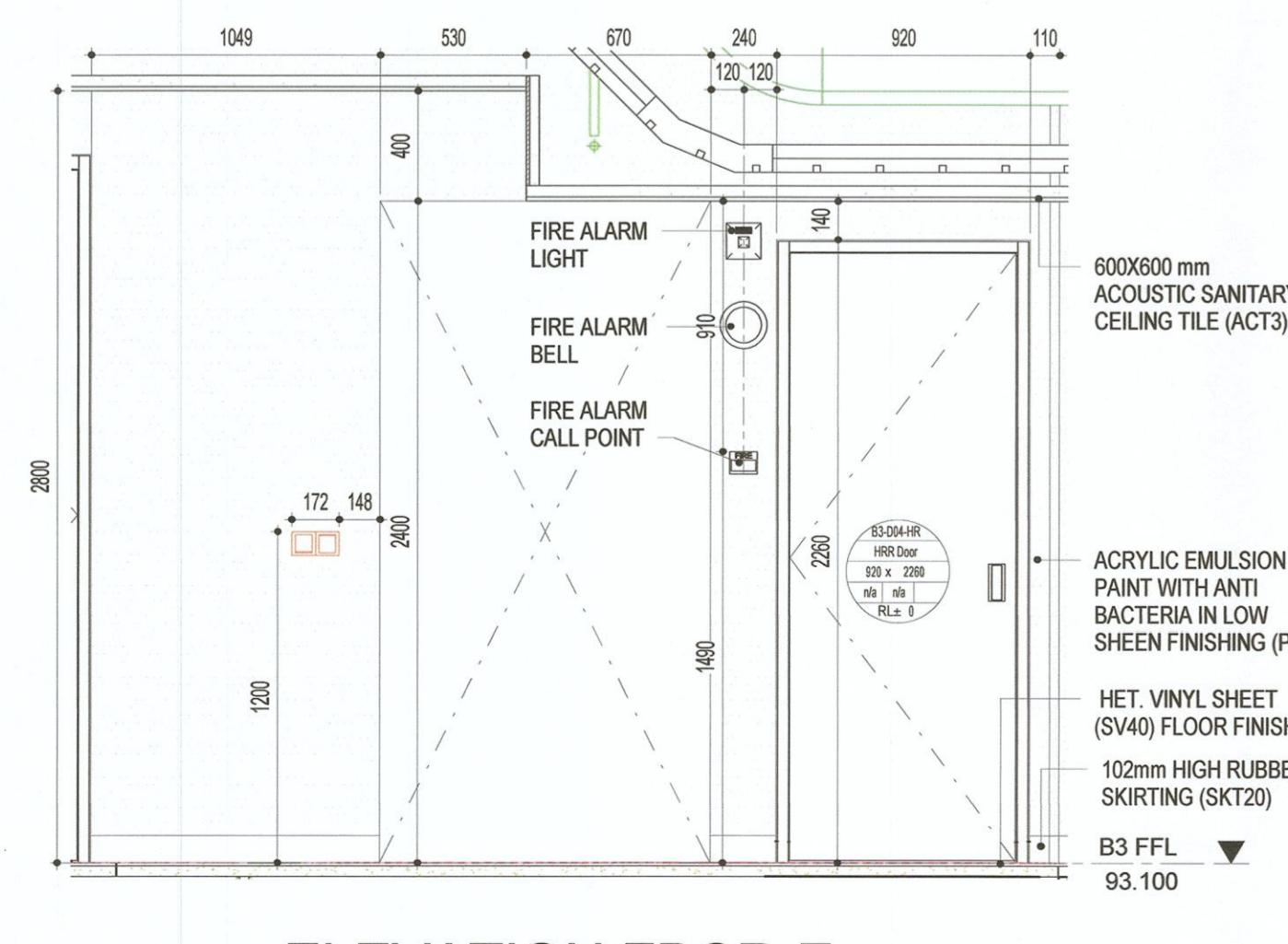
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3 ELEVATION FBCR-C  
1 : 25



4 ELEVATION FBCR-D  
1 : 25



5 ELEVATION FBCR-E  
1 : 25

**CiAP Architects Pte**  
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<input type="checkbox"/> AWC : Approved with comments / No re-submission required.	<input type="checkbox"/> RJ : Rejected.
Date received : 15/01/19	
Reviewed by : F/SIMI GELON GIEK	
Date & Signature :	

**AECOM Singapore Pte**  
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Reviewed by : Albert Chua	
Date & Signature :	

**OTHER**

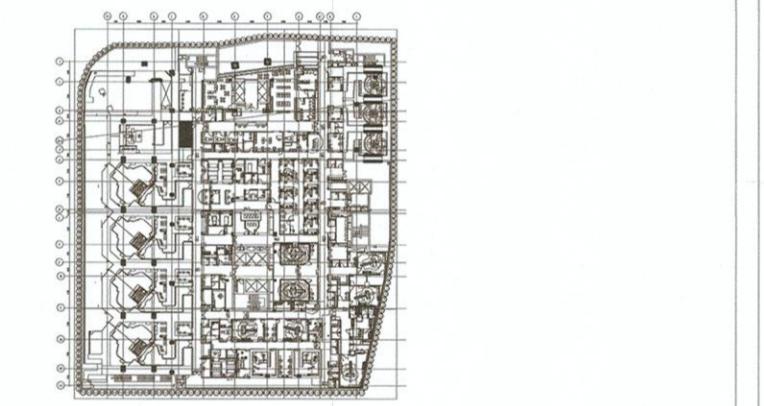
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**VERIFIED BY :**  
**DLKP**  
Name/Signature: Date: 11/1/19

**ACCEPTED BY :**  
**NCS NCCS**  
Name/Signature: Date: 11/1/19

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0	FOR APPROVAL	02/07/2018	PV / OLWNC
No.	Revision Description	Date	By / Chk



Owner : **MINISTRY OF HEALTH**  
College of Medicine Building  
16 Collyer Quay  
Singapore 099584



Owner's Agent : **MOH HOLDINGS PTE LTD**  
1 Maritime Square Harbourfront Centre  
#1-28 Lobby C Singapore 099533



Operator : **NATIONAL CANCER CENTRE SINGAPORE**  
11 Hospital Drive Singapore 169610



Project Management : **Davis Langdon KPK (S) Pte Ltd**  
865 Mountbatten Road #07-01 Keppel Shopping Centre  
Singapore 437844



C&S Engineer : **Arup Singapore Pte Ltd**  
10 Hoe Ching Road, #05-01 Keppel Towers, S099315  
Tel: (65) 6411 2000 Fax: (65) 6339 6258  
info@arup.com



M&E Consultant : **AECOM Singapore Pte Ltd**  
301 Beach Road #03-02, The Concourse, S199555  
Tel: (65) 6339 3000 Fax: (65) 6339 3007  
600134NCC@aecom.com www.aecom.com



QS Consultant : **Arcadis Singapore Pte Ltd**  
1 Marina Bay Financial Centre #05-01 Marina One  
Tel: (65) 6222 3008 Fax: (65) 6224 7000  
ncc-qd@arcadis.com www.arcadis.com



Main Contractor : **SHIMIZU CORPORATION**  
8 Kallang Ave, #05-01 Aperia Tower 1 S338009  
Tel: (65) 6222 9900 Fax: (65) 6224 9900  
ncc-pj-shimizu.biz www.shimizu-global.com

Projected Title : PROPOSED NEW ERECTION OF 24 STOREY WITH 4 BASEMENTS NEW NATIONAL CANCER CENTRE OF LOT 00467K TS22 AT OUTRAM MEDICAL CAMPUS, 20 OUTRAM ROAD (BUKIT MERAH PLANNING)

Drawing Description : **BASEMENT 3**  
**B3 BUNKER PT ROOMBOOK**  
**PT FIXED BEAM CONTROL ROOM ELEVATIONS**

FILENAME : C:\Users\pratibha.verma\Documents\NCC\_SHIMZ\_BUNK\_ARCH\_L00-SHEET\_pratibha.verma.rvt  
SCALE : As indicated DATE : 11 JAN 2019 REV. 04  
DRAWN : PRATIBHA CHECKED : OLIVHAL / VNC

DRAWING NO. : NCC-A-RB-B3A-009-502-04

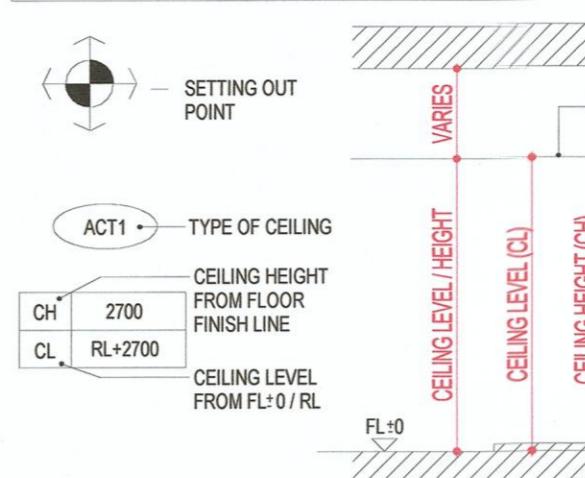
FOR APPROVAL



RM NO	B3A-006	RM NO	B3A-003
RM NAME	MAZE ROOM	RM NAME	EQUIPMENT ROOM
FFL	93.100	FFL	93.100
SFL	93.090	CH	RL +2600 / +2500
FLOOR	HETEROGENOUS VINYL SHEET (SV40)	FLOOR	HETEROGENOUS VINYL SHEET (SV40)
SKIRTIN	RUBBER WALL BASE (SKT20)	SKIRTIN	RUBBER WALL BASE (SKT20)
WALL	ACRYLIC EMULSION PAINT W/ ANTI BACTERIAL IN LOW SHEEN FINISH (PT1)	WALL	ACRYLIC EMULSION PAINT W/ ANTI BACTERIAL IN LOW SHEEN FINISH (PT1)
CEILING	ACOUSTIC SANITARY CEILING TILES (ACT3)	CEILING	NO FINISHED CEILING - EXPOSED CONSTRUCTION (EXP)
REMARK	-	REMARK	-
RM NO	B3A-004	RM NO	B3A-005
RM NAME	FIXED BEAM ROOM	RM NAME	IMAGE ROOM
FFL	93.100	FFL	93.100
SFL	93.090	CH	RL +2600
FLOOR	HETEROGENOUS VINYL SHEET (SV40)	FLOOR	HETEROGENOUS VINYL SHEET (SV40)
SKIRTIN	RUBBER WALL BASE (SKT20)	SKIRTIN	RUBBER WALL BASE (SKT20)
WALL	ACRYLIC EMULSION PAINT W/ ANTI BACTERIAL IN LOW SHEEN FINISH (PT1)	WALL	ACRYLIC EMULSION PAINT W/ ANTI BACTERIAL IN LOW SHEEN FINISH (PT1)
CEILING	ACOUSTIC SANITARY CEILING TILES (ACT3)	CEILING	ACOUSTIC SANITARY CEILING TILES (ACT3)
REMARK	-	REMARK	-

GENERAL NOTES:  
 1. TO BE READ IN CONJUNCTION WITH MEP CSD DRAWINGS.  
 2. FOR CABLE CONNECTION - REFER TO THE SCHEMATIC DRAWING NCC-E-PBT-00-604

### B3 FL±0: B3RF±0 = 93.100



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Date returned : 15/01/19		Date & Signature : <i>[Signature]</i>	

AECOM Singapore Pte

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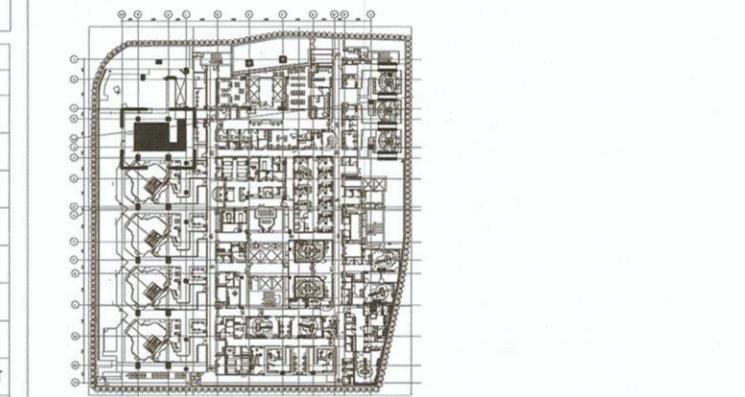
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Name/Signature:	Date: 11/1/19

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Revision Description		



KEYPLAN



MINISTRY OF HEALTH



MOH HOLDINGS PTE LTD



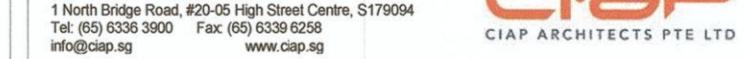
National Cancer Centre Singapore



SingHealth



Davis Langdon KPK



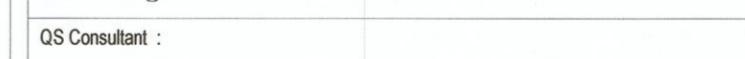
CIAP ARCHITECTS PTE LTD



ARUP



AECOM



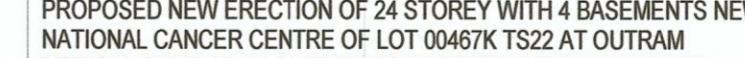
ARCADIS



SHIMZ



CIAPI



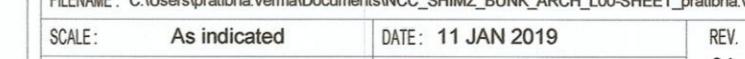
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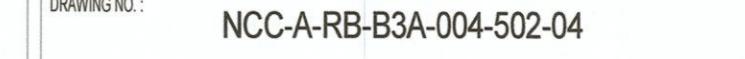
Arup Singapore Pte Ltd



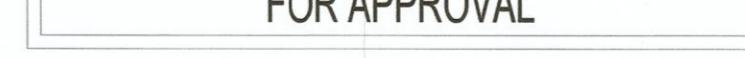
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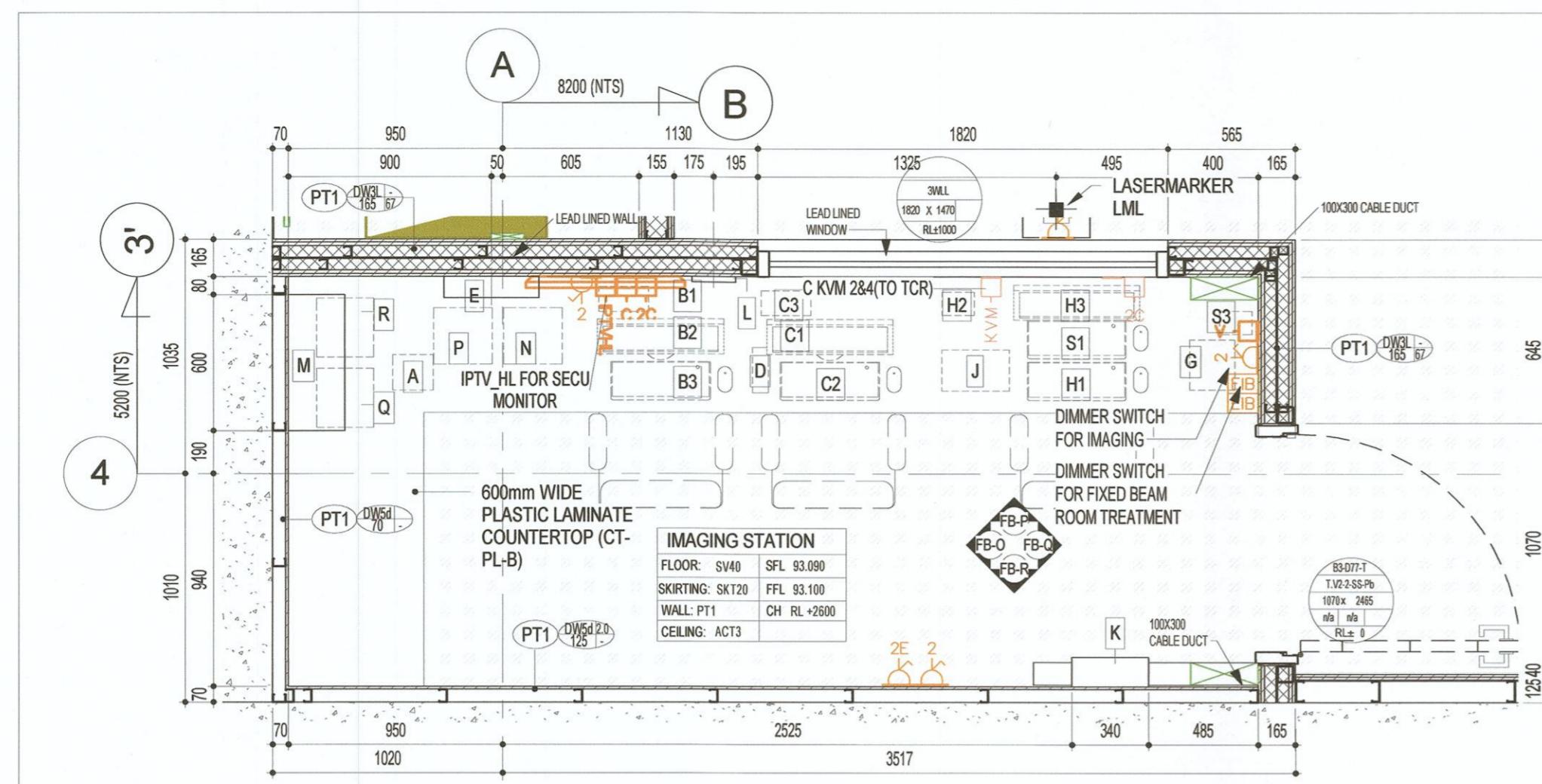


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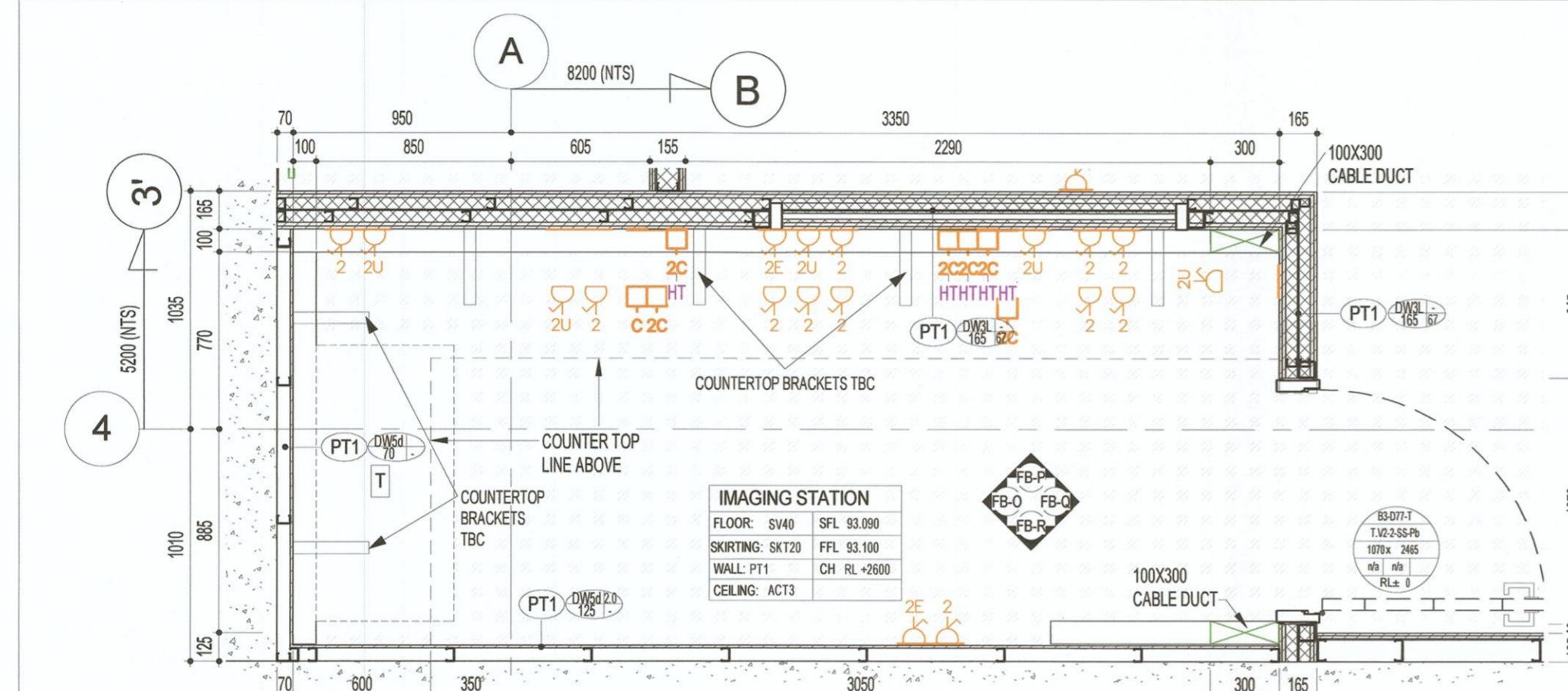
AECOM SINGAPORE PTE LTD





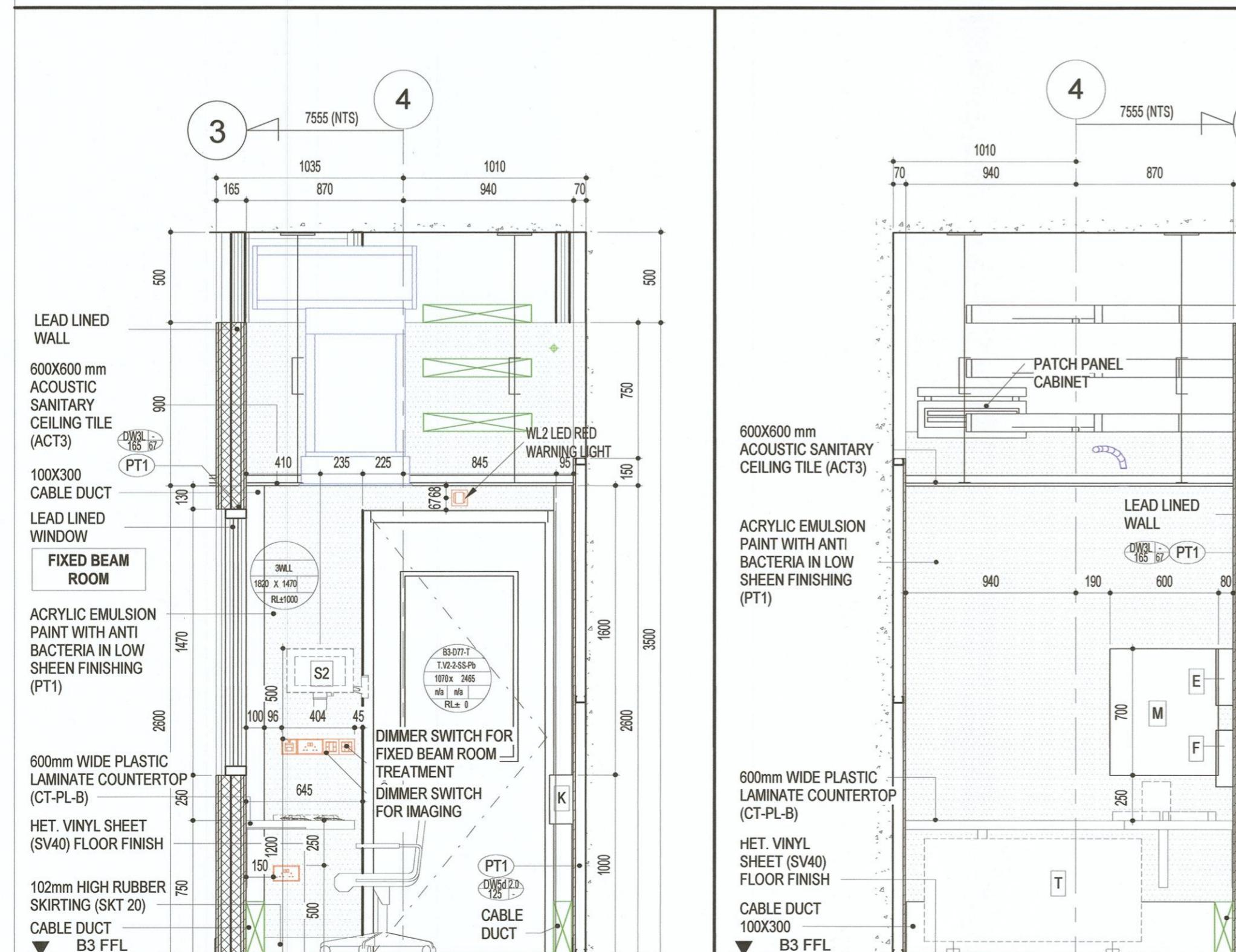
## B3 - IMAGE ROOM LAYOUT PLAN ABOVE COUNTER TO

1 : 2



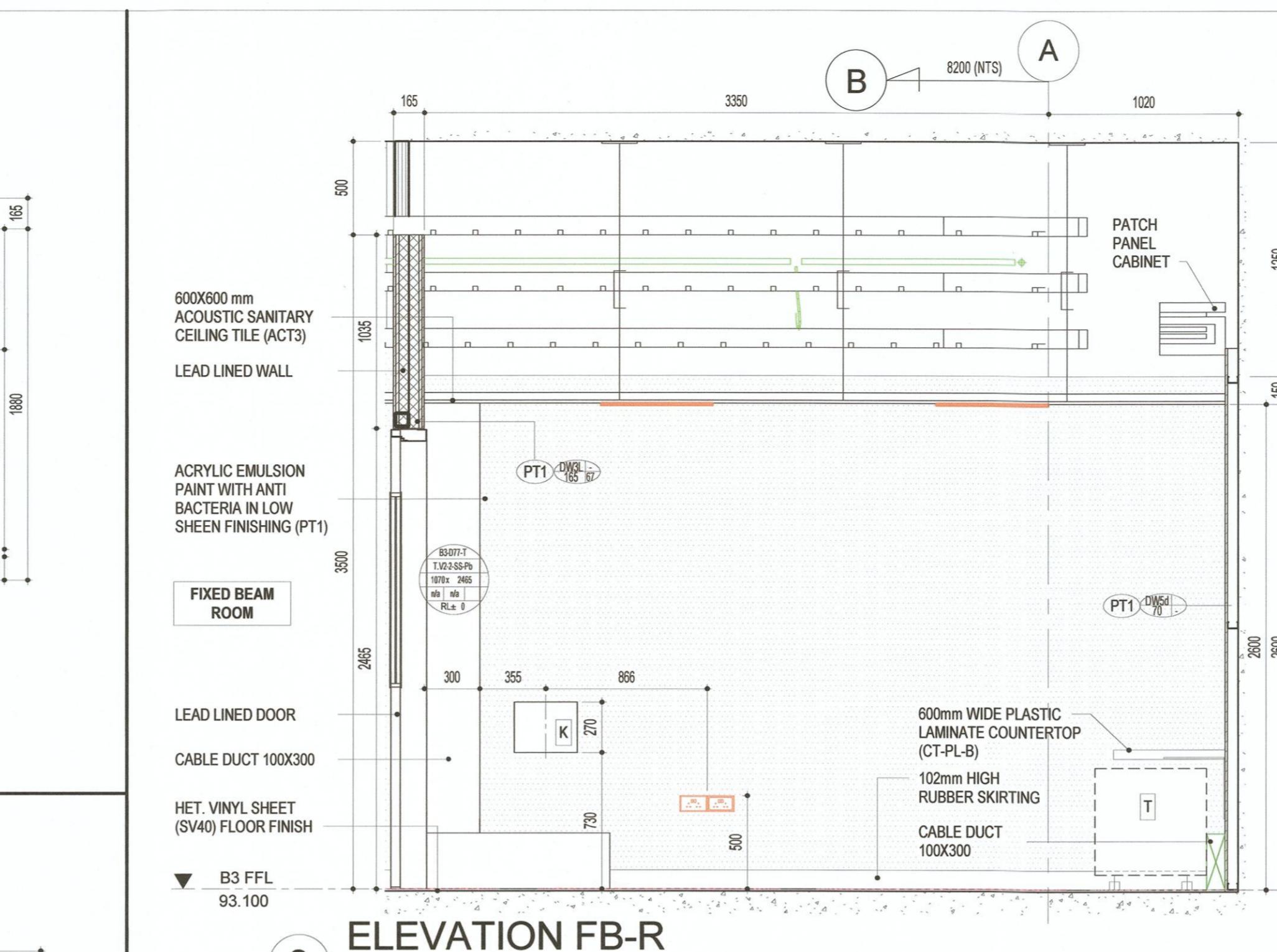
### **B3 - IMAGE ROOM LAYOUT PLAN BELOW COUNTER TOP**

2  
1



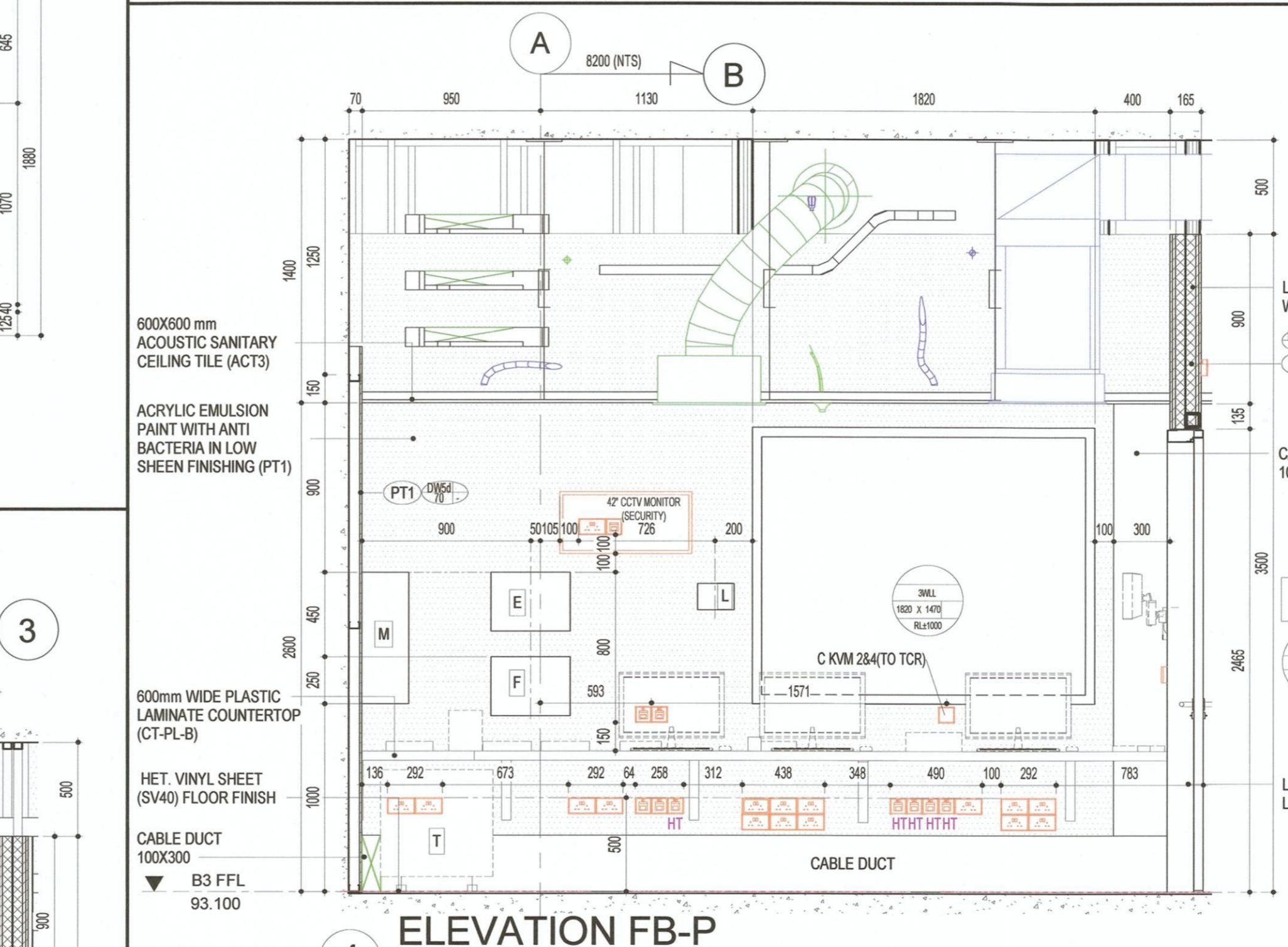
## ELEVATION FB-Q

5



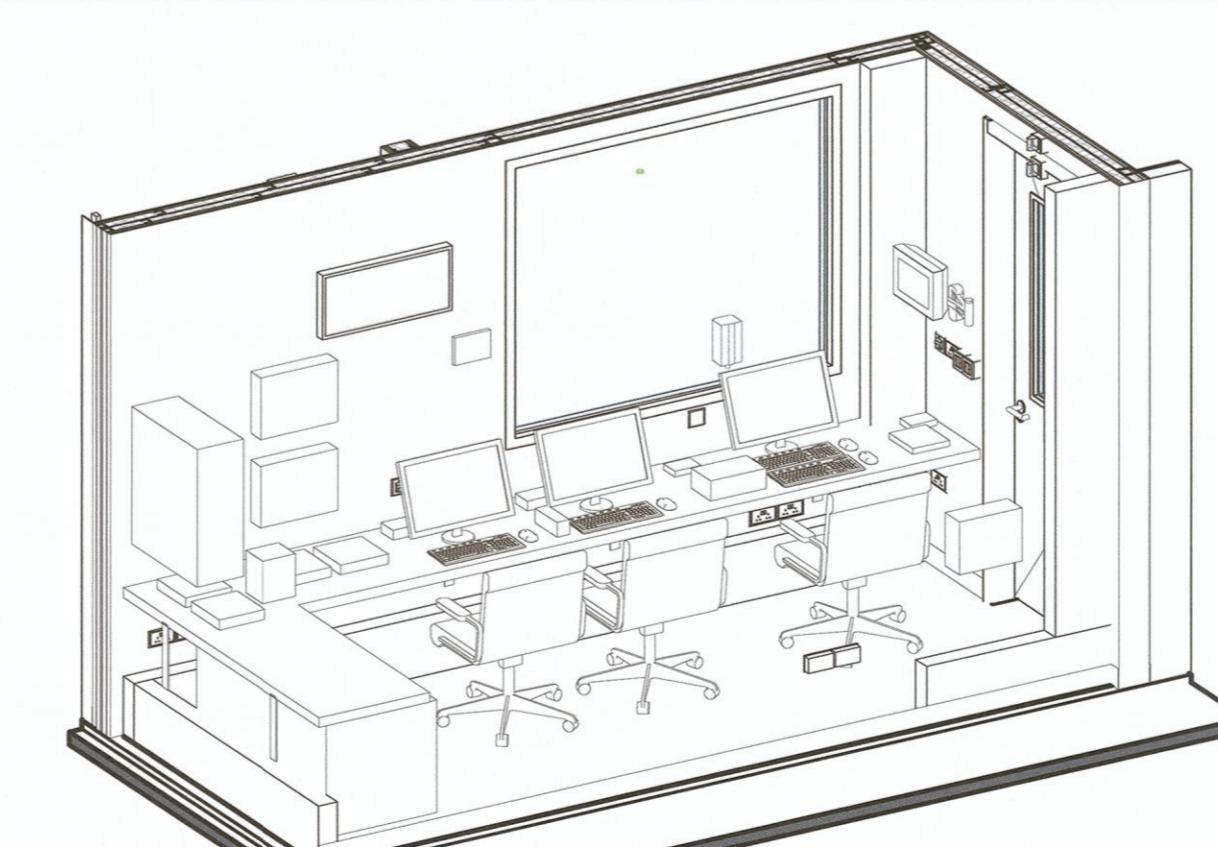
ELEVATION FB-R

3  
1



ELEVATION FB-

4



## 3D VIEW - FIXED BEAM IMAGING STATION

7

Image Room Equipments (Hitachi)								DOOR/ WINDOW LEGEND
No.	Description	Mass (kg)	W (mm)	D (mm)	H (mm)	RL+/-	Remarks	
A	FBR IS Console Converter Box	6	180	157	216			
B1	Externder	.8	220	110	42			
B2	Monitor	5.8	548	164	403			
B3	Keyboard & Mouse							
C1	Monitor	3.43	413	144	431			
C2	Keyboard & Mouse							
C3	Extender	.8	220	110	42			
D	FBR IS Operational Panel	2.5	70	200	74			
E	FBR X ray Control Panel 1	7	422	94	313	+1700	Panel top	
F	FBR ADR Unit 2	7	422	94	313	+1250	Panel top	
G	FBR X-ray Relay Panel Operation Console 1	4	200	200	110			
H1	Keyboard & Mouse							
H2	KVM Externder (Remote)	.5	143	103	29			
H3	Monitor	6.96	560	238	525			
J	FBR ADR Unit 2	2.6	300	180	102			
K	FBR ADR Unit 2	3	340	270	130		Hanged on a special attachment	
L	FBR ADR Unit 2	.5	194	104	24	+1500	Panel top	
M	FBR X-ray Operetaion Console Switching Panel	40	600	250	700	+1700	Panel top	
N	FBR HV Converter Box 1	6	260	250	50			
P	FBR HV Converter Box 2	6	260	250	50			
Q	FBR HV Converter Box 5	6	260	250	50			
R	FBR HV Converter	6	260	250	50			

560	238	525
143	103	29

KVM Extender (Remote)		.5	110	150	20		
T	FBR X-ray control relay panel	140	1200	600	650		Has Caster
Window Schedule FBR							
Mark	Description		Struc Width	Struc Height	Sill Height		
2WLL	15mm Thk Lead Glass		1820	1470	1000		
Door Schedule FBR							
Mark	Description		Fire Rati ng	Remarks		Height (S.O)	Width (S.O)
T-2-SS	Single Leaf 900 x 2200mm Standard Frame Metal Swing Door					2465	1070
T.V1-5. 1-DS	Acoustic Fire-rated Double Leaf 1800 x 2200mm Standard Frame Metal Swing Door with Vision Panel					2270	2050
T.V2-2- SSPb	Lead-Lined Single Leaf 900 x 2200mm Standard Frame Metal Swing Door w/ Vision Panel			3mm Lead Shielding		2465	1070

LEAD LINED  
WALL

DW31 -  
165 67  
PT1

ABLE DUCT  
00X300

WINDOW ELEVATION



SETTING OUT POINT



DENOTES FINISH  
LEVEL SETDOWN



1.0



AREA WITH  
REVISION/REVISE  
MARK

MISCELLANEOUS LEGENDS

EXIT	APPROVED LIGHTED 'EXIT' SIGNS
EXIT	APPROVED LIGHTED EX DIRECTIONAL SIGNS
X 8A	4KG ABC DRY POWDER FIRE EXTINGUISHER
X 13A	6KG ABC DRY POWDER FIRE EXTINGUISHER
CG	CORNER GUARD(90 & 135 50-70MM WIDE PARTIAL HT. PVC CORNER PROTECTION)
CGS	CORNER GUARD(HEAVY TYPE 304 STAINLESS STEEL PARTIAL HT. CORNER PROTECTION)
WEP	WALL END PROTECTION FLUSH MOUNTED CORNER GU FOR CUSTOM CORNER/WALL CONDITIONS

<b>Lasermark</b>	<b>WPS1</b>	<b>1.2M HIGH IMPACT RIGID SHEET WALL PROTECTI</b>
	<b>WPS2</b>	<b>COMBINED TIMBER</b>

Mour  
Wall

B3-D7-T T.V2-2-SS-Pb 107lx 2465 n/a n/a RL± 0		LMC +2600 Ceiling		RETAINER				
LML +1250 Pedesta								
LMN1 +2500 Wall								
LMN2 +1250 Pedestal								
LMR +1250 Wall								
RM NO	B3A-005							
RM NAME	IMAGE ROOM							
FFL	93.100							
SFL	93.090	CH	RL+2600					
FLOOR	HETEROGENOUS SHEET VINYL (SV40)							
SKIRTIN	RUBBER WALL BASE (SKT20)							
WALL	ACRYLIC AMULSION PAINT W/ ANTI BACTERIAL IN LOW SHEEN FINISH (PT1)							
CEILING	ACOUSTIC SANITARY CEILING TILES (ACT3)							
FLOOR FINISH								
EF EPOXY COATING								
// // SV40 HOMOGENOUS SHEET VINYL								
ACMV LEGEND								
SUPPLY/FRESH AIR GRILLE								
RETURN / TRANSFER AIR GRILLE								
EXHAUST AIR GRILLE								
ACCESS PANEL								
SUPPLY/FRESH AIR GRILLE (LINEAR)								
DIGITAL THERMOSTAT (WALL MOUNT)								
SPACE TEMP TRANSMITTER (CEILING MOUNT)								
SPACE TEMP TRANSMITTER (WALL MOUNT)								
WALL TYPE LEGEND								
<p>1x 10MM THK FIRESTOP BOARD (OUTER LAYER) ON BOTH SIDES 2x 18MM THK MINERAL WOOL (INNER LAYERS) ON BOTH SIDES 75MM THK X 600GSM ROCKWOOL INSULATION</p>								
<table border="1"> <tr> <td>F</td><td>-</td></tr> <tr> <td>ST</td><td>58</td></tr> </table>		F	-	ST	58			
F	-							
ST	58							
<p>1x 12MM THK STANDARD ROCKWOOL INSULATION</p>								
<table border="1"> <tr> <td>F</td><td></td></tr> <tr> <td>ST</td><td></td></tr> </table>		F		ST				
F								
ST								

ELEV	DESCRIPTION
13A SINGLE SWITCH	

	MOTION SENSOR (MS)
	AREA STATUS DISPLAY (ASD)
	AREA CRASH BUTTON (ACB)
	AREA SEARCH BUTTON (ASB)
	SENSOR BYPASS BUTTON (SSB)
	CONTROL MODULE / TERMINATOR
	CABINET
	NURSE CALL SYSTEM
	STROBE LIGHT (4 COLOURS) CW BUZZER
<b>SECURITY SYSTEM</b>	
	INDOOR DOME PAN TILT ZOOM CAMERA
	INDOOR DOME CAMERA FIXED
	RFL EASE BUTTON (EXIT)
	RELEASE BUTTON (EXIT)
<b>VOICE COMMUNICATION SYSTEM</b>	
	SURFACE-MOUNTED BOX SPEAKER
	PA CEILING SPEAKER
	CEILING LOUD SPEAKER
	OMNI DIRECTIONAL CEILING MICROPHONE
	DIRECTIONAL CEILING MICROPHONE
	STAFF ASSIST CALL BUTTON
	VOLUME ATTENUATOR
	GOOSENECK MICROPHONE
<b>WALL PANELS &amp; FIRE RATED</b>	
	13A TWIN SWITCH SOCKET
	15A SWITCH SOCKET OUTLET
	WIFI ACCESS POINT
	DATA POINT (n = NO. OF POINT)
	IP TELEPHONY OUTLET POINT
	TELEPHONE OUTLET
	FAX MACHINE TELEPHONE OUTLET
	ISOLATOR (RATING AS INDICATED) HT TO SUIT EQUIPMENT LOCATION
	EMERGENCY STOP BUTTON
	1 GANG 1 WAY LIGHTING SWITCH (n DENOTE NO. OF GANG)
	1 GANG 1 WAY METALCLAD LIGHTING SWITCH (n DENOTE NO. OF GANG)
	LIGHTING SWITCH, 2-WAY, 1 GANG (n DENOTE NO. OF GANG)
	1W LED RED TRIANGLE WARNING LIGHT (FOR XRAY/ CT SCANNING/ OT)
	DISTRIBUTION BOARD
	EMERGENCY SOURCE
	DIMMER/ DIMMABLE
	HIGH LEVEL
<b>FIRE LEGEND</b>	
	2X 6MM THK X 900MM ROOF WOOL INSULATION
	1X 18MM THK FIRESTOP BOARD (INNER LAYER ON BOTH SIDES)
	F 2hr
	ST 67
	DW3
	DW4
	15MM THK 2-HOUR FIRE RATED DRYWALL
	20MM THK 4-HOUR FIRE DRYWALL
	15MM THK INSULATION SLAB MIN 80 kg/m <sup>3</sup> DENSITY
	1 X 18MM THK IMPACTSTOP BOARD (OUTER LAYER) ON ONE SIDE
	1 X 12MM THK STYLING BOARD (INNER LAYER) ON ONE SIDE
	1 LAYER CALCIUM SILICATE BOARD
	DRYWALL TYPE SWI
	DRYWALL
	105MM THK NON FIRE RATED DRYWALL
	DRYWALL

- WEATHERPROOF
- FOR HITACHI
- PRE-ACTION EXPOSED SPRINKLER HEAD
- PRE-ACTION UNDER BEAM SPLINKLER
- PRE-ACTION EXPOSED SPRINKLER HEAD
- EXTRA LARGE SPRINKLER

1. TO BE READ IN CONJUNCTION WITH MEP CSD DRAWINGS.
2. FOR CABLE CONNECTION - REFER TO THE SCHEMATIC DRAWING NCC-E-PTB-00-604

FOR APPROVAL

\_\_\_\_\_

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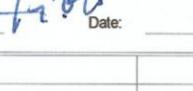
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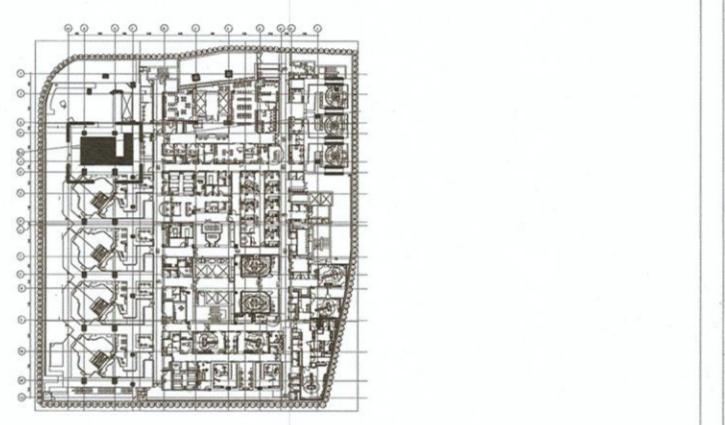
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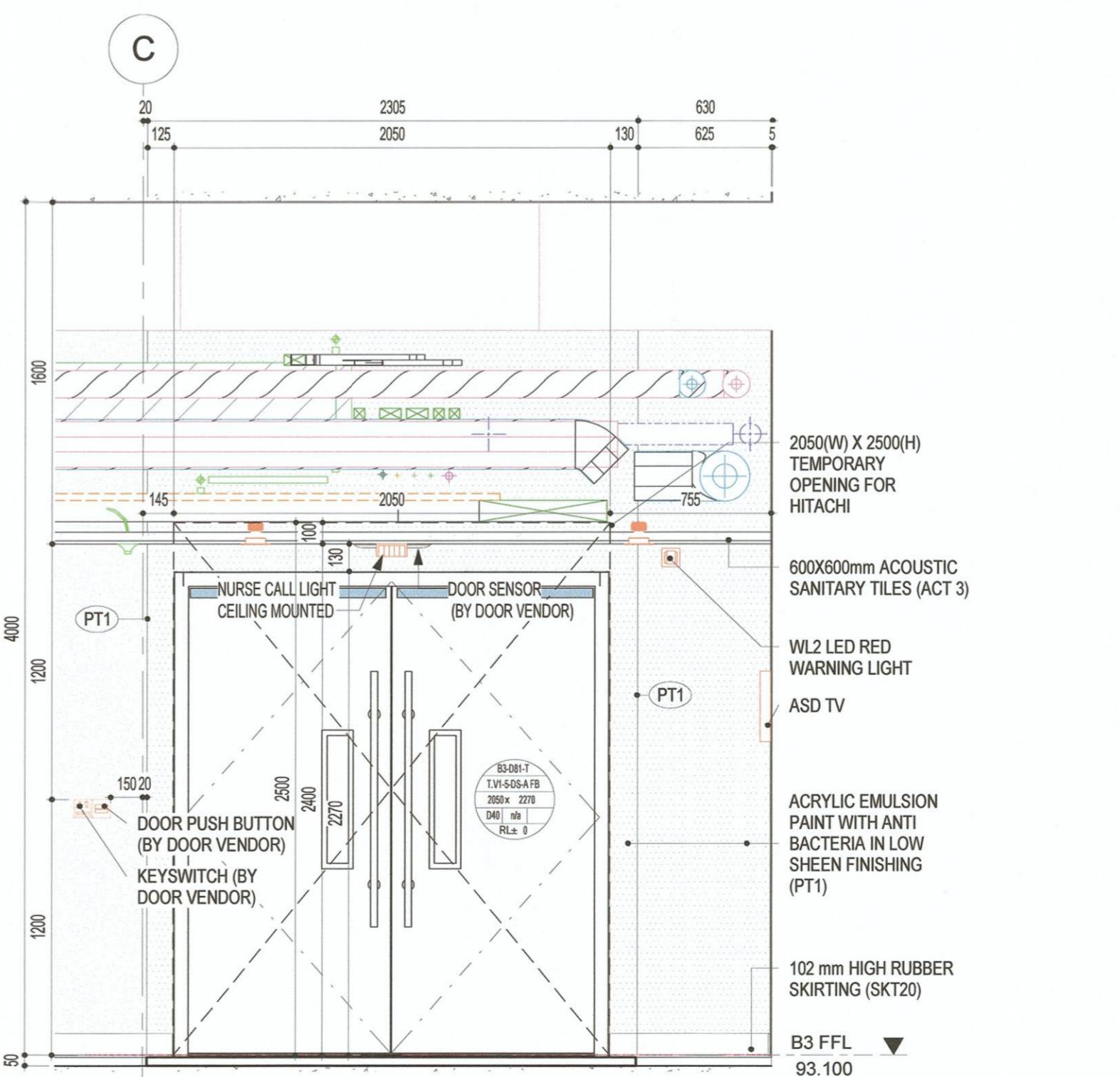
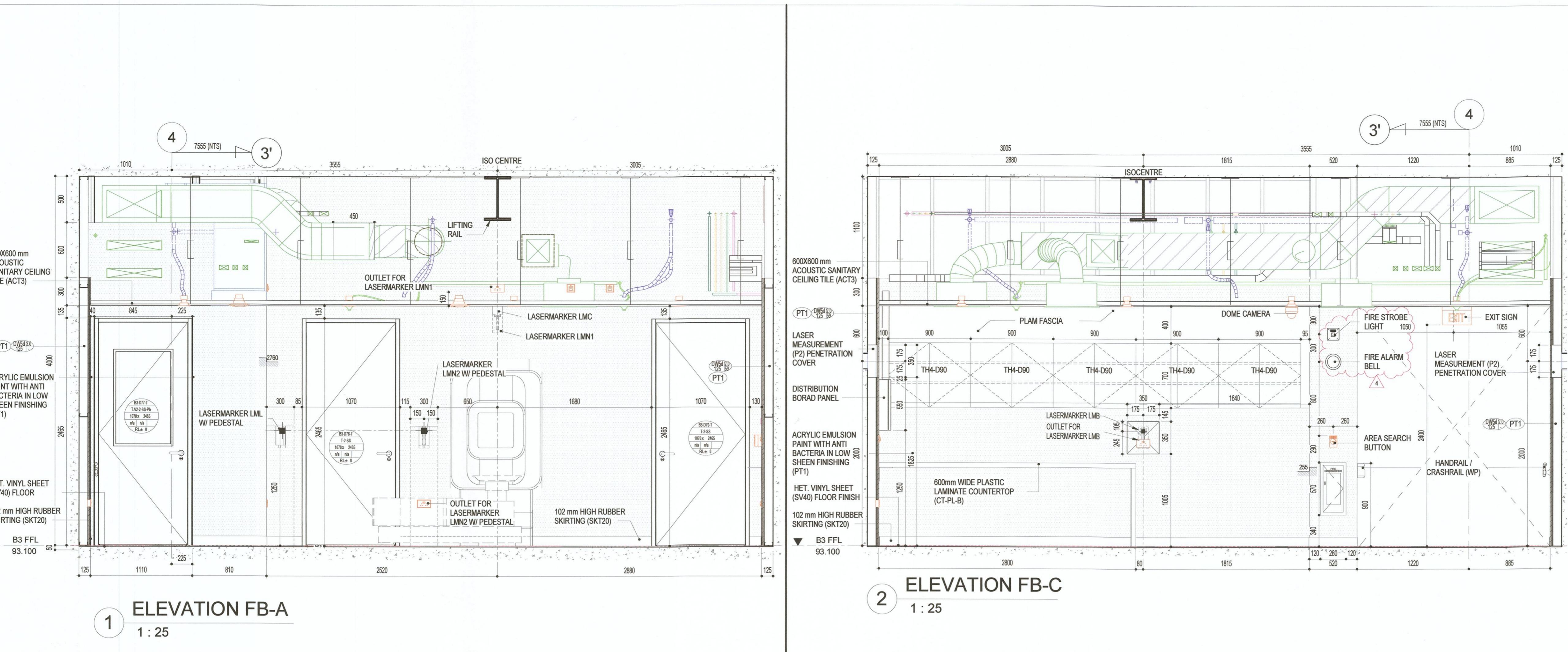
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Name/Signature:  Date:  11/1/19

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 NCC NCCS  
Name/Signature:  Date:  11/1/19

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0	FOR APPROVAL	02/07/2018	PV	OLVINC
No.	Revision Description	Date	By	Chk

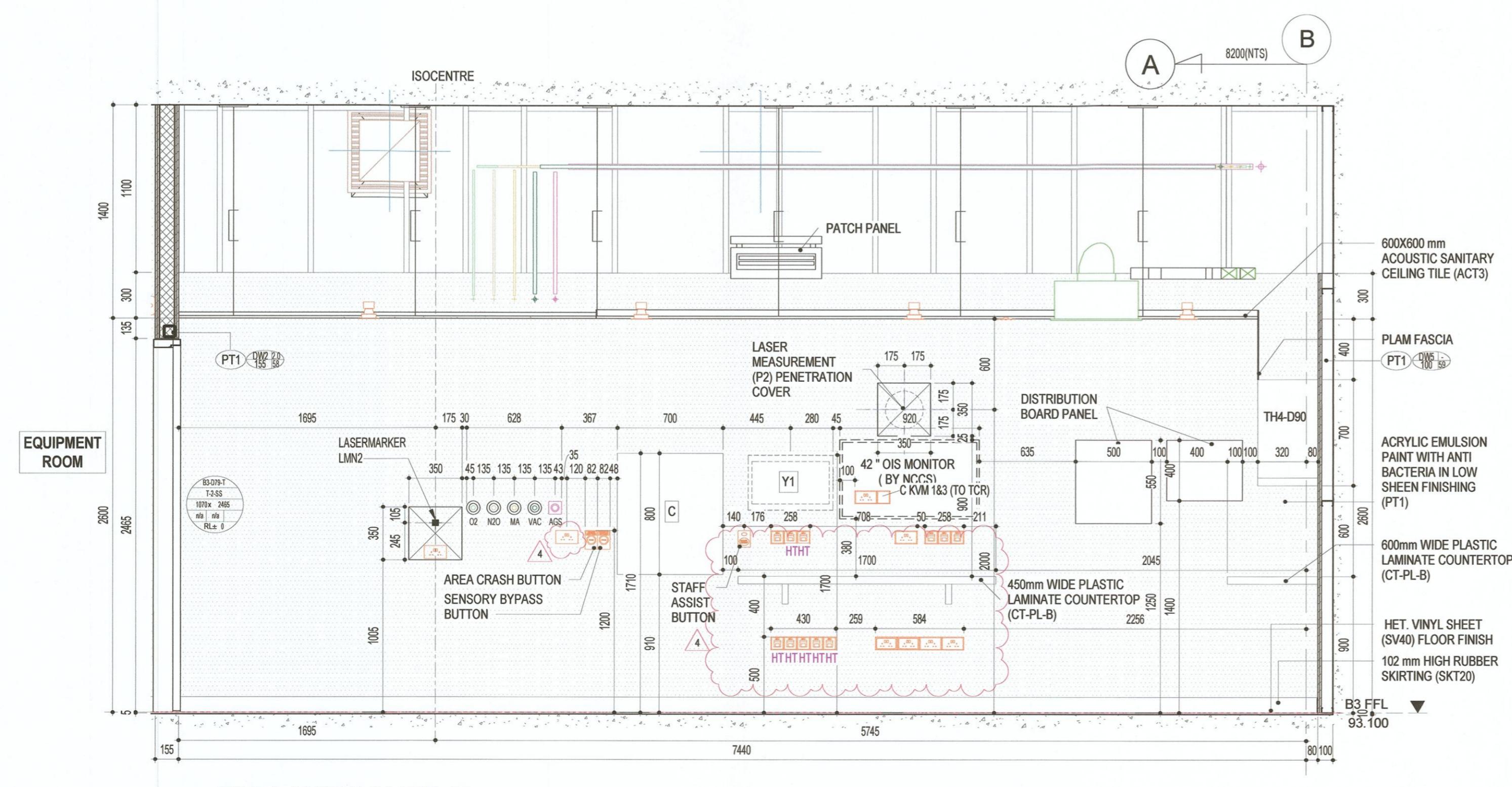


KEYPLAN



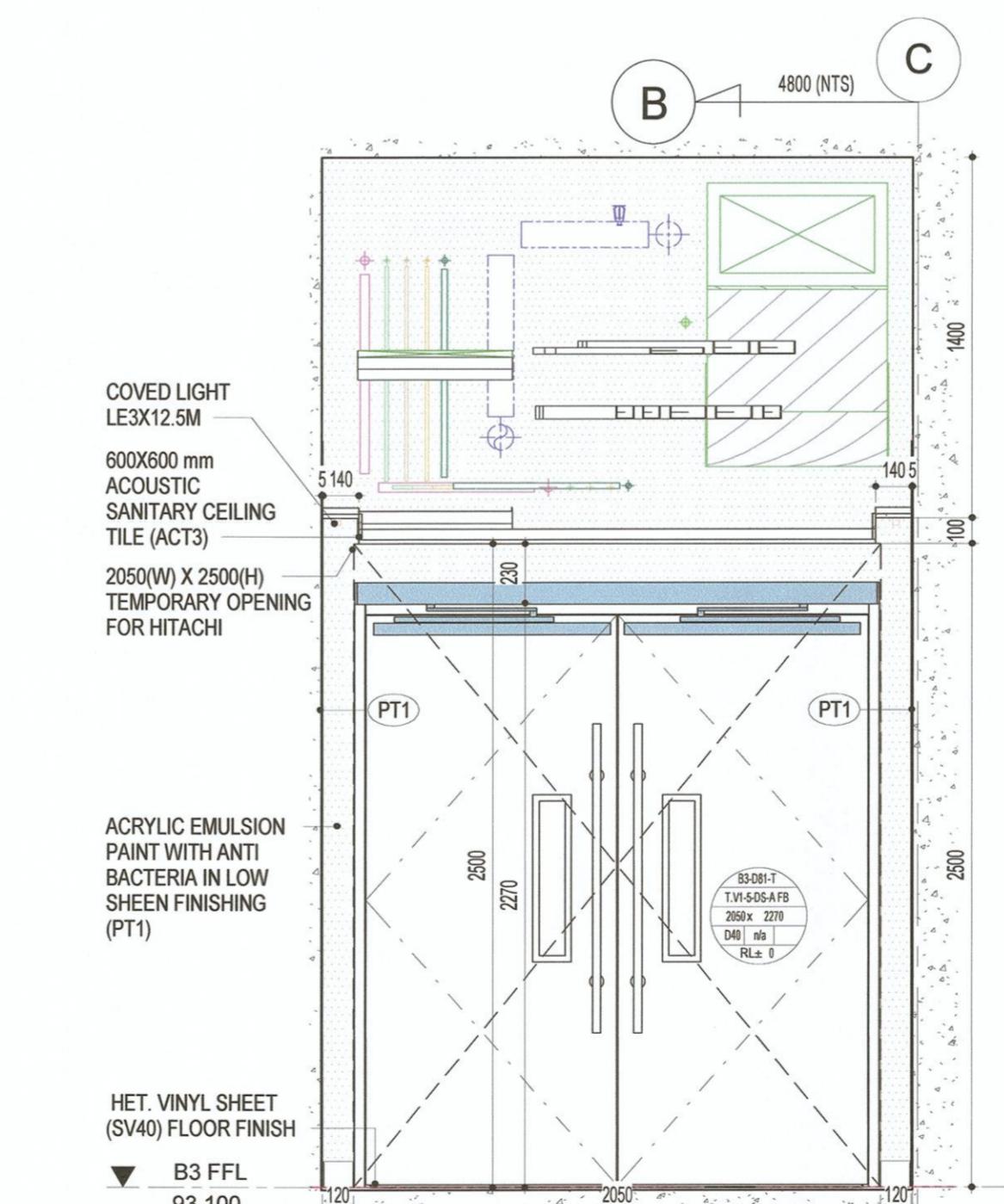
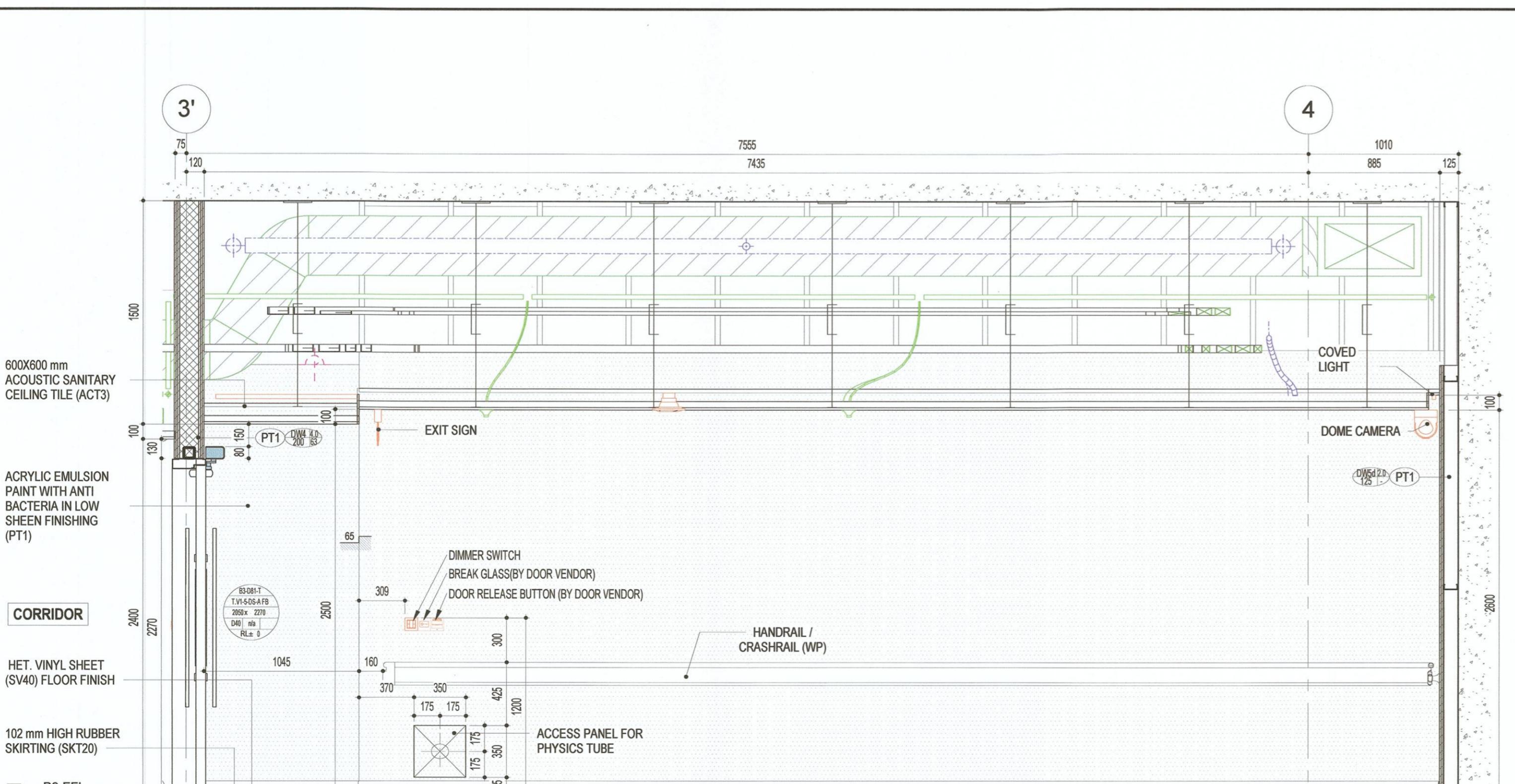
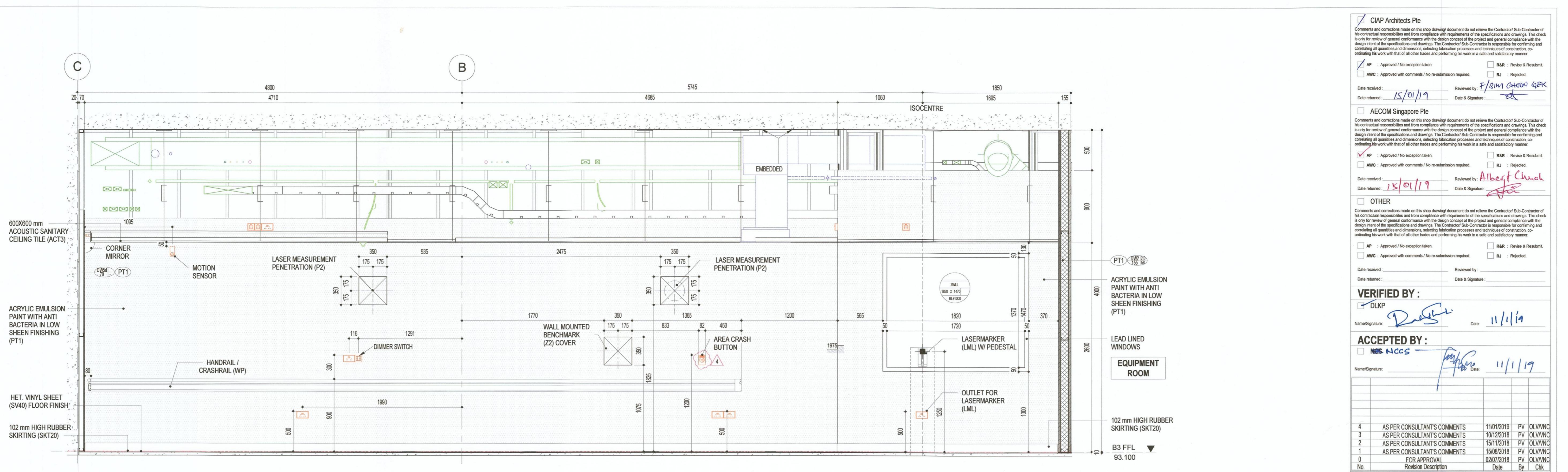
**ELEVATION FB-S**  
1:25

4



**ELEVATION FB-B**  
1:25

FILENAME : C:\Users\pratibha.verma\Documents\NCC\_SHIMZ\_BUNK\_ARCH\_L00-SHEET\_pratibha.verma.rvt  
SCALE : As indicated DATE : 11 JAN 2019 REV. 04  
DRAWN : PRATIBHA CHECKED : OLIVHAL/VNC  
DRAWING NO. : NCC-A-RB-B3A-004-504-04  
FOR APPROVAL



CIAP Architects Pte Ltd  
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AP : Approved / No exception taken.  R&R : Revise & Resubmit.  
 AWC : Approved with comments / No re-submission required.  RJ : Rejected.

Date received : 15/01/19 Reviewed by : F/SIM CHOW GPK Date & Signature :

AECOM Singapore Pte Ltd  
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 AWC : Approved with comments / No re-submission required.  RJ : Rejected.

Date received : 15/01/19 Reviewed by : Albert Chua Date & Signature :

OTHER  
Comments and corrections made on this shop drawing document do not relieve the Contractor/Sub-Contractor of his contractual responsibilities and from compliance with requirements of the specifications and drawings. This check is only for review of general conformance with the design concept of the project and general compliance with the design intent of the specifications and drawings. The Contractor/Sub-Contractor is responsible for confirming and correlating all quantities and dimensions, selecting fabrication processes and techniques of construction, coordinating his work with that of all other trades and performing his work in a safe and satisfactory manner.

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Date received : 15/01/19 Reviewed by : Date & Signature :

**VERIFIED BY :**  
 DLKP Name/Signature: Date: 11/1/19

**ACCEPTED BY :**  
 NCS NCCS Name/Signature: Date: 11/1/19

4	AS PER CONSULTANT'S COMMENTS	11/01/2019	PV	OLV/NC
3	AS PER CONSULTANT'S COMMENTS	10/12/2018	PV	OLV/NC
2	AS PER CONSULTANT'S COMMENTS	15/11/2018	PV	OLV/NC
1	AS PER CONSULTANT'S COMMENTS	15/08/2018	PV	OLV/NC
0	FOR APPROVAL	02/07/2018	PV	OLV/NC
No.	Revision Description	Date	By	Chk

**KEYPLAN**

Owner : MINISTRY OF HEALTH College Road Building 16 College Road Singapore 099854

Owner's Agent : MOH HOLDINGS PTE LTD 1 Maritime Square Harbourfront Centre #11-25 Lobby S Singapore 099253

Operator : NATIONAL CANCER CENTRE SINGAPORE 11 Hospital Drive Singapore 169616

Project Management : Davis Langdon KPK (S) Pte Ltd 865 Mountbatten Road #07-01 Kallang Shopping Centre Singapore 437844 An AECOM Company

Architect : CIAP Architects Pte Ltd 1 North Bridge Road, #20-05 High Street Centre, S179094 Tel: (65) 6339 3500 Fax: (65) 6339 0258 info@ciap.sg www.ciap.sg

C&S Engineer : Arup Singapore Pte Ltd 10 Ho Chi Minh Road #26-01 Keppel Tower, S089315 Tel: (65) 6412 2000 Fax: (65) 6412 2501 ncc-sg@arup.com www.arup.com

M&E Consultant : AECOM Singapore Pte Ltd 30 Beach Road #03-01 The Sail @ Marina Bay, S199555 Tel: (65) 6320 2888 Fax: (65) 6324 7089 60133495CC@aecom.com www.aecom.com

GS Consultant : Arcadis Singapore Pte Ltd 1 Marina Bay Financial Centre #05-01 Marina Bay Financial Centre, S019909 Tel: (65) 6224 2888 Fax: (65) 6224 7089 ncc-p1.arcadis.com www.arcadis.com

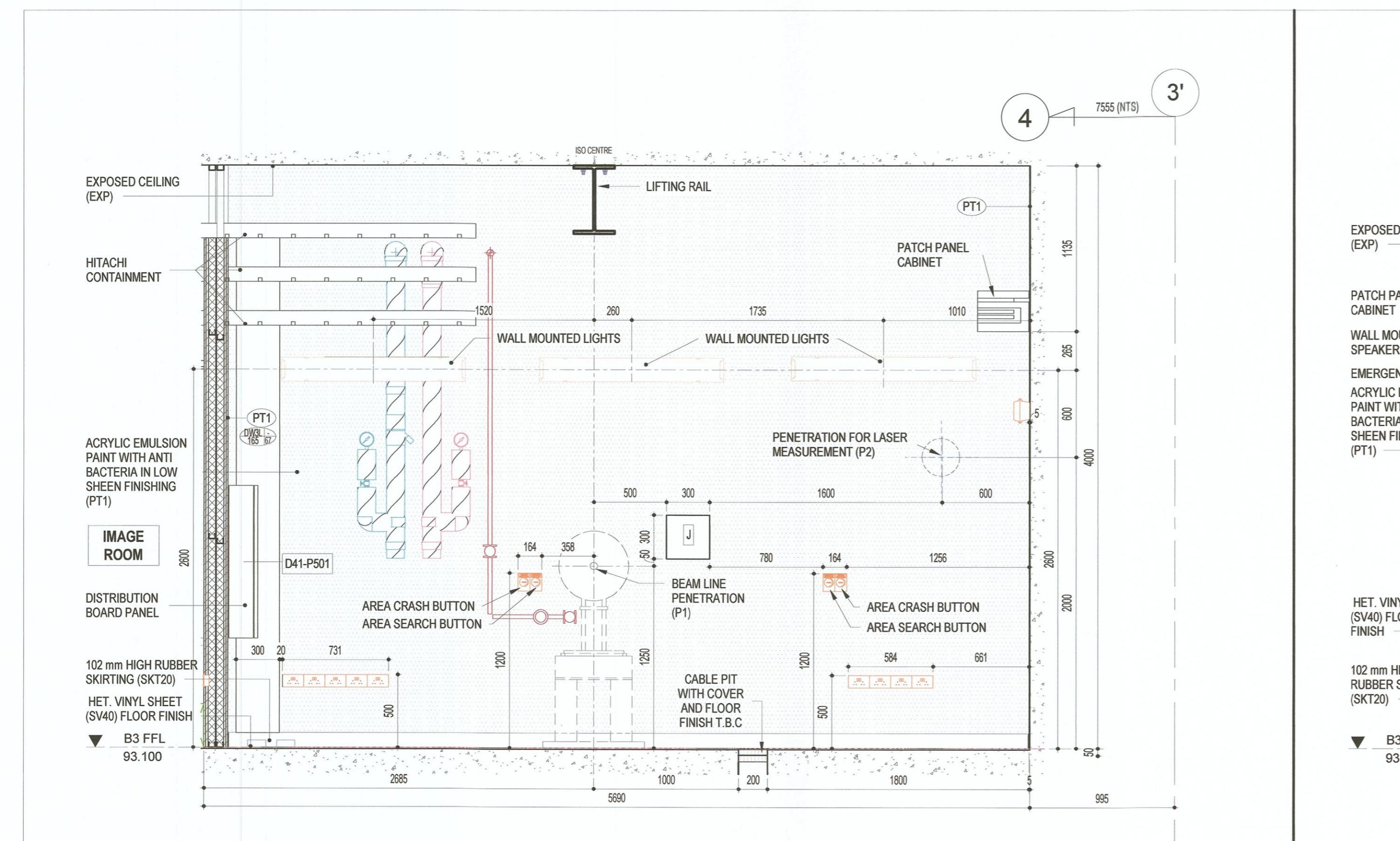
Main Contractor : SHIMIZU CORPORATION 8 Shenton Way #05-01 Apac Tower, S068809 Tel: (65) 6320 2200 Fax: (65) 6320 2200 ncc-p1.shimizu.biz www.shimizu.com

Project Title : PROPOSED NEW ERECTION OF 24 STOREY WITH 4 BASEMENTS NEW NATIONAL CANCER CENTRE OF LOT 00467K TS22 AT OUTRAM MEDICAL CAMPUS, 20 OUTRAM ROAD (BUKIT MERAH PLANNING)

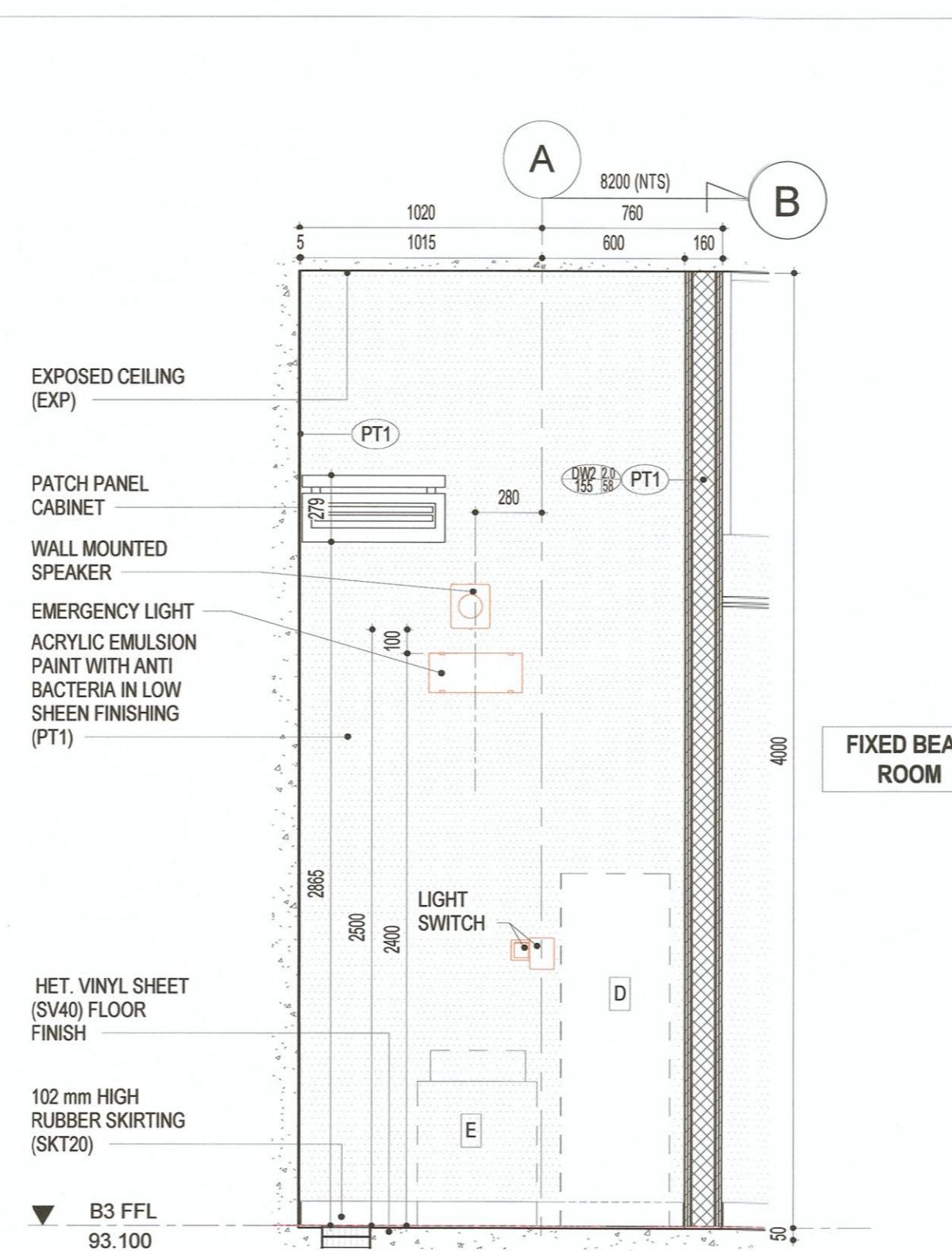
Drawing Description : BASEMENT 3 B3 BUNKER PT ROOMBOOK PT FIXED BEAM ROOM ELEVATIONS

FILENAME: C:\Users\prabha.verma\Documents\NCC\_SHIMZ\_BUNK\_ARCH\_L00-SHEET\_prabha.verma.n  
SCALE: As indicated DATE: 11 JAN 2019 REV: 04  
DRAWN: PRATIBHA CHECKED: OLIV/HAL / VNC  
DRAWING NO.: NCC-A-RB-B3A-004-505-04

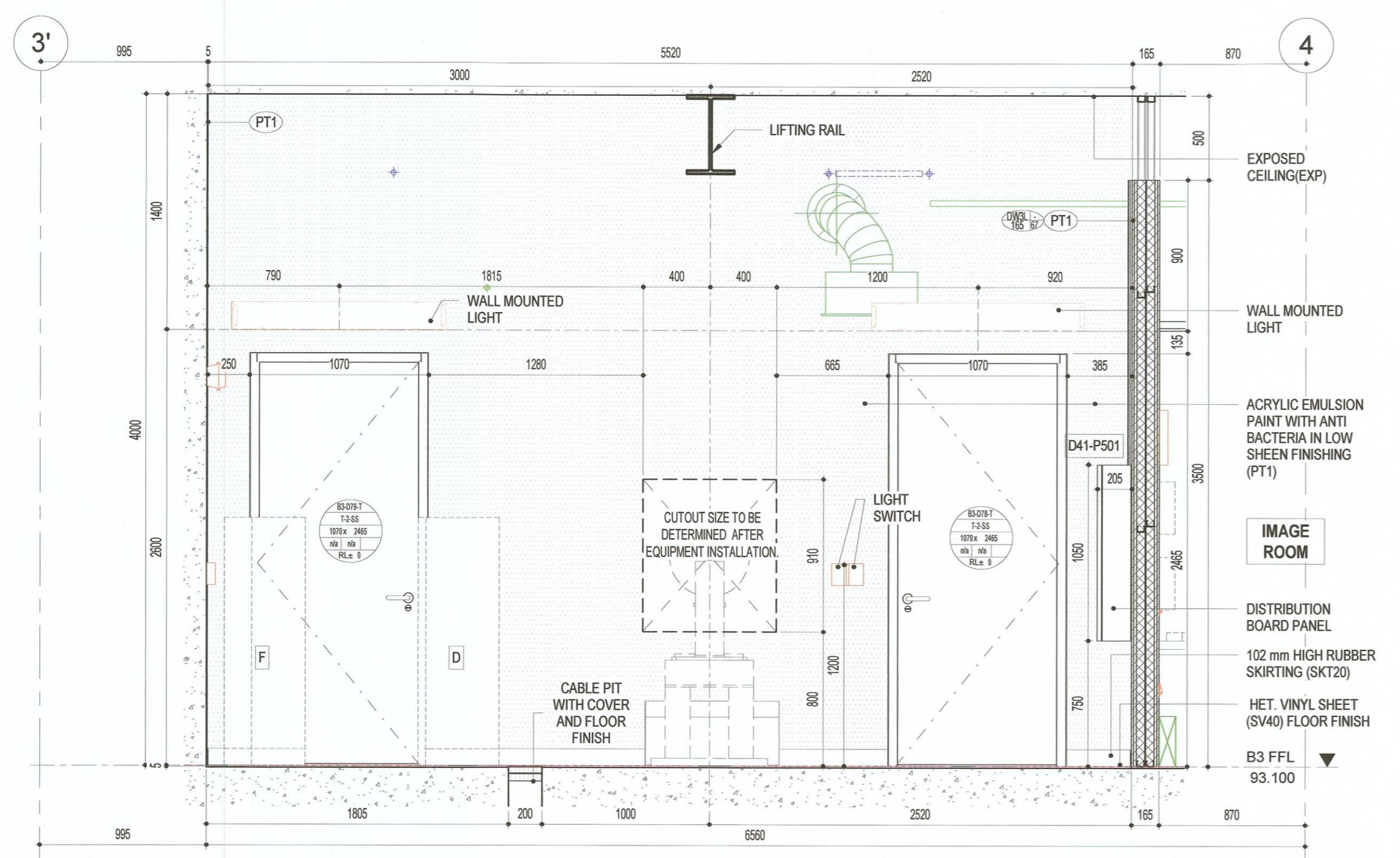
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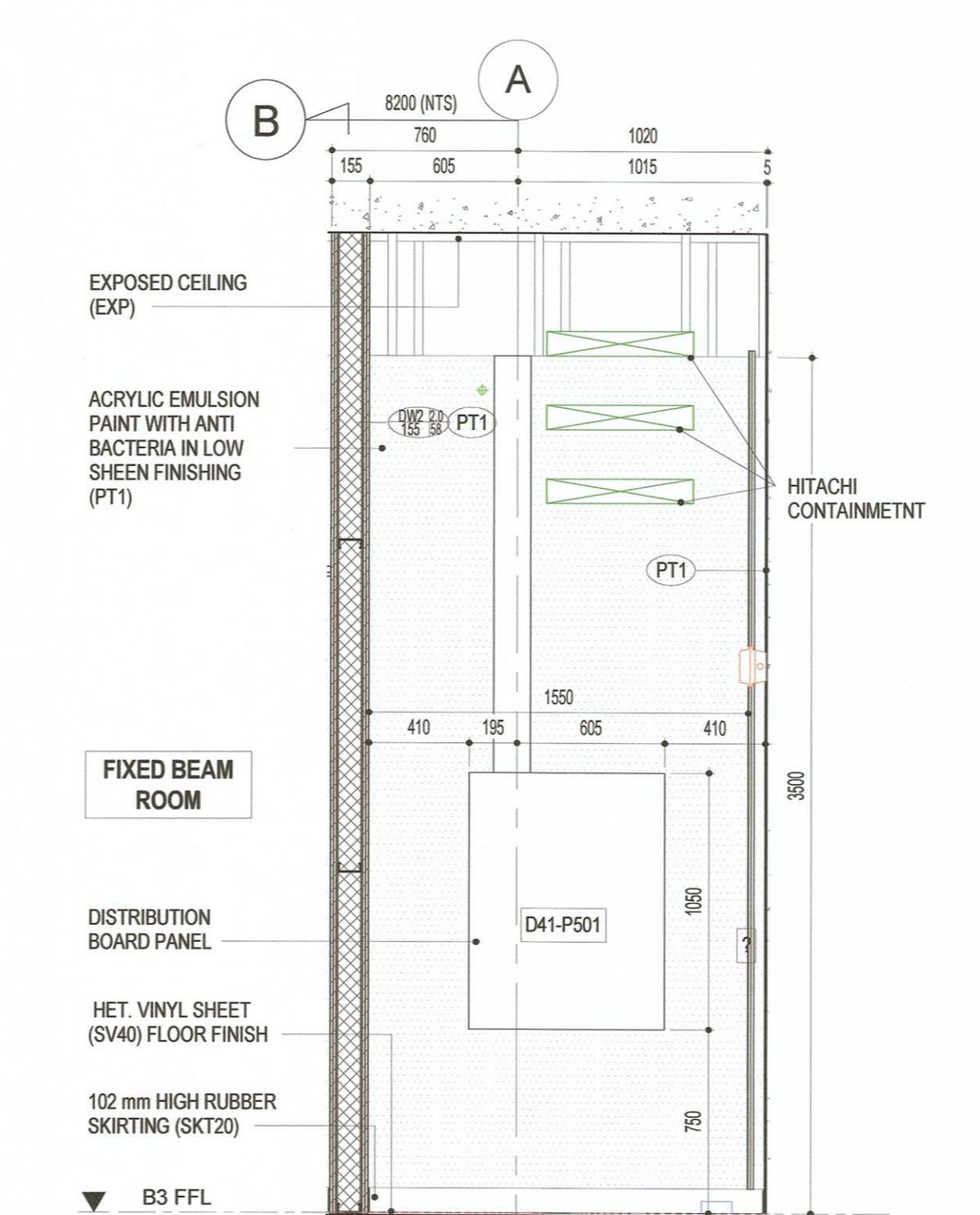
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1 : 25



2 ELEVATION FB-H  
1 : 25



3 ELEVATION FB-I  
1 : 25



4 ELEVATION FB-J  
1 : 25

**CIAP Architects Pte**  
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<input checked="" type="checkbox"/> AP : Approved / No exception taken.	<input type="checkbox"/> R&R : Review & Resubmit.
<input type="checkbox"/> AWC : Approved with comments / No re-submission required.	<input type="checkbox"/> RJ : Rejected.

Date received : 15/01/19 Date & Signature : *JSM CHOU GIER*

**AECOM Singapore Pte**  
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Date received : 15/01/19 Date & Signature : *Albert Cheah*

**OTHER**  
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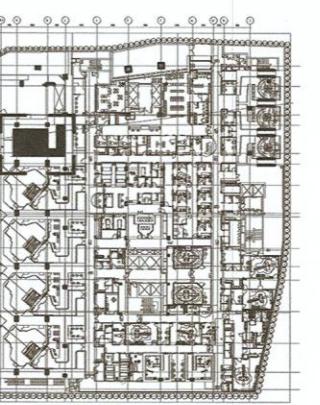
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<input type="checkbox"/> AWC : Approved with comments / No re-submission required.	<input type="checkbox"/> RJ : Rejected.

Date received : Reviewed by : Date & Signature :

**VERIFIED BY :**  
*D LK*  
Name/Signature: Date: 11/1/19

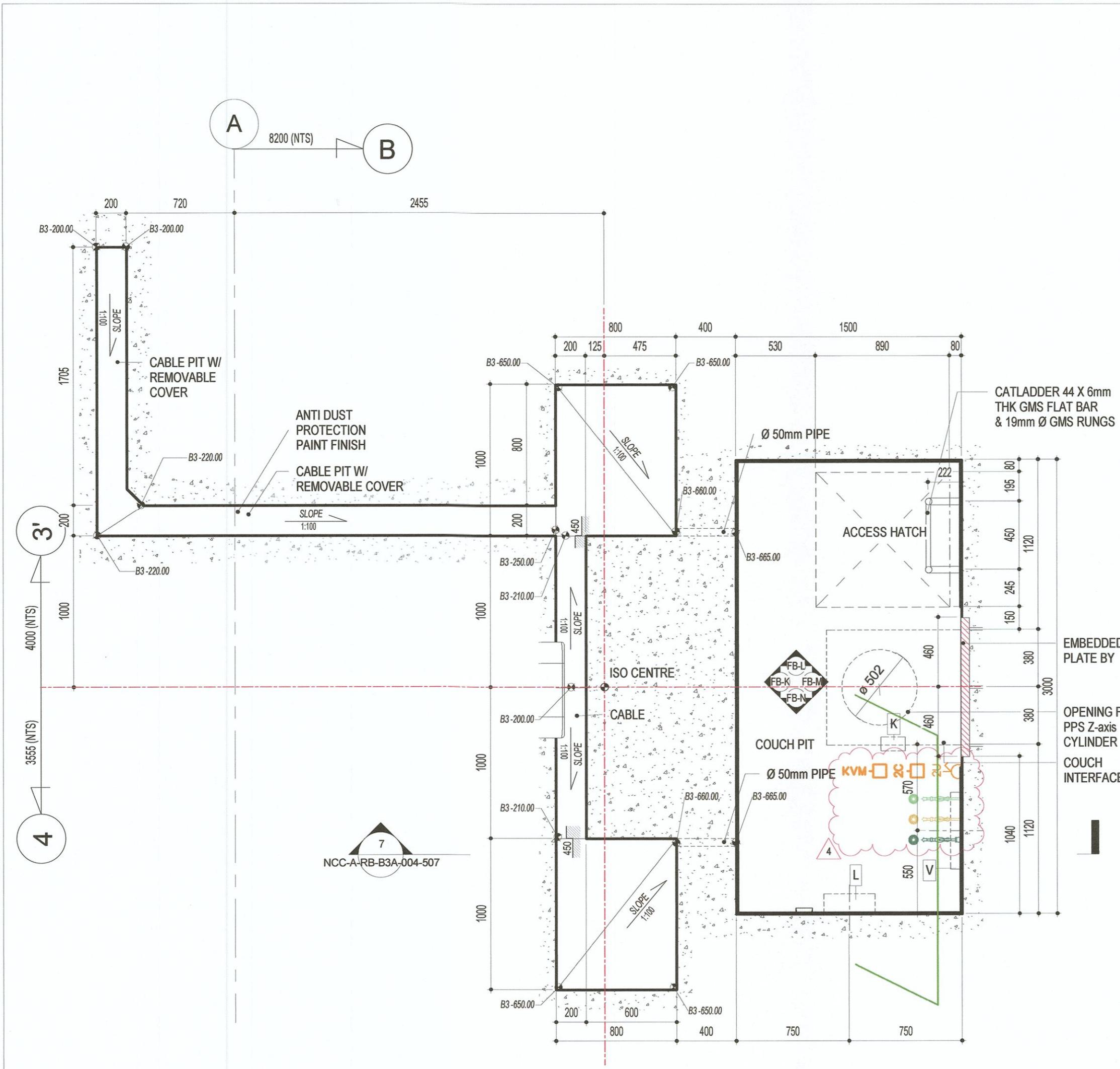
**ACCEPTED BY :**  
*JG S*  
Name/Signature: Date: 11/1/19

4 AS PER CONSULTANT'S COMMENTS	11/01/2019	PV OLV/N/C
3 AS PER CONSULTANT'S COMMENTS	10/12/2018	PV OLV/N/C
2 AS PER CONSULTANT'S COMMENTS	15/11/2018	PV OLV/N/C
1 AS PER CONSULTANT'S COMMENTS	15/08/2018	PV OLV/N/C
0 FOR APPROVAL	02/07/2018	PV OLV/N/C
No. Revision Description	Date	By Chk

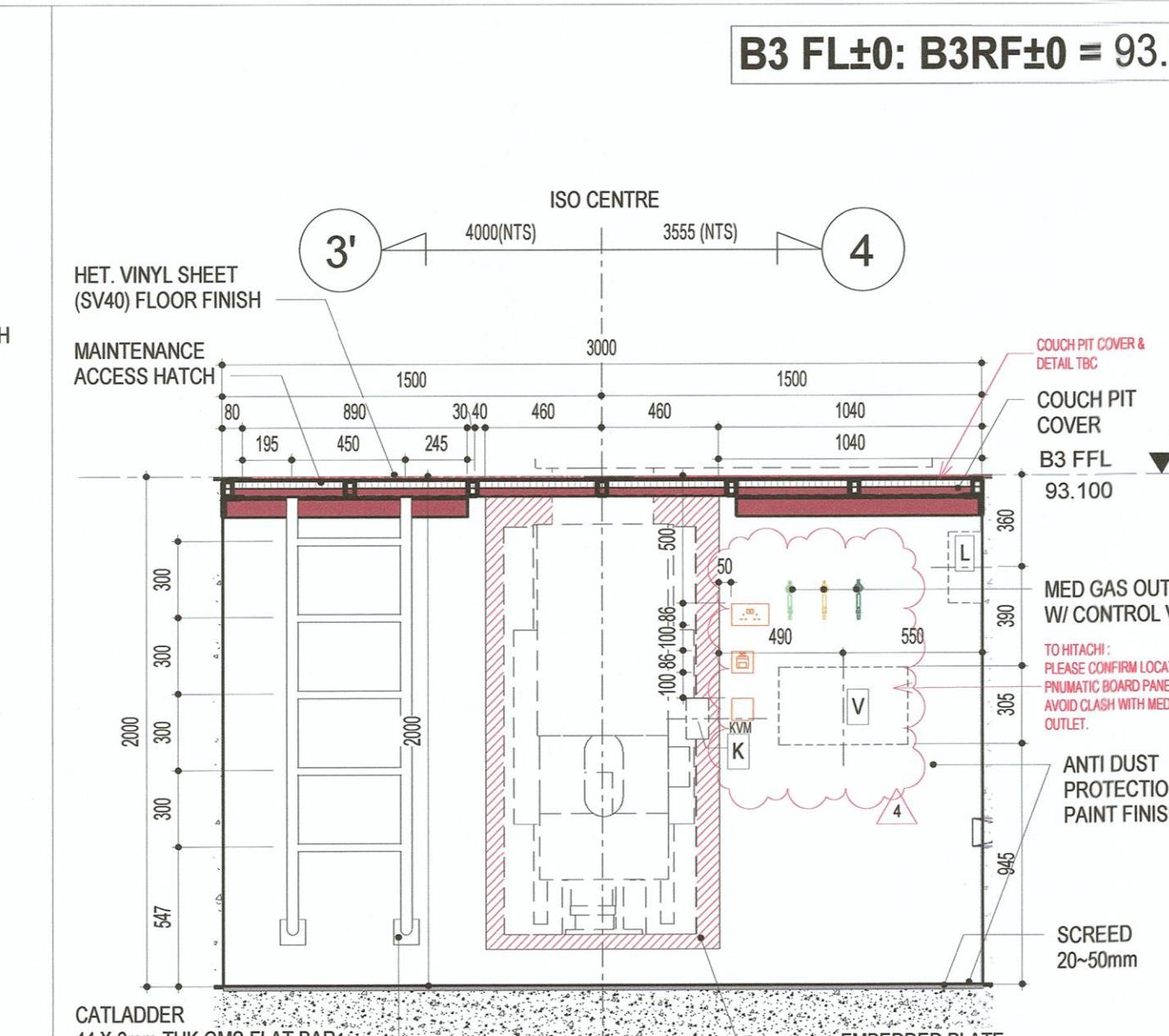
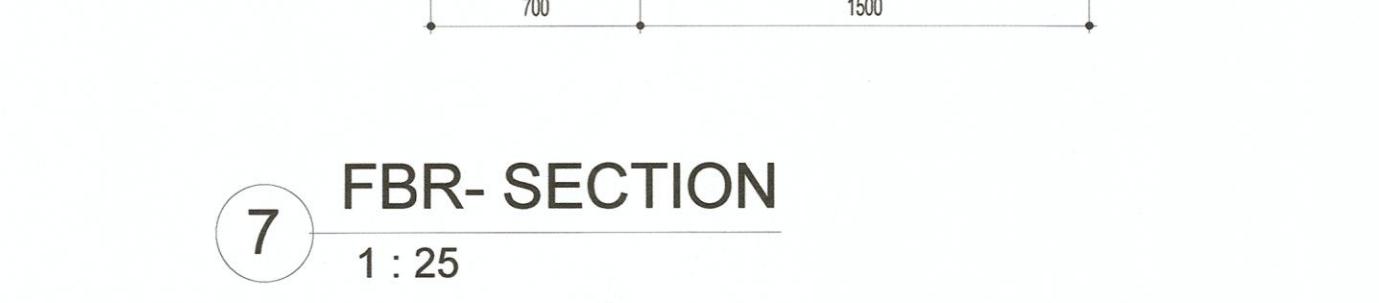
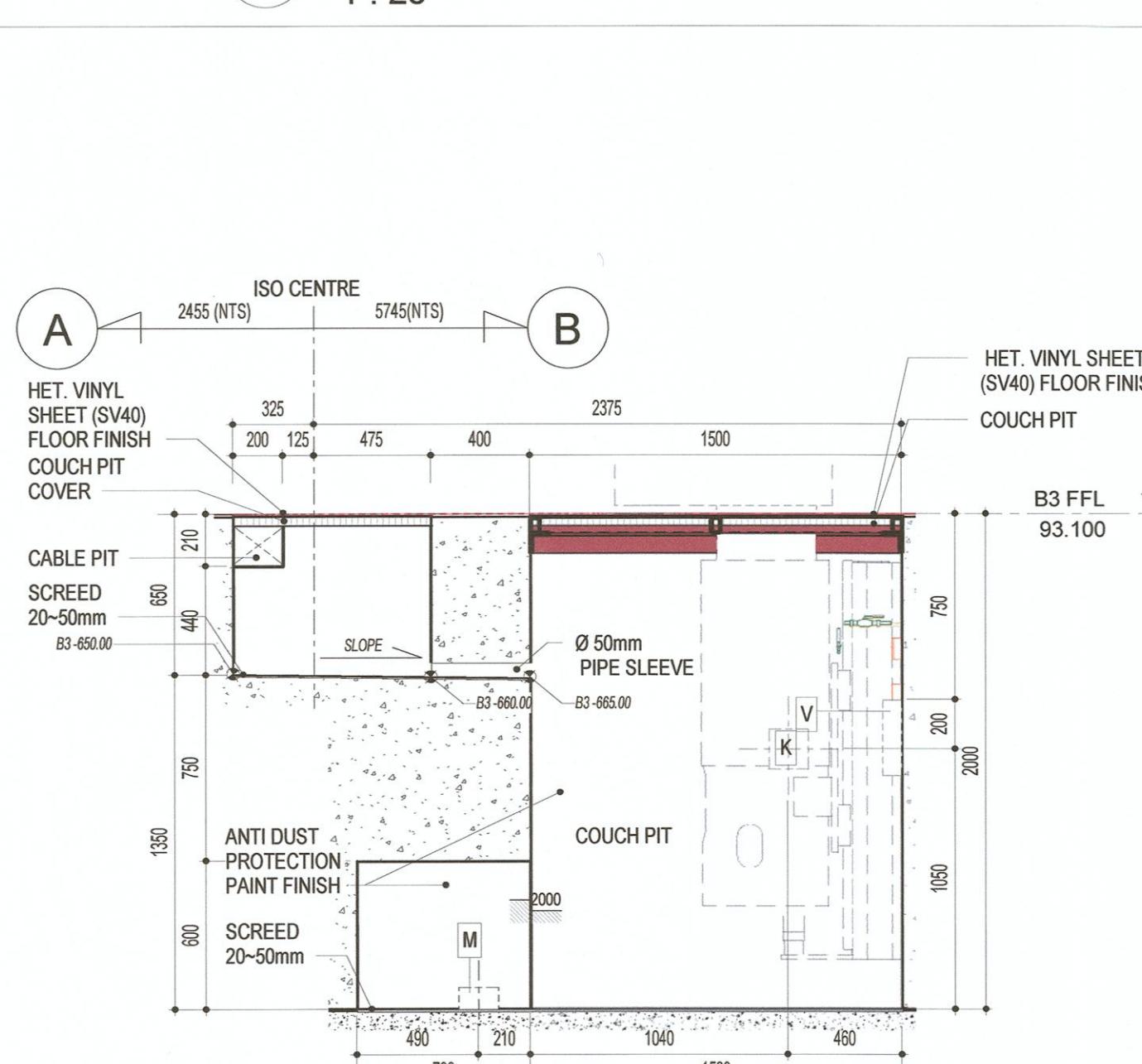
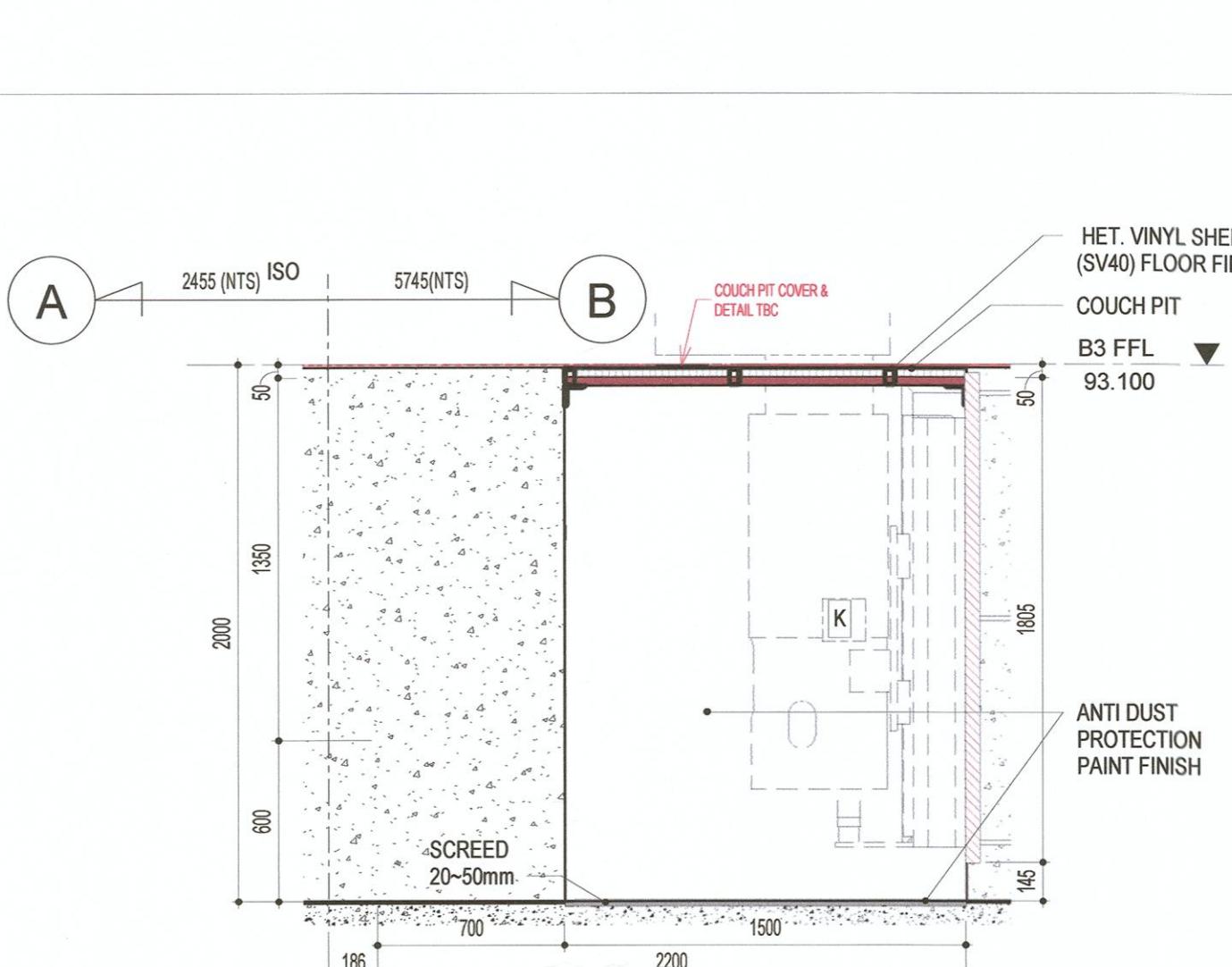
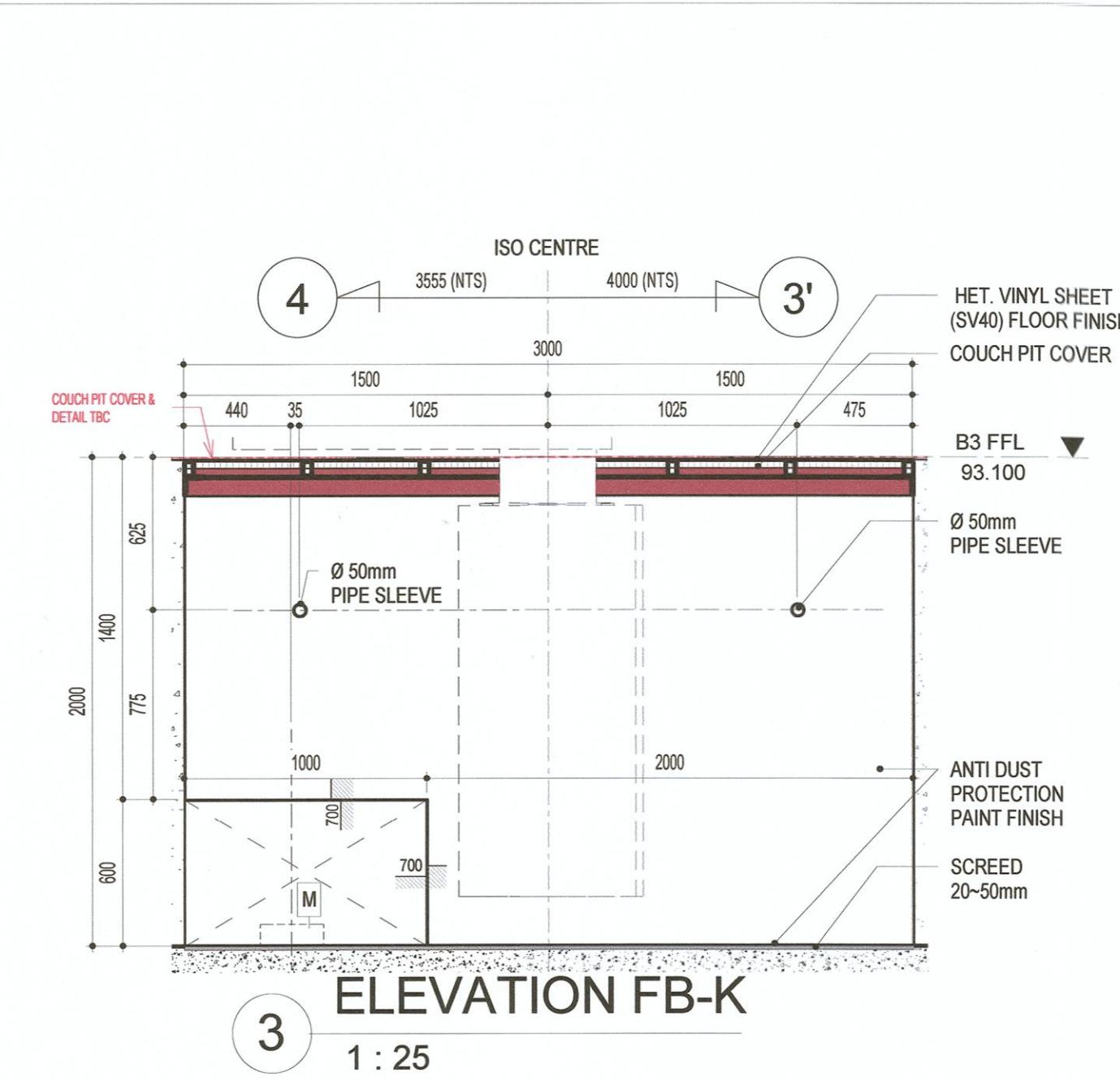
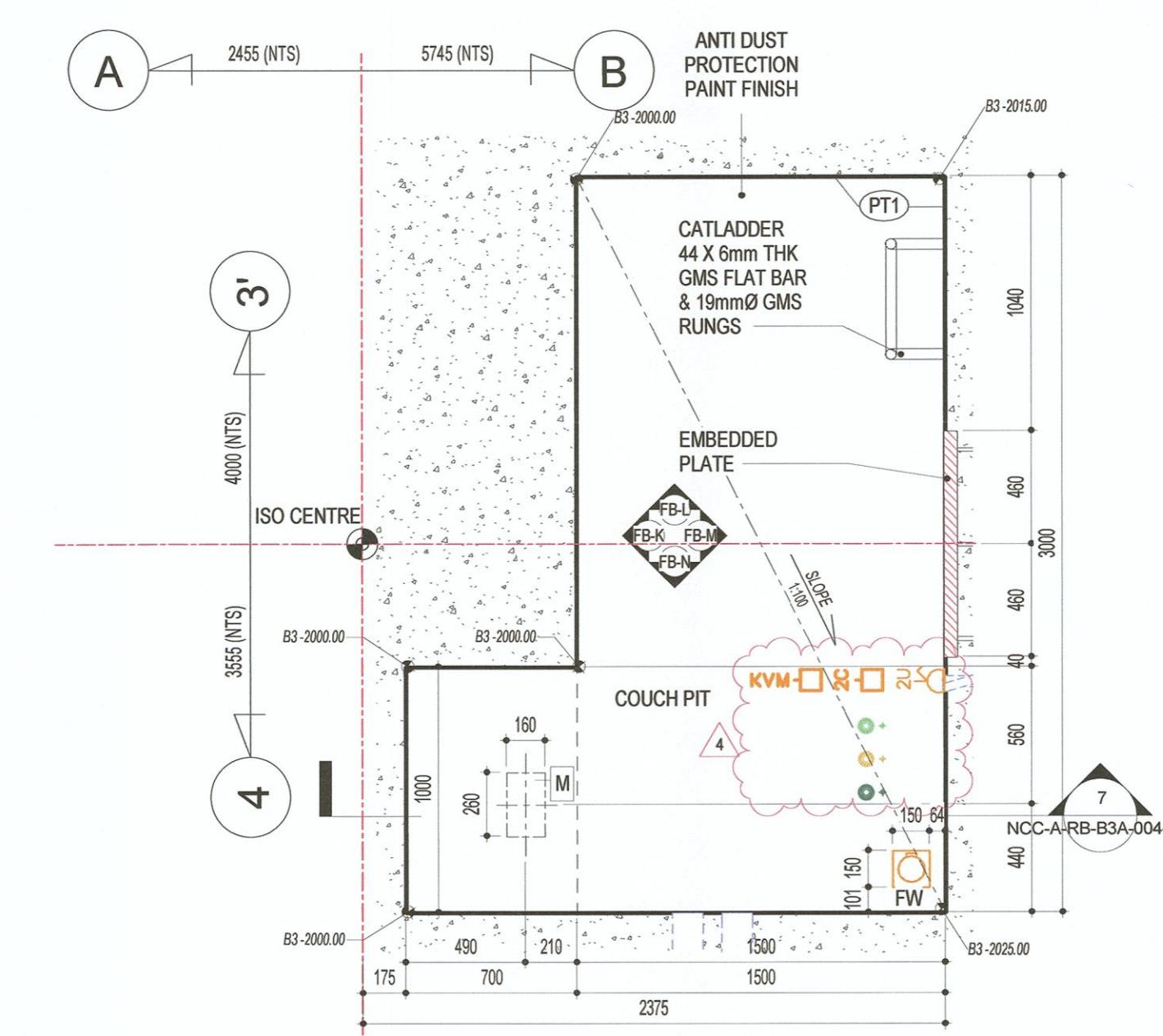


KEYPLAN

Owner : <b>MINISTRY OF HEALTH</b> Colleagues Building 16 College Road Singapore 169854	
Owner's Agent : <b>MOH HOLDINGS PTE LTD</b> 1 Maritime Square Harbourfront Centre #1-125 Lobby B Singapore 099253	
Operator : <b>NATIONAL CANCER CENTRE SINGAPORE</b> 11 Hospital Drive Singapore 169910	
Project Management : <b>Davis Langdon KPK (S) Pte Ltd</b> 865 Mountbatten Road #07-01 Keppel Shopping Centre Singapore 437844	
Architect : <b>CIAP Architects Pte Ltd</b> 1 North Bridge Road, #02-05 High Street Centre, S179094 Tel: (65) 6338 3000 Fax: (65) 6338 0258 info@ciap.sg www.ciap.sg	
C&S Engineer : <b>Arup Singapore Pte Ltd</b> 10 Hoe Ching Road, #05-01 Keppel Towers, S098915 Tel: (65) 6411 2500 Fax: (65) 6411 2500 ncc-sg@arup.com www.arup.com	
M&E Consultant : <b>AECOM Singapore Pte Ltd</b> 303 Beach Road #03-00, The Obra, S091655 Tel: (65) 6338 3000 Fax: (65) 6338 0258 6031534NCC@aecom.com www.aecom.com	
QS Consultant : <b>Arcadis Singapore Pte Ltd</b> 1 Marina Bay Avenue #02-01 Marina One, S098509 Tel: (65) 6222 3998 Fax: (65) 6224 7000 ncc-sg@arcadis.com www.arcadis.com	
Main Contractor : <b>SHIMIZU CORPORATION</b> 8 Kallang Ave, #05-01 Aperia Tower 1, S330009 Tel: (65) 6222 9800 Fax: (65) 6224 9800 ncc-pt-shimizu.biz www.shimizu-global.com	
Project Title : PROPOSED NEW ERECTION OF 24 STOREY WITH 4 BASEMENTS NEW NATIONAL CANCER CENTRE OF LOT 00467K TS22 AT OUTRAM MEDICAL CAMPUS, 20 OUTRAM ROAD (BUKIT MERAH PLANNING)	
Drawing Description : BASEMENT 3 B3 BUNKER PT ROOMBOOK PT FIXED BEAM ROOM ELEVATIONS	
FILENAME : C:\users\pratibha.verma\Documents\NCC_SHIMZ_BUNKZ_ARCH_L03-SHEET_pratibha.verma.rvt SCALE : As indicated DATE : 11 JAN 2019 REV. 04 DRAWN : PRATIBHA CHECKED : OLIVHAL / VNC 04	
DRAWING NO. : NCC-A-RB-B3A-004-506-04	
<b>FOR APPROVAL</b>	



1 B3 FBR COUCH PIT LAYOUT PLAN  
1 : 25



**B3 FL±0: B3RF±0 = 93.100**

**CIAP Architects Pte**  
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<input type="checkbox"/> AWC : Approved with comments / No re-submission required.	<input type="checkbox"/> RJ : Rejected.
Reviewed by: <i>F/SIM ECTION QPK</i>	
Date received: 15/01/19 Date & Signature:	

**AECOM Singapore Pte**  
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Reviewed by: <i>Albert Chua</i>	
Date received: 15/01/19 Date & Signature:	

**OTHER**  
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Reviewed by:	
Date received:	
Reviewed by:	
Date & Signature:	

**VERIFIED BY :**  
*Dale*

Name/Signature: *Dale* Date: 11/1/19

**ACCEPTED BY :**  
*NGG NCOS*

Name/Signature: *NGG NCOS* Date: 11/1/19

**Project Management :** Davis Langdon KPK (S) Pte Ltd, 885 Mountbatten Road #07-01 Kaison Shopping Centre, Singapore 437444

**Architect :** CIAP Architects Pte Ltd, 1 North Bridge Road, #20-05 One North Bridge, Singapore 179004 Tel: (65) 6311 2300 Fax: (65) 6335 6288 info@ciap.sg

**CSE Engineer :** Arup Singapore Pte Ltd, 10 Ho Ching Road #06-01 Keppel Towers, Singapore 089315 Tel: (65) 6299 1466 Fax: (65) 6411 2501 resco@arup.com www.arup.com

**M&E Consultant :** AECOM Singapore Pte Ltd, 303 Orchard Road #10-02 The Concourse, Singapore 239055 Tel: (65) 6222 0000 Fax: (65) 6299 0297 603134NCCO.aecom.com www.aecom.com

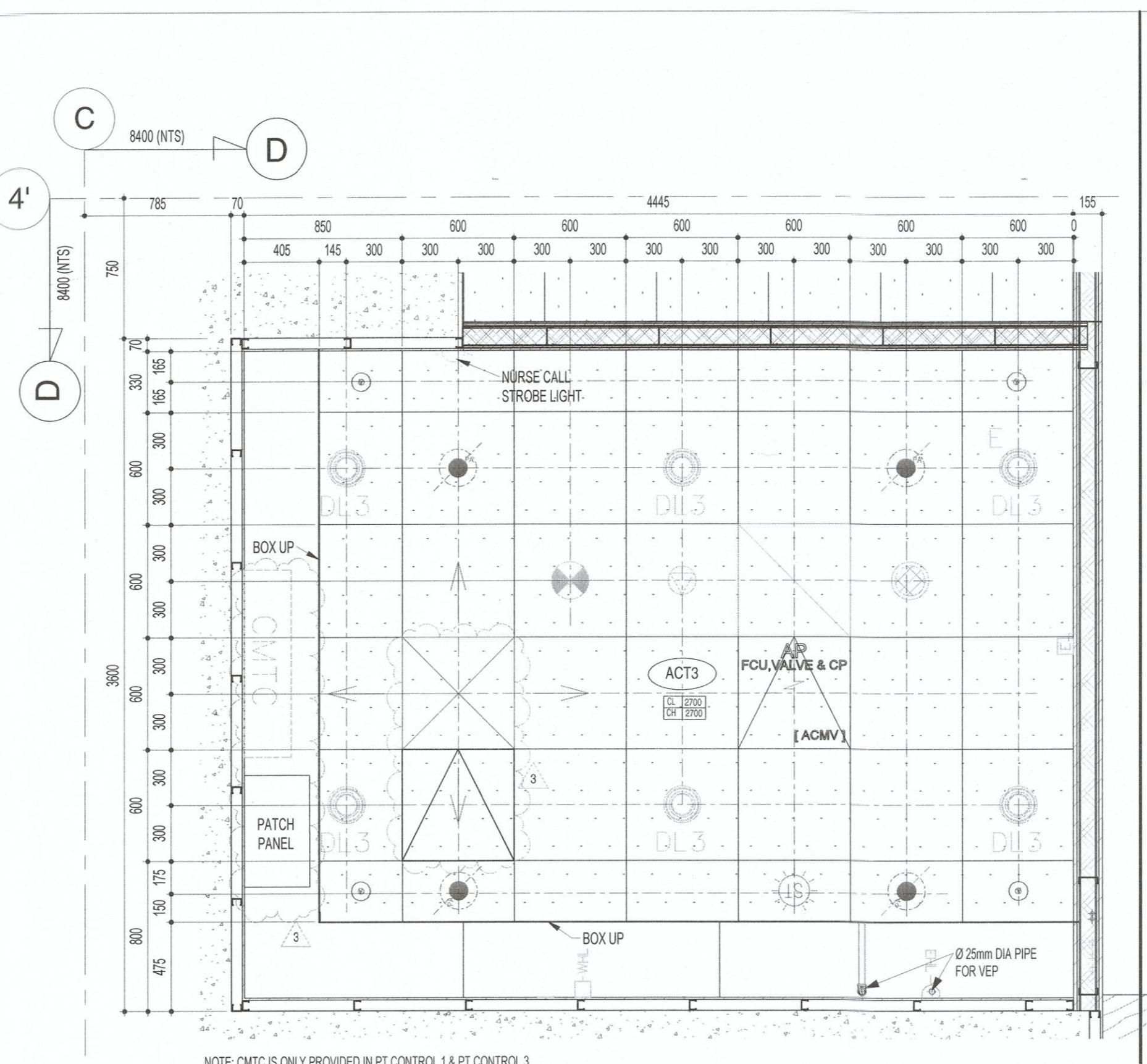
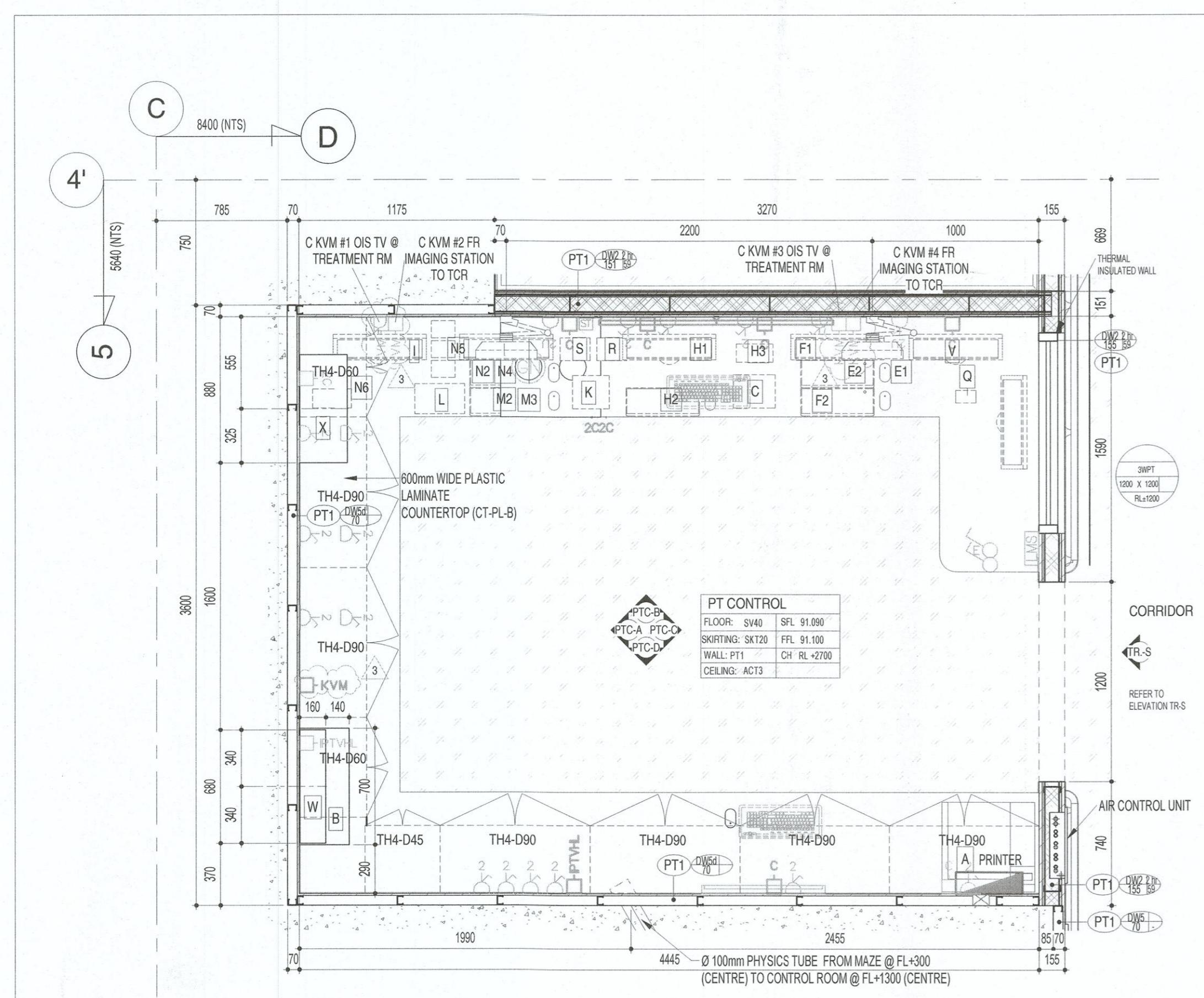
**QS Consultant :** Arcadis Singapore Pte Ltd, 1 Marina Bay Street #05-01 Marina One, Singapore 039007 Tel: (65) 6222 3888 Fax: (65) 6224 7089 ncc.oq@arcadis.com www.arcadis.com

**Main Contractor :** SHIMIZU CORPORATION, 9 Upp Pickering Street, Singapore 048502 Tel: (65) 6278 3299 Fax: (65) 6224 9860 ncc.oq@shimz.biz www.shimz-global.com

**Project Title :** PROPOSED NEW ERECTION OF 24 STOREY WITH 4 BASEMENTS NEW NATIONAL CANCER CENTRE OF LOT 00467K TS22 AT OUTRAM MEDICAL CAMPUS, 20 OUTRAM ROAD (BUKIT MERAH PLANNING)

**Drawing Description :** BASEMENT 3  
B3 BUNKER PT ROOMBOOK  
PT FIXED BEAM ROOM - COUCH PIT FINISHING DETAIL

**FILENAME :** C:\Users\prathiba\verma\Documents\NCC\_SHIMZ\_BUNK\_ARCH\_L00-SHEET\_prathiba.verma.rvt  
**SCALE :** As indicated  
**DRAWN :** PRATHIBHA  
**CHECKED :** OLIVIAHAL / VNC  
**DRAWING NO. :** NCC-A-RB-B3A-004-507-04  
**FOR APPROVAL**



PT Control Room Equipments (Hitachi)						
Mark	Description	Mas s (kg)	W	D	H	RL+/- By SC
A	Distribution Panel	510	155	1270		
B	Beam Test Terminal	60	800	300	700	
C	G# TCR Operational Panel	6	74	200	251	
D	G# TCR Console Converter Box	17	366	347	380	
E1	Monitor	5.8	403	548	164	
E2	Keyboard & Mouse	5.8	403	548	164	
F1	Flat Display	5.8	403	548	164	
F2	Keyboard & Mouse	5.8	403	548	164	
H1	Monitor	5.8	403	548	164	
H2	Keyboard & Mouse	5.8	403	548	164	
H3	Extender	0.8	42	110	220	
K	G# X-Ray Ready Panel Operation Console 2	4	110	220	200	
L	G# X-ray Beam Limiting Device Control Box 2	2.6	102	180	300	
M1	G# Imaging (XIS/RTPT/CIRS) Workstation	22.8	444	525	203	
M2	Keyboard & Mouse	5.8	403	548	164	
M3	Monitor	6.96	444	548	164	
M4	KVM Extender (Remote)	0.5	29	103	143	
N2	Keyboard & Mouse	5.8	403	548	164	
N4	Monitor	5.8	403	548	164	
N5	KVM Extender (Remote)	0.5	29	103	143	
N6	KVM Switch	0.7	44	115	233	
O	Flat Display	5.8	403	548	164	
P	G# PIAS KVM Extender (Remote)	0.5	29	103	143	
Q	G# Barcode Reader	0.2	29	75	121	
R	G# Camera Link Converter 1-2	0.45	31	138	178	
S	G# Camera Link Converter 2-2	0.45	31	138	178	
V	G# Buzzer	0.5	110	90	196	
W	Gamma Area Monitor	13	300	155	680	
X	Neutron Area Monitor	25	520	265	650	

3 AS PER CONSULTANT'S COMMENTS 11/01/2019 PV OLV/VNC  
 2 AS PER CONSULTANT'S COMMENTS 15/11/2018 PV OLV/VNC  
 1 AS PER CONSULTANT'S COMMENTS 15/08/2018 PV OLV/VNC  
 0 FOR APPROVAL 02/07/2018 PV OLV/VNC  
 No. Revision Description Date By Chk

KEYPLAN

Owner : MINISTRY OF HEALTH  
 College of Medicine Building  
 10 Kallang Avenue  
 Singapore 169854

Owner's Agent : MOH HOLDINGS PTE LTD  
 1 Marina Square Harbourfront Centre  
 #1-25 Lobby C Singapore 098233

Operator : NATIONAL CANCER CENTRE SINGAPORE  
 11 Hospital Drive Singapore 169810

Project Management : DAVIS LANGDON KPK (S) PTE LTD  
 888 Beach Road #07-01 Kallang Shopping Centre  
 Singapore 437844

Architect : CIAP ARCHITECTS PTE LTD  
 1 North Bridge Road, #05-01 Central Mall, S099094  
 Tel: (65) 6398 3000 Fax: (65) 6398 6258  
 www.ciap.sg

C&E Engineer : ARUP SINGAPORE PTE LTD  
 41 Magellan Road, #06-01 Magellan Tower, S098915  
 Tel: (65) 6411 2500 Fax: (65) 6411 2501  
 www.arup.com

M&E Consultant : AECON SINGAPORE PTE LTD  
 300 Beach Road #03-01 The Concourse, S099055  
 Tel: (65) 6299 2468 Fax: (65) 6299 0297  
 www.aecon.com

QS Consultant : ARCADIS SINGAPORE PTE LTD  
 1 Magazine Road, #05-01 Central Mall, S099067  
 Tel: (65) 6222 3888 Fax: (65) 6224 7059  
 www.arcadis.com

Main Contractor : SHIMIZU CORPORATION  
 8 Kallang Ave, #05-01 Aperia Tower 1, S339909  
 Tel: (65) 6278 5268 Fax: (65) 6224 9850  
 www.shimz.global

Project Title : PROPOSED NEW ERECTION OF 24 STOREY WITH 4 BASEMENTS NEW NATIONAL CANCER CENTRE OF LOT 0467K TS22 AT OUTRAM MEDICAL CAMPUS, 20 OUTRAM ROAD (BUKIT MERAH PLANNING)

Drawing Description : BASEMENT 3  
 B3 BUNKER PT ROOMBOOK  
 PT CONTROL ROOM FINISHING PLAN & RCP (TYP.)

FILENAME : C:\Users\pratibha.verma\Documents\NCC\_SHIMZ\_BUNK\_Arch\_L00-SHEET\_pratibha.verma.vsd  
 DATE : 11 JAN 2019 REV : 03  
 DRAWN : PRATIBHA CHECKED : OLIVIAH/VNC  
 DRAWING NO. : NCC-A-RB-B3B-006-501-04

FOR APPROVAL

PRINTED ON : 11/12/2019 11:38:01 PM

AP : Approved / No exception taken RER : Revise & Resubmit  
 AWC : Approved with comments / No re-submission required RJ : Rejected

Date received : 15/01/19 Reviewed by : F/SIM CHON GEK  
 Date returned : Date & Signature :

AP : Approved / No exception taken RER : Revise & Resubmit  
 AWC : Approved with comments / No re-submission required RJ : Rejected

Date received : 15/01/19 Reviewed by : Allegro Chua  
 Date returned : Date & Signature :

AP : Approved / No exception taken RER : Revise & Resubmit  
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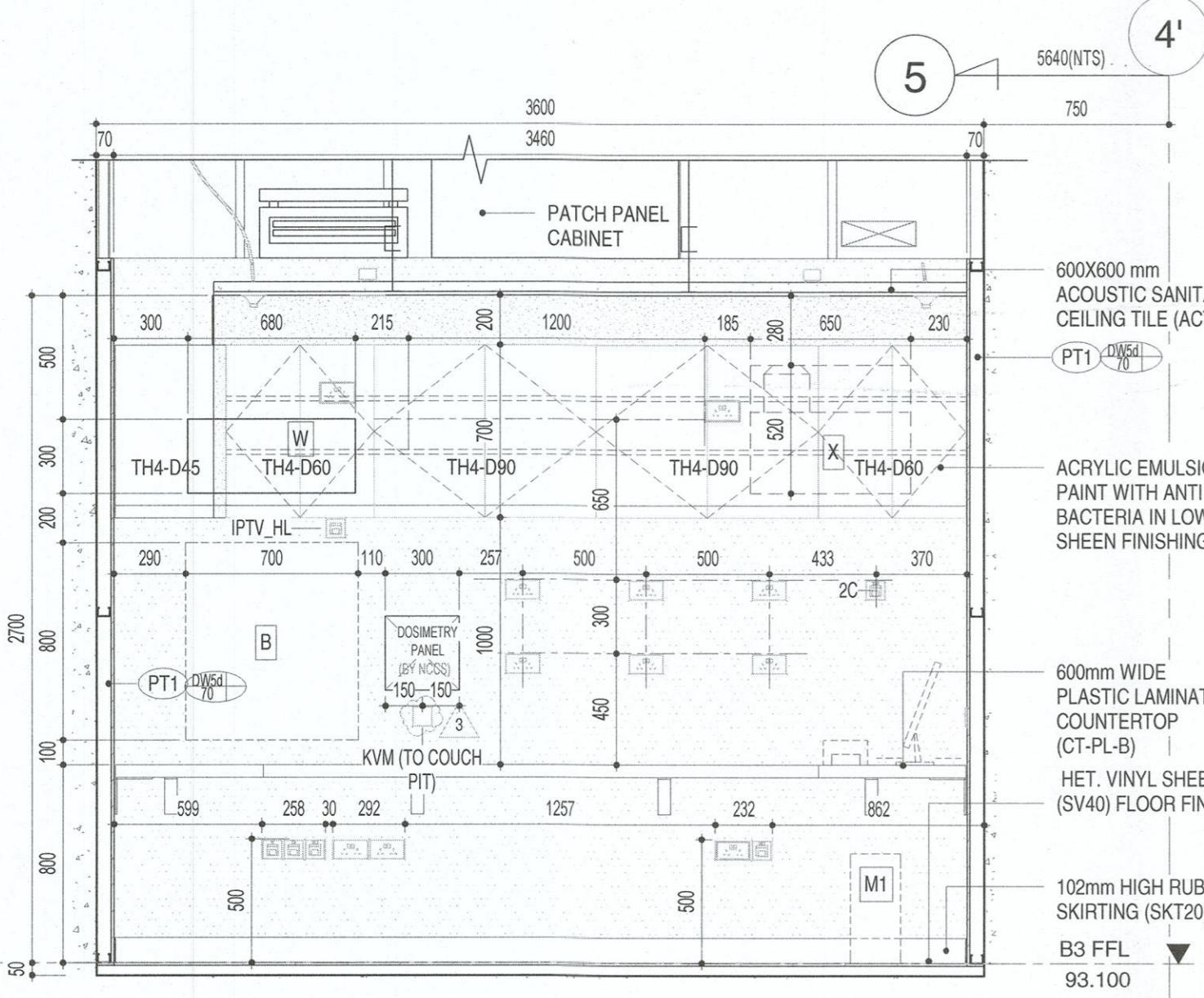
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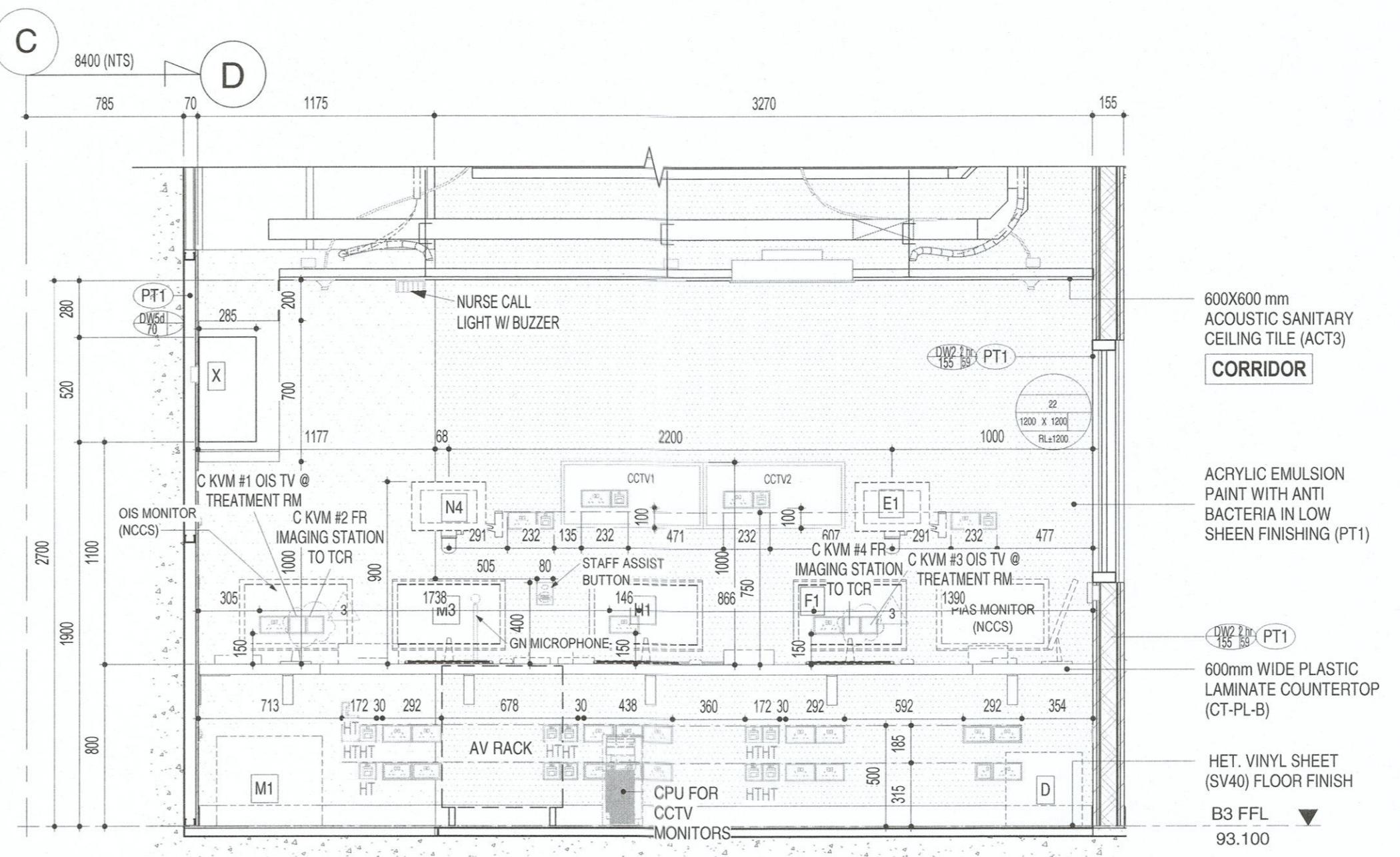
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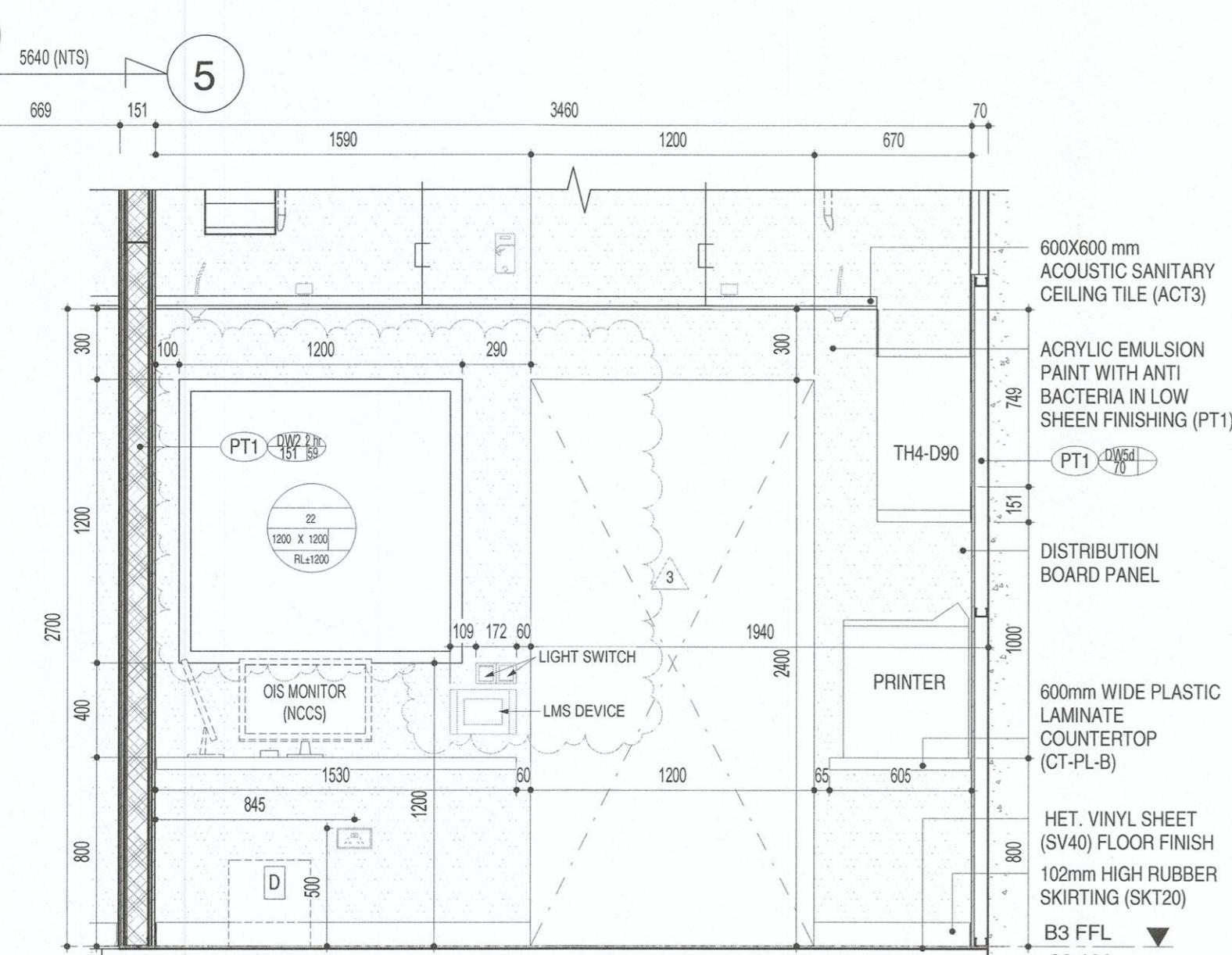
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 AWC : Approved with comments / No re-submission required RJ : Rejected



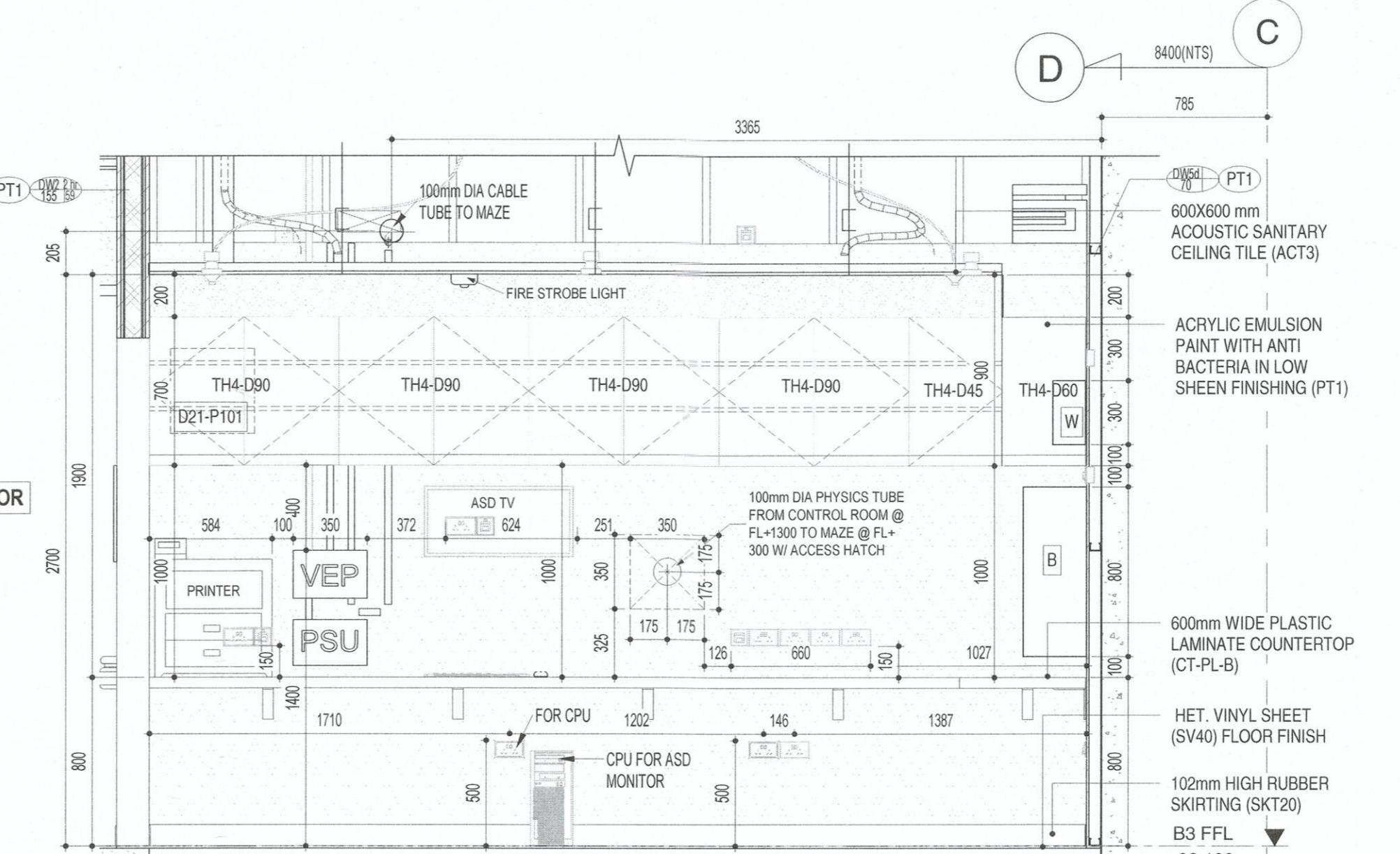
1 ELEVATION PTC-A  
1 : 25



2 ELEVATION PTC-B  
1 : 25



3 ELEVATION PTC-C  
1 : 25



4 ELEVATION PTC-D  
1 : 25

CIAP Architects Pte  
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Date received : Reviewed by :  
Date returned : Date & Signature :

AECOM Singapore Pte  
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Date received : 18/01/19 Reviewed by : Albert Chua  
Date & Signature : *Albert Chua*

OTHER  
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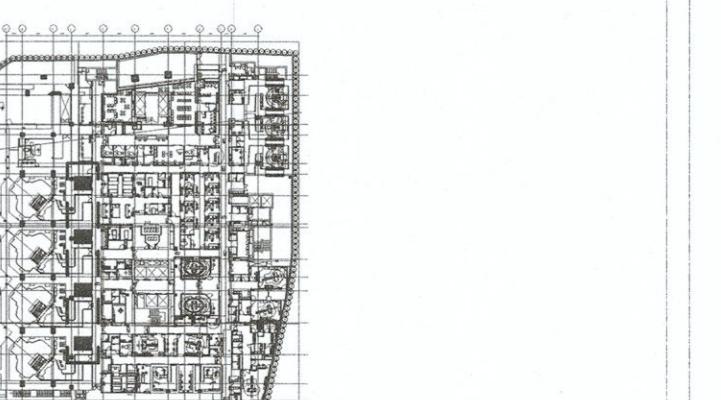
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 AWC : Approved with comments / No re-submission required.  RJ : Rejected.

Date received : Reviewed by :  
Date returned : Date & Signature :

VERIFIED BY : DLKP  
Name/Signature: *DLKP* Date: 11/1/19

ACCEPTED BY : JWS NCSC  
Name/Signature: *JWS NCSC* Date: 11/1/19

3 AS PER CONSULTANT'S COMMENTS 11/01/2019 PV OLWNC  
2 AS PER CONSULTANT'S COMMENTS 15/11/2018 PV OLWNC  
1 AS PER CONSULTANT'S COMMENTS 15/08/2018 PV OLWNC  
0 FOR APPROVAL 02/07/2018 PV OLWNC  
No. Revision Description Date By Chk



KEYPLAN  
Owner : MINISTRY OF HEALTH  
College of Medicine Building  
16 Outram Road  
Singapore 169854  
MINISTRY OF HEALTH

Owner's Agent : MOH HOLDINGS PTE LTD  
1 Maritime Square Harbourfront Centre  
#11-25 Lobby C Singapore 09923  
MOH HOLDINGS

Operator : NATIONAL CANCER CENTRE SINGAPORE  
11 Hospital Drive Singapore 169610  
National Cancer Centre Singapore SingHealth

Project Management : Davis Langdon KPK (S) Pte Ltd  
800 Orchard Road #07-01 Keling Shopping Centre  
Singapore 237844  
Davis Langdon KPK An AECOM Company

Architect : CIAP Architects Pte Ltd  
1 North Bridge Road, #02-01 High Street Centre, S179094  
Tel: (65) 6338 3900 Fax: (65) 6338 6258  
info@ciap.sg www.ciap.sg

C&E Engineer : Arup Singapore Pte Ltd  
10 Kallang Avenue, #02-01 Kallang Central, S089007  
Tel: (65) 6411 2500 Fax: (65) 6411 2501  
rcs@arup.com www.arup.com

M&E Consultant : AECOM Singapore Pte Ltd  
300 Beach Road #03-01 The Concourse, S199655  
Tel: (65) 6292 2468 Fax: (65) 6292 0287  
600153ACN@aecom.com www.aecom.com

QS Consultant : Arcadis Singapore Pte Ltd  
1 Magazine Road, #05-01 Central Mall, S099667  
Tel: (65) 2222 3888 Fax: (65) 6224 7089  
arc@arcadis.com www.arcadis.com

Main Contractor : SHIMIZU CORPORATION  
8 Kallang Ave, #02-01 Aperia Tower, S179099  
Tel: (65) 6272 5266 Fax: (65) 6224 9899  
ncc-pt-nj@shimizu.biz www.shimizu-global.com

Project Title : PROPOSED NEW ERECTION OF 24 STOREY WITH 4 BASEMENTS NEW NATIONAL CANCER CENTRE OF LOT 00467K TS22 AT OUTRAM MEDICAL CAMPUS, 20 OUTRAM ROAD (BUKIT MERAH PLANNING)

Drawing Description : BASEMENT 3  
B3 BUNKER PT ROOMBOOK  
PT CONTROL ROOM ELEVATIONS (TYP.)

FILENAME : C:\Users\pratibha.verma\Documents\NCC\_SHIMZ\_BUNK\_ARCH\_L00-SHEET\_pratibha.verma  
SCALE : As indicated DATE : 11 JAN 2019 REV : 03  
DRAWN : PRATIBHA CHECKED : OLIVHAL/VNC

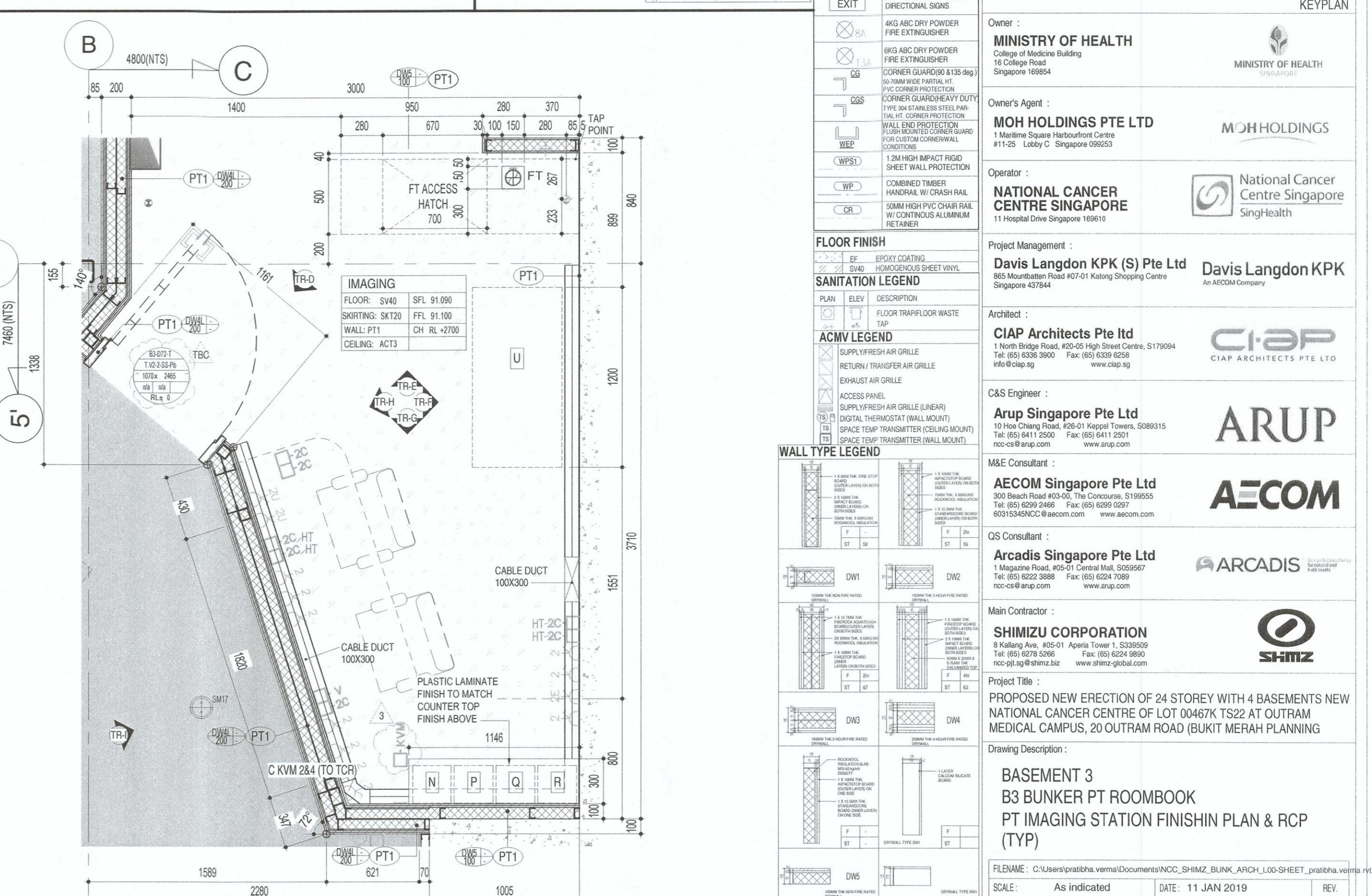
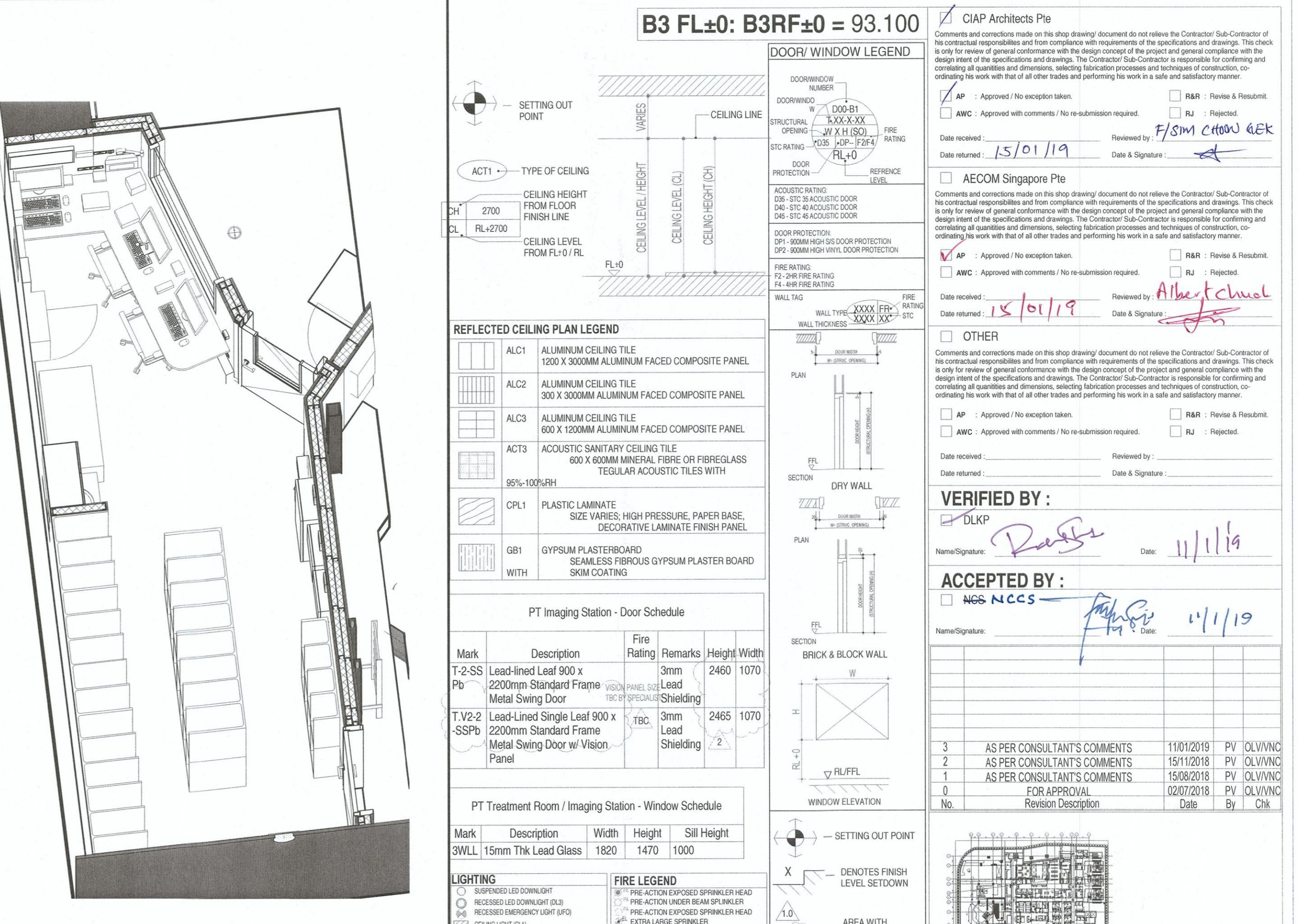
DRAWING NO.: NCC-A-RB-B3B-006-502-04

FOR APPROVAL

Imaging Station Equipments (Hitachi)							
No.	Description	Mass (Kg)	W	D	H	RL+/-	Remarks
A	G# IS Console Converter Box	6	180	157	216		
B1	Extender	2.5	220	110	42		
B2	Monitor	6.96	238	560	525		
B3	Keyboard & Mouse						
C1	Monitor	6.96	238	560	525		
C2	Keyboard & Mouse						
C3	Extender	0.8	220	110	42		
D	G# IS Operational Panel	2.5	200	70	74		
E	G# X ray Control Panel 1	7	94	422	313	+1700	Panel top
F	G# X ray Control Panel 2	7	94	422	313	+1250	Panel top
G	G# X-Ray Realy Panel Operation Console	4	200	220	110		
H1	G# PIAS Keyboard & Mouse						
H2	G# PIAS KVM Extender ( Remote )	0.5	103	70	74		
H3	G# PIAS Monitor	6.96	238	560	525		

Imaging Station Equipments (Hitachi)							
No.	Description	Mass (Kg)	W	D	H	RL+/-	Remarks
J	G# X-ray Beam Limiting Device Control Box 1	2.6	300	180	102		
K	G# Couch Teach Pendant	2.5	270	130	340		Hanged on a special attachment
L	G# Access Point	2.5	194	140	24		
M	G# X-Ray Operation Control Switching Panel	40	600	250	700		
N	G# HV Converter Box 1	6	260	250	50		
P	G# HV Converter Box 2	6	260	250	50		
Q	G# HV Converter Box 5	6	260	250	50		
R	G# HV Converter Box 6	6	260	250	50		
S1	G# Img Keyboard & Mouse						
S2	G# Img Monitor 2	6.96	238	560	525		
S3	G# Img KVM Extender (Remote)	0.5	143	103	49		
U	G# X-ray control relay panel	140	600	1200	650		Has Caster

ELECTRICAL OUTLETS			ELEC SYSTEM		
PLAN	ELEV	DESCRIPTION			
		13A SINGLE SWITCH SOCKET		DOOR LIMIT SWITCH (DLS)	
		13A TWIN SWITCH SOCKET		MOTION SENSOR (MS)	
		15A SWITCH SOCKET OUTLET		AREA STATUS DISPLAY (ASD)	
		WIFI ACCESS POINT		AREA CRASH BUTTON (ACB)	
		DATA POINT (n = NO. OF POINT)		AREA SEARCH BUTTON (ASB)	
		IP TELEPHONY OUTLET POINT		SENSOR BYPASS BUTTON (SBB)	
		TELEPHONE OUTLET		CONTROL MODULE / TERMINATOR CABINET	
		FAX MACHINE TELEPHONE OUTLET		NURSE CALL SYSTEM	
		ISOLATOR (RATING AS INDICATED) HT TO SUIT EQUIPMENT LOCATION		STROBE LIGHT (4 COLOURS) C/W BUZZER	
		EMERGENCY STOP BUTTON	SECURITY SYSTEM		
		1 GANG 1 WAY LIGHTING SWITCH (n DENOTE NO. OF GANG)		INDOOR DOME PAN TILT ZOOM CAMERA	
		1 GANG 2 WAY METALCLAD LIGHTING SWITCH (n DENOTE NO. OF GANG)		INDOOR DOME CAMERA FIXED	
		LIGHTING SWITCH, 2-WAY, 1 GANG (n DENOTE NO. OF GANG)		RELEASE BUTTON (EXIT)	
		1W LED RED TRIANGLE WARNING LIGHT (FOR XRAY/ CT SCANNING/ OT)		RELEASE BUTTON (EXIT)	
		DISTRIBUTION BOARD	VOICE COMMUNICATION SYSTEM		
		EMERGENCY SOURCE		SURFACE-MOUNTED BOX SPEAKER	
		DIMMER/ DIMMABLE		PA CEILING SPEAKER	
		HIGH LEVEL		CEILING LOUD SPEAKER	
		WEATHERPROOF		OMNI DIRECTIONAL CEILING MICROPHONE	
		HT FOR HITACHI		DIRECTIONAL CEILING MICROPHONE	
				STAFF ASSIST CALL BUTTON	
				VOLUME ATTENUATOR	
				GOOSENECK MICROPHONE	
GENERAL NOTES:			1. TO BE READ IN CONJUNCTION WITH MEP CSD DRAWINGS.		
2. FOR CABLE CONNECTION - REFER TO THE SCHEMATIC DRAWING NCC-E-PTB-00-604					
RM NO			B3B-003, B3B-009, B3B-014 , B3C-004		
RM NAME			IMAGING 1~4 (TYP.)		
FFL			91.100		
SFL			91.090	CH	RL +2700
FLOOR			HETEROGENOUS VINYL SHEET (SV40)		
SKIRTIN			RUBBER WALL BASE (SKT20)		
WALL			ACRYLIC EMULSION PAINT W/ ANTI BACTERIAL IN LOW SHEEN FINISH (PT1)		
CEILING			ACOUSTIC SANITARY CEILING TILES (ACT3)		
REMARK			-		

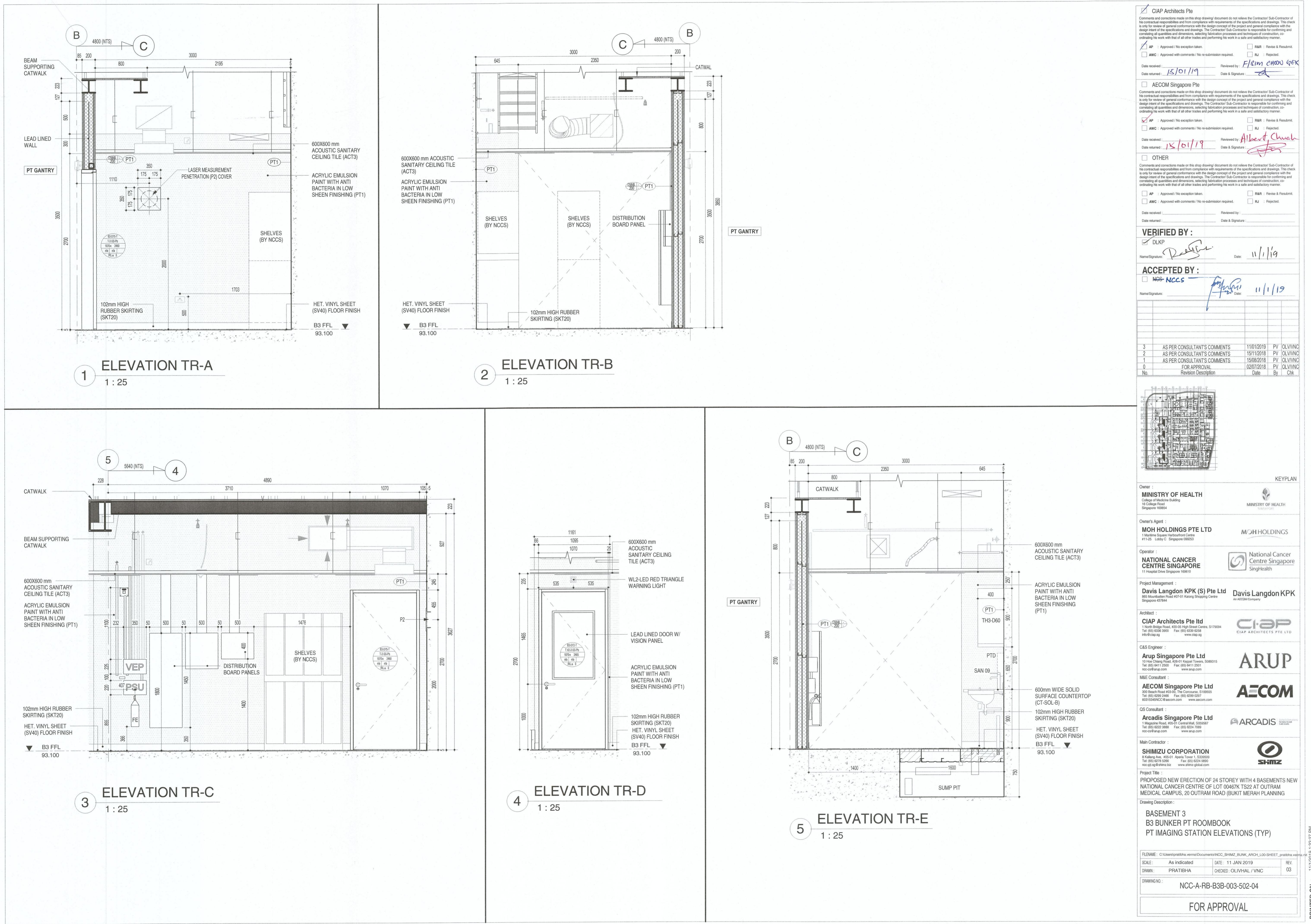


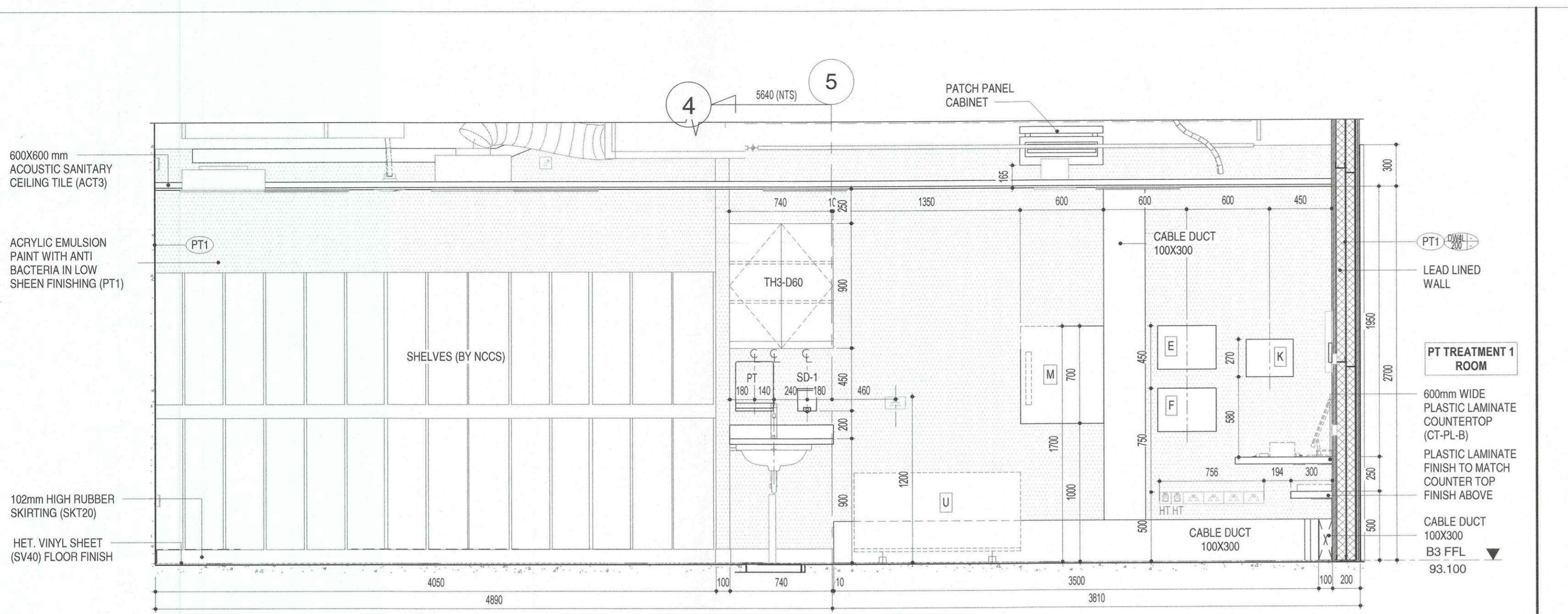
# B3-PT IMAGING STATION-ABOVE TABLE (TYP.)

# B3- PT IMAGING STATION RCP (TYP.)

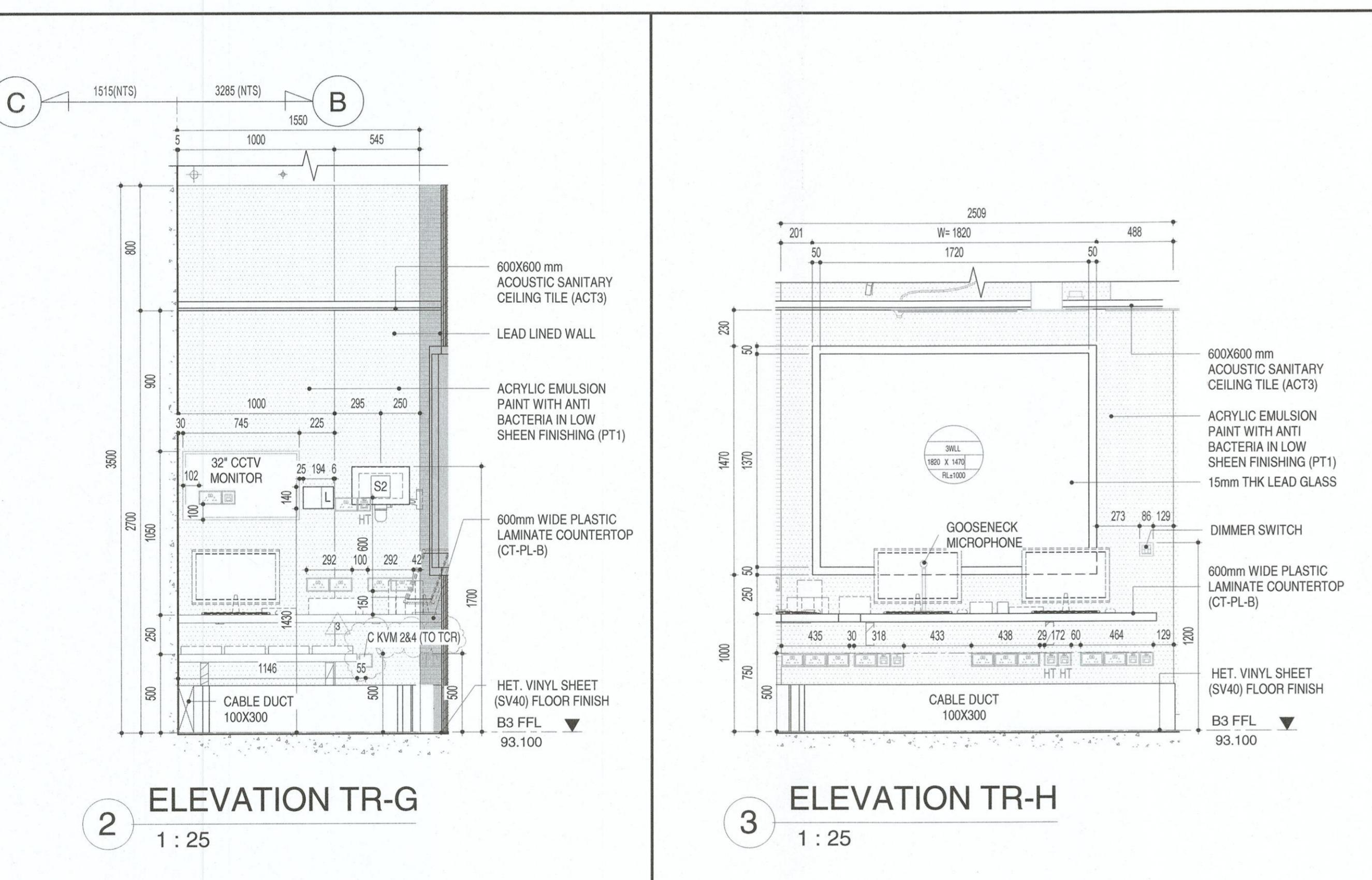
# B3 - PT IMAGING STATION- BELOW TABLE (TYP.)

PRINTED ON : 11/1/2019 1:32:48 PM



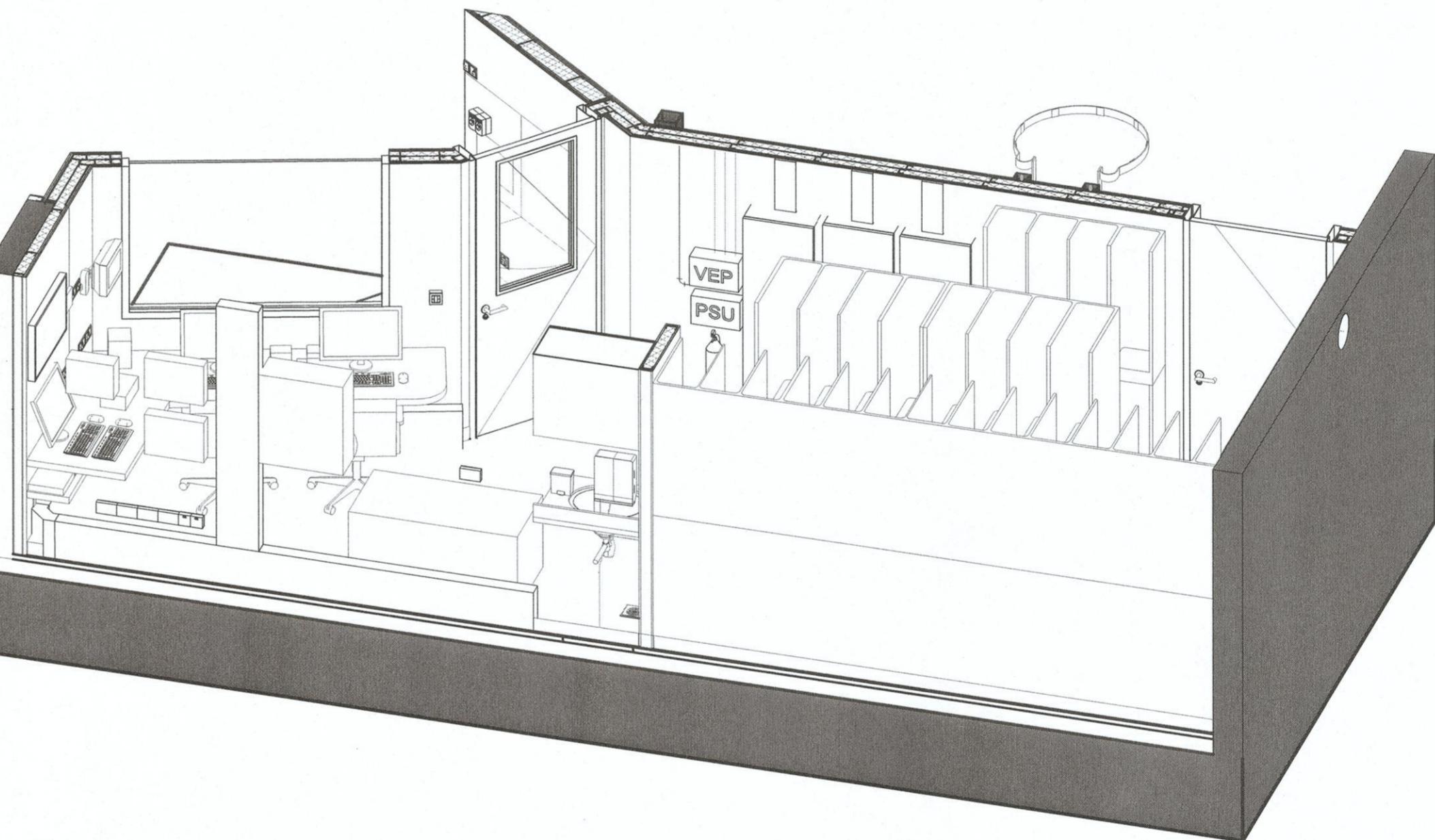


**ELEVATION TR-F**

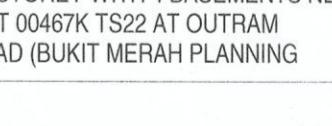
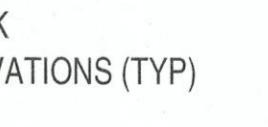
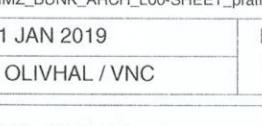
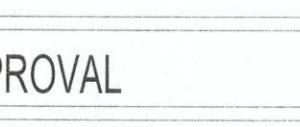


**ELEVATION TR-G**

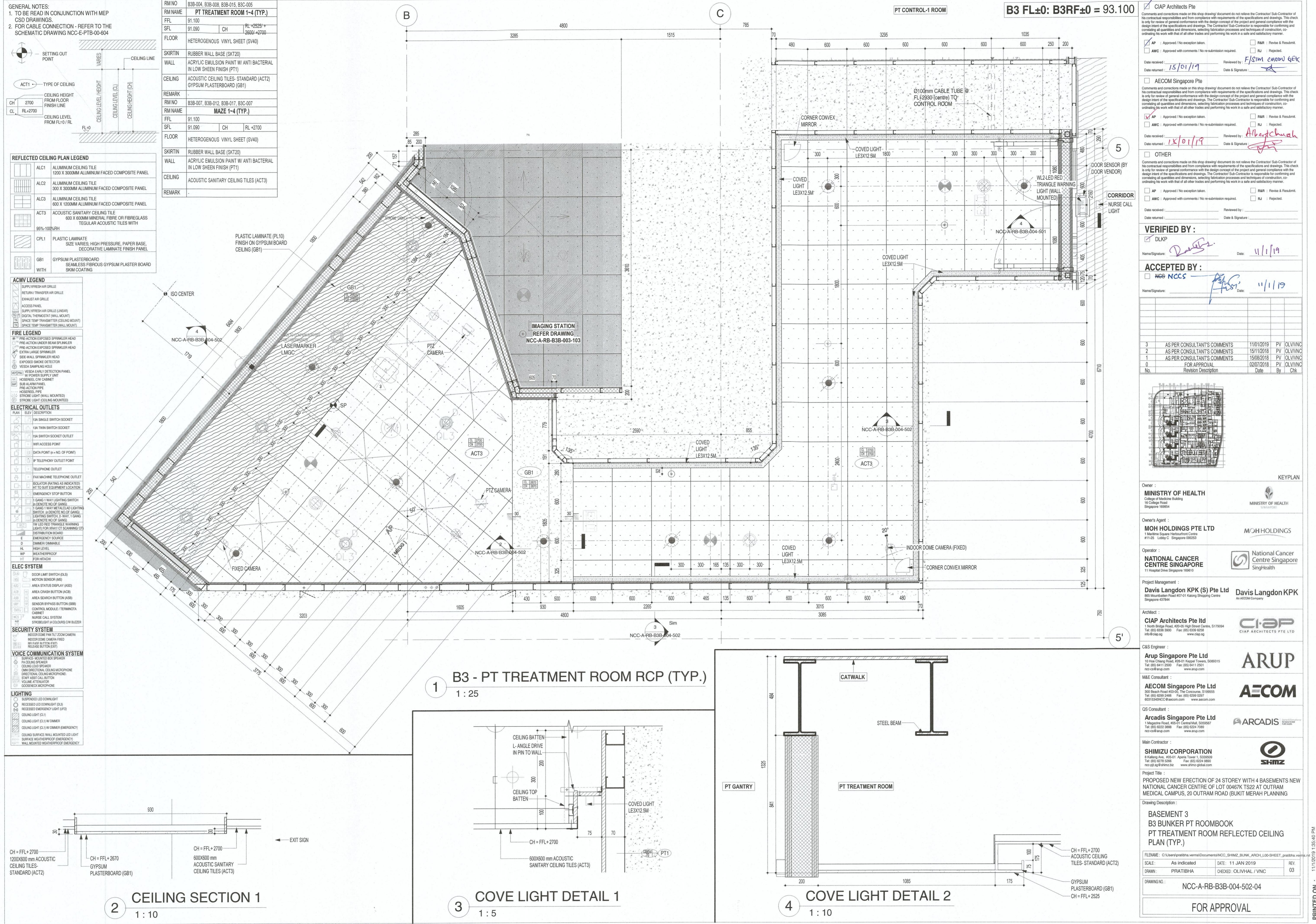
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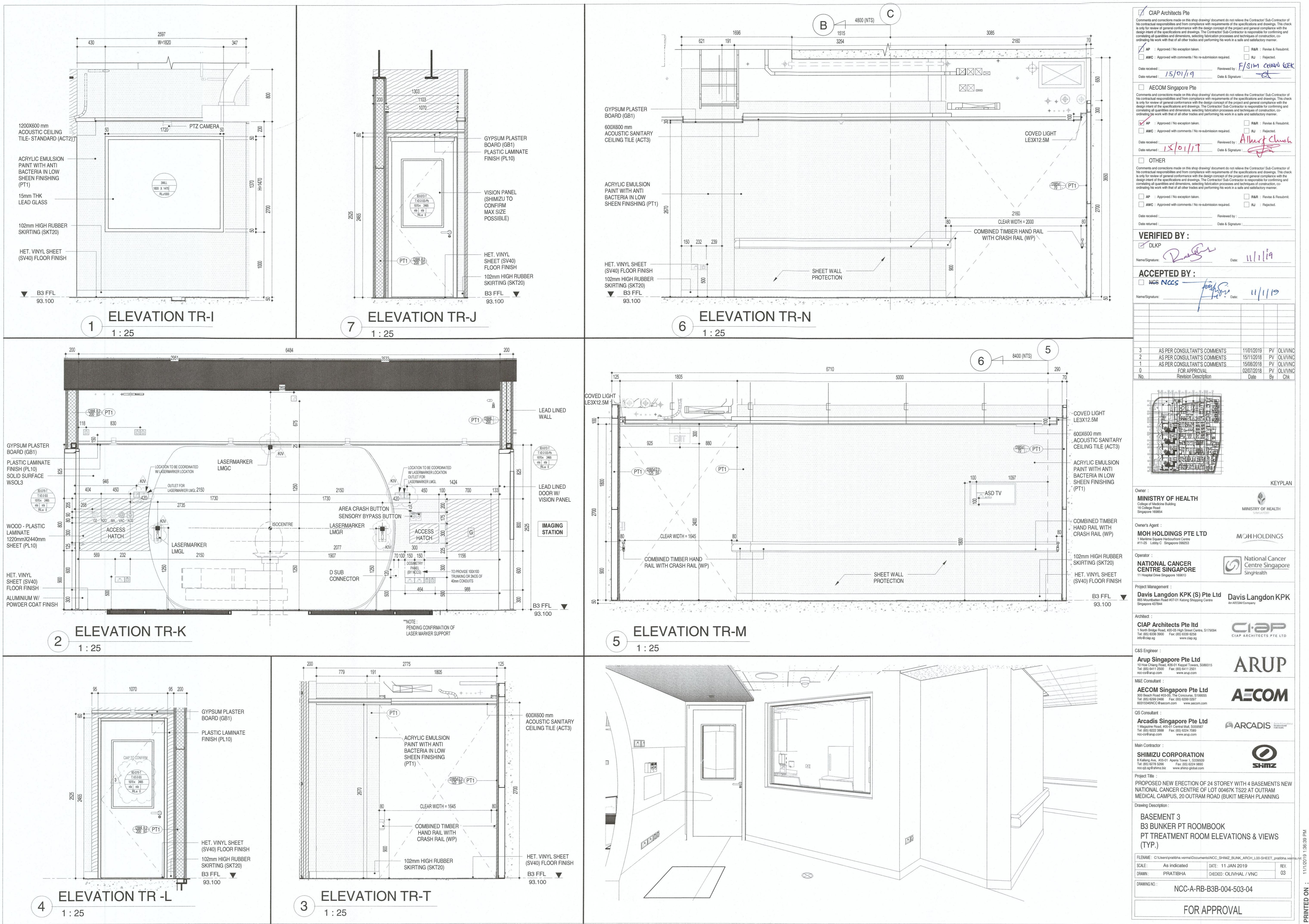


# 3D ISOMETRIC PT IMAGING STATION

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received : <u>15/01/19</u>	Reviewed by : <u>F/SIM CHAN QEK</u>																						
returned : <u>15/01/19</u>	Date & Signature : <u>[Signature]</u>																						
<b>AECOM Singapore Pte</b>																							
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received : _____	Reviewed by : _____																						
returned : _____	Date & Signature : _____																						
<b>VERIFIED BY :</b>																							
DLKP	<u>Dale S.</u>	Date: <u>11/1/19</u>																					
/Signature:																							
<b>ACCEPTED BY :</b>																							
NCS NCCS	<u>Pauline</u>	Date: <u>11/1/19</u>																					
/Signature:																							
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FOR APPROVAL	02/07/2018	PV	OLV/VNC																				
Revision Description	Date	By	Chk																				
																							
<b>KEYPLAN</b>																							
<b>MINISTRY OF HEALTH</b> 1 George Medicine Building College Road Singapore 169854																							
 <b>MINISTRY OF HEALTH</b> SINGAPORE																							
Client's Agent : <b>MOH HOLDINGS PTE LTD</b> Maritime Square Harbourfront Centre 25 Lobby C Singapore 099253																							
 <b>MOH HOLDINGS</b>																							
Project Manager : <b>Davis Langdon KPK (S) Pte Ltd</b> Mountbatten Road #07-01 Katong Shopping Centre Singapore 437844																							
 <b>Davis Langdon KPK</b> An AECOM Company																							
Consultant : <b>CIAP Architects Pte Ltd</b> North Bridge Road, #20-05 High Street Centre, S179094 (65) 6336 3900 Fax: (65) 6339 6258 <a href="http://ciap.sg">www.ciap.sg</a>																							
 <b>CIAP</b> CIAP ARCHITECTS PTE LTD																							
Engineer : <b>Arup Singapore Pte Ltd</b> 80 Keppel Road, #26-01 Keppel Towers, S089315 (65) 6411 2500 Fax: (65) 6411 2501 <a href="mailto:arups@arup.com">arups@arup.com</a> <a href="http://www.arup.com">www.arup.com</a>																							
 <b>ARUP</b>																							
Consultant : <b>EPCM Singapore Pte Ltd</b> Beach Road #03-00, The Concourse, S199555 (65) 6299 2466 Fax: (65) 6299 0297 <a href="mailto:5345NCC@aecom.com">5345NCC@aecom.com</a> <a href="http://www.aecom.com">www.aecom.com</a>																							
 <b>AECOM</b>																							
Consultant : <b>ARCADIS Singapore Pte Ltd</b> Magazine Road, #05-01 Central Mall, S059567 (65) 6222 3888 Fax: (65) 6224 7089 <a href="mailto:arc@arup.com">arc@arup.com</a> <a href="http://www.arup.com">www.arup.com</a>																							
 <b>ARCADIS</b> Design & Consulting for natural and built assets																							
Contractor : <b>SHIMIZU CORPORATION</b> 10 Tiong Ave, #05-01 Aperia Tower 1, S339509 (65) 6278 5266 Fax: (65) 6224 9890 <a href="mailto:shj.tsg@shimz.biz">shj.tsg@shimz.biz</a> <a href="http://www.shimz-global.com">www.shimz-global.com</a>																							
 <b>SHIMZ</b>																							
Project Title : <b>PROPOSED NEW ERECTION OF 24 STOREY WITH 4 BASEMENTS NEW NATIONAL CANCER CENTRE OF LOT 00467K TS22 AT OUTRAM MEDICAL CAMPUS, 20 OUTRAM ROAD (BUKIT MERAH PLANNING)</b>																							
Revision Description : <b>BASEMENT 3</b> <b>B3 BUNKER PT ROOMBOOK</b> <b>PT IMAGING STATION ELEVATIONS (TYP)</b>																							
NAME: C:\Users\pratibha.verma\Documents\NCC_SHIMZ_BUNK_ARCH_L00-SHEET_Pratibha.verma.rvt LE: As indicated DATE: 11 JAN 2019 REV. BN: PRATIBHA CHECKED: OLIVHAL / VNC 03																							
WING NO.: <b>NCC-A-RB-B3B-003-503-04</b>																							
<b>FOR APPROVAL</b>																							

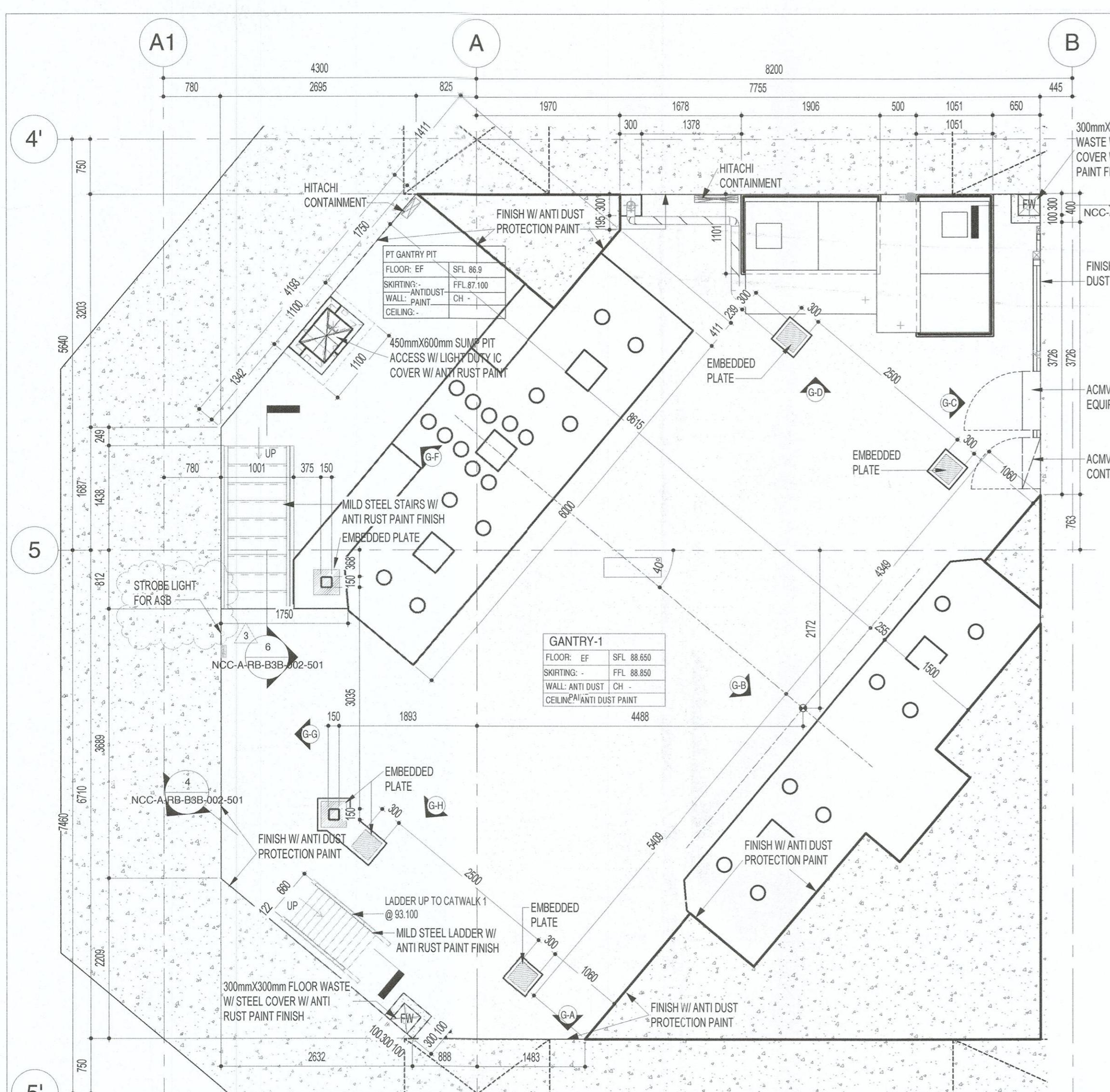






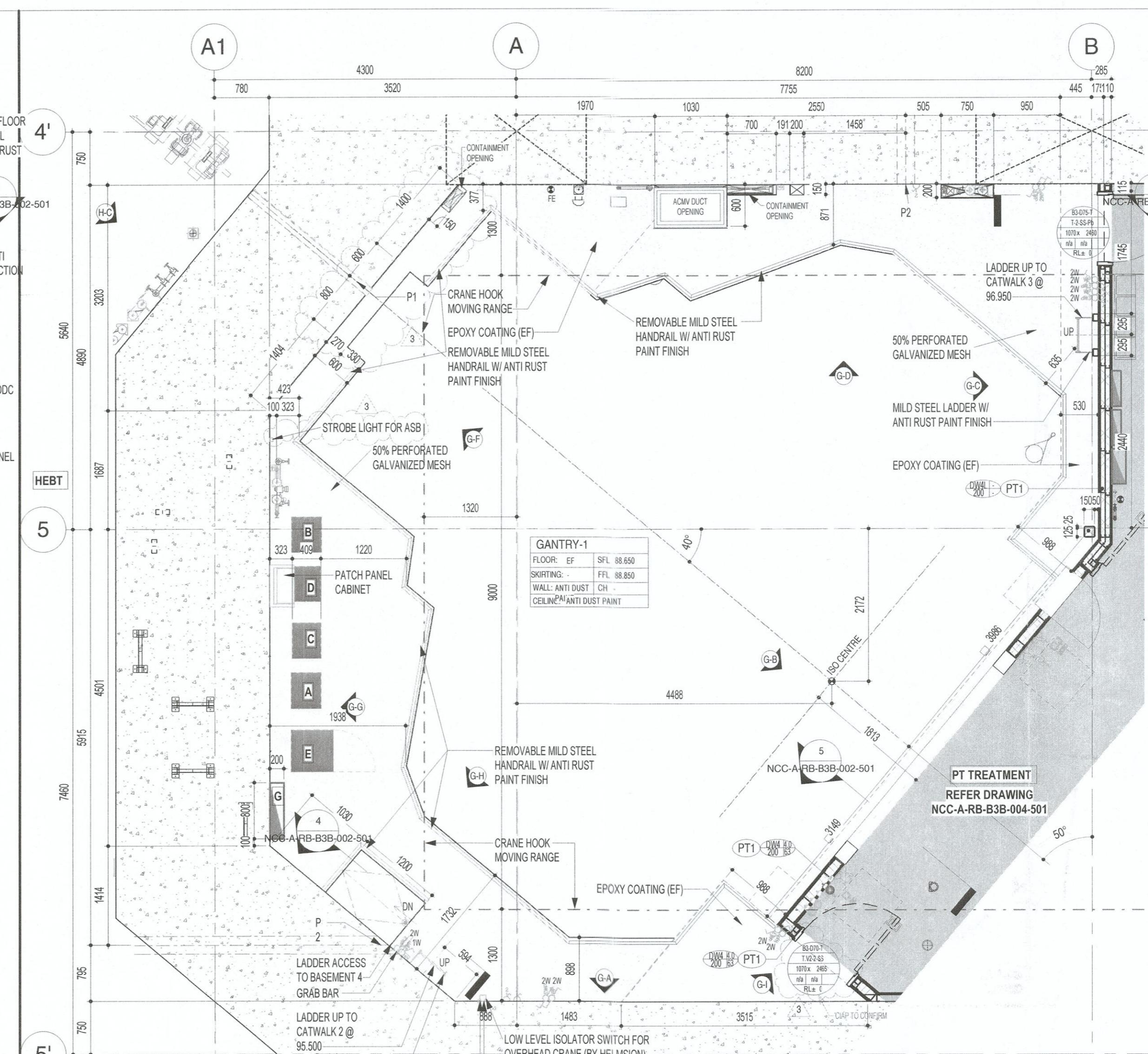






B4 GANTRY 1-4 (TYP.) LAYOUT PLAN

1 : 50



B3 GANTRY 1-4 (TYP.) LAYOUT PLAN

1 : 50



Owner : MINISTRY OF HEALTH  
Ministry of Health Building  
10 Kallang Avenue  
Singapore 169854

Owner's Agent : MOH HOLDINGS PTE LTD  
1 Maritime Square Harbourfront Centre  
#11-0000 Lobby C Singapore 099233

Operator : NATIONAL CANCER CENTRE SINGAPORE  
10 Hospital Drive Singapore 169810

Project Management : Davis Langdon KPK (S) Pte Ltd  
88 Beach Road #07-01 Katong Shopping Centre  
Singapore 437844

Architect : CIAP Architects Pte Ltd  
1 North Bridge Road, #20-05 High Street Centre, S179044  
Tel: (65) 6336 3900 Fax: (65) 6339 6256  
www.ciap-sg.com

C&S Engineer : ARUP Singapore Pte Ltd  
1 North Bridge Road, #20-05 High Street Centre, S179044  
Tel: (65) 6336 3900 Fax: (65) 6339 6256  
www.arup.com

M&E Consultant : AECOM Singapore Pte Ltd  
300 Beach Road #09-01 The Concourse, S199555  
Tel: (65) 6299 2466 Fax: (65) 6299 0297  
www.aecom.com

QS Consultant : ARCADIS Singapore Pte Ltd  
1 Magazine Road, #05-01 Aperia Tower 1, S339509  
Tel: (65) 6222 3388 Fax: (65) 6224 7088  
www.arcadis.com

Main Contractor : SHIMIZU CORPORATION  
8 Kallang Ave, #05-01 Aperia Tower 1, S339509  
Tel: (65) 6278 2596 Fax: (65) 4224 9860  
www.shimizu-global.com

Project Title : PROPOSED NEW ERECTION OF 24 STOREY WITH 4 BASEMENTS NEW NATIONAL CANCER CENTRE OF LOT 00467K TS22 AT OUTRAM MEDICAL CAMPUS, 20 OUTRAM ROAD (BUKIT MERAH PLANNING)

Drawing Description :

BASEMENT 3  
B3 BUNKER PT ROOMBOOK  
PT GANTRY 1-4 FINISHING PLAN (TYP.)

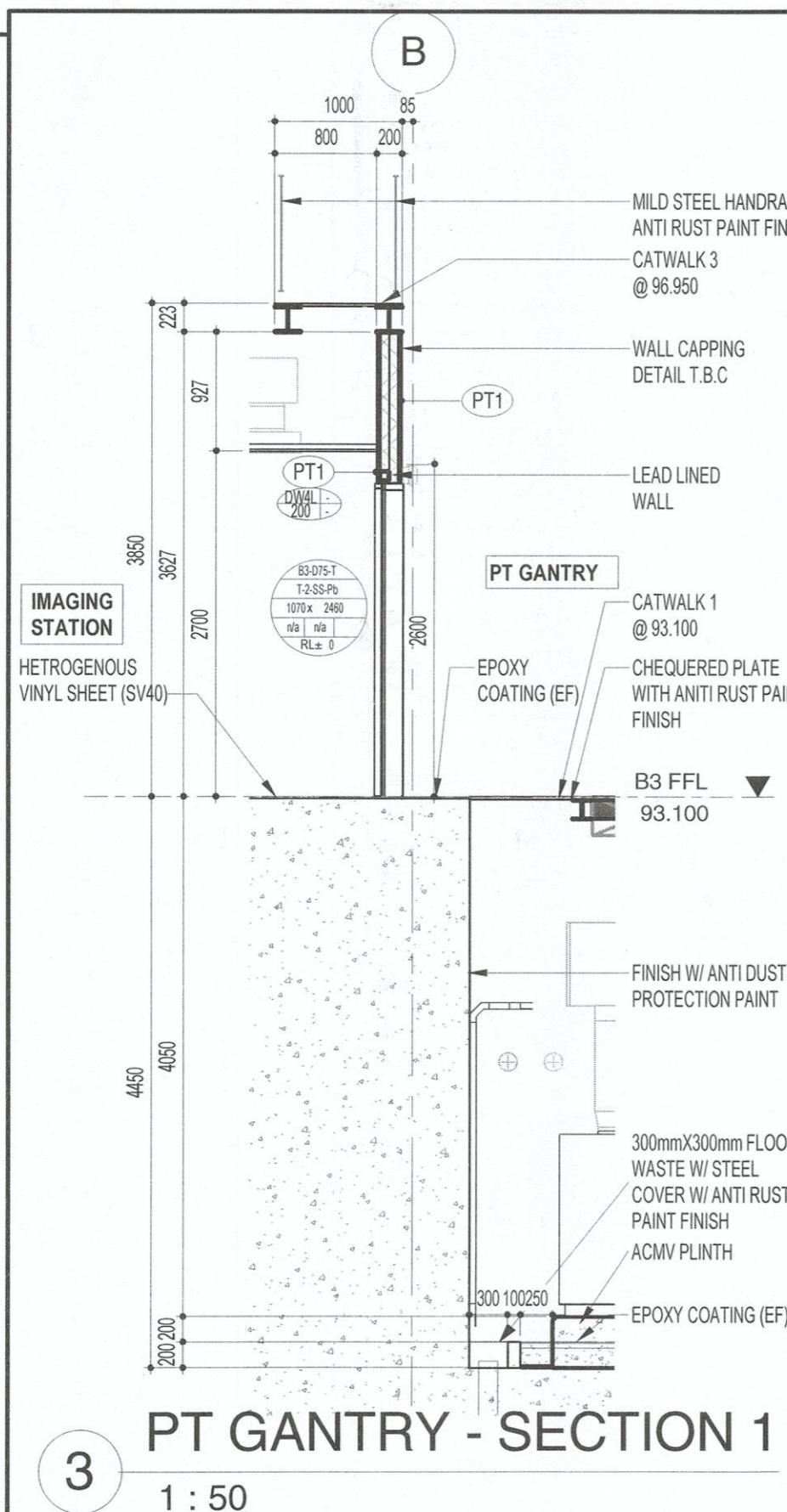
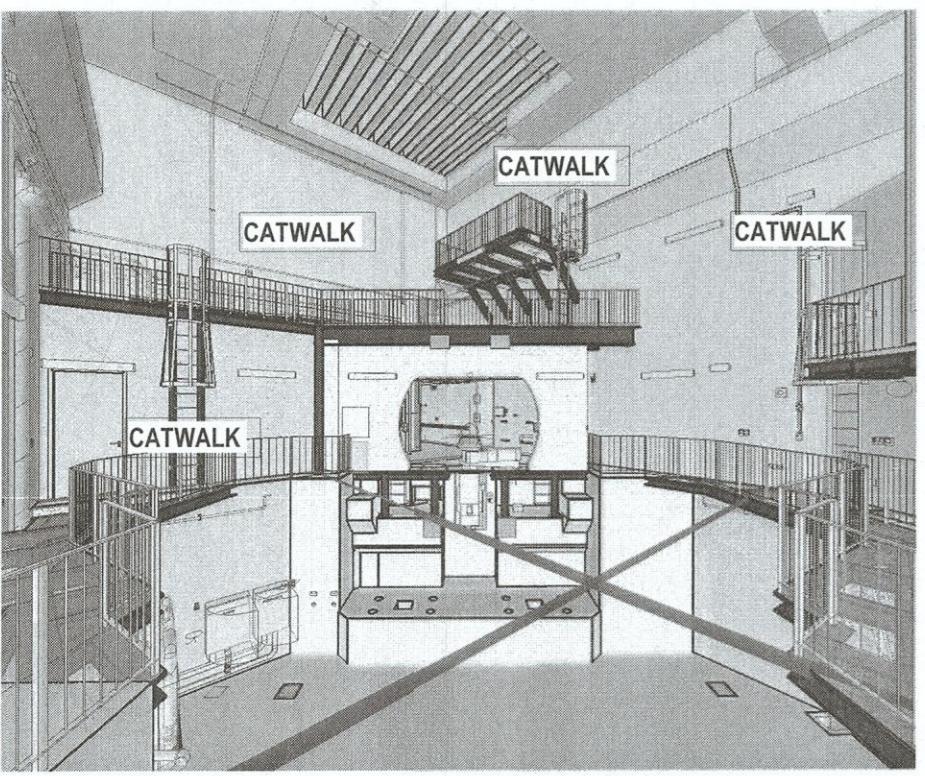
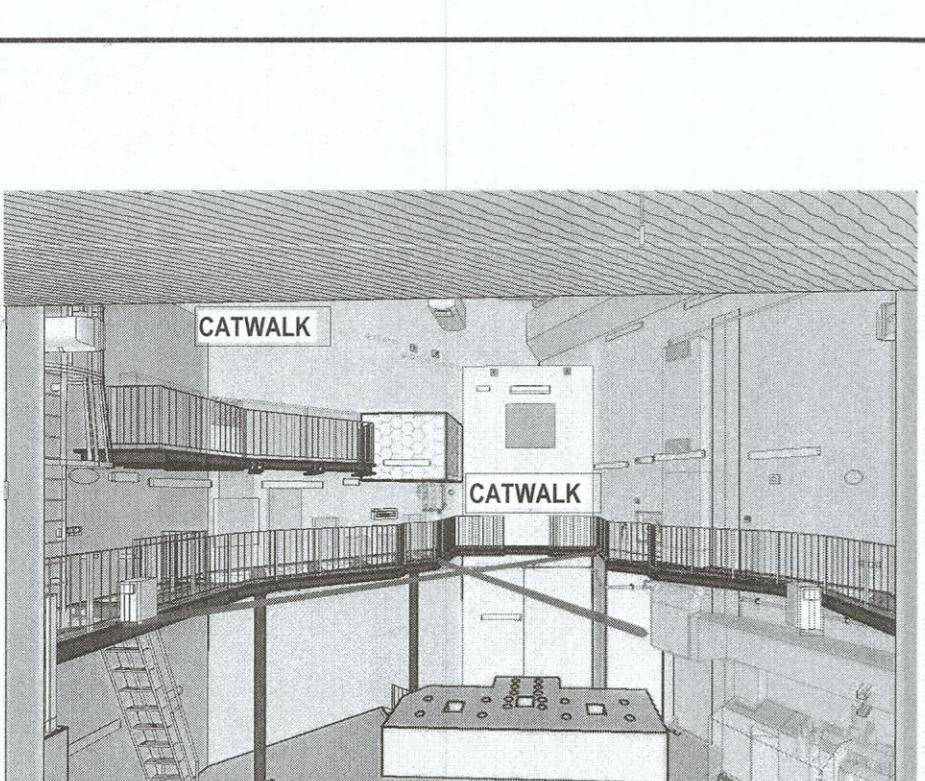
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SCALE : As indicated DATE : 11 JAN 2019 REV : 03

DRAWN : PRATIBHA CHECKED : OLIVHAL / VNC

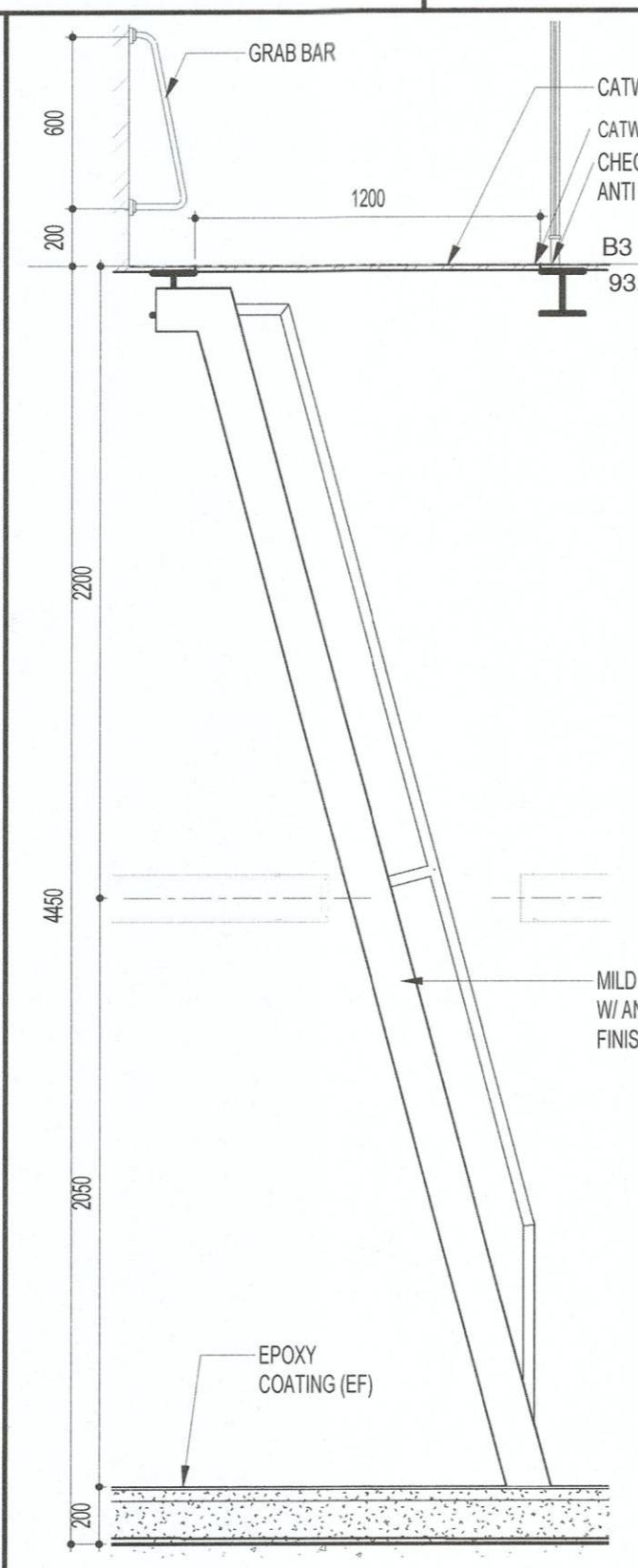
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FOR APPROVAL



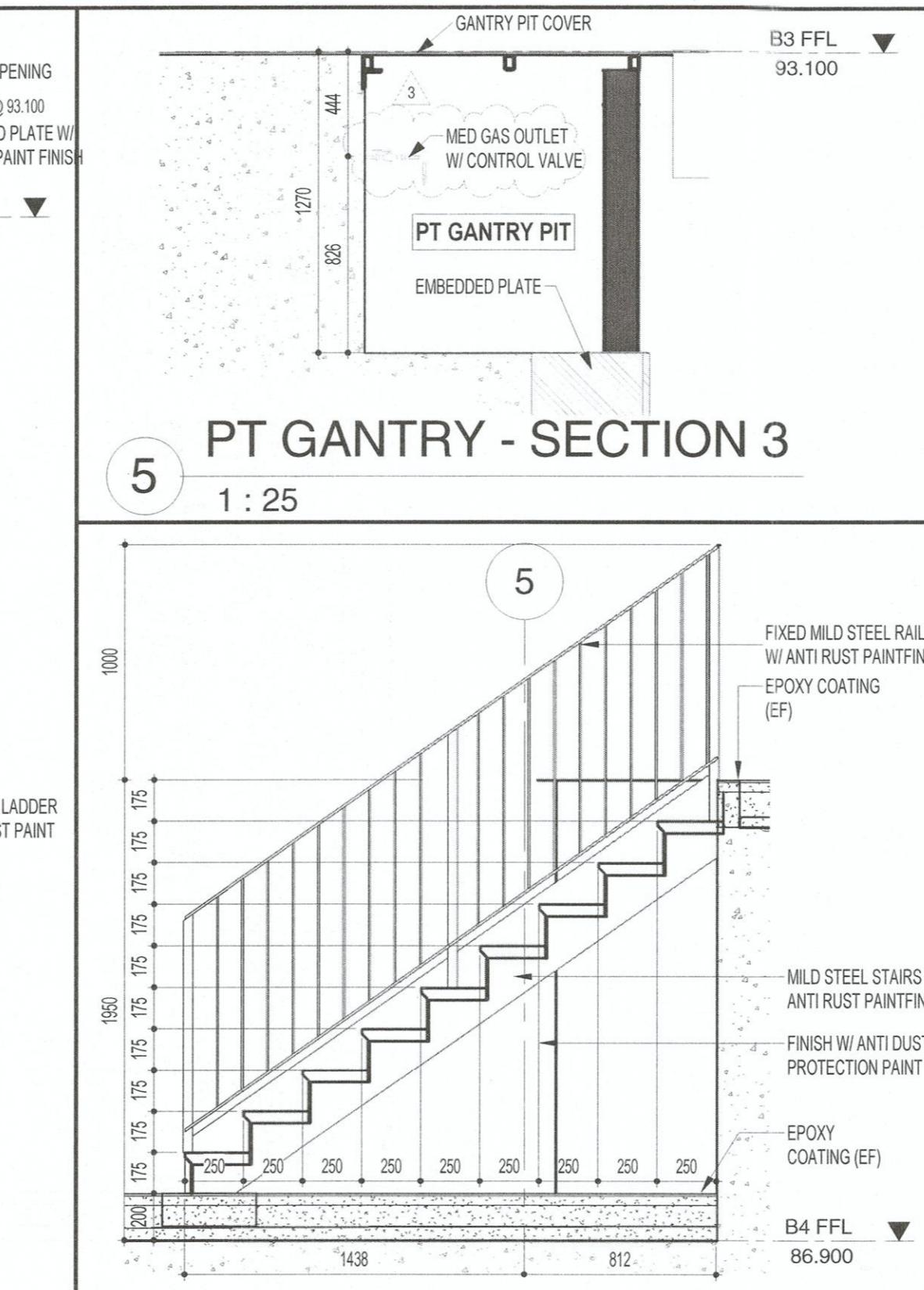
PT GANTRY - SECTION 1

3 : 50



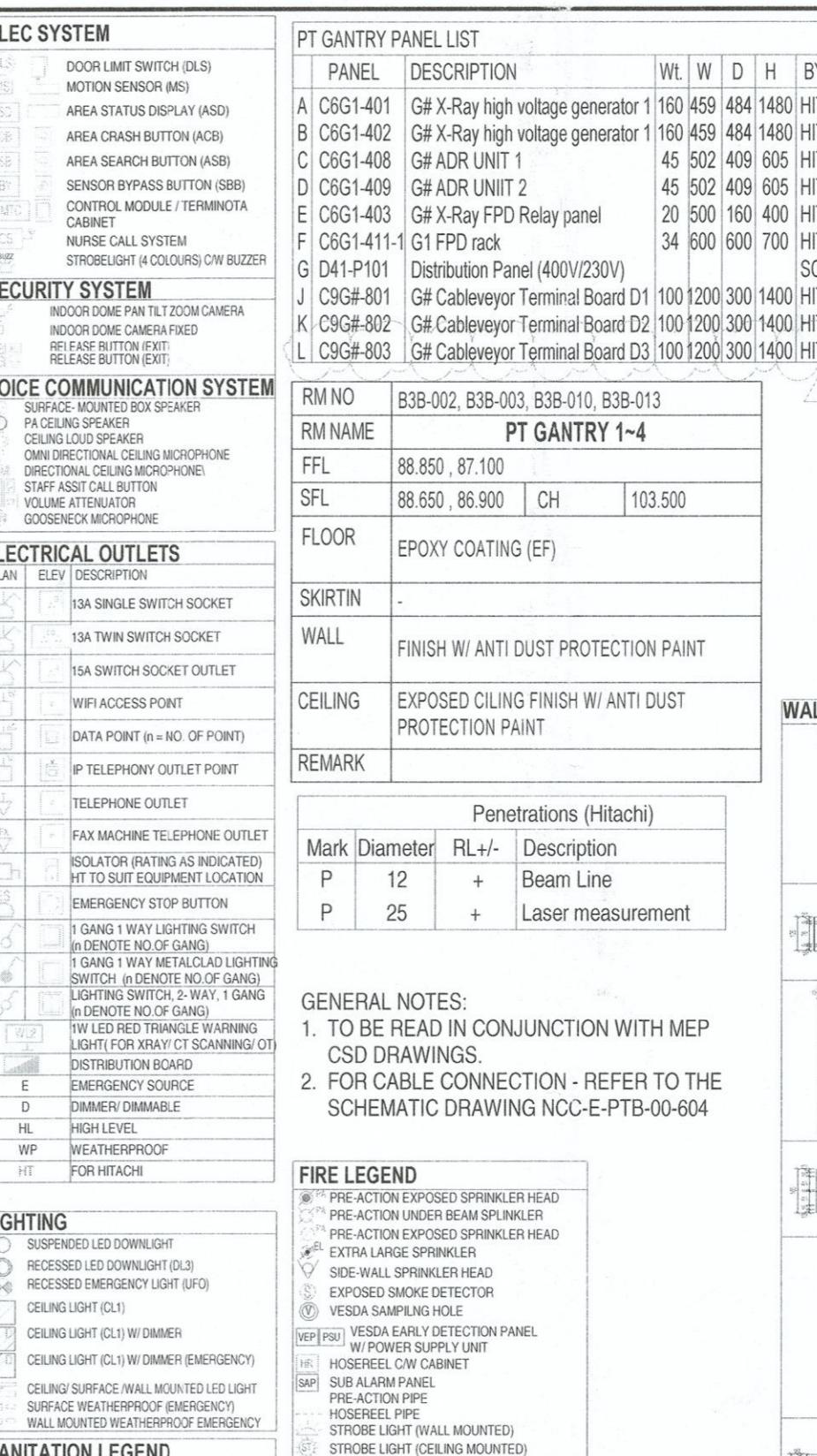
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PT GANTRY - SECTION 3

5 : 25

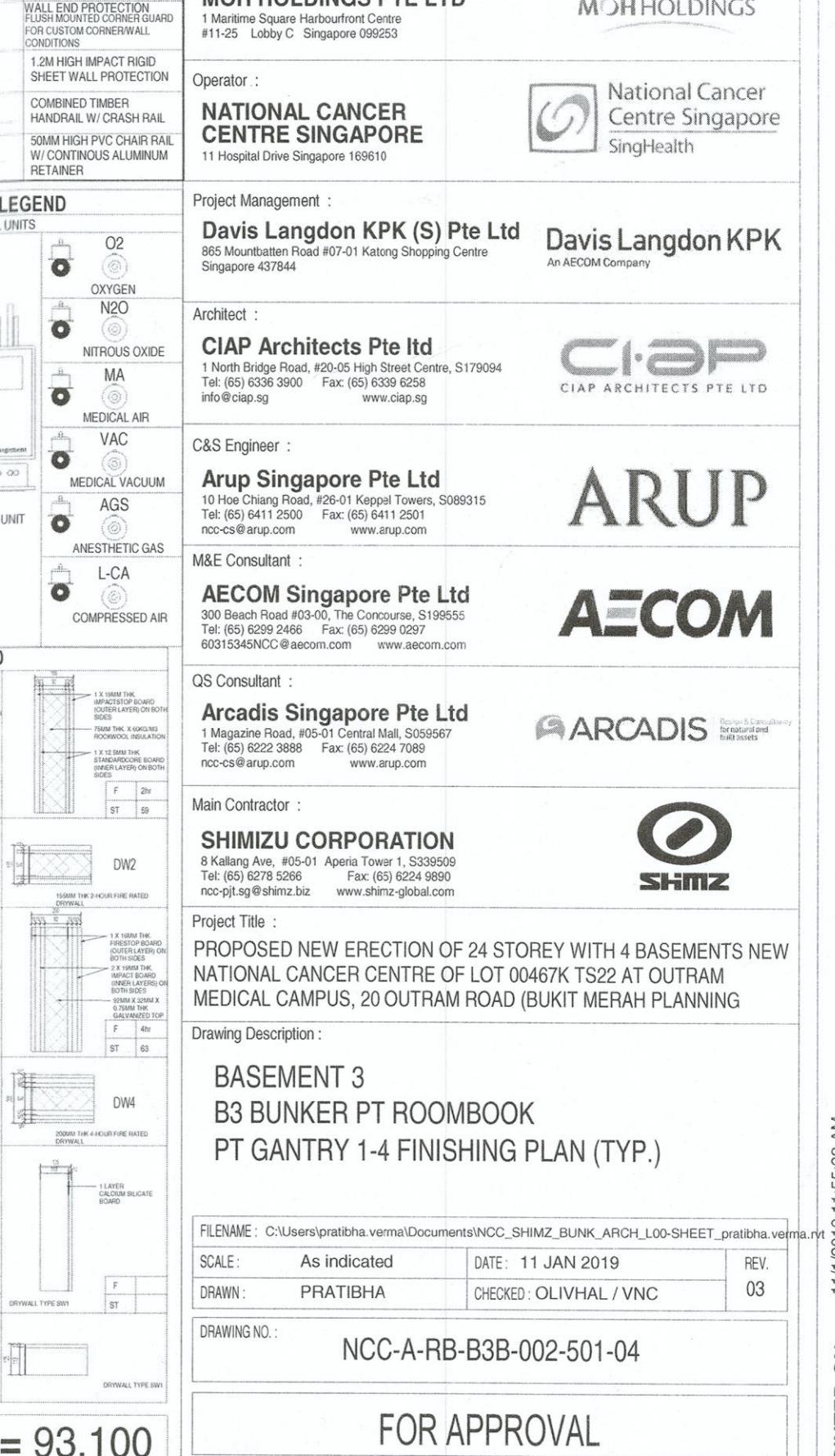


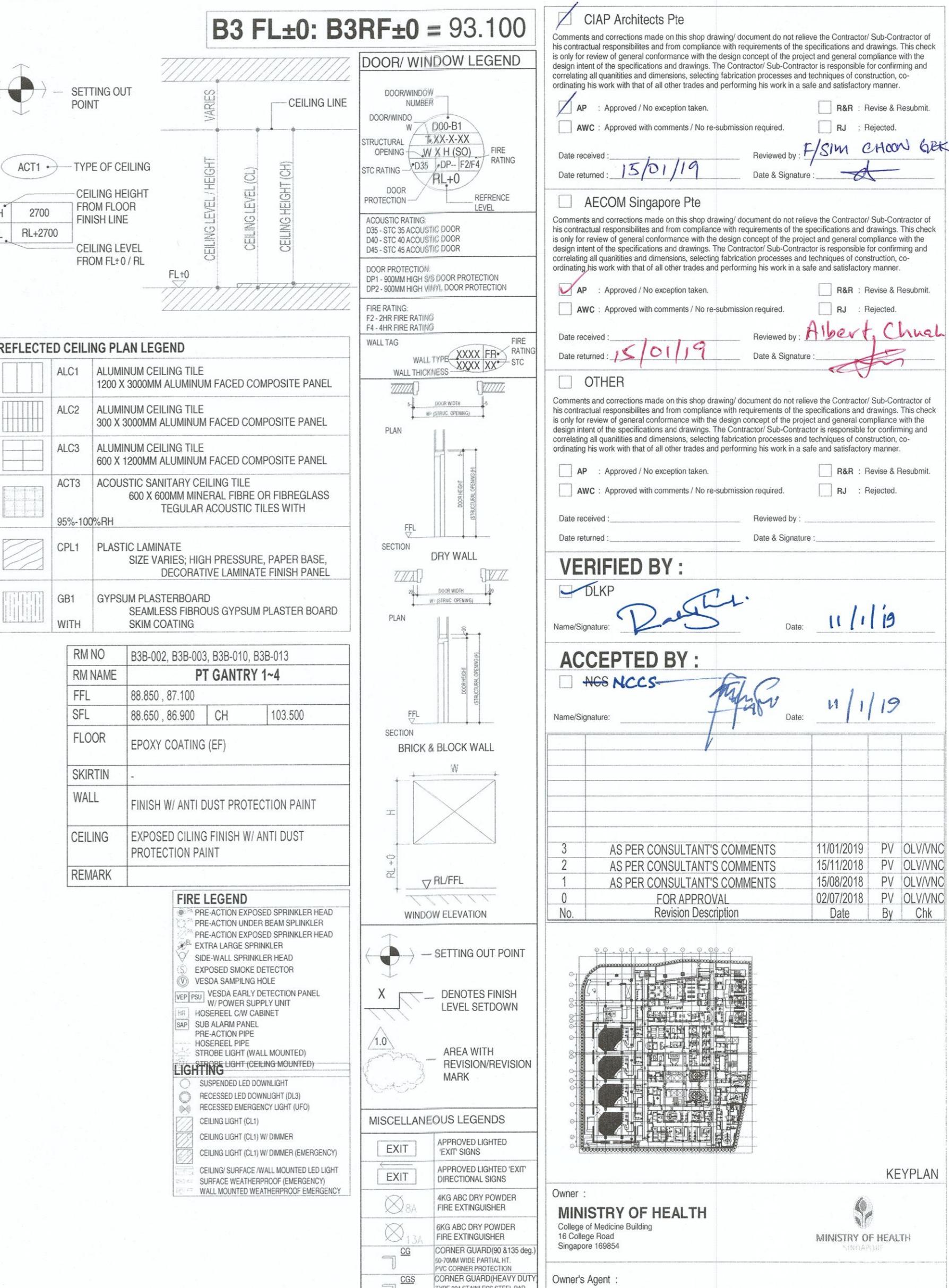
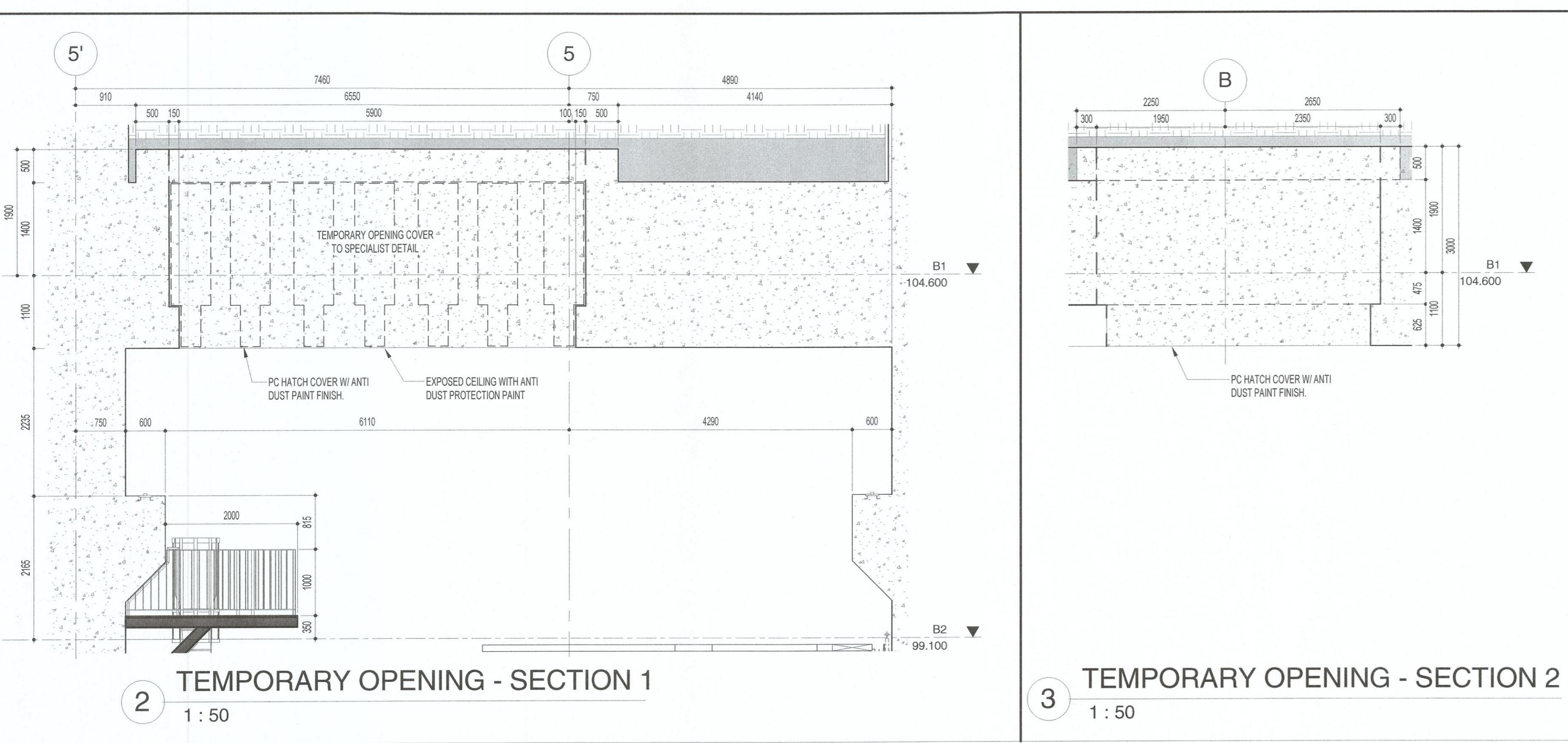
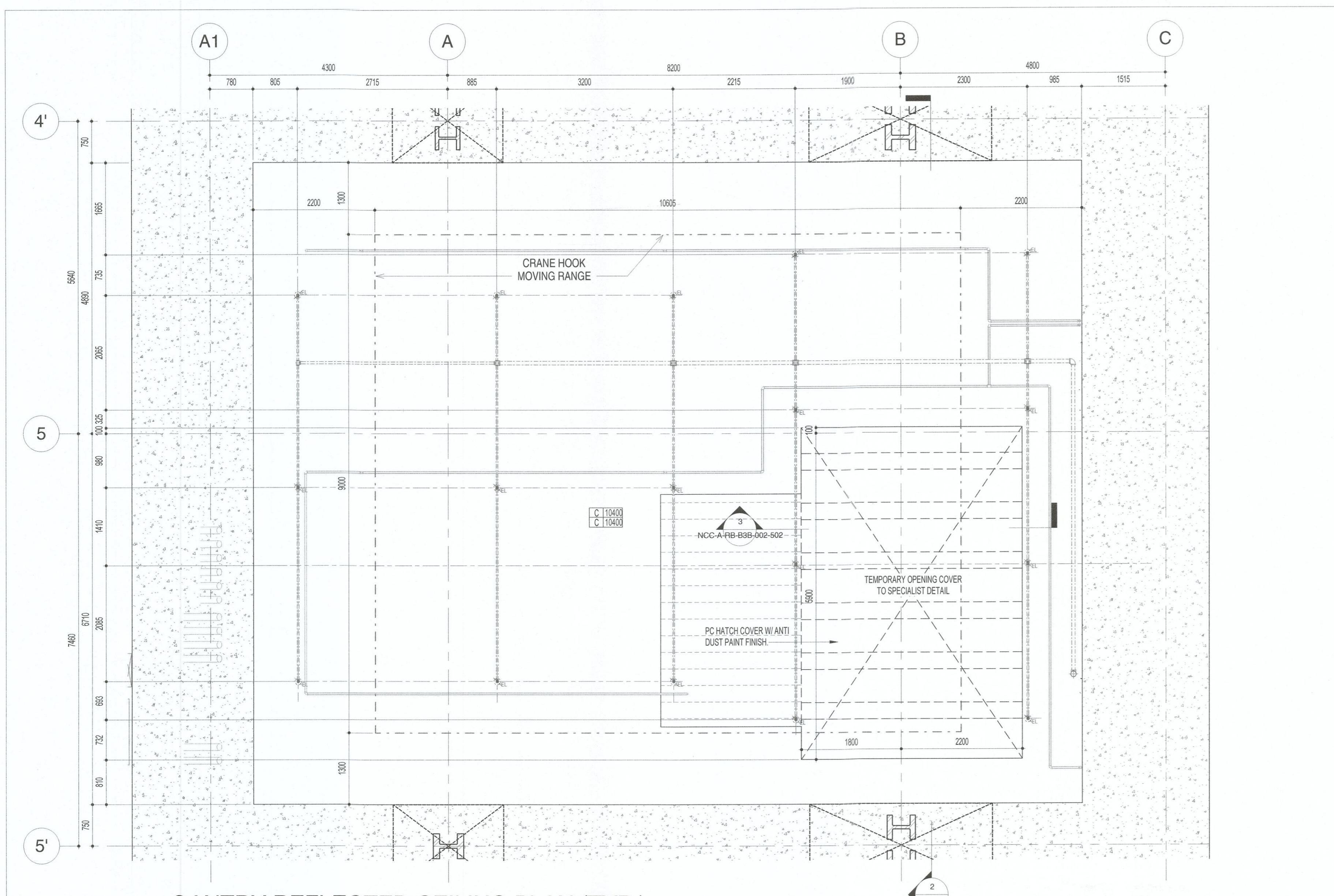
PT GANTRY PANEL LIST

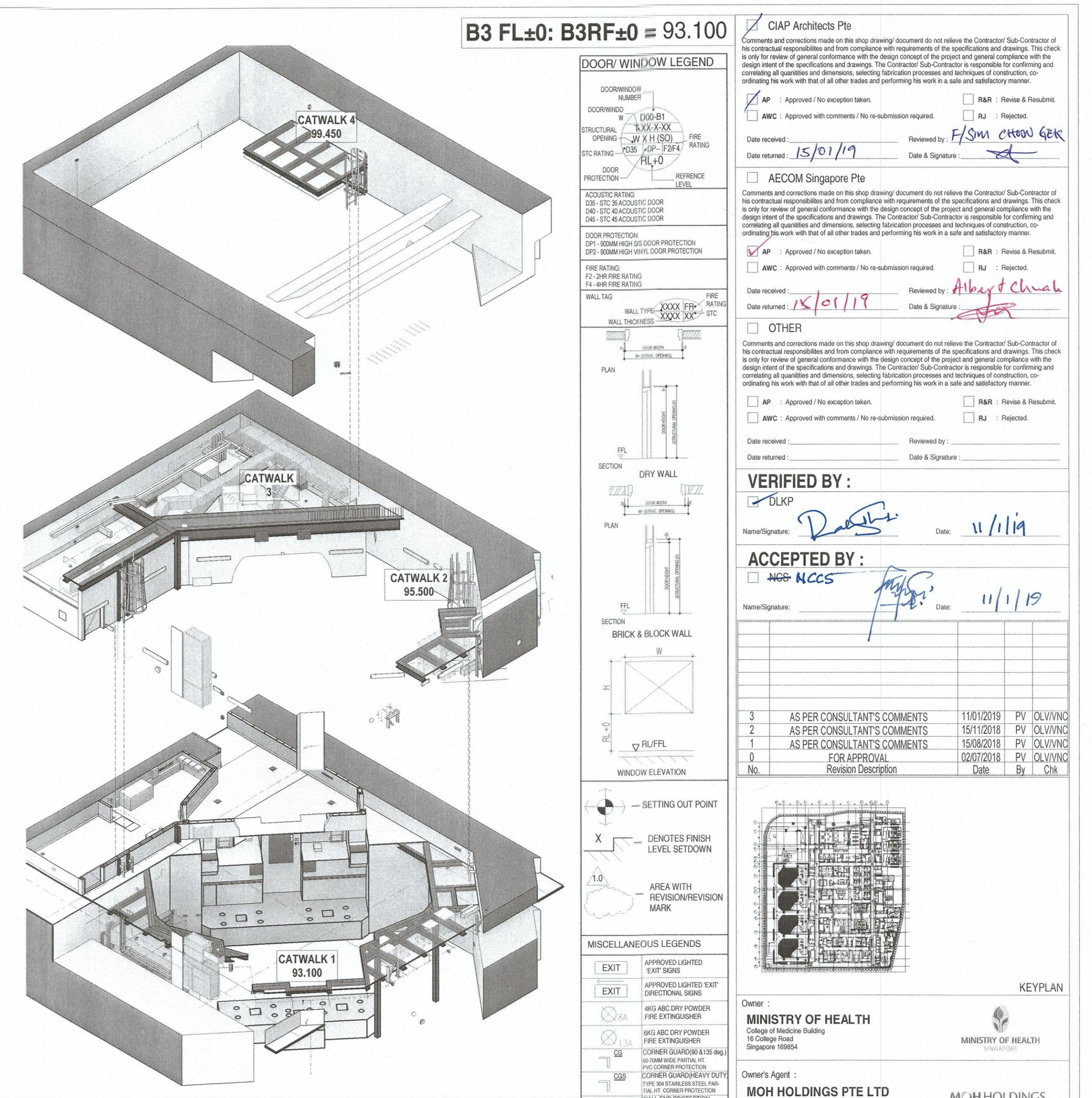
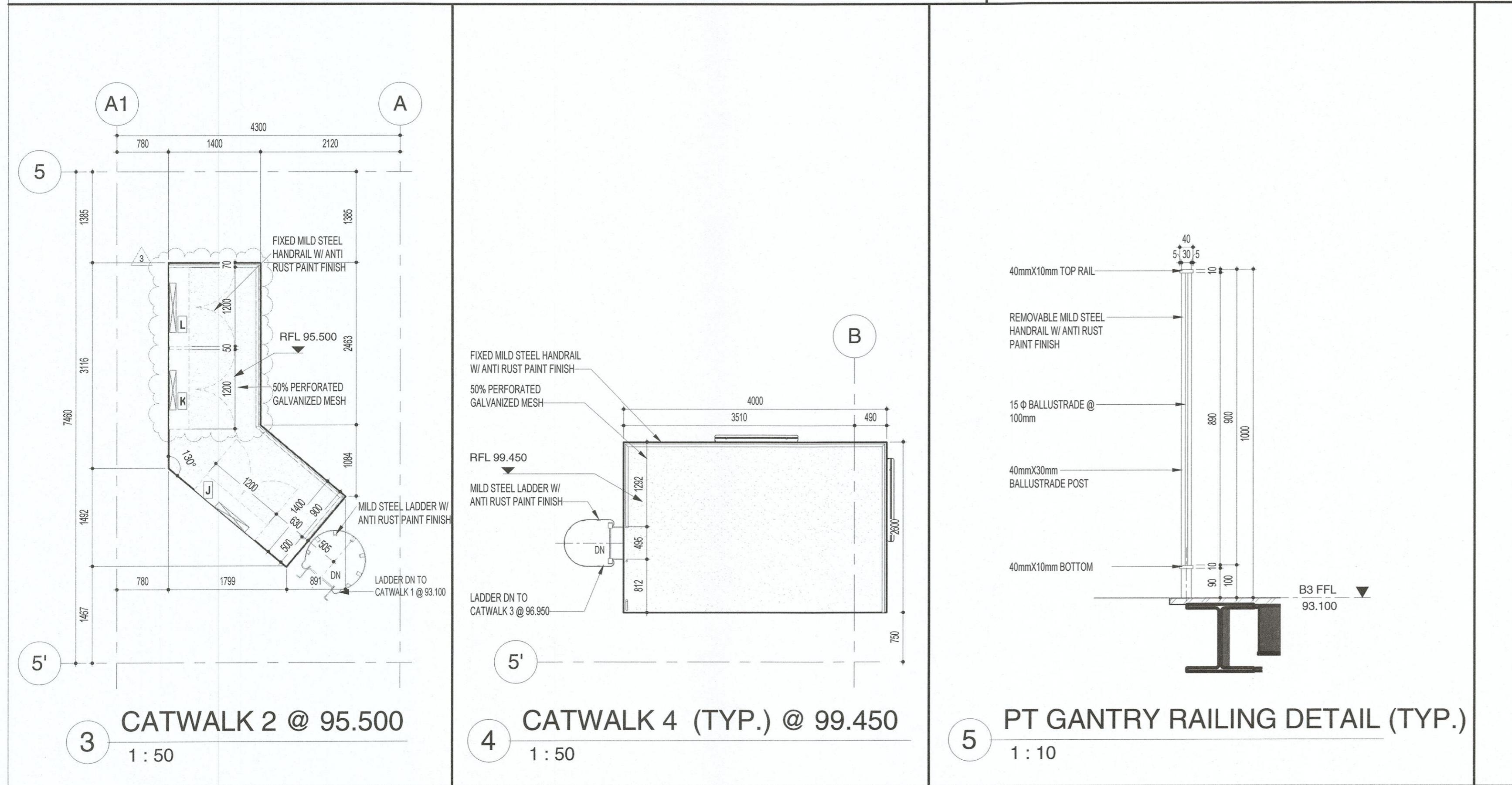
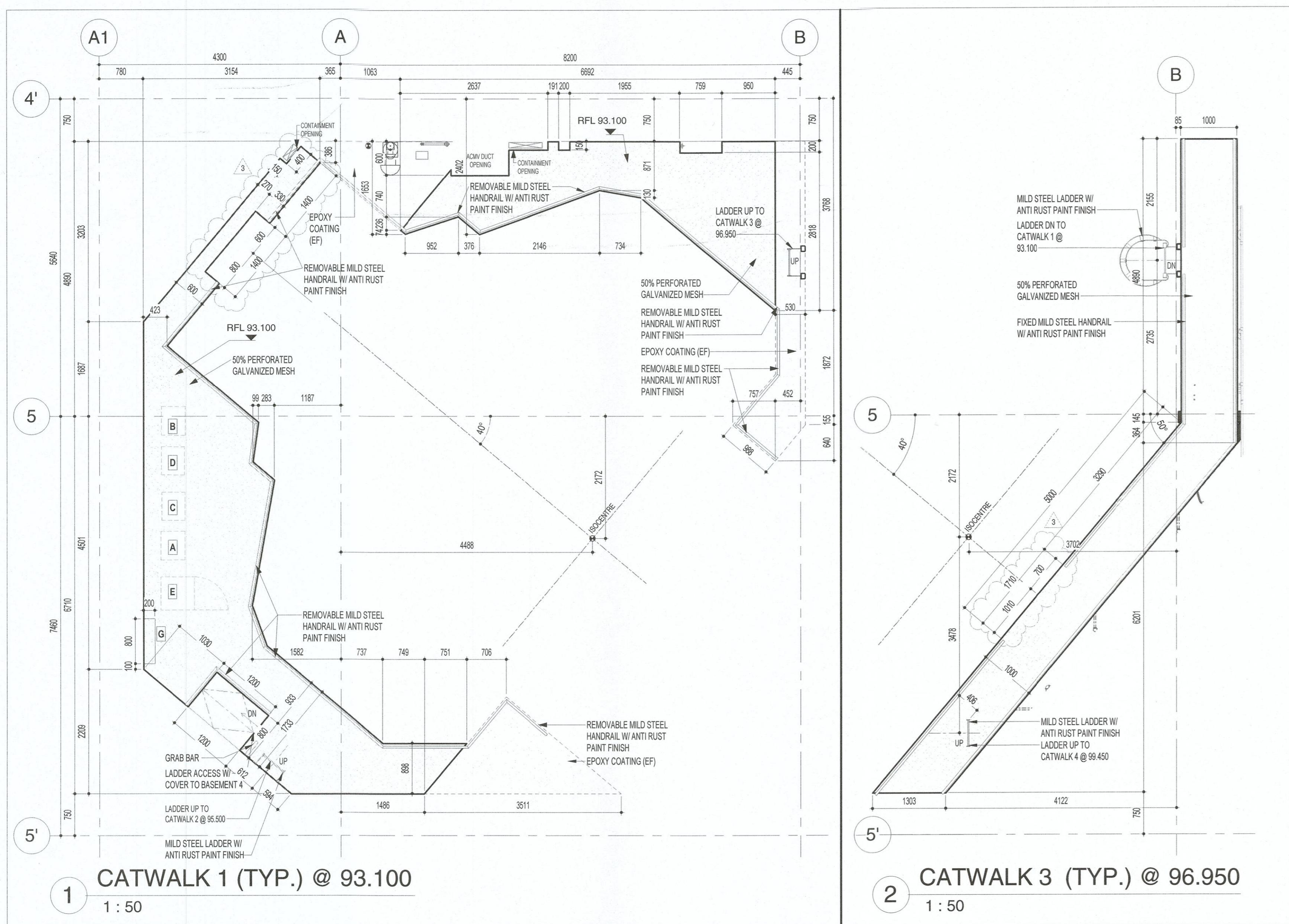


PT GANTRY - SECTION 4

6 : 25







PT GANTRY PANEL LIST	
RM NO	B3B-002, B3B-003, B3B-010, B3B-013
RM NAME	PT GANTRY 1-4
W	160
H	450
D	1480
BY	HIT
FFL	88,850, 87,100
SFL	88,850, 86,900, CH
FLOOR	103,500
EPoxy Coating (EF)	
SKIRTIN	
WALL	FINISH W/ ANTI DUST PROTECTION PAINT
CEILING	EXPOSED CILING FINISH W/ ANTI DUST PROTECTION PAINT
REMARK	

**GENERAL NOTES:**

1. TO BE READ IN CONJUNCTION WITH MEP CSD DRAWINGS.
2. FOR CABLE CONNECTION - REFER TO THE SCHEMATIC DRAWING NCC-E-PTB-00-604

**WALL TYPE LEGEND**

**C&S Engineer :** Arup Singapore Pte Ltd

**M&E Consultant :** AECOM Singapore Pte Ltd

**QS Consultant :** Arcadis Singapore Pte Ltd

**Main Contractor :** SHIMIZU CORPORATION

**Project Title:** PROPOSED NEW ERECTION OF 24 STOREY WITH 4 BASEMENTS NEW NATIONAL CANCER CENTRE OF LOT #00467K TS22 AT OUTRAM MEDICAL CAMPUS, 20 OUTRAM ROAD (BUKIT MERAH PLANNING)

**Drawing Description:**

**BASEMENT 3**

**B3 BUNKER PT ROOMBOOK**

**PT GANTRY 1-4 CATWALK FINISHING DETAILS (TYP.)**

**FILENAME:** C:\Users\pratibha.vema\Documents\NCC\_SHIMZ\_BUNK\_ARCH\_L00-SHEET\_pratibha.vema.vt

**SCALE:** As indicated **DATE:** 11 JAN 2019 **REV:**

**DRAWN:** PRATIBHA **CHECKED:** OLIVHAL / VNC **03**

**DRAWING NO.:** NCC-A-RB-B3B-002-503

**FOR APPROVAL**

NOTE: ALL DATA POINTS ARE  
HITACHI (HT) DATA POINTS

CIAP Architects Pte  
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AP : Approved / No exception taken.  R&R : Review & Resubmit.  
 AWC : Approved with comments / No re-submission required.  RJ : Rejected.

Date received : Date returned : 15/01/19 Reviewed by : F/SIM CHOOON GEEK Date & Signature : *[Signature]*

AECOM Singapore Pte  
Comments and corrections made on this shop drawing document do not relieve the Contractor/Sub-Contractor of his contractual responsibilities and from compliance with the requirements of the specifications and drawings. This check is only for review of general conformance with the design concept of the project and general compliance with the design intent of the specifications and drawings. The Contractor/Sub-Contractor is responsible for confirming and correlating all quantities and dimensions, selecting fabrication processes and techniques of construction, co-ordinating his work with that of all other trades and performing his work in a safe and satisfactory manner.

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Date received : Date returned : 15/01/19 Reviewed by : *[Signature]* Date & Signature : *[Signature]*

OTHER  
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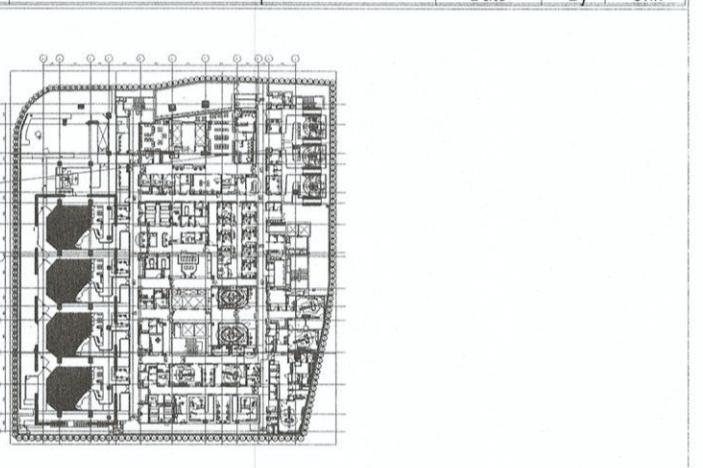
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VERIFIED BY : *[Signature]* Date : 11/1/19

ACCEPTED BY : *[Signature]* Date : 11/1/19

NCC NCCS *[Signature]* Date : 11/1/19

No.	Description	Date	By
3	AS PER CONSULTANTS COMMENTS	11/01/2019	PV QLV/NOC
2	AS PER CONSULTANTS COMMENTS	15/11/2018	PV QLV/NOC
1	AS PER CONSULTANTS COMMENTS	15/08/2018	PV QLV/NOC
0	FOR APPROVAL	02/07/2018	PV QLV/NOC
	Revision Description	Date	By



Owner : MINISTRY OF HEALTH  
Ministry of Health Building  
1 Outram Road  
Singapore 169854

Owner's Agent : MOH HOLDINGS PTE LTD  
1 Marina Square Harbourfront Centre  
#11-25 Lobby C Singapore 099253

Operator : NATIONAL CANCER CENTRE SINGAPORE  
1 Hospital Drive Singapore 169810

Project Management : Davis Langdon KPK (S) Pte Ltd  
60 Beach Road #07-01 Kallang Shopping Centre  
Singapore 437844

Architect : CIAP Architects Pte Ltd  
1 North Bridge Road, #05-05 High Street Centre, S179094  
Tel: (65) 6336 3900 Fax: (65) 6339 0258  
Info@ciap.sg www.ciap.sg

C&S Engineer : Arup Singapore Pte Ltd  
11 Beach Road #05-01 Keppel Bay Tower, S089515  
Tel: (65) 4411 1200 Fax: (65) 4411 1201  
rcoc@arup.com www.arup.com

M&E Consultant : AECOM Singapore Pte Ltd  
300 Beach Road #05-02, The Concourse, S199555  
Tel: (65) 6299 0468 Fax: (65) 6299 0297  
6031340NCCS@aecom.com www.aecom.com

QS Consultant : Arcadis Singapore Pte Ltd  
1 Magazine Road, #05-01 Central Mall, S089567  
Tel: (65) 6222 3888 Fax: (65) 6224 7088  
rcoc@arcadis.com www.arcadis.com

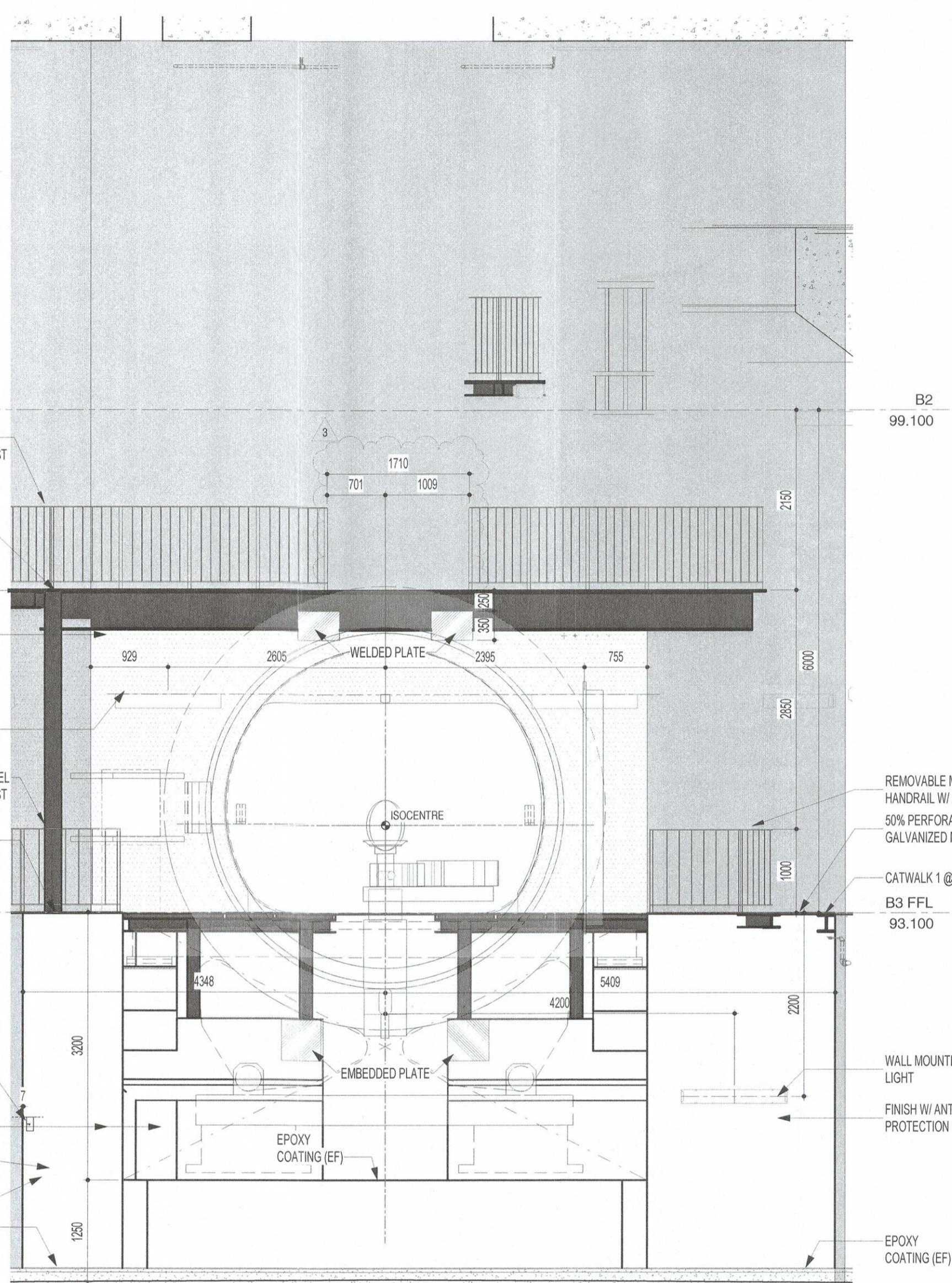
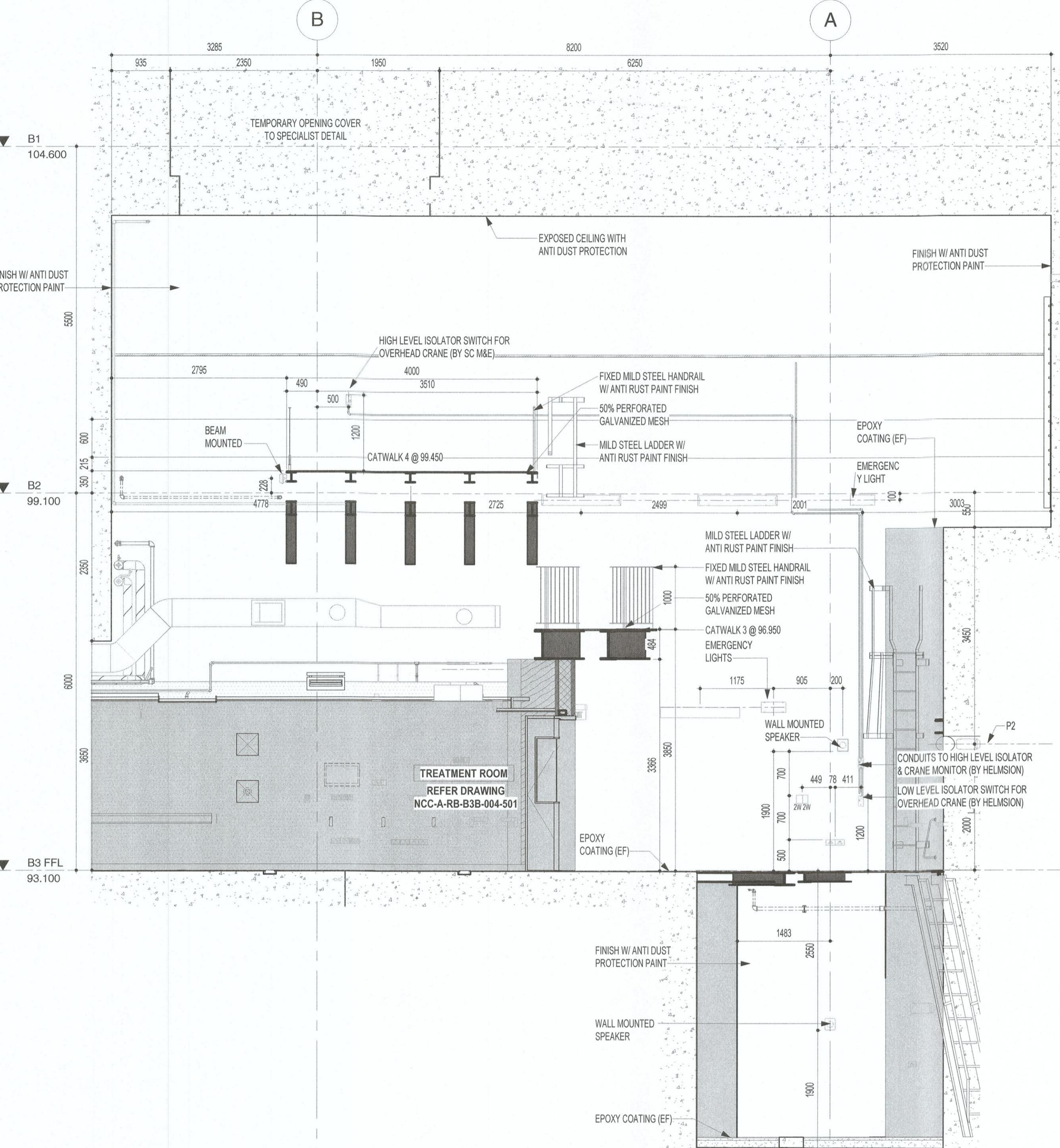
Main Contractor : SHIMIZU CORPORATION  
8 Kallang Ave, #05-01 Aperia Tower 1, S339509  
Tel: (65) 6278 5266 Fax: (65) 6224 9890  
rcoc@shimz.com www.shimz-global.com

Project Title : PROPOSED NEW ERECTION OF 24 STOREY WITH 4 BASEMENTS NEW NATIONAL CANCER CENTRE OF LOT 00467K TS22 AT OUTRAM MEDICAL CAMPUS, 20 OUTRAM ROAD (BUKIT MERAH PLANNING)

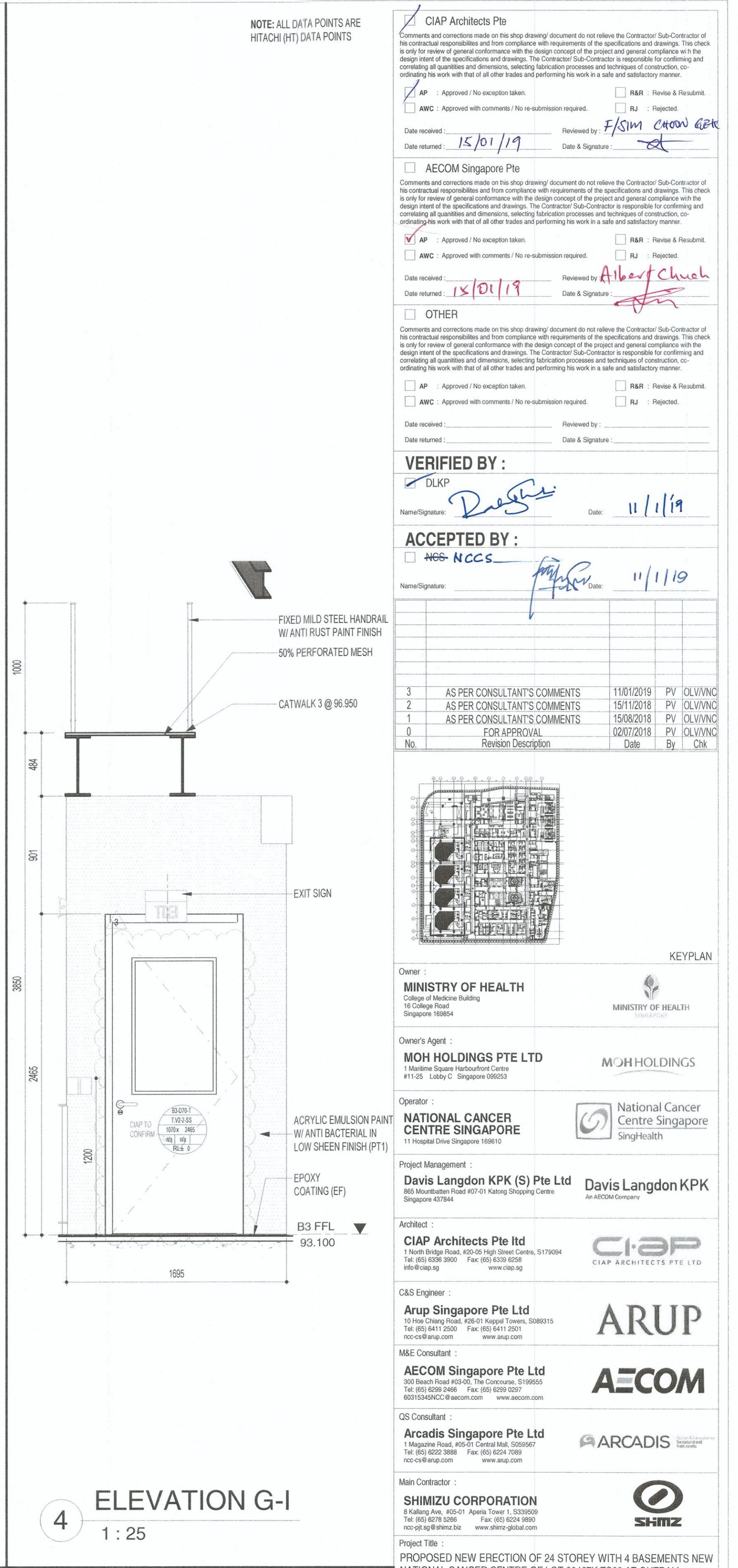
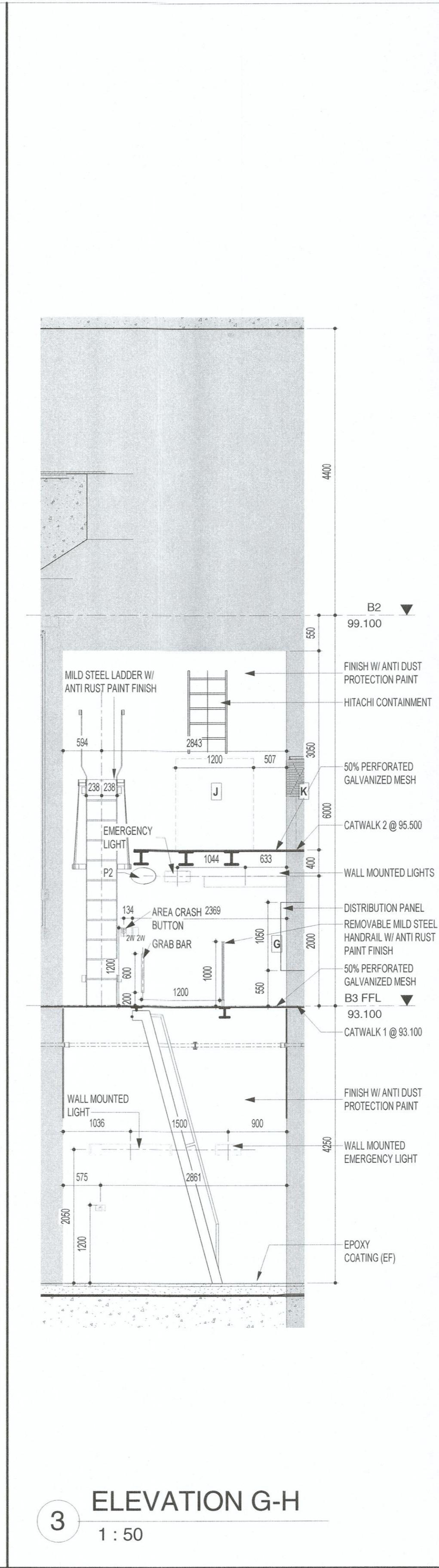
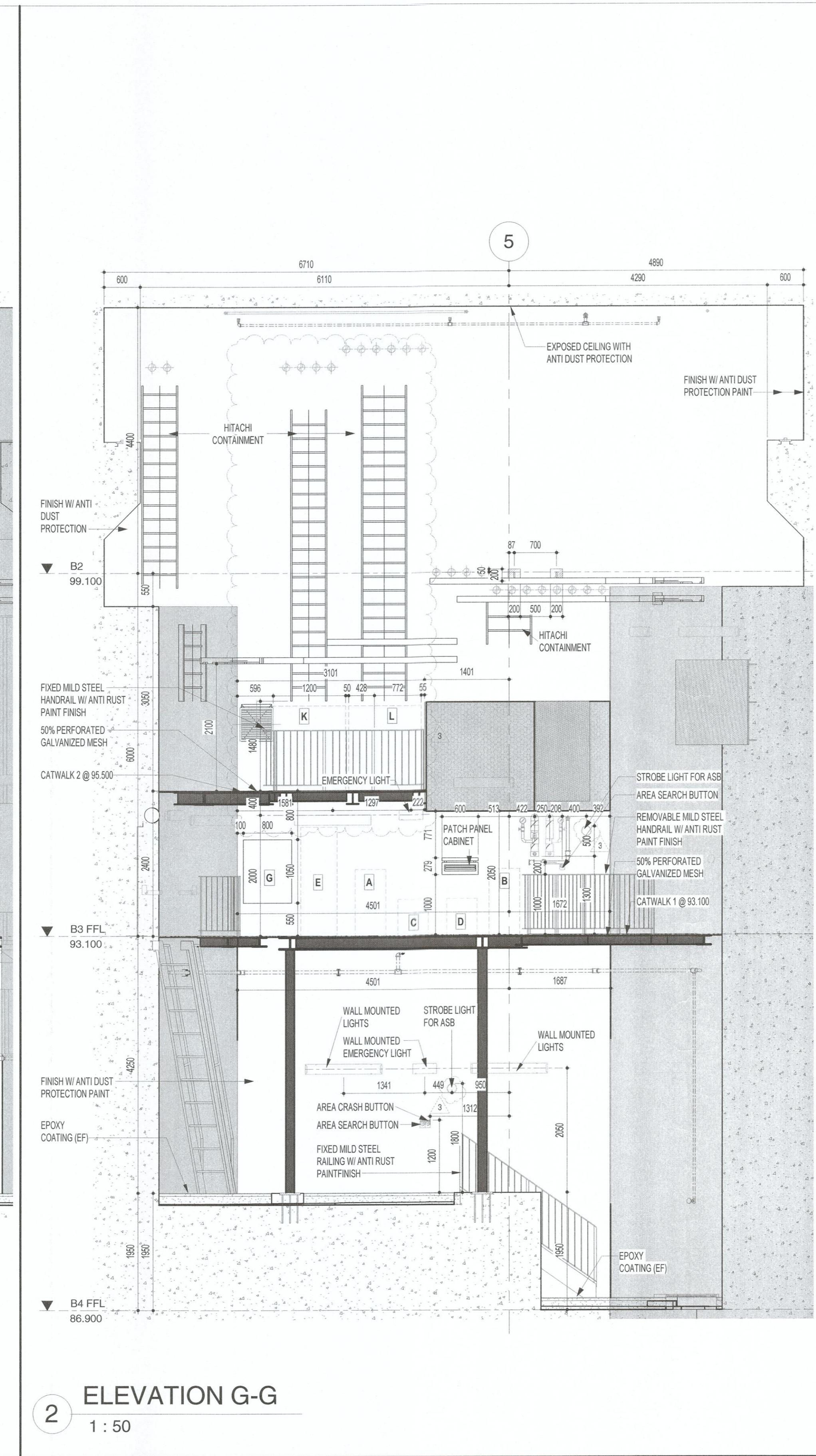
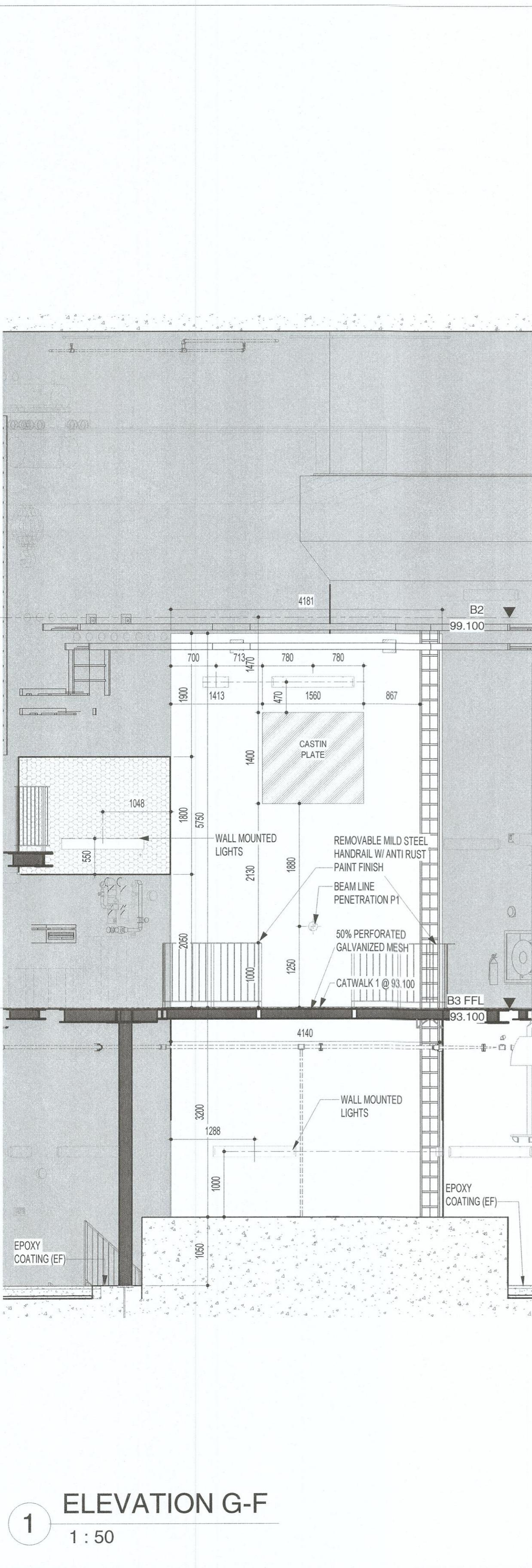
Drawing Description : BASEMENT 3  
B3 BUNKER PT ROOMBOOK  
PT GANTRY 1-4 ELEVATIONS (TYP.)

SCALE : As Indicated DATE : 11 JAN 2019 REV : 03  
DRAWN : PRATIBHA CHECKED : OLIVIAHAL / VNC  
DRAWING NO. NCC-A-RB-B3B-002-504-04

FILENAME : C:\Users\pratibha.verma\Documents\NCC\_SHIMZ\_BUNK\_Arch\_L00-SHEET\_pratibha.verma.dwg  
PRINTED ON : FOR APPROVAL







NOTE: ALL DATA POINTS ARE HITACHI (HT) DATA POINTS	
<input checked="" type="checkbox"/> AP : Approved / No exception taken. <input type="checkbox"/> R&R : Review & Resubmit. <input type="checkbox"/> AWC : Approved with comments / No re-submission required. <input type="checkbox"/> RJ : Rejected. Date received: 15/01/19      Date returned: 15/01/19      Date & Signature: <i>F/SIM CHAN GET</i>	
<input type="checkbox"/> AECOM Singapore Comments and corrections made on this shop drawing document do not relieve the Contractor/Sub-Contractor of his contractual responsibilities and from compliance with requirements of the specifications and drawings. This check is only for review of general conformance with the design concept of the project and general compliance with the design intent of the specifications and drawings. The Contractor/Sub-Contractor is responsible for confirming and correlating all quantities and dimensions, selecting fabrication processes and techniques of construction, optimizing the cost of the work and in accordance with the relevant codes and standards and performing his work in a safe and satisfactory manner.	
<input checked="" type="checkbox"/> AP : Approved / No exception taken. <input type="checkbox"/> R&R : Review & Resubmit. <input type="checkbox"/> AWC : Approved with comments / No re-submission required. <input type="checkbox"/> RJ : Rejected. Date received: 15/01/19      Date returned: 15/01/19      Date & Signature: <i>Albert Chua</i>	
<input type="checkbox"/> OTHER Comments and corrections made on this shop drawing document do not relieve the Contractor/Sub-Contractor of his contractual responsibilities and from compliance with requirements of the specifications and drawings. This check is only for review of general conformance with the design concept of the project and general compliance with the design intent of the specifications and drawings. The Contractor/Sub-Contractor is responsible for confirming and correlating all quantities and dimensions, selecting fabrication processes and techniques of construction, optimizing the cost of the work and in accordance with the relevant codes and standards and performing his work in a safe and satisfactory manner.	
<input type="checkbox"/> AP : Approved / No exception taken. <input type="checkbox"/> R&R : Review & Resubmit. <input type="checkbox"/> AWC : Approved with comments / No re-submission required. <input type="checkbox"/> RJ : Rejected. Date received:      Date returned:      Date & Signature:	
<b>VERIFIED BY:</b> <i>Dilip</i> Date: 11/1/19 <b>ACCEPTED BY:</b> <i>Jay</i> Date: 11/1/19	
3 AS PER CONSULTANTS COMMENTS 11/01/2019 PV OLIV/NC 2 AS PER CONSULTANTS COMMENTS 15/11/2018 PV OLIV/NC 1 AS PER CONSULTANTS COMMENTS 15/08/2018 PV OLIV/NC 0 FOR APPROVAL 02/07/2018 PV OLIV/NC No. Revision Description Date By Chk	
Owner: MINISTRY OF HEALTH College of Medicine Building 10 College Road Singapore 169854	
Owner's Agent: MOH HOLDINGS PTE LTD 1 Maritime Square Harbourfront Centre #11-25 Lobby C Singapore 099253	
Operator: NATIONAL CANCER CENTRE SINGAPORE 11 Hospital Drive Singapore 169810	
Project Management: Davis Langdon KPK (S) Pte Ltd 83 Jalan 10/100A, #07-01 Kaoing Shopping Centre Singapore 437844 An AECOM Company	
Architect: CIAP Architects Pte Ltd 1 North Bridge Road, #02-05 High Street Centre, S179094 Tel: (65) 6358 3900 Fax: (65) 6359 2558 www.ciap.sg	
CSE Engineer: Arup Singapore Pte Ltd 11-01 11-02 11-03 11-04 11-05 11-06 11-07 11-08 11-09 11-10 11-11 11-12 11-13 11-14 11-15 11-16 11-17 11-18 11-19 11-20 11-21 11-22 11-23 11-24 11-25 11-26 11-27 11-28 11-29 11-30 11-31 11-32 11-33 11-34 11-35 11-36 11-37 11-38 11-39 11-40 11-41 11-42 11-43 11-44 11-45 11-46 11-47 11-48 11-49 11-50 11-51 11-52 11-53 11-54 11-55 11-56 11-57 11-58 11-59 11-60 11-61 11-62 11-63 11-64 11-65 11-66 11-67 11-68 11-69 11-70 11-71 11-72 11-73 11-74 11-75 11-76 11-77 11-78 11-79 11-80 11-81 11-82 11-83 11-84 11-85 11-86 11-87 11-88 11-89 11-90 11-91 11-92 11-93 11-94 11-95 11-96 11-97 11-98 11-99 11-100 11-101 11-102 11-103 11-104 11-105 11-106 11-107 11-108 11-109 11-110 11-111 11-112 11-113 11-114 11-115 11-116 11-117 11-118 11-119 11-120 11-121 11-122 11-123 11-124 11-125 11-126 11-127 11-128 11-129 11-130 11-131 11-132 11-133 11-134 11-135 11-136 11-137 11-138 11-139 11-140 11-141 11-142 11-143 11-144 11-145 11-146 11-147 11-148 11-149 11-150 11-151 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11-581 11-582 11-583 11-584 11-585 11-586 11-587 11-588 11-589 11-590 11-591 11-592 11-593 11-594 11-595 11-596 11-597 11-598 11-599 11-600 11-601 11-602 11-603 11-604 11-605 11-606 11-607 11-608 11-609 11-610 11-611 11-612 11-613 11-614 11-615 11-616 11-617 11-618 11-619 11-620 11-621 11-622 11-623 11-624 11-625 11-626 11-627 11-628 11-629 11-630 11-631 11-632 11-633 11-634 11-635 11-636 11-637 11-638 11-639 11-640 11-641 11-642 11-643 11-644 11-645 11-646 11-647 11-648 11-649 11-650 11-651 11-652 11-653 11-654 11-655 11-656 11-657 11-658 11-659 11-660 11-661 11-662 11-663 11-664 11-665 11-666 11-667 11-668 11-669 11-670 11-671 11-672 11-673 11-674 11-675 11-676 11-677 11-678 11-679 11-680 11-681 11-682 11-683 11-684 11-685 11-686 11-687 11-688 11-689 11-690 11-691 11-692 11-693 11-694 11-695 11-696 11-697 11-698 11-699 11-700 11-701 11-702 11-703 11-704 11-705 11-706 11-707 11-708 11-709 11-710 11-711 11-712 11-713 11-714 11-715 11-716 11-717 11-718 11-719 11-720 11-721 11-722 11-723 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<input type="checkbox"/> AWC : Approved with comments / No re-submission required.	<input type="checkbox"/> RJ : Rejected.

Date received: 15/01/19 Reviewed by: F/SIM CHEN GEEK  
Date returned: 15/01/19 Date & Signature: *[Signature]*

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<input type="checkbox"/> AWC : Approved with comments / No re-submission required.	<input type="checkbox"/> RJ : Rejected.

Date received: 15/01/19 Reviewed by: Albert Chooch  
Date returned: 15/01/19 Date & Signature: *[Signature]*

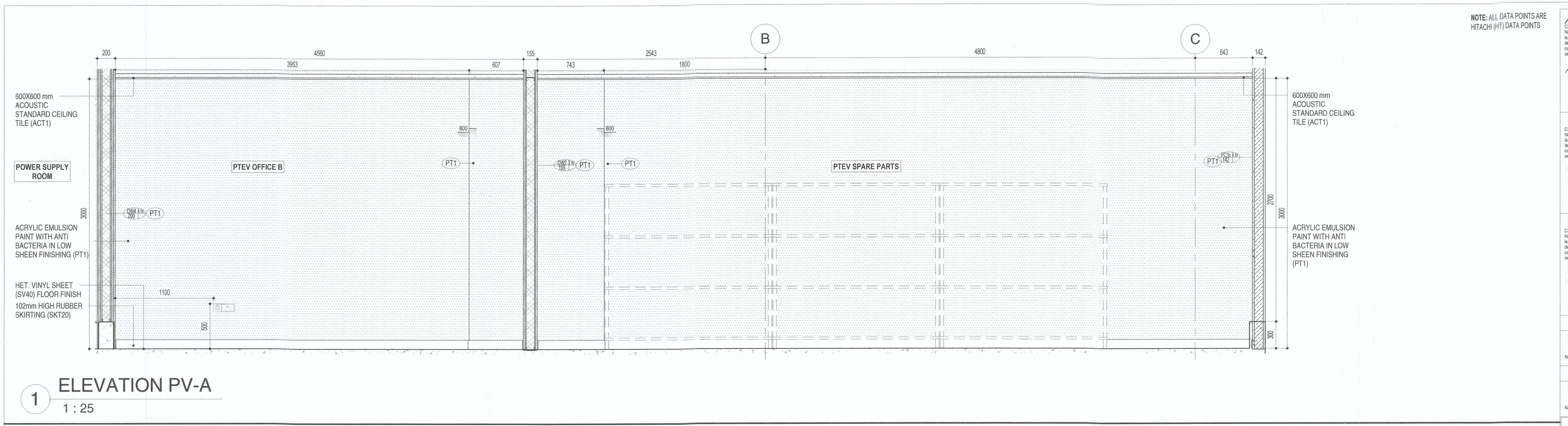
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<input type="checkbox"/> AP : Approved / No exception taken	<input type="checkbox"/> R&R : Revise & Resubmit.
<input type="checkbox"/> AWC : Approved with comments / No re-submission required.	<input type="checkbox"/> RJ : Rejected.

Date received: Date returned: Date & Signature:

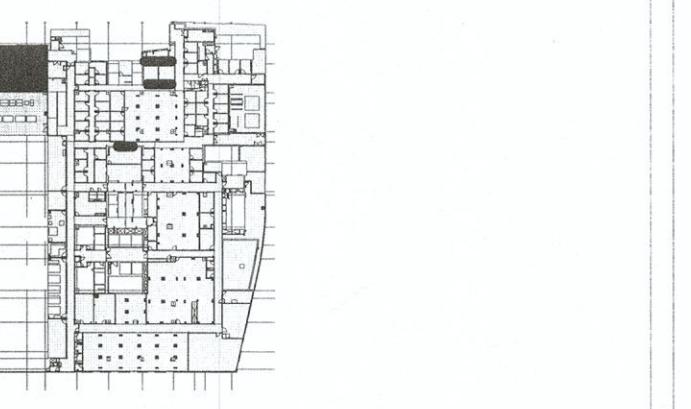
**VERIFIED BY :**  
*[Signature]* Date: 11/1/19

**ACCEPTED BY :**  
*[Signature]* Date: 11/1/19



3	AS PER CONSULTANT'S COMMENTS	11/01/2019	PV	QLV/WNC
2	AS PER CONSULTANT'S COMMENTS	15/11/2018	PV	QLV/WNC
1	AS PER CONSULTANT'S COMMENTS	15/08/2018	PV	QLV/WNC
0	FOR APPROVAL	02/07/2018	PV	QLV/WNC

No.	Revision Description	Date	By	Chk



Owner : **MINISTRY OF HEALTH**  
College of Medicine Building  
16 College Road  
Singapore 169854

Owner's Agent : **MOH HOLDINGS PTE LTD**  
1 Marina Square Harbourfront Centre  
#1-25 Lobby C Singapore 099253

Operator : **NATIONAL CANCER CENTRE SINGAPORE**  
11 Hospital Drive Singapore 169810

Project Management : **Davis Langdon KPK (S) Pte Ltd**  
88 Mountbatten Road #07-01 Kallang Shopping Centre  
Singapore 337944

Architect : **CIAP Architects Pte Ltd**  
1 North Bridge Road, #05-01 High Street Centre, S179004  
Tel: (65) 6338 3900 Fax: (65) 6338 6258  
info@ciap.sg www.ciap.sg

C&S Engineer : **Arup Singapore Pte Ltd**  
10 Hoe Chany Road, #05-01 Keppel One, S08015  
Tel: (65) 6292 2468 Fax: (65) 6292 0297  
ncc-ci@arup.com www.arup.com

M&E Consultant : **AECOM Singapore Pte Ltd**  
301 Beach Road, #05-01 The Concourse, S098655  
Tel: (65) 6292 2468 Fax: (65) 6292 0297  
603134@AECOM.com www.aecom.com

GS Consultant : **ARCADIS Singapore Pte Ltd**  
1 Magazine Road, #05-01 Central Mall, S099657  
Tel: (65) 6222 3888 Fax: (65) 6224 7089  
rci@arcadis.com www.arcadis.com

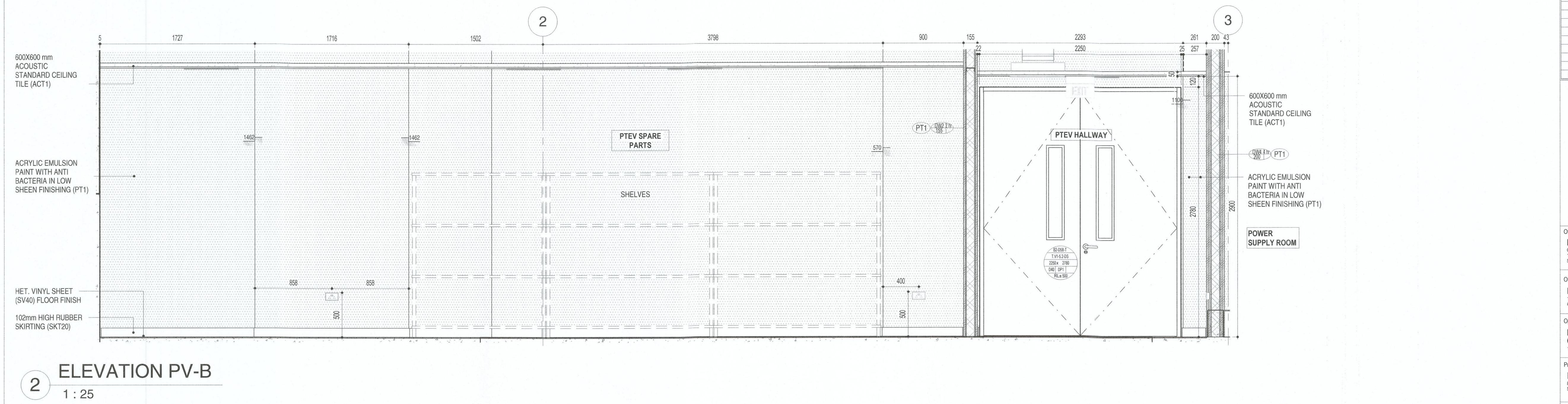
Main Contractor : **SHIMIZU CORPORATION**  
8 Kallang Ave #05-01 Aperia Tower, S139909  
Tel: (65) 6278 5266 Fax: (65) 6224 9850  
ncc-pt.sj@shimizu.biz www.shimz-global.com

Project Title : PROPOSED NEW ERECTION OF 24 STOREY WITH 4 BASEMENTS NEW NATIONAL CANCER CENTRE OF LOT 0467K TS22 AT OUTRAM MEDICAL CAMPUS, 20 OUTRAM ROAD (BUKIT MERAH PLANNING)

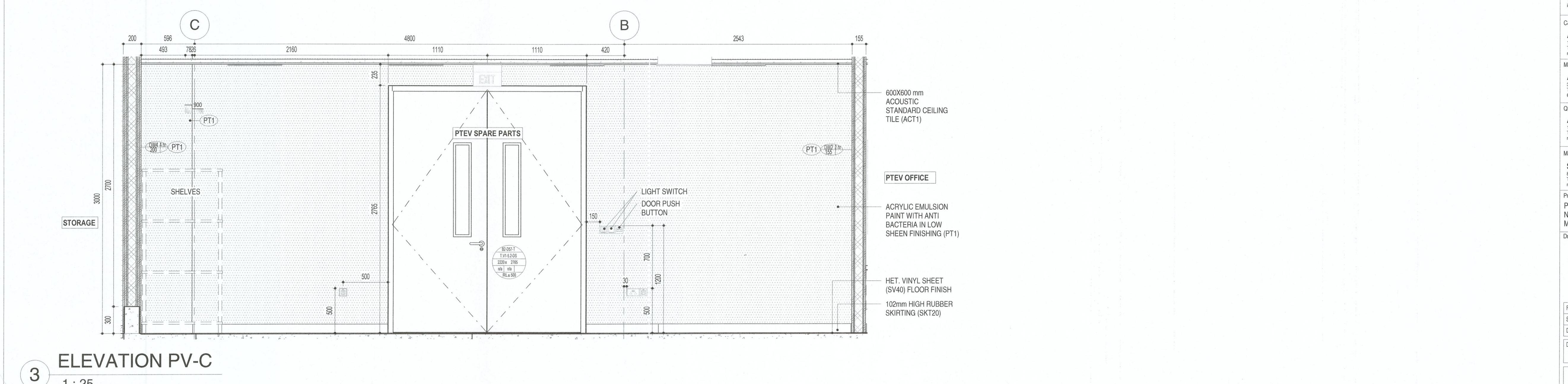
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**BASEMENT 2**  
**B2 BUNKER ROOMBOOK**  
**PTEV AREA ELEVATIONS**

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SCALE : As indicated DATE : 11 JAN 2019 REV : 03  
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