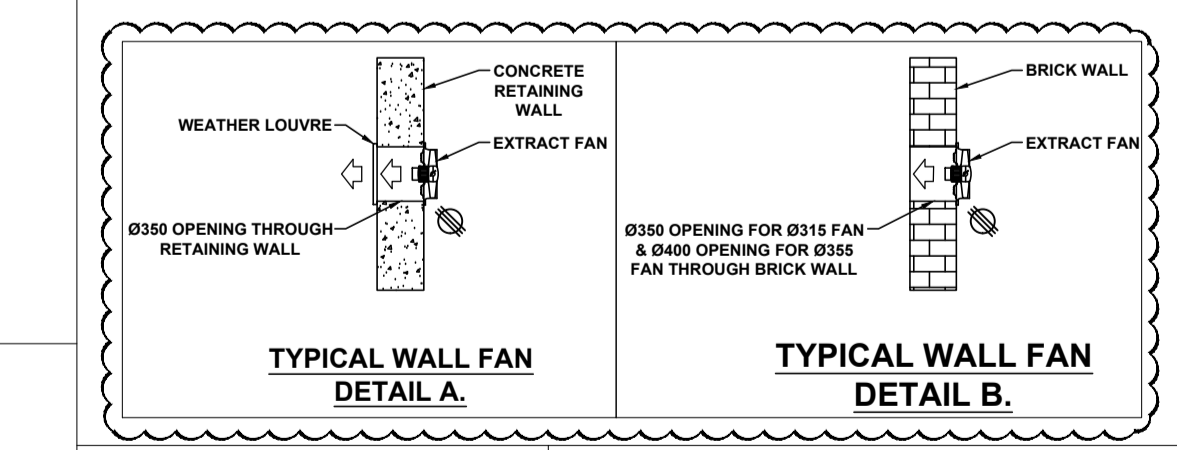


GRILLE REF.	No. OFF	DESCRIPTION	SIZE (NECK)	COLOUR	AIR QUANTITY (L/S)
DG-01a-W	01	-DOOR GRILLE AGS-T	300X300	NATURAL ANODIZED	168.5
DG-01b-W	01	-DOOR GRILLE AGS-T	300X300	NATURAL ANODIZED	168.5
DG-02a-W	01	-DOOR GRILLE AGS-T	300X300	NATURAL ANODIZED	168.5
DG-02b-W	01	-DOOR GRILLE AGS-T	300X300	NATURAL ANODIZED	168.5
DG-03a-W	01	-DOOR GRILLE AGS-T	300X300	NATURAL ANODIZED	86
DG-03b-W	01	-DOOR GRILLE AGS-T	300X300	NATURAL ANODIZED	86
DG-04a-W	01	-DOOR GRILLE AGS-T	300X300	NATURAL ANODIZED	86
DG-04b-W	01	-DOOR GRILLE AGS-T	300X300	NATURAL ANODIZED	86
DG-05	01	-DOOR GRILLE AGS-T	600X850	NATURAL ANODIZED	1288.5
WL-01	03	1200X2500 WEATHER LOUVRE WITH FUSIBLE LINK FIRE DAMPER/W 25mm TIMBER FRAME	2500X2500	NATURAL ANODIZED	---
WL-02	03	1200X400 WEATHER LOUVRE WITH FUSIBLE LINK FIRE DAMPER/W 25mm TIMBER FRAME	1200X400	NATURAL ANODIZED	---
WL-03	01	1200X1200 WEATHER LOUVRE C/W 25mm TIMBER FRAME	1200X1200	NATURAL ANODIZED	300
WL-04	01	WEATHER LOUVRE PER-W/355	394X394	---	644.44
WL-05	01	WEATHER LOUVRE PER-W/355	394X394	---	644.44

FAN REF.	No. OFF	DESCRIPTION	AIR QTY. (L/s) each	STATIC PRES.	FAN SPEED (RPM)	POWER REQUIREMENTS (KW) (V/Ph/Hz)	ABSORBED(KW)
EAF-B01-W	01	* WALL MOUNTED FAN GX12 Ø257	337.00	30	---	240 / 1 / 50	0.085
EAF-B02-W	01	* WALL MOUNTED FAN GX12 Ø257	337.00	30	---	240 / 1 / 50	0.085
EAF-B03-W	01	* WALL MOUNTED FAN GX9 Ø257	172.00	20	---	240 / 1 / 50	0.041
EAF-B04-W	01	* AXIAL FLOW FAN Ø630	2177	800	2910	400 / 3 / 50	2.2
EAF-B05-W	01	* AXIAL FLOW FAN Ø630	1850	800	2910	400 / 3 / 50	2.2
EAF-B06-W	01	* WALL MOUNTED FAN GX9 Ø257	172.00	20	---	240 / 1 / 50	0.041
SEAF-03	01	* SLAB MOUNTED BOOSTER FAN TWO SPEED	2450	80	---	400 / 3 / 50	2.2
EAF-B07-W	01	** WALL MOUNTED FAN HCFT4-355	972.22	---	1260	400 / 3 / 50	0.2
EAF-B08-W	01	** WALL MOUNTED FAN HCFT4-315	644.44	---	1300	400 / 3 / 50	0.15
EAF-B09-W	01	** WALL MOUNTED FAN HCFT4-315	644.44	---	1300	400 / 3 / 50	0.15
EAF-B10-W	01	** WALL MOUNTED FAN HCFT4-315	644.44	---	1300	400 / 3 / 50	0.15

LEGEND

- 200V / 3PH / 50HZ POWER SUPPLY TERMINATING IN ISOLATOR WITHIN ONE METRE OF EQUIPMENT - BY ELECTRICIAN
- 230V / 1PH / 50HZ POWER SUPPLY TERMINATING IN ISOLATOR WITHIN ONE METRE OF EQUIPMENT - BY ELECTRICIAN
- 230V / 1PH / 50HZ INDOOR UNIT POWER SUPPLY TERMINATING IN ISOLATOR ADJACENT TO UNIT - BY HVAC SUB-CONTRACTOR (CAPACITY TO BE SIZED TO SPECIALIST UNIT REQUIREMENTS)
- WALL MOUNTED THERMOSTAT CONTROLLER AT 1300 AFFL. (ON 250mm CONDUIT AND 400mm WALL) - BY ELECTRICIAN AND BUILDER
- REFRIGERATION PIPES
- CONDENSATE PIPES
- INFRARED REMOTE THERMOSTAT CONTROLLER
- CONDENSATE DRAIN POINT - BY PLUMBER
- WATER SUPPLY POINT (SIZE AS SHOWN) - BY PLUMBER
- DOOR TO BE UNDERCUT BY 25mm - BY BUILDER
- SWITCH CONTROLLER
- FLOOR DRAIN
- DIAMETER



GENERAL NOTES:

- ALL DIMENSIONS TO BE CHECKED ON SITE BEFORE ANY WORK PUT IN HAND.
- ALL WORK TO COMPLY TO LOCAL MUNICIPAL BY-LAWS.
- IT IS THE RELEVANT SUB-CONTRACTORS RESPONSIBILITY TO ENSURE ALL COORDINATION & CORRECT DIMENSIONING OF DRAWINGS IS DONE WITH ALL OTHER RESPECTIVE CONTRACTORS PRIOR TO PROCUREMENT & INSTALLATION.
- QUALITY MUST BE ADHERED TO ALL STANDARDS AS PER SPSA SPECIFICATIONS.
- THIS DRAWING FORMS PART OF THE SPECIFICATION AND MUST BE READ IN CONJUNCTION WITH THE SAME.
- ALL DUCTWORK TO BE MANUFACTURED IN ACCORDANCE WITH SABS-1238-1979 LOW VELOCITY DUCT STANDARDS.
- SUPPLY DUCTS TO BE EXTERNALLY INSULATED WITH 25mm FRK INSULATION - UNLESS OTHERWISE SPECIFIED.
- ALL OTHER DUCTS TO BE UNINSULATED - UNLESS SPECIFIED. BE READ IN CONJUNCTION WITH THE SAME.
- ALL EXPOSED DUCTS TO BE PAINTED TO WORK SPECIFICATION.
- ALL DUCTS WITH SEMI-PERIMETER OF 110mm OR LESS TO BE "S & DRIVE" JOINTS, AND DUCTS ABOVE TO BE MEZZ FLANGED.
- ALL BENDS TO HAVE INTERNAL RADIUS OF 150mm AND SPLITTERS UNLESS OTHERWISE SPECIFIED.
- ALL ROUND DUCT BENDS UP TO 900mm TO HAVE A RADIUS OF 300mm - OVER 900mm TO HAVE A RADIUS OF 350mm.
- DUCT SHOES TO BE 100mm LONG @ 45°.
- SPRIGGOTS TO BE 100mm LONG, UNLESS OTHERWISE STATED.
- REFRIGERANT / VIV PIPES TO BE COPPER AND INSULATED.
- ALL OUT DOOR UNITS TO BE WEATHER COATED WITH BLUECHEM AND HAVE STAINLESS STEEL SCREWS FOR PLATE COVERS.
- ALL AIR CONDITIONING UNITS TO BE LINKED TO THE SMOKE DETECTION SYSTEM.
- ALL DOOR GRILLE NECK OPENINGS TO BE 275mm FROM THE BOTTOM OF THE DOOR.
- HVAC BUILDERSWORK:
- ALL OPENINGS TO BE 100mm BIGGER THAN DUCT SIZES SHOWN (BUILDER TO MAKE GOOD AFTER DUCTS ARE INSTALLED).
- ALL OPENINGS TO BE 50mm BIGGER THAN GRILLE SIZES SHOWN (BUILDER TO MAKE GOOD AFTER DUCTS ARE INSTALLED).
- SLEEVES IN WALLS, SLABS & BEAMS (SIZE SHOWN ON DRAWING) (BUILDER TO MAKE GOOD AFTER DUCTS ARE INSTALLED).
- ALL EQUIPMENT DRAINS TO BE 900mm RIGID PVC WITH A 1:100mm FALL, UNLESS OTHERWISE STATED.

NO.	DESCRIPTION	BY	CHKD	APPD	DATE
08	BOOSTER FANS RE-ORIENTATED, REFUSE AREA, LV & TRANSFORMER ROOM EXTRACTION ADDED	KO	W	VR	Oct 2016
07	FAN & WEATHER LOUVRE EXTRACTIONS MODIFIED	JP	W	VR	Sep 2016
06	ARCHITECTS LAYOUT MODIFIED	JP	W	VR	Jul 2016
05	ARCHITECTS LAYOUT MODIFIED	JP	ZT	VR	Jul 2016
04	FAN SPECIFICATION MODIFIED	JP	ZT	VR	Aug 2015
03	FRESH AIR DUCTING REVISED	JP	VV	VR	May 2015
02	ISSUED FOR CONSTRUCTION	JP	GVZ	VR	Mar 2015
01	ISSUED FOR CONSTRUCTION	JP	GVZ	VR	Jan 2015
00	ISSUED FOR CONSTRUCTION	JP	GVZ	VR	Jan 2015

CONTRACTOR / CONSULTANT				TRANSET CAPITAL PROJECTS			
TITLE	NAME	SIGN	DATE	TITLE	NAME	SIGN	DATE
				DRAWN	E.M	PP	25 01 13
				CHECKED	E.M	PP	27 01 13
				DESIGNED	E.M	PP	20 01 13
				CHECKED	V.R	PP	27 01 13

ISSUED FOR CONSTRUCTION

Transnet Capital Projects

TRANSNET

TRANSNET LTD (TRADING AS TRANSET CAPITAL PROJECTS) : REG. NO. 1990/00000006
 63 WORRAKER STREET
 PORT ELIZABETH TEL: 041 507 4300

PORT OF NGQURA

**TNPA ADMINISTRATION BUILDING
 MECHANICAL
 HVAC & VENTILATION
 BASEMENT LEVEL WEST WING**

PR.ENG. / PR.TECH./PR. ARCH
 NAME: JOHN DRISCOLL DATE
 SIGNATURE: Pp [Signature] 19 08 15

REG. NUMBER: CIBSE NO. 17710
 SCALE: 1:100

PROJECT NUMBER	OD	FBS	DIS	TYPE	DRAWING NO.	SHEET	REV	ID
H 500204	1	1	2	0	M-GA-2100	01	08	JV

REFER TO DWG. M-GA-2101

PUMP SCHEDULE											
PUMP NO.	MAKE	MODEL	FLOW RATE (L/S)	HEAD (M)	POWER (KW)	RATED VOLTAGE (V)	MAINS CABLE SIZE (mm ²)	MAX. OPERATING PRESSURE (bar)	MAX. INLET PRESSURE (bar)	NO. OF PUMPS DUTY	NET WEIGHT (KG)
SDP 9	GRUNDFOS	UNILIFT CC9	2.5	9	2.2	1 X 220 - 240	-	25	5	1	6.8

PUMPS MUST BE CONNECTED TO GENERATOR

FAN SCHEDULE										
FAN REF.	No. OFF	DESCRIPTION	AIR QTY. (L/S) each	STATIC PRES.	FAN SPEED (RPM)	POWER REQUIREMENTS (V / Ph / Hz)	ABSORBED (KW)			
EAF-B-01-E	01	* EXTRACTION AIR FAN HIT 315B	180	200	---	240 / 1 / 50	0.23			
SEAF-01	01	* SLAB MOUNTED BOOSTER FAN TWO SPEED	2450	80	---	400 / 3 / 50	2.2			
SEAF-02	01	* SLAB MOUNTED BOOSTER FAN TWO SPEED	2450	80	---	400 / 3 / 50	2.2			
FAF-B01-E	01	* WALL MOUNTED FAN HVE-150	30	25	---	240 / 1 / 50	0.041			
FAF-B02-E	01	* WALL MOUNTED FAN HVE-150	30	25	---	240 / 1 / 50	0.041			

* AMS / XPEL/AIR OR SIMILAR APPROVED

AIR CONDITIONING UNIT SCHEDULE (TNPA ADMIN BUILDING)										
UNIT REF.	No. OFF	DESCRIPTION	MODEL No.	AIR QTY. (L/S) each	CAPACITY (KW) COOLING	HEATING (V / Ph / Hz)	POWER REQUIREMENTS (V / Ph / Hz)	ABSORBED (KW)		
AC-B-01-E	01	* UNDER CEILING UNIT	PEFY-P50-VMA-E	242	5.6	6.3	240 / 1 / 50	0.11		
AC-B-02-E	01	* MID-WALL SPLIT UNIT INVERTER TYPE	MSZ-HJ50VA	215	5.0	4.2	240 / 1 / 50	0.037		
AC-B-03a-E	01	* MID-WALL SPLIT UNIT INVERTER TYPE	MSZ-HJ50VA	215	5.0	4.2	240 / 1 / 50	0.037		
AC-B-03b-E	01	* MID-WALL SPLIT UNIT INVERTER TYPE	MSZ-HJ50VA	215	5.0	4.2	240 / 1 / 50	0.037		
AC-B-04-E	01	* MID-WALL SPLIT UNIT INVERTER TYPE	MSZ-HJ25VA	159	2.5	3.25	240 / 1 / 50	0.020		
AC-B-05-E	01	* DOWN BLOW UNIT	MAD035T1N1S1	2888.89	34	---	380 / 3 / 50	12.5		
AC-B-06-E	01	* DOWN BLOW UNIT	MAD035T1N1S1	2888.89	34	---	380 / 3 / 50	12.5		

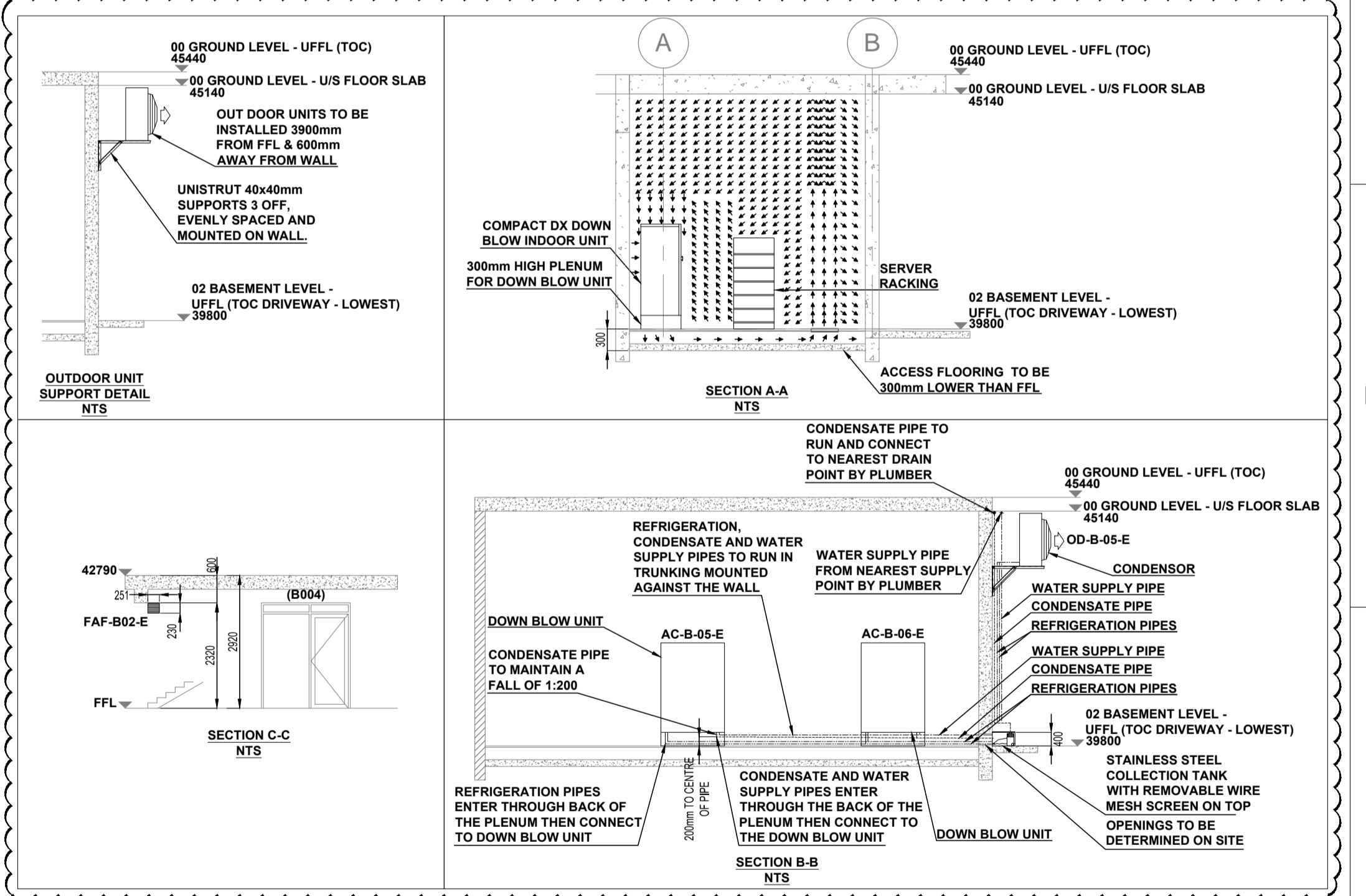
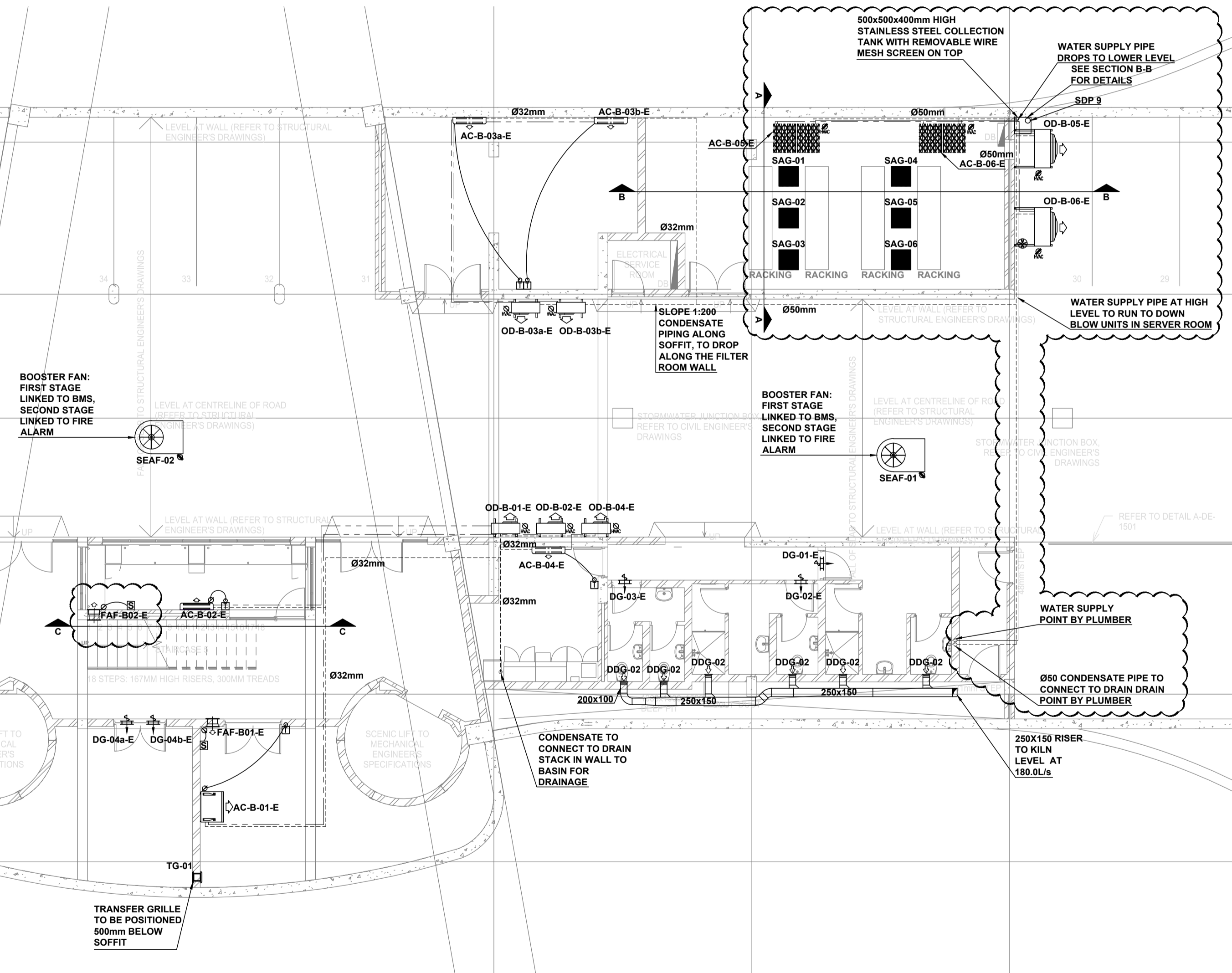
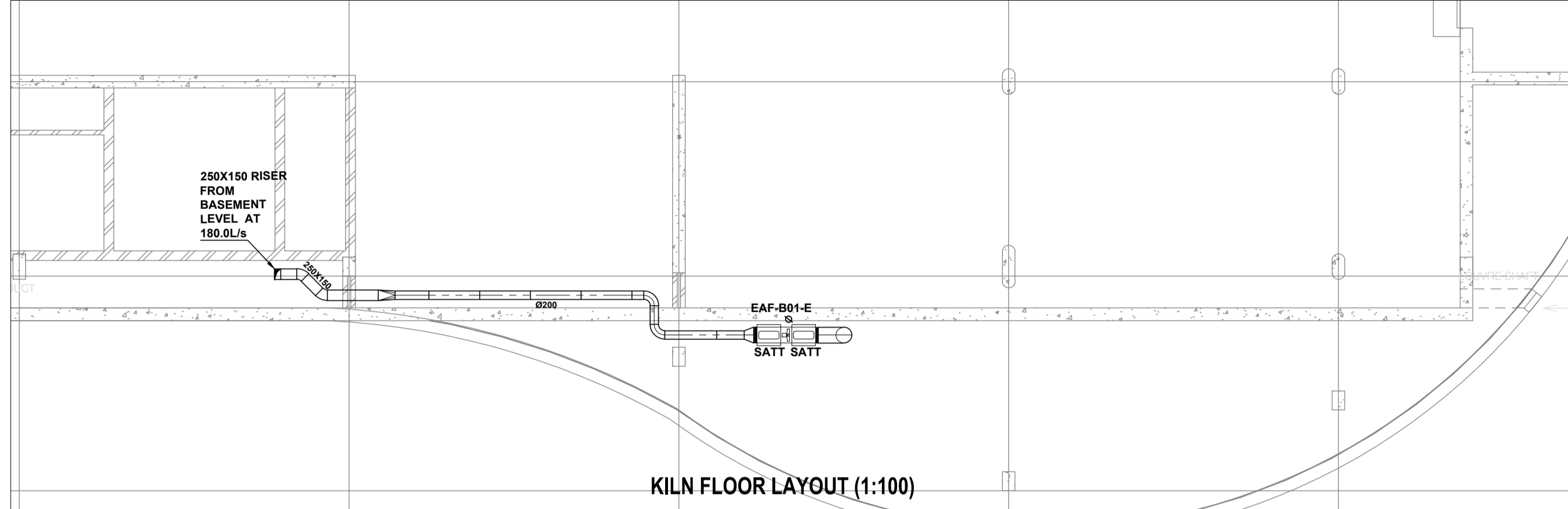
* MITSUBISHI / MIDEA OR SIMILAR APPROVED

OUTDOOR UNIT SCHEDULE					
UNIT REF.	No. OFF	DESCRIPTION	MODEL No.	POWER REQUIREMENTS (V / Ph / Hz)	ABSORBED (KW)
OD-B-01-E	01	* OUTDOOR CONDENSOR	MUZ-HJ50VA	240/1/50	2.05
OD-B-02-E	01	* OUTDOOR CONDENSOR	SUZ-KA35VA4	240/1/50	1.09
OD-B-03a-E	01	* OUTDOOR CONDENSOR	MUZ-HJ50VA	240/1/50	2.05
OD-B-03b-E	01	* OUTDOOR CONDENSOR	MUZ-HJ50VA	240/1/50	2.05
OD-B-04-E	01	* OUTDOOR CONDENSOR	MUZ-HJ25VA	240/1/50	0.73
OD-B-05-E	01	* OUTDOOR CONDENSOR	MA0601	380/3/50	12.5
OD-B-06-E	01	* OUTDOOR CONDENSOR	MA0601	380/3/50	12.5

* MITSUBISHI / MIDEA OR SIMILAR APPROVED

AIR TERMINAL SCHEDULE					
GRILLE REF.	No. OFF	DESCRIPTION	SIZE (NECK)	COLOUR	AIR QUANTITY (L/S)
DG-01-E	01	* DOOR GRILLE AGS-T	300X300	NATURAL ANODIZED	60
DG-02-E	01	* DOOR GRILLE AGS-T	300X300	NATURAL ANODIZED	60
DG-03-E	01	* DOOR GRILLE AGS-T	300X300	NATURAL ANODIZED	60
DG-04a-E	01	* DOOR GRILLE AGS-T	300X300	NATURAL ANODIZED	30
DG-04b-E	01	* DOOR GRILLE AGS-T	300X300	NATURAL ANODIZED	30
DG-05-E	01	* DOOR GRILLE AGS-T	300X300	NATURAL ANODIZED	30
DG-06-E	01	* DOOR GRILLE AGS-T	300X300	NATURAL ANODIZED	60
DG-07-E	01	* DOOR GRILLE AGS-T	300X300	NATURAL ANODIZED	60
TG-01	01	* TRANSFER GRILLE KS	225X225	WHITE	20
DDG-02	09	* DOUBLE DEFLECTION GRILLES DD-SD	200X100	NATURAL ANODIZED	30
DDG-03	01	* DOUBLE DEFLECTION GRILLES DD-SD	200X200	NATURAL ANODIZED	60
SAG-01-06	06	* FLOOR MOUNTED SUPPLY AIR GRILLE, BG TYPE	600X600	NATURAL ANODIZED	462.8
WL-01	01	* WEATHER LOUVER C/W 25mm TIMBER FRAME	600X600	NATURAL ANODIZED	300

* TROX / EUROPAIR OR SIMILAR APPROVED



LEGEND:

- WV / SW / ESE: POWER SUPPLY TERMINATING IN ISOLATOR WITHIN ONE METRE OF EQUIPMENT - BY ELECTRICAL
- SWV / SWSE: POWER SUPPLY TERMINATING IN ISOLATOR WITHIN ONE METRE OF EQUIPMENT - BY ELECTRICAL
- SWV / SWSE: WOOD UNIT POWER SUPPLY TERMINATING IN ISOLATOR ADJACENT TO UNIT - BY HVAC SUB-CONTRACTOR (CAPACITY TO BE SEEN TO SPECIALIST UNIT REQUIREMENTS)
- WV: WALL MOUNTED THERMOSTAT CONTROLLER AT 1500 AFFL. (LOW ROOM CONDUCT AND AIR BOX IN WALL) - BY ELECTRICAL AND BUILDER
- RF: REFRIGERATION PIPES
- CP: CONDENSATE PIPES
- IR: INFRARED REMOTE THERMOSTAT CONTROLLER
- CD: CONDENSATE DRAIN POINT - BY PLUMBER
- WP: WATER SUPPLY POINT (SIZE AS SHOWN) - BY PLUMBER
- UD: DOOR TO BE UNDERCUT BY 25mm - BY BUILDER
- SC: SWITCH CONTROLLER
- FB: FLOOR DRAIN
- Ø: DIAMETER

REFER TO DWG. M-GA-2100

ISSUED FOR CONSTRUCTION

DRAWING NO.	REFERENCE
1	REFERENCE DRAWINGS
2	
3	
4	
5	
6	
7	
8	

NO.	DESCRIPTION	BY	CHKD	APPD	DATE
08	SERVER AND SECURITY ROOM DETAILS ADDED	KO	VV	VR	Oct 2016
09	BOOSTER FANS RE-ORIENTATED	KO	VV	VR	Oct 2016
07	SECURITY ROOM UNIT CHANGED	JP	VV	VR	Sep 2016
	SERVER ROOM UNITS SPECIFICATION MODIFIED				
06	EXTRACT FAN REPOSITIONED	JP	VV	VR	Apr 2016
05	EXTRACT FAN REPOSITIONED	KO	JP	VR	Feb 2016
04	SERVER ROOM LAYOUT REVISED	JP	ZT	VR	Aug 2015
03	AIR TERMINAL SCHEDULE REVISED	JP	VV	VR	May 2015
02	ISSUED FOR CONSTRUCTION	JP	GVZ	VR	Mar 2015
01	ISSUED FOR CONSTRUCTION	JP	GVZ	VR	Jan 2015
00	ISSUED FOR CONSTRUCTION	JP	GVZ	VR	Jan 2015

CONTRACTOR / CONSULTANT				TRANSNET CAPITAL PROJECTS			
TITLE	NAME	SIGN	DATE	TITLE	NAME	SIGN	DATE
				DRAWN	E.M.		25 01 13
				CHECKED	E.M.		27 01 13
				DESIGNED	E.M.		20 01 13
				CHECKED	V.R.		27 01 13

OPERATING DIVISIONS			
TITLE	NAME	SIGN	DATE

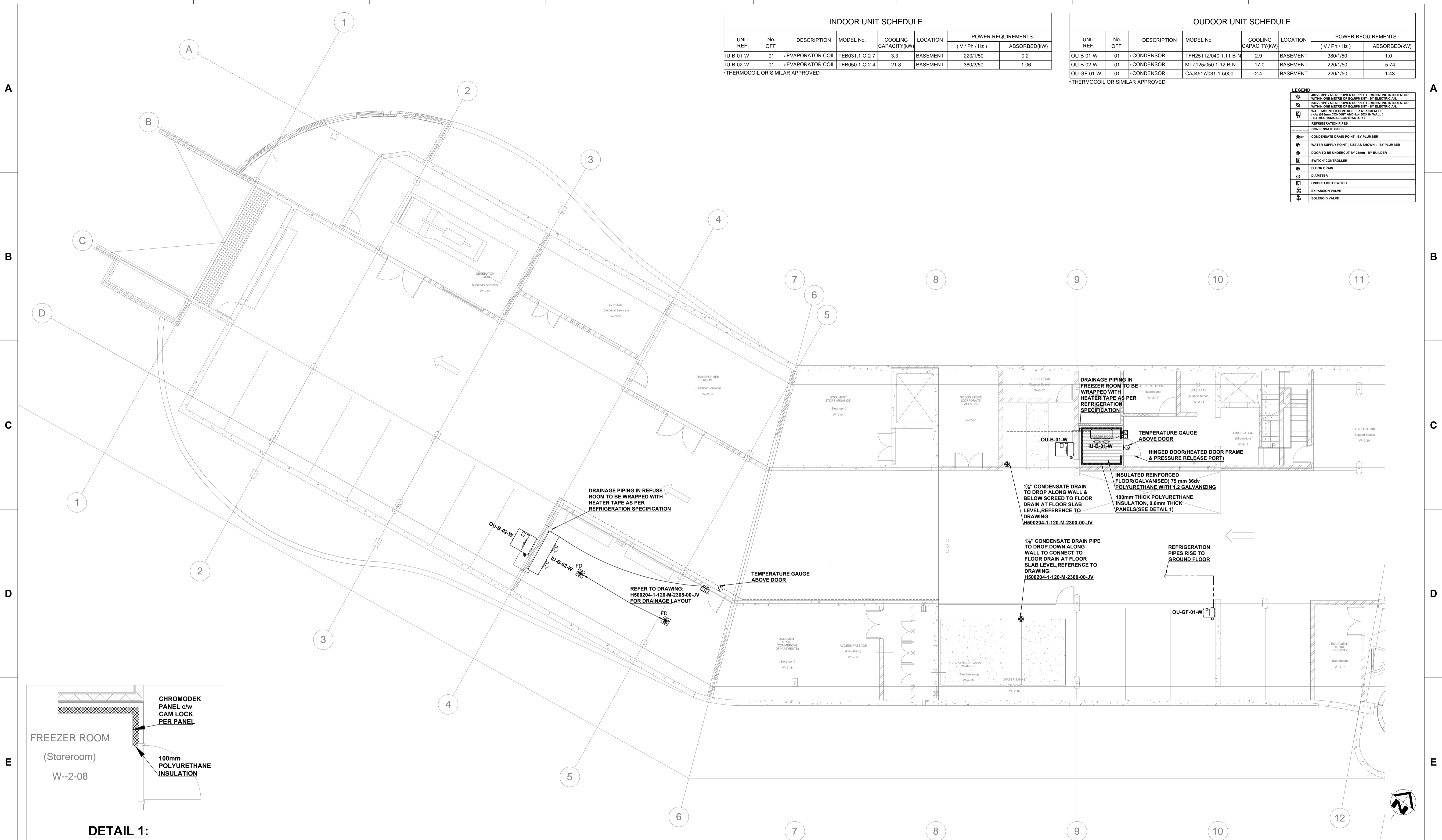
PR.ENG. / PR.TECH./PR. ARCH			
NAME:	JOHN DRISCOLL	DATE	
SIGNATURE:		19 08 15	
REG. NUMBER:	CIBSE NO. 17710		
SCALE:	1:100		

Transnet Capital Projects
 TRANSNET
 63 WORRAKER STREET
 PORT ELIZABETH
 TEL: 041 507 4300

PORT OF NGQURA

**TNPA ADMINISTRATION BUILDING
 MECHANICAL
 HVAC & VENTILATION
 BASEMENT & KILN LEVEL EAST WING**

PROJECT NUMBER	OD	FBS	DIS	TYPE	DRAWING NO.	SHEET	REV	ID
A1	H	5	0	0	2	0	4	
	1	1	2	0	M	G	A	
	2	1	0	1	0	1	0	
	1	0	9					



INDOOR UNIT SCHEDULE							
UNIT REF.	No. OFF.	DESCRIPTION	MODEL No.	COOLING CAPACITY(KW)	LOCATION	POWER REQUIREMENTS	
						(V / Ph / Hz)	ABSORBED(KW)
IU-B-01-W	01	-EVAPORATOR COIL	TEB031.1-C-2-7	3.3	BASEMENT	220/1/50	0.2
IU-B-02-W	01	-EVAPORATOR COIL	TEB050.1-C-2-4	21.8	BASEMENT	380/3/50	1.06

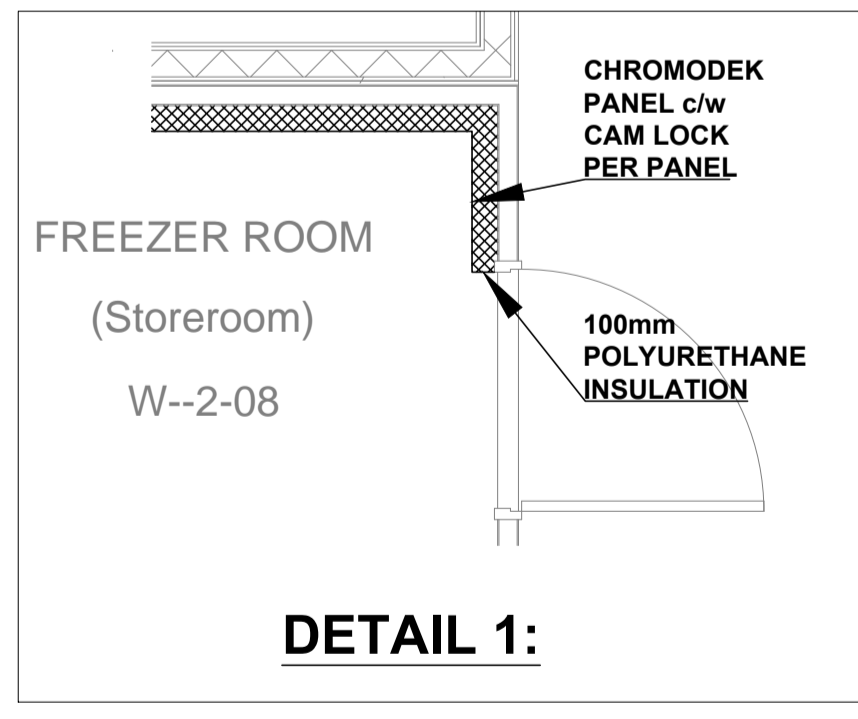
*THERMOCOIL OR SIMILAR APPROVED

OUTDOOR UNIT SCHEDULE							
UNIT REF.	No. OFF.	DESCRIPTION	MODEL No.	COOLING CAPACITY(KW)	LOCATION	POWER REQUIREMENTS	
						(V / Ph / Hz)	ABSORBED(KW)
OU-B-01-W	01	-CONDENSOR	TFH2511Z/040.1.11-B-N	2.9	BASEMENT	380/1/50	1.0
OU-B-02-W	01	-CONDENSOR	MTZ125/050.1-12-B-N	17.0	BASEMENT	220/1/50	5.74
OU-GF-01-W	01	-CONDENSOR	CAJ4517/031-1-5000	2.4	BASEMENT	220/1/50	1.43

*THERMOCOIL OR SIMILAR APPROVED

LEGEND:

- ⊕ 180V / 50Hz POWER SUPPLY TERMINATING IN ISOLATOR WITHIN ONE METRE OF EQUIPMENT - BY ELECTRICIAN.
- ⊕ 230V / 50Hz POWER SUPPLY TERMINATING IN ISOLATOR WITHIN ONE METRE OF EQUIPMENT - BY ELECTRICIAN.
- ⊕ WALL MOUNTED CONTROLLER AT 1500mm (1000mm CONDUIT AND 400mm IN WALL) - BY MECHANICAL CONTRACTOR.
- — — REFRIGERATION PIPES
- — — CONDENSATE PIPES
- ⊕ CONDENSATE DRAIN POINT - BY PLUMBER
- ⊕ WATER SUPPLY POINT (SIZE AS SHOWN) - BY PLUMBER
- ⊕ DOOR TO BE UNDERCUT BY 25mm - BY BUILDER
- ⊕ SWITCH CONTROLLER
- ⊕ FLOOR DRAIN
- ⊕ DIAMETER
- ⊕ ON/OFF LIGHT SWITCH
- ⊕ EXPANSION VALVE
- ⊕ SOLENOID VALVE



ISSUED FOR CONSTRUCTION

DRAWING NO.	REFERENCE
1	REFERENCE DRAWINGS

GENERAL NOTES:

- ALL DIMENSIONS TO BE CHECKED ON SITE BEFORE ANY WORK PUT IN HAND.
- ALL WORK TO COMPLY TO LOCAL MUNICIPAL BY LAWS.
- IT IS ALL THE RELEVANT SUB-CONTRACTORS RESPONSIBILITY TO ENSURE ALL CO-ORDINATION & CORRECT DIMENSIONING OF DRAWINGS IS DONE WITH ALL OTHER RESPECTIVE CONTRACTORS PRIOR TO PROCUREMENT & INSTALLATION.
- QUALITY MUST BE ADHERED TO ALL STANDARDS AS PER SPSA SPECIFICATIONS.

REFRIGERATION NOTES:

- REFUSE ROOM TEMPERATURE TO BE @ 2°C AND SHOULD BE ADJUSTABLE FROM 1°C TO 5°C
- FREEZER ROOM TEMPERATURE TO BE @ -25°C AND SHOULD BE ADJUSTABLE FROM -25°C TO 5°C
- COLD ROOM TEMPERATURE TO BE @ -5°C AND SHOULD BE ADJUSTABLE FROM -5°C TO 5°C
- CONDENSING UNITS TO BE THERMOCOIL OR SIMILAR APPROVED
- EVAPORATORS TO BE THERMOCOIL OR SIMILAR APPROVED
- ALL PANELS TO BE CHROMODEK/WHITE INTERIOR AND EXTERIOR
- ALL DRAIN PIPING IN REFUSE, COLD AND FREEZER ROOMS TO BE WRAPPED WITH HEATER TAPE AND COVERED WITH NON-DRIP TAPE
- AUTOMATIC ELECTRIC DEFROST CONTROL TO FREEZER ROOM EVAPORATOR
- TEMPERATURE GAUGES TO BE STAINLESS STEEL, 100mm DIAL TYPE
- RUBBER STOPPERS SHALL BE FITTED TO ALL HINGED DOORS TO PREVENT DAMAGE TO DOORS AND WALLS ON OPENING AND CLOSING
- CONDENSING UNITS TO BE LABELED TO CORRESPOND TO ROOM NUMBER
- TEMPERATURE ADJUSTMENT CONTROLLER TO BE DAMPOSE ENC TYPE
- LIGHTING TO REFUSE, COLD AND FREEZER ROOMS CONSISTS OF 1 X 8W WATERPROOF VAPOUR FITTINGS WITH TUBES AND SINGLE LEVER SWITCH
- LIGHTING TO BE SUPPLIED AND DELIVERED BY MECHANICAL CONTRACTOR

NO.	DESCRIPTION	BY	CHKD	APPD	DATE
01	ISSUED FOR CONSTRUCTION	KO	ZT	VR	July 2015
00	ISSUED FOR CONSTRUCTION	KO	ZT	VR	June 2015

REVISIONS

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CONTRACTOR / CONSULTANT				TRANSNET CAPITAL PROJECTS			
TITLE	NAME	SIGN	DATE	TITLE	NAME	SIGN	DATE
				DRAWN	K.O		04 06 15
				CHECKED	Z.T		04 06 15
				DESIGNED	Z.T		04 06 15
				CHECKED	V.R		04 06 15

OPERATING DIVISIONS

TITLE	NAME	SIGN	DATE

PR.ENG. / PR.TECH./PR. ARCH
NAME: JOHN DRISCOLL DATE: 28 07 15
SIGNATURE: [Signature] DATE: 28 07 15
REG. NUMBER: CIBSE NO. 17710
SCALE: 1:100

Transnet Capital Projects
TRANSNET
63 WORRAKER STREET
PORT ELIZABETH
TEL: 041 507 4300

PORT OF NGQURA

**TNPA ADMINISTRATION BUILDING
MECHANICAL
REFRIGERATION LAYOUT
BASEMENT LEVEL WEST WING**

PROJECT NUMBER	OD	FBS	DIS	TYPE	DRAWING NO.	SHEET	REV	ID
H 5 0 0 2 0 4	1	1	2	0	M	G A	2 1 0 4	0 1

Scale: 1:100

AIR TERMINAL SCHEDULE			
GRILLE REF.	No. OFF.	DESCRIPTION	AIR QTY. (L/s) each
RAG 02	02	*600x600 RETURN AIR GRILLE -Ø300 CONNECTION	---
RAG 03	04	*600x600 RETURN AIR GRILLE -Ø350 CONNECTION	---
SAD 08	08	*Ø250 CONSTANT VOLUME SWIRL AIR DIFFUSERS-TYPE (CSW)	116.5
SAD 10	01	*Ø250 CONSTANT VOLUME SWIRL AIR DIFFUSERS-TYPE (CSW)	142.0

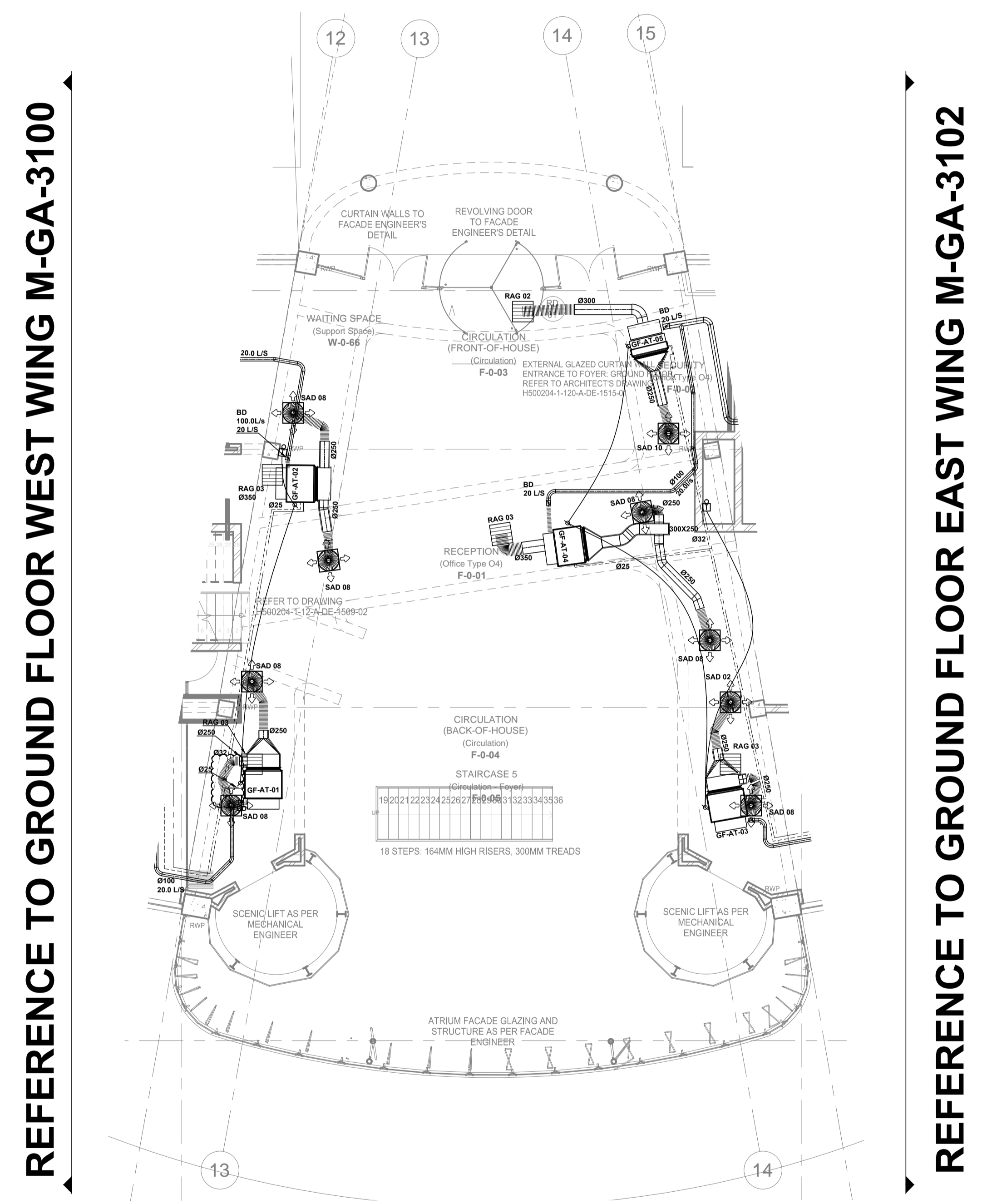
*TROX/RICKARD OR SIMILAR APPROVED

AIR CONDITIONING UNIT SCHEDULE								
UNIT REF.	No.	DESCRIPTION	MODEL No.	AIR QTY.	CAPACITY (kW)		POWER REQUIREMENTS	
					COOLING	HEATING	(V/Ph/Hz)	ABSORBED (kW)
GF-AT-01	01	IN-CEILING DUCTED UNIT	PEFY-P50-VMA-E	283	5.6	6.3	230 / 1 / 50	0.11
GF-AT-02	01	IN-CEILING DUCTED UNIT	PEFY-P63-VBM-E	317	7.1	8.0	230 / 1 / 50	0.121
GF-AT-03	01	IN-CEILING DUCTED UNIT	PEFY-P50-VMA-E	283	5.6	6.3	230 / 1 / 50	0.11
GF-AT-04	01	IN-CEILING DUCTED UNIT	PEFY-P63-VBM-E	317	7.1	8.0	230 / 1 / 50	0.121
GF-AT-05	01	IN-CEILING DUCTED UNIT	PEFY-P25-VMA-E	142	2.8	3.2	230 / 1 / 50	0.06

*MITSUBISHI OR SIMILAR APPROVED

LEGEND:

	200V/1PH/3WZ POWER SUPPLY TERMINATING IN ISOLATOR WITHIN ONE METRE OF EQUIPMENT - BY ELECTRICIAN
	230V/1PH/3WZ POWER SUPPLY TERMINATING IN ISOLATOR WITHIN ONE METRE OF EQUIPMENT - BY ELECTRICIAN
	230V/1PH/3WZ INDOOR UNIT POWER SUPPLY TERMINATING IN ISOLATOR ADJACENT TO UNIT - BY HVAC SUB-CONTRACTOR (CAPACITY TO BE SIZED TO SPECIALIST UNITS REQUIREMENTS)
	WALL MOUNTED THERMOSTAT CONTROLLER AT 1250 APPL. (100mm CONDUIT AND 400mm BOX IN WALL) - BY ELECTRICIAN AND BUILDER
	REFRIGERATION PIPES
	CONDENSATE PIPES
	INFRARED REMOTE THERMOSTAT CONTROLLER
	CONDENSATE DRAIN POINT - BY PLUMBER
	WATER SUPPLY POINT (SIZE AS SHOWN) - BY PLUMBER
	DOOR TO BE UNDERCUT BY 25mm - BY BUILDER
	SWITCH CONTROLLER
	FLOOR DRAIN
	DIAMETER



REFERENCE TO GROUND FLOOR WEST WING M-GA-3100

REFERENCE TO GROUND FLOOR EAST WING M-GA-3102

ISSUED FOR CONSTRUCTION

GENERAL NOTES:
1. ALL DIMENSIONS TO BE CHECKED ON SITE BEFORE ANY WORK PUT IN HAND.
2. ALL WORK TO COMPLY TO LOCAL MUNICIPAL BY-LAWS.
3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE ALL CO-ORDINATION & CORRECT DIMENSIONING OF DRAWINGS IS DONE WITH ALL OTHER RESPECTIVE CONTRACTORS PRIOR TO PROCUREMENT & INSTALLATION.
4. QUALITY MUST BE ADHERED TO ALL STANDARDS AS PER SPSA SPECIFICATIONS.
HVAC NOTES:
1. THIS DRAWING FORMS PART OF THE SPECIFICATION AND MUST BE READ IN CONJUNCTION WITH THE SAME.
2. ALL DUCTWORK TO BE MANUFACTURED IN ACCORDANCE WITH SANS 1025-1/1997 LOW VELOCITY DUCT STANDARDS.
3. ALL DUCT SIZES SHOWN ARE ACTUAL SHEETMETAL SIZES.
4. SUPPLY DUCTS TO BE EXTERNALLY INSULATED WITH 25mm FRK INSULATION - UNLESS OTHERWISE SPECIFIED.
5. ALL OTHER DUCTS TO BE UNINSULATED, UNLESS SPECIFIED.
6. BE READ IN CONJUNCTION WITH THE SAME.
7. ALL DUCTS WITH SEMI-PERIMETER OF 1100mm OR LESS TO BE "B & DRIVE" JOINTS, AND DUCTS ABOVE TO BE MEZZ FLANGED.
8. ALL BENDS TO HAVE INTERNAL RADIUS OF 150mm AND SPLINTERS UNLESS OTHERWISE SPECIFIED.
9. ALL ROUND DUCT BENDS UP TO 900mm TO HAVE A RADIUS OF 200mm. OVER 900mm TO HAVE A RADIUS OF 300mm.
10. DUCT SHOES TO BE 150mm LONG @ 45°.
11. SPLICERS TO BE 100mm LONG, UNLESS OTHERWISE STATED.
12. REFRIGERANT / VRV PIPES TO BE COPPER AND INSULATED HAVE STAINLESS STEEL SCREWS FOR PLATE COVERS.

HVAC BUILDERSWORK:
14. ALL OPENINGS TO BE 100mm BIGGER THAN DUCT SIZES SHOWN (BUILDER TO MAKE GOOD AFTER DUCTS ARE INSTALLED)
15. ALL OPENINGS TO BE 20mm BIGGER THAN GRILLE SIZES SHOWN WHICH INCLUDES A 20mm THK. TIMBER FRAME ALL AROUND OPENING - BY BUILDER
16. SLEEVES IN WALLS, SLABS & BEAMS (SIZE SHOWN ON DRAWING) (BUILDER TO MAKE GOOD AFTER DUCTS ARE INSTALLED)
17. ALL EQUIPMENT DRAINS TO BE Ø25mm RIGID PVC WITH A 1:100mm FALL, UNLESS OTHERWISE STATED.
18. ALL REDUCERS AND TRANSFORMATIONS TO BE FLAT ON TOP.
ABBREVIATIONS
B.D. BALANCING DAMPER
D.G. DOOR GRILLE
EAD/O EXTRACT AIR DIFFUSER OR GRILLE
FAD/O FRESH AIR DIFFUSER OR GRILLE
FDM FIRE DAMPER (FUSIBLE LINK)
FDM FIRE DAMPER (MOTORISED)
F.D.S. FIRE DAMPER (ISOLATED)
F.O.B. FLAT ON BOTTOM (DUCT)
F.O.T. FLAT ON TOP (DUCT)
M.S.S. MEASURE ON SITE
N.T.S. NOT TO SCALE
O.B.D. OPPOSED BLADE DAMPER
RAG. RETURN AIR GRILLE
SAD/O SUPPLY AIR DIFFUSER OR GRILLE

REVISIONS					
NO.	DESCRIPTION	BY	CHKD	APPD	DATE
06	DUCTING AND SECOND FIX ITEMS CHANGED TO SUIT FINAL CO-ORDINATION LAYOUTS	KO	VV	VR	Aug 2016
05	ARCHITECT LAYOUT MODIFIED	JP	VV	VR	Jul 2016
04	AC UNITS SIZES CHANGED TO ACTUAL DIMENSIONS. CONDENSATE PIPE SIZES ADDED.	JP	VV	VR	Apr 2016
03	ARCHITECT LAYOUT MODIFIED	JP	VV	VR	Aug 2015
02	AMENDED TO SUIT CO-ORDINATION DRAWING	JP	VV	VR	May 2015
01	ISSUED FOR CONSTRUCTION	JP	GVZ	VR	Jan 2015
00	ISSUED FOR CONSTRUCTION	JP	GVZ	VR	Aug 2014

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CONTRACTOR / CONSULTANT				TRANSNET CAPITAL PROJECTS			
TITLE	NAME	SIGN	DATE	TITLE	NAME	SIGN	DATE
				DRAWN	E.M.		25 01 13
				CHECKED	E.M. PP		27 01 13
				DESIGNED	E.M. PP		20 01 13
				CHECKED	V.R.		27 01 13
OPERATING DIVISIONS				PR. ENG. / PR. TECH./PR. ARCH			
TITLE	NAME	SIGN	DATE	NAME	SIGN	DATE	DATE
				PR. ENG. / PR. TECH./PR. ARCH			
				SIGNATURE:	PP		19 08 15
				REG. NUMBER:	CIBSE NO. 17710		
				SCALE:	1:100		

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 63 WORRAKER STREET
 PORT ELIZABETH TEL: 041 507 4300

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PORT OF NGQURA

**TNPA ADMINISTRATION BUILDING
 MECHANICAL
 HVAC & VENTILATION
 GROUND FLOOR ATRIUM**

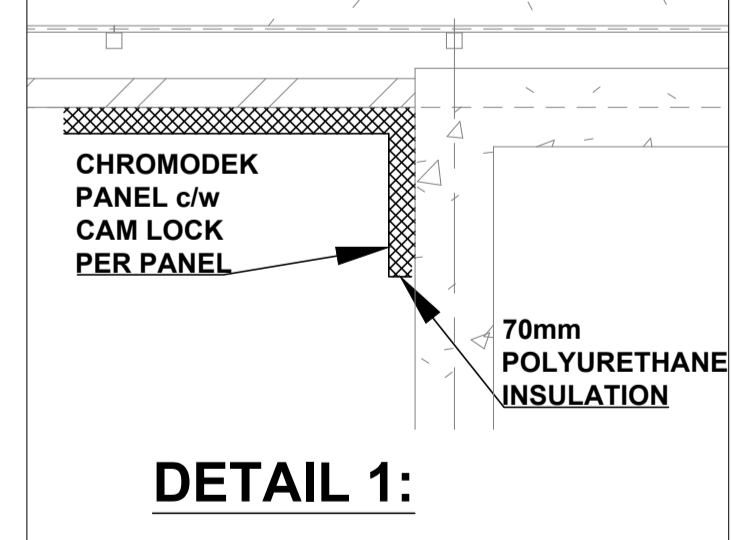
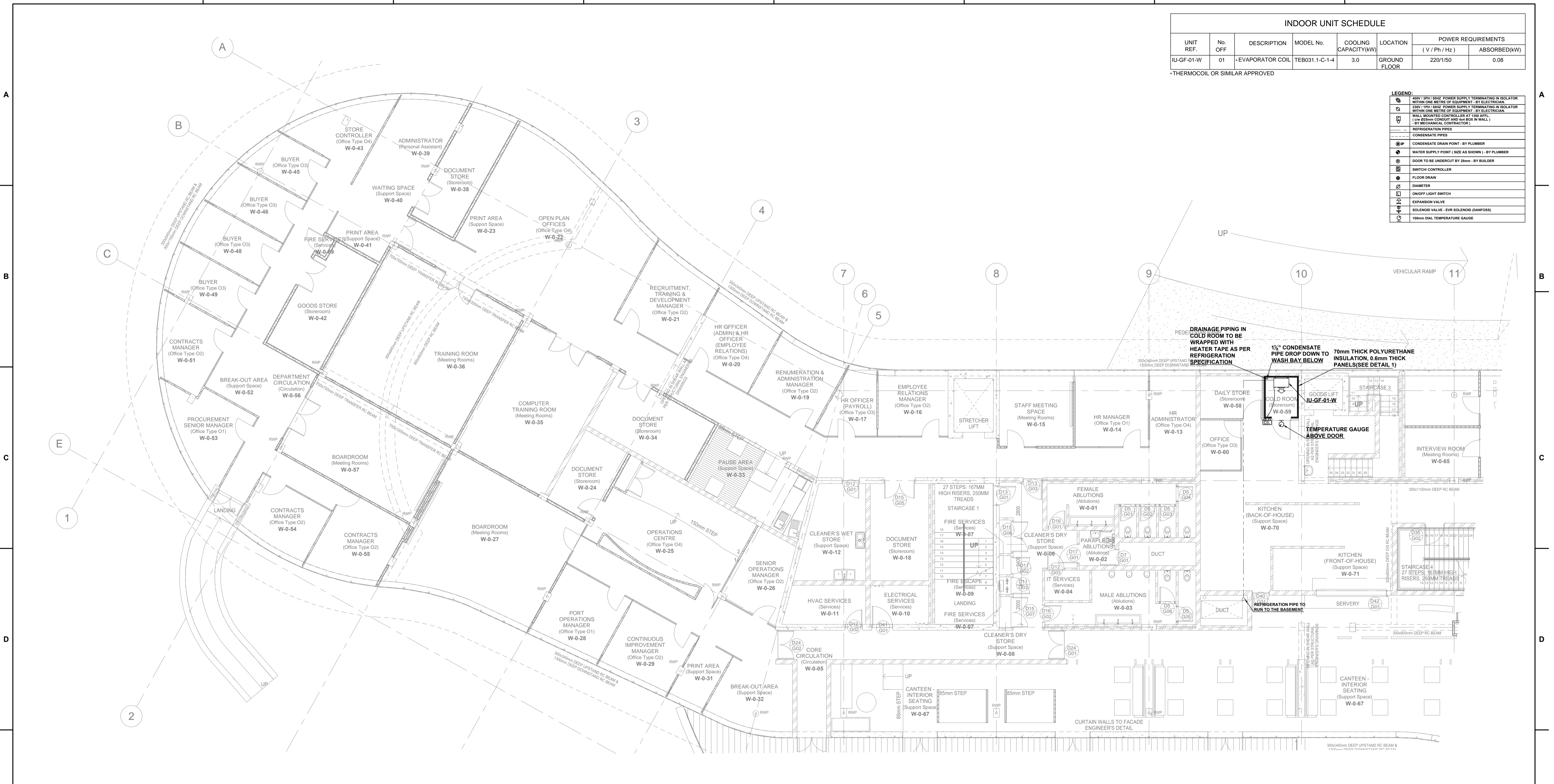
PROJECT NUMBER	OD	FBS	DIS	TYPE	DRAWING NO.	SHEET	REV	ID
H500204-1-120-A-GA-3007-01-P4-JV	1	1	2	0	M-GA-3101	01	06	JV

INDOOR UNIT SCHEDULE							
UNIT REF.	No. OFF.	DESCRIPTION	MODEL No.	COOLING CAPACITY(KW)	LOCATION	POWER REQUIREMENTS	
						(V / Ph / Hz)	ABSORBED(KW)
IU-GF-01-W	01	EVAPORATOR COIL	TEB031.1-C-14	3.0	GROUND FLOOR	220/1/50	0.08

*THERMOCOIL OR SIMILAR APPROVED

LEGEND:

	230V/3PH/50HZ POWER SUPPLY TERMINATING IN ISOLATOR WITHIN ONE METRE OF EQUIPMENT - BY ELECTRICAL
	230V/1PH/50HZ POWER SUPPLY TERMINATING IN ISOLATOR WITHIN ONE METRE OF EQUIPMENT - BY ELECTRICAL
	WALL MOUNTED CONTROL BOX AT 1.8M AFL. (C/W 25mm CONDUIT AND 40A BOX IN WALL) - BY MECHANICAL CONTRACTOR
	REFRIGERATION PIPES
	CONDENSATE PIPES
	CONDENSATE DRAIN POINT - BY PLUMBER
	WATER SUPPLY POINT (SIZE AS SHOWN) - BY PLUMBER
	DOOR TO BE UNDERCUT BY 25mm - BY BUILDER
	SWITCH CONTROLLER
	FLOOR DRAIN
	DIAMETER
	ON/OFF LIGHT SWITCH
	EXPANSION VALVE
	SCHEMATIC VALVE - (W/ SCHEMATIC) (DRAIN/LOSS)
	150mm DIA. TEMPERATURE GAUGE



ISSUED FOR CONSTRUCTION

H500204-1-120-A-GA-3007-01-P4-JV	GROUND FLOOR
DRAWING NO.	REFERENCE
REFERENCE DRAWINGS	

GENERAL NOTES:

- ALL DIMENSIONS TO BE CHECKED ON SITE BEFORE ANY WORK PUT IN HAND.
- ALL WORK TO COMPLY TO LOCAL MUNICIPAL BY-LAWS.
- IT IS THE RESPONSIBILITY OF SUB-CONTRACTORS TO ENSURE ALL COORDINATION & CORRECT DIMENSIONING OF DRAWINGS IS DONE WITH ALL OTHER RESPECTIVE CONTRACTORS PRIOR TO PROCEEDMENT & INSTALLATION.
- QUALITY MUST BE ADHERED TO ALL STANDARDS AS PER SPSA SPECIFICATIONS.

REFRIGERATION NOTES:

- REFRIGER ROOM TEMPERATURE TO BE @ 2°C AND SHOULD BE ADJUSTABLE FROM 1°C TO 8°C
- FREEZER ROOM TEMPERATURE TO BE @ -25°C AND SHOULD BE ADJUSTABLE FROM -25°C TO 5°C
- COLD ROOM TEMPERATURE TO BE @ 5°C AND SHOULD BE ADJUSTABLE FROM -5°C TO 8°C
- CONDENSING UNITS TO BE THERMOCOIL OR SIMILAR APPROVED
- EVAPORATORS TO BE THERMOCOIL OR SIMILAR APPROVED
- ALL PANELS TO BE CHROME/ODOR/WHITE INTERIOR AND EXTERIOR
- ALL DRAIN PIPING IN REFUSE, COLD AND FREEZER ROOMS TO BE WRAPPED WITH HEATER TAPE AND COVERED WITH NON-DRIPE TAPE
- AUTOMATIC ELECTRIC DEFROST CONTROL TO FREEZER ROOM EVAPORATOR
- TEMPERATURE GAUGES TO BE STAINLESS STEEL, 150mm DIA. TYPE
- RUBBER STOPPERS SHALL BE FITTED TO ALL HINGED DOORS TO PREVENT DAMAGE TO DOORS AND WALLS ON OPENING AND CLOSING
- CONDENSING UNITS TO BE LABELED TO CORRESPOND TO ROOM NUMBER
- TEMPERATURE ADJUSTMENT CONTROLLER TO BE DANFOSS EKC TYPE
- LIGHTING TO REFUSE, COLD AND FREEZER ROOMS CONSISTS OF 1 x 8W WATERPROOF VAPOUR FITTINGS WITH TUBES AND SINGLE LEVER SWITCH
- LIGHTING TO BE SUPPLIED AND DELIVERED BY MECHANICAL CONTRACTOR

CONTRACTOR / CONSULTANT					
TITLE	NAME	SIGN	DATE		
01	ISSUED FOR CONSTRUCTION	KO	ZT	VR	July 2015
00	ISSUED FOR CONSTRUCTION	KO	ZT	VR	June 2015

OPERATING DIVISIONS				
TITLE	NAME	SIGN	DATE	
REVISIONS				
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TRANSNET CAPITAL PROJECTS			
TITLE	NAME	SIGN	DATE
DRAWN	K.O		04 06 15
CHECKED	Z.T		04 06 15
DESIGNED	Z.T		04 06 15
CHECKED	V.R		04 06 15

PR.ENG. / PR.TECH./PR. ARCH			
NAME:	DATE	SIGNATURE:	
NAME: JOHN DRISCOLL			
SIGNATURE:			28 07 15
REG. NUMBER: CIBSE NO. 17710			
SCALE: 1:100			

Transnet Capital Projects

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PORT OF NGQURA

TNPA ADMINISTRATION BUILDING MECHANICAL REFRIGERATION LAYOUT GROUND FLOOR WEST WING

PROJECT NUMBER	OD	FBS	DIS	TYPE	DRAWING NO.	SHEET	REV	ID
H500204	1	1	2	0	M-GA	3106	01	01

AIR TERMINAL SCHEDULE			
GRILLE REF.	No. OFF	DESCRIPTION	AIR QTY. (L/s) each
RAG 01	01	*600x600 RETURN AIR GRILLE -Ø250 CONNECTION	---
RAG 02	03	*600x600 RETURN AIR GRILLE -Ø300 CONNECTION	---
SAD 08	06	*Ø250 CONSTANT VOLUME SWIRL AIR DIFFUSERS-TYPE (CSW)	116.5
SAD 10	01	*Ø250 CONSTANT VOLUME SWIRL AIR DIFFUSERS-TYPE (CSW)	142.0

* TROX/RICKARD OR SIMILAR APPROVED

AIR CONDITIONING UNIT SCHEDULE							
UNIT	No.	DESCRIPTION	MODEL No.	AIR QTY.	CAPACITY (kW)	POWER REQUIREMENTS	
					COOLING	HEATING	ABSORBED (kW)
FF-AT-01	01	IN-CEILING DUCTED UNIT	PEFY-P40-VMA-E	233	4.5	5.0	230 / 1 / 50
FF-AT-02	01	IN-CEILING DUCTED UNIT	PEFY-P40-VMA-E	233	4.5	5.0	230 / 1 / 50
FF-AT-03	01	IN-CEILING DUCTED UNIT	PEFY-P20-VMA-E	142	2.2	2.5	230 / 1 / 50
FF-AT-04	01	IN-CEILING DUCTED UNIT	PEFY-P40-VMA-E	233	4.5	5.0	230 / 1 / 50

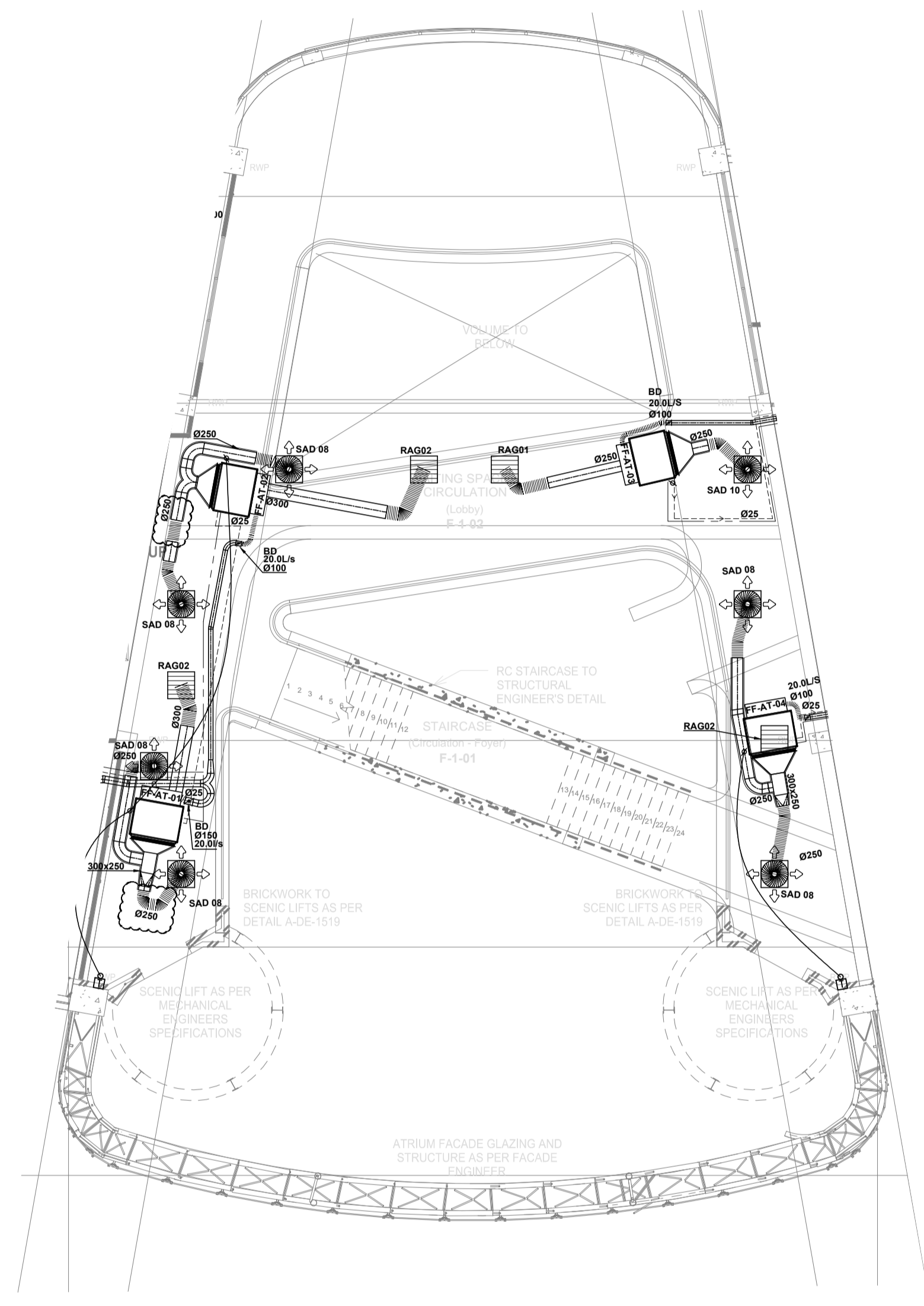
* MITSUBISHI OR SIMILAR APPROVED

LEGEND:

- ⊕ 40V / 50V / 100V POWER SUPPLY TERMINATING IN ISOLATOR WITHIN ONE METRE OF EQUIPMENT - BY ELECTRICIAN
- ⊖ 230V / 100V / 100V POWER SUPPLY TERMINATING IN ISOLATOR WITHIN ONE METRE OF EQUIPMENT - BY ELECTRICIAN
- ⊕ 230V / 100V / 100V POWER SUPPLY TERMINATING IN ISOLATOR ADJACENT TO SHEET BY FRIG. SUB-CONTRACTOR (CAPACITY TO BE SIZED TO SPECIALIST UNITS REQUIREMENTS)
- ⊖ WALL MOUNTED THERMOSTAT CONTROLLER AT 1500 AFFL. (FOR DOWN CONDUIT AND AIR OUT IN WALL.)
- REFRIGERATION PIPES
- CONDENSATE PIPES
- INFRARED REMOTE THERMOSTAT CONTROLLER
- CONDENSATE DRAIN POINT - BY PLUMBER
- WATER SUPPLY POINT (SIZE AS SHOWN) - BY PLUMBER
- DOOR TO BE UNDERCUT BY 25mm - BY BUILDER
- SWITCH CONTROLLER
- FLOOR DRAIN
- DIAMETER

REFERENCE TO FIRST FLOOR WEST WING M-GA-4100

REFERENCE TO FIRST FLOOR EAST WING M-GA-4102



GENERAL NOTES:

- ALL DIMENSIONS TO BE CHECKED ON SITE BEFORE ANY WORK PUT IN HAND.
- ALL WORK TO COMPLY TO LOCAL MUNICIPAL BY-LAWS.
- IT IS ALL THE RELEVANT SUB-CONTRACTORS RESPONSIBILITY TO ENSURE ALL CO-ORDINATION & CORRECT DIMENSIONING OF DRAWINGS IS DONE WITH ALL OTHER RESPECTIVE CONTRACTORS PRIOR TO PROCUREMENT & INSTALLATION.
- QUALITY MUST BE ADHERED TO ALL STANDARDS AS PER SPSA SPECIFICATIONS.

HVAC NOTES:

- THIS DRAWING FORMS PART OF THE SPECIFICATION AND MUST BE READ IN CONJUNCTION WITH THE SAME.
- ALL DUCTWORK TO BE MANUFACTURED IN ACCORDANCE WITH SANS 1024:1976 LOW VELOCITY DUCT STANDARDS.
- ALL DUCT SIZES SHOWN ARE ACTUAL SHEETMETAL SIZES.
- SUPPLY DUCTS TO BE EXTERNALLY INSULATED WITH 25mm FRK INSULATION - UNLESS OTHERWISE SPECIFIED.
- ALL OTHER DUCTS TO BE UNINSULATED, UNLESS SPECIFIED.
- BE READ IN CONJUNCTION WITH THE SAME.
- ALL EXPOSED DUCTS TO BE PAINTED TO SPECIFICATION.
- ALL DUCTS WITH SEMI-PERIMETER OF 1100mm OR LESS TO BE "B & DRIVE" JOINTS, AND DUCTS ABOVE TO BE MEZZ FLANGED.
- ALL BENDS TO HAVE INTERNAL RADIUS OF 150mm AND SPLITTERS UNLESS OTHERWISE SPECIFIED.
- ALL ROUND DUCT BENDS UP TO 800mm TO HAVE A RADIUS OF 200mm. OVER 800mm TO HAVE A RADIUS OF 300mm.
- DUCT SHOES TO BE 150mm LONG @ 45°.
- SPRIGS TO BE 100mm LONG, UNLESS OTHERWISE STATED.
- REFRIGERANT / VRV PIPES TO BE COPPER AND INSULATED.
- HAVE STAINLESS STEEL SCREWS FOR PLATE COVERS.

HVAC BUILDERSWORK:

- ALL OPENINGS TO BE 100mm BIGGER THAN DUCT SIZES SHOWN (BUILDER TO MAKE GOOD AFTER DUCTS ARE INSTALLED).
- ALL OPENINGS TO BE 50mm BIGGER THAN GRILLE SIZES SHOWN WHICH INCLUDES A 20mm THK. TIMBER FRAME ALL AROUND OPENING - BY BUILDER.
- SLEEVES IN WALLS, SLABS & BEAMS (SIZE SHOWN ON DRAWING) (BUILDER TO MAKE GOOD AFTER DUCTS ARE INSTALLED).
- ALL EQUIPMENT DRAINS TO BE Ø25mm RIGID PVC WITH A 1:100mm FALL, UNLESS OTHERWISE STATED.
- ALL REDUCERS AND TRANSFORMATIONS TO BE FLAT ON TOP.

ABBREVIATIONS:

B.D.	BALANCING DAMPER
D.G.	DOOR GRILLE
EAD/O	EXTRACT AIR DIFFUSER OR GRILLE
FAD/O	FRESH AIR DIFFUSER OR GRILLE
F.D.L.	FIRE DAMPER (FUSIBLE LINK)
F.D.M.	FIRE DAMPER (MOTORISED)
F.D.S.	FIRE DAMPER (SOLENOID)
F.O.B.	FLAT ON BOTTOM (DUCT)
F.O.T.	FLAT ON TOP (DUCT)
M.S.B.	MEASURE ON SITE
N.T.S.	NOT TO SCALE
O.B.D.	OPPOSED BLADE DAMPER
R.A.G.	RETURN AIR GRILLE
SAD/O	SUPPLY AIR DIFFUSER OR GRILLE

NO.	DESCRIPTION	BY	CHKD	APPD	DATE
06	DUCTING AND SECOND FIX ITEMS CHANGED TO SUIT FINAL CO-ORDINATION LAYOUTS	KO	VV	VR	Sep 2016
05	ARCHITECTURAL LAYOUT MODIFIED	JP	VV	VR	Jul 2016
04	CONDENSATE PIPE SIZES ADDED	JP	VV	VR	Apr 2016
03	AC UNITS MOVED TO AVOID CLASH WITH CABLE TRAY, ALL AC UNIT LENGTHS ADAPTED TO ACTUAL SIZES	JP	VV	VR	Mar 2016
02	ARCHITECT LAYOUT MODIFIED	JP	VV	VR	Aug 2015
01	AMENDED TO SUIT CO-ORDINATION DRAWING	JP	VV	VR	May 2015
00	ISSUED FOR CONSTRUCTION	JP	GVZ	VR	Aug 2014

REVISIONS

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TITLE	NAME	SIGN	DATE	TITLE	NAME	SIGN	DATE
				DRAWN	J.P. PP	[Signature]	25 01 13
				CHECKED	G.V.Z. PP	[Signature]	27 01 13
				DESIGNED	G.V.Z. PP	[Signature]	20 01 13
				CHECKED	V.R.	[Signature]	27 01 13

OPERATING DIVISIONS

TITLE	NAME	SIGN	DATE

PR. ENG. / PR. TECH. / PR. ARCH

NAME	JOHN DRISCOLL	DATE
SIGNATURE	PR [Signature]	19 08 15

REG. NUMBER CIBSE NO. 17710
SCALE: 1:100

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PORT OF NGQURA

TNPA ADMINISTRATION BUILDING MECHANICAL HVAC & VENTILATION FIRST FLOOR ATRIUM

PROJECT NUMBER	OD	FBS	DIS	TYPE	DRAWING NO.	SHEET	REV	ID
H500204	1	1	20	M-GA	4101	01	06	JV

DRAWING NO.	REFERENCE
	REFERENCE DRAWINGS

AIR TERMINAL SCHEDULE			
GRILLE REF.	No. OFF	DESCRIPTION	AIR QTY. (L/s) each
RAG 02	04	*600x600 RETURN AIR GRILLE - Ø300 CONNECTION	
SAD 14	01	*Ø250 CONSTANT VOLUME AIR DIFFUSERS - TYPE (CCD)	87.5
SAD 07	07	*Ø250 CONSTANT VOLUME SWIRL AIR DIFFUSERS-TYPE (CSW)	87.5

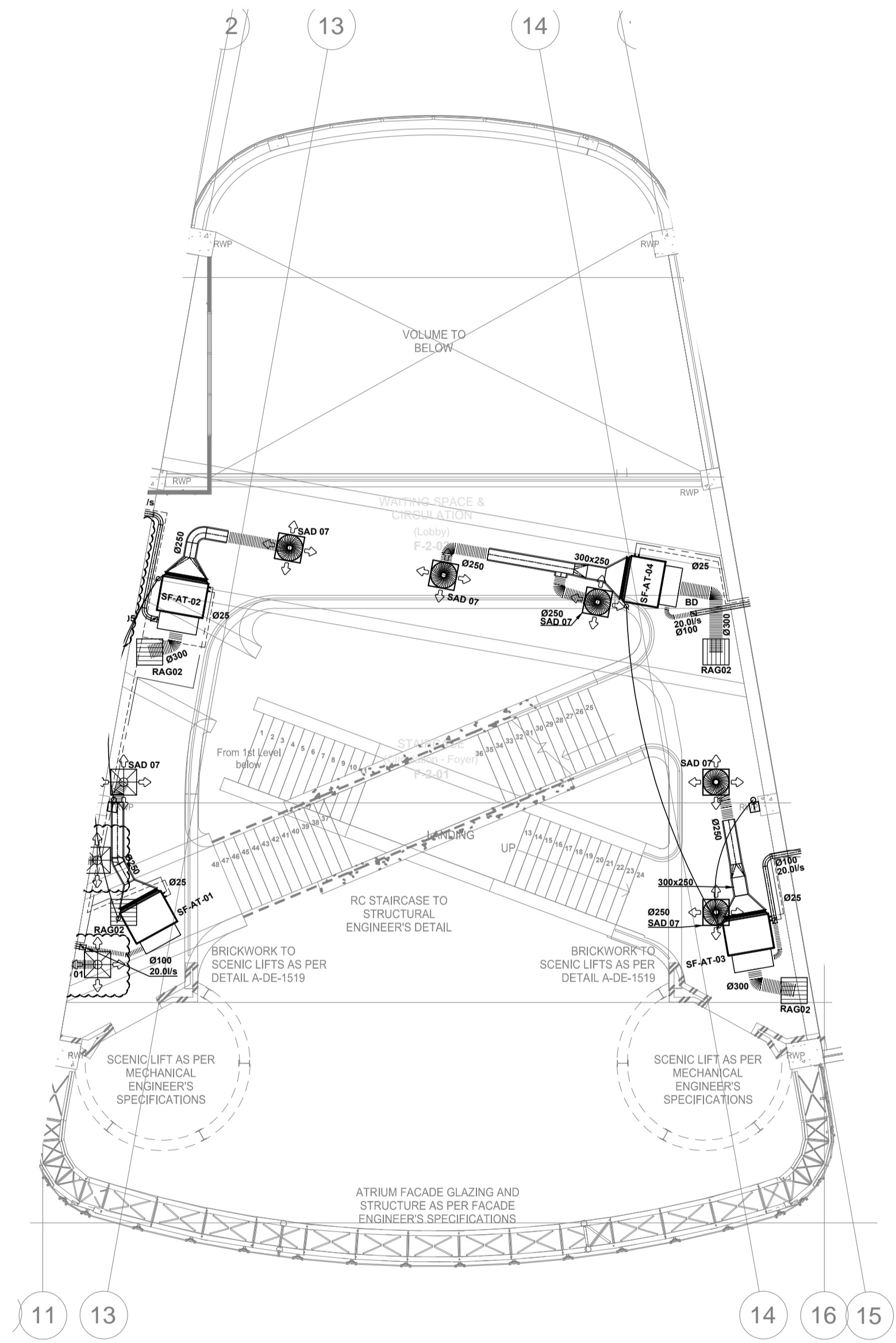
* TROX/RICKARD OR SIMILAR APPROVED

AIR CONDITIONING UNIT SCHEDULE								
UNIT	No.	DESCRIPTION	MODEL No.	AIR QTY. L/s	CAPACITY (kW)		POWER REQUIREMENTS	
					COOLING	HEATING	(V/Ph/Hz)	ABSORBED (kW)
SF-AT-01	01	IN-CEILING DUCTED UNIT	PEFY-P32-VMA-E	175	3.6	4.0	230 / 1 / 50	0.07
SF-AT-02	01	IN-CEILING DUCTED UNIT	PEFY-P32-VMA-E	175	3.6	4.0	230 / 1 / 50	0.07
SF-AT-03	01	IN-CEILING DUCTED UNIT	PEFY-P32-VMA-E	175	3.6	4.0	230 / 1 / 50	0.07
SF-AT-04	01	IN-CEILING DUCTED UNIT	PEFY-P32-VMA-E	175	3.6	4.0	230 / 1 / 50	0.07

*MITSUBISHI OR SIMILAR APPROVED

REFER TO SECOND FLOOR WEST WING DRAWING-M-GA-5100

REFER TO SECOND FLOOR EAST WING DRAWING-M-GA-5102



ISSUED FOR CONSTRUCTION

DRAWING NO.	REFERENCE
	REFERENCE DRAWINGS

GENERAL NOTES:

- ALL DIMENSIONS TO BE CHECKED ON SITE BEFORE ANY WORK PUT IN HAND.
- ALL WORK TO COMPLY TO LOCAL MUNICIPAL BY-LAWS.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE ALL CO-ORDINATION & CORRECT DIMENSIONING OF DRAWINGS IS DONE WITH ALL OTHER RESPECTIVE CONTRACTORS PRIOR TO PROCUREMENT & INSTALLATION.
- QUALITY MUST BE ADHERED TO ALL STANDARDS AS PER TENDER SPECIFICATIONS.

HVAC NOTES:

- THIS DRAWING FORMS PART OF THE SPECIFICATION AND MUST BE READ IN CONJUNCTION WITH THE SAME.
- ALL DUCTWORK TO BE MANUFACTURED IN ACCORDANCE WITH SABS-1234-979 LOW VELOCITY DUCT STANDARDS.
- ALL DUCT SIZES SHOWN ARE ACTUAL SHEETMETAL SIZES.
- SUPPLY DUCTS TO BE EXTERNALLY INSULATED WITH 25mm FRK INSULATION - UNLESS OTHERWISE SPECIFIED.
- ALL OTHER DUCTS TO BE UNINSULATED, UNLESS SPECIFIED.
- BE READ IN CONJUNCTION WITH THE SAME.
- ALL EXPOSED DUCTS TO BE PAINTED TO SPECIFICATION.
- ALL DUCTS WITH SEMI-PERIMETER OF 1150mm OR LESS TO BE "S" & DRIVE JOINTS, AND DUCTS ABOVE TO BE MEZZ FLANGED.
- ALL BENDS TO HAVE INTERNAL RADIUS OF 150mm AND SPLITTERS UNLESS OTHERWISE SPECIFIED.
- ALL ROUND DUCT BENDS UP TO 900mm TO HAVE A RADIUS OF 200mm - OVER 900mm TO HAVE A RADIUS OF 300mm.
- DUCT SIZES TO BE 150mm LONG @ 45°.
- SPIGOTS TO BE 100mm LONG, UNLESS OTHERWISE STATED.
- REFRIGERANT / RVP PIPES TO BE COPPER AND INSULATED.

HVAC BUILDERSWORK:		ABBREVIATIONS	
15	ALL OPENINGS TO BE 100mm BIGGER THAN DUCT SIZES SHOWN (BUILDER TO MAKE GOOD AFTER DUCTS ARE INSTALLED)	B.D.	BALANCING DAMPER
16	ALL OPENINGS TO BE 80mm BIGGER THAN GRILLE SIZES SHOWN WHICH INCLUDES 25mm THK. TIMBER FRAME ALL AROUND OPENING - BY BUILDER	D.G.	DOOR GRILLE
17	SLEEVES IN WALLS & SLABS & BEAMS (SIZE SHOWN ON DRAWING) (BUILDER TO MAKE GOOD AFTER DUCTS ARE INSTALLED)	FAD/G	EXTRACT AIR DIFFUSER OR GRILLE
18	ALL EQUIPMENT DRAYS TO BE Ø25mm RIGID PVC WITH A 1-100mm FALL UNLESS OTHERWISE STATED.	FAD/S	FRESH AIR DIFFUSER OR GRILLE
	LEGEND:	F.D.L.	FIRE DAMPER (FUSIBLE LINK)
1	Ø25V / 3PH / 50HZ POWER SUPPLY TERMINATING IN ISOLATOR WITH ONE METRE OF EQUIPMENT - BY ELECTRICIAN	F.D.M.	FIRE DAMPER (MOTORISED)
2	230V / 1PH / 50HZ POWER SUPPLY TERMINATING IN ISOLATOR WITH ONE METRE OF EQUIPMENT - BY ELECTRICIAN	F.D.S.	FIRE DAMPER (SOLID)
3	230V / 1PH / 50HZ INDOOR UNIT POWER SUPPLY TERMINATING IN ISOLATOR WITH ONE METRE OF EQUIPMENT - BY ELECTRICIAN	F.O.B.	FLAT ON BOTTOM (DUCT)
4	WALL MOUNTED THERMOSTAT CONTROLLER (L1390 APPL. (10w Ø20mm CONDUIT AND AN BOX IN WALL) - BY ELECTRICIAN AND BUILDER)	F.O.T.	FLAT ON TOP (DUCT)
5	ON / OFF SWITCH MOUNTED TO SIDE OF CANOPIES OR WALLS (Øw Ø80mm CONDUIT AND AN BOX IN WALL) - BY ELECTRICIAN AND BUILDER	M.O.S.	MEASURE ON SITE
6	INFRARED REMOTE THERMOSTAT CONTROLLER	N.T.S.	NOT TO SCALE
7	CONDENSATE DRAIN POINT - BY PLUMBER	O.B.D.	OPPOSED BLADE DAMPER
8	WATER SUPPLY POINT (SIZE AS SHOWN) - BY PLUMBER	R.A.C.	RETURN AIR GRILLE
9	DOOR TO BE UNDERCUT BY 25mm - BY BUILDER	SAD/G	SUPPLY AIR DIFFUSER OR GRILLE
		TRF.	TRANSFORMATION OF DUCT
		W.L.	WEATHER LOUVER
		W.R.S.	WIRE REIN SCREEN
		REFRIGERATION LINES	
		CONDENSATE PIPES	

NO.	DESCRIPTION	BY	CHKD	APPD	DATE
05	DUCTING AND SECOND FIX ITEMS CHANGED TO SUIT FINAL CO-ORDINATION LAYOUTS	KO	VV	VR	Sep 2016
04	ARCHITECTURAL LAYOUT MODIFIED.	JP	VV	VR	Jul 2016
03	CONDENSATE PIPE SIZES ADDED.	JP	VV	VR	Apr 2016
02	AC UNITS MOVED TO AVOID CLASH WITH CABLE TRAY. ALL AC UNIT LENGTHS ADAPTED TO ACTUAL SIZES	KO	VV	VR	Mar 2016
01	ARCHITECT LAYOUT MODIFIED	JP	VV	VR	Aug 2015
00	ISSUED FOR CONSTRUCTION	JP	VV	VR	May 2015

CONTRACTOR / CONSULTANT				TRANSNET CAPITAL PROJECTS			
TITLE	NAME	SIGN	DATE	TITLE	NAME	SIGN	DATE
				DRAWN	J.P. P.P.	[Signature]	17 02 14
				CHECKED	E.M. P.P.	[Signature]	18 02 14
				DESIGNED	E.M. P.P.	[Signature]	20 01 13
				CHECKED	V.R.	[Signature]	27 01 13

OPERATING DIVISIONS			
TITLE	NAME	SIGN	DATE

PR. ENG. / PR. TECH./PR. ARCH			
NAME	DATE	SIGNATURE	DATE

Transnet Capital Projects
 TRANSNET LTD (TRADING AS TRANSNET CAPITAL PROJECTS) REG. NO. 199000000006
 63 WORRAKER STREET PORT ELIZABETH TEL: 041 507 4300

TRANSNET

PORT OF NGQURA

TNPA ADMINISTRATION BUILDING MECHANICAL HVAC & VENTILATION SECOND FLOOR ATRIUM

PROJECT NUMBER	OD	FBS	DIS	TYPE	DRAWING NO.	SHEET	REV	ID
H500204	1	1	2	0	M-GA-5101	01	05	JV

REG. NUMBER CIBSE NO. 17710
 SCALE: 1:100

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A
B
C
D
E

A
B
C
D
E

BC SCHEDULE		
BC REF.	No. OFF	UNIT SCHEDULE
BC-01	10	* SF-E-01 * SF-E-02 * SF-E-03 * SF-E-12a * SF-E-12b * SF-E-12c * SF-E-12d * SF-E-12e * SF-AT-03 * SF-AT-04
OUTDOOR UNIT REFERENCE No. *MITSUBISHI OR SIMILAR APPROVED		

BC SCHEDULE		
BC REF.	No. OFF	UNIT SCHEDULE
BC-02	11	* SF-E-04 * SF-E-06 * SF-E-07 * SF-E-08 * SF-E-09 * SF-E-10 * SF-E-11 * SF-E-13 * SF-E-14 * SF-E-15
OUTDOOR UNIT REFERENCE No. *MITSUBISHI OR SIMILAR APPROVED		

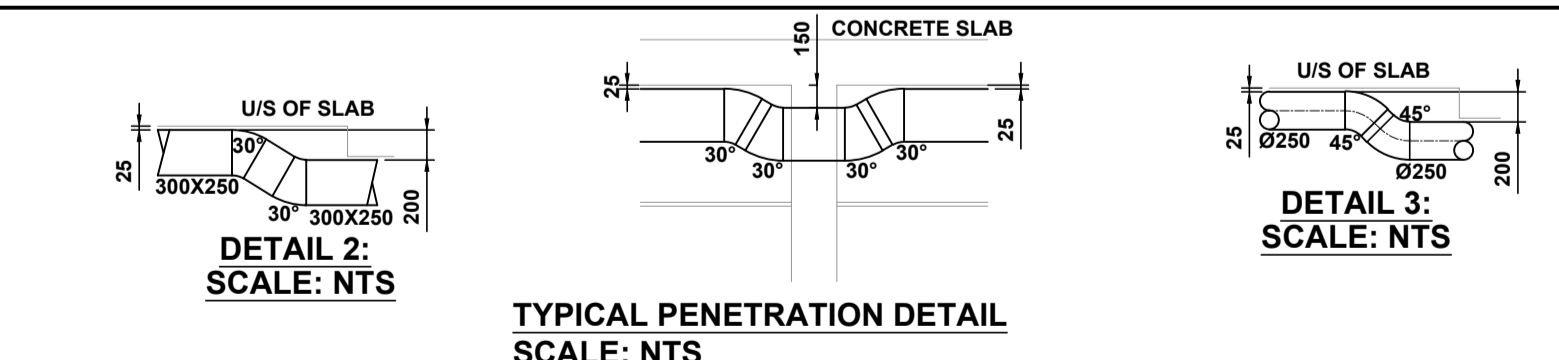
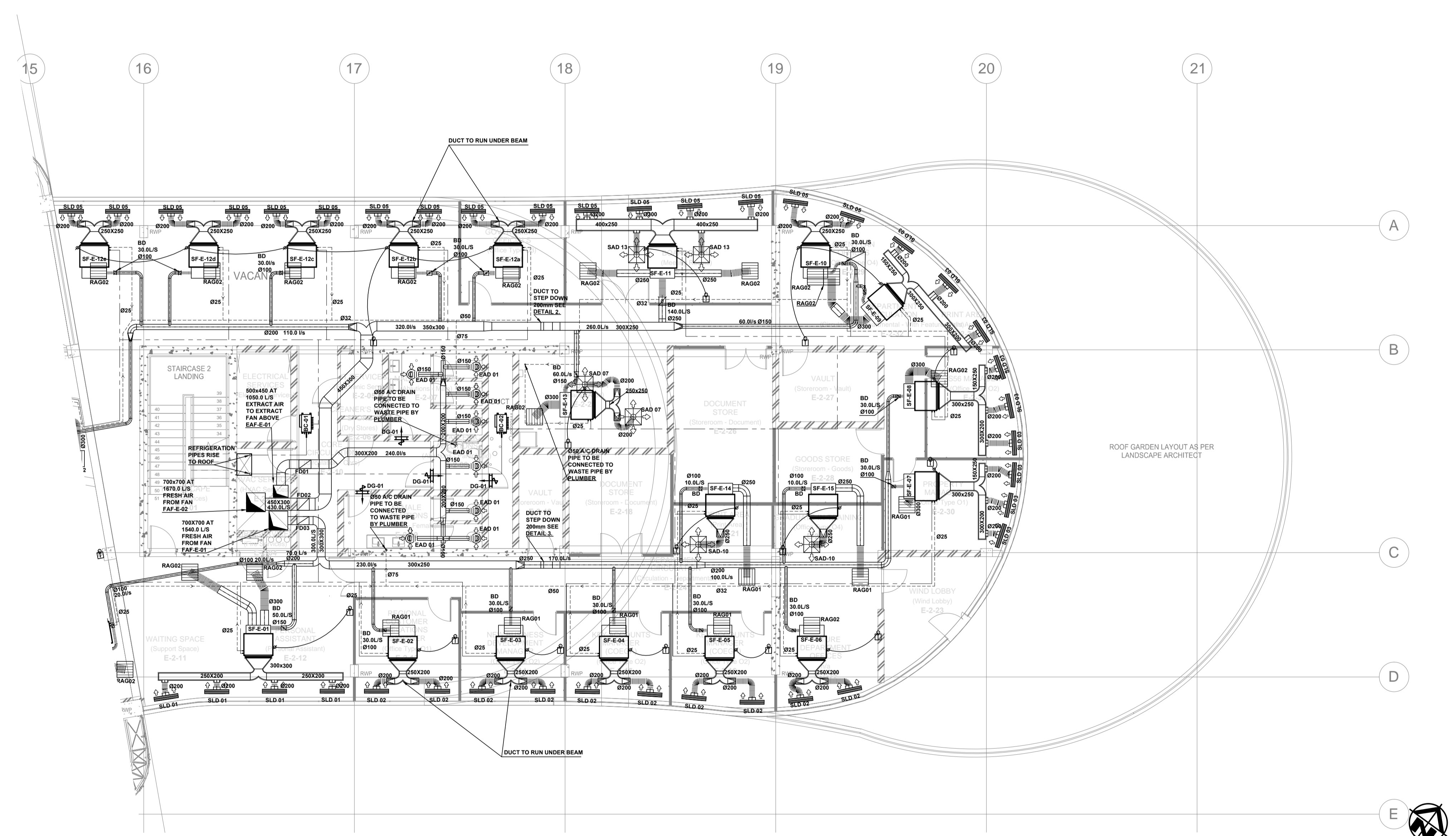
FIRE DAMPER SCHEDULE			
FD REF.	No. OFF	DISCRIPTION	SIZE
FD01	01	* FIRE DAMPER C/W FUSIBLE CURTAIN	350X200
FD02	01	* FIRE DAMPER C/W FUSIBLE CURTAIN	550X300
FD03	01	* FIRE DAMPER C/W FUSIBLE CURTAIN	350X250

AIR CONDITIONING UNIT SCHEDULE									
UNIT	No.	DESCRIPTION	MODEL No.	AIR QTY.	CAPACITY (KW)		POWER REQUIREMENTS		AIR QTY. (L/s) each
					COOLING	HEATING	(V/Ph/Hz)	ABSORBED (KW)	
SF-E-01	01	IN-CEILING DUCTED UNIT	PEFY-P50-VMA-E	285	5.6	6.3	230 / 1 / 50	0.11	---
SF-E-02	01	IN-CEILING DUCTED UNIT	PEFY-P20-VMA-E	142	2.2	2.5	230 / 1 / 50	0.06	---
SF-E-03	01	IN-CEILING DUCTED UNIT	PEFY-P20-VMA-E	142	2.2	2.5	230 / 1 / 50	0.06	---
SF-E-04	01	IN-CEILING DUCTED UNIT	PEFY-P20-VMA-E	142	2.2	2.5	230 / 1 / 50	0.06	---
SF-E-05	01	IN-CEILING DUCTED UNIT	PEFY-P20-VMA-E	142	2.2	2.5	230 / 1 / 50	0.06	---
SF-E-06	01	IN-CEILING DUCTED UNIT	PEFY-P20-VMA-E	142	2.2	2.5	230 / 1 / 50	0.06	---
SF-E-07	01	IN-CEILING DUCTED UNIT	PEFY-P40-VMA-E	233	4.5	5.0	230 / 1 / 50	0.09	---
SF-E-08	01	IN-CEILING DUCTED UNIT	PEFY-P40-VMA-E	233	4.5	5.0	230 / 1 / 50	0.09	---
SF-E-09	01	IN-CEILING DUCTED UNIT	PEFY-P40-VMA-E	233	4.5	5.0	230 / 1 / 50	0.09	---
SF-E-10	01	IN-CEILING DUCTED UNIT	PEFY-P32-VMA-E	175	3.6	4.0	230 / 1 / 50	0.07	---
SF-E-11	01	IN-CEILING DUCTED UNIT	PEFY-P100-VMA-E	550	11.2	12.5	230 / 1 / 50	0.11	---
SF-E-12a	01	IN-CEILING DUCTED UNIT	PEFY-P32-VMA-E	175	3.6	4.0	230 / 1 / 50	0.07	---
SF-E-12b	01	IN-CEILING DUCTED UNIT	PEFY-P32-VMA-E	175	3.6	4.0	230 / 1 / 50	0.07	---
SF-E-12c	01	IN-CEILING DUCTED UNIT	PEFY-P32-VMA-E	175	3.6	4.0	230 / 1 / 50	0.07	---
SF-E-12d	01	IN-CEILING DUCTED UNIT	PEFY-P32-VMA-E	175	3.6	4.0	230 / 1 / 50	0.07	---
SF-E-12e	01	IN-CEILING DUCTED UNIT	PEFY-P32-VMA-E	175	3.6	4.0	230 / 1 / 50	0.07	---
SF-E-13	01	IN-CEILING DUCTED UNIT	PEFY-P32-VMA-E	175	3.6	4.0	230 / 1 / 50	0.07	---
SF-E-14	01	IN-CEILING DUCTED UNIT	PEFY-P20-VMA-E	142	2.2	2.5	230 / 1 / 50	0.06	---
SF-E-15	01	IN-CEILING DUCTED UNIT	PEFY-P20-VMA-E	142	2.2	2.5	230 / 1 / 50	0.06	---

AIR TERMINAL SCHEDULE			
GRILLE REF.	No. OFF	DESCRIPTION	AIR QTY. (L/s) each
RAG 01	06	* 600x600 RETURN AIR GRILLE -Ø200 CONNECTION	---
RAG 02	14	* 600x600 RETURN AIR GRILLE -Ø250 CONNECTION	---
DG 01	04	* 300x300 DOOR GRILLES (NECK SIZE)	---
EAD 01	08	* Ø100 EXTRACT AIR DISK VALVES	30.00
SAD 07	02	* Ø200 CONSTANT VOLUME AIR DIFFUSERS - TYPE (CCD)	87.5
SAD 10	02	* Ø250 CONSTANT VOLUME AIR DIFFUSERS - TYPE (CCD)	142.0
SAD 13	02	* Ø200 CONSTANT VOLUME AIR DIFFUSERS - TYPE (CCD)	91.67
SLD 01	04	* 900 LONG SLOT DIFFUSER - Ø200 CONNECTION	70.75
SLD 02	10	* 900 LONG SLOT DIFFUSER - Ø200 CONNECTION	71.0
SLD 03	09	* 900 LONG SLOT DIFFUSER - Ø200 CONNECTION	77.67
SLD 05	16	* 900 LONG SLOT DIFFUSER - Ø200 CONNECTION	87.5

* TROX/RICKARD OR SIMILAR APPROVED

REFER TO SECOND FLOOR ATRIUM DRAWING-M-GA-5101



DRAWING NO.	REFERENCE
	REFERENCE DRAWINGS

GENERAL NOTES:	
1. ALL DIMENSIONS TO BE CHECKED ON SITE BEFORE ANY WORK BEGINS.	
2. ALL WORK TO COMPLY WITH LOCAL MUNICIPAL BY-LAWS.	
3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE ALL CO-ORDINATION & CORRECT DIMENSIONS OF DRAWINGS IS DONE WITH ALL OTHER RESPECTIVE CONTRACTORS PRIOR TO PROCUREMENT & INSTALLATION.	
4. QUALITY MUST BE ADHERED TO ALL STANDARDS AS PER TENDER SPECIFICATIONS.	
5. THIS DRAWING FORMS PART OF THE SPECIFICATION AND MUST BE READ IN CONJUNCTION WITH THE SAME.	
6. ALL DIMENSIONS TO BE MANUFACTURED IN ACCORDANCE WITH SABS-1234-1978 LOW VELOCITY DUCT STANDARDS.	
7. ALL DUCT SIZES SHOWN ARE ACTUAL DIMENSIONAL SIZES.	
8. SUPPLY DUCTS TO BE EXTERNALLY INSULATED WITH 25mm FRK INSULATION - UNLESS OTHERWISE SPECIFIED.	
9. ALL OTHER DUCTS TO BE UNINSULATED, UNLESS SPECIFIED.	
10. BE READ IN CONJUNCTION WITH THE SAME.	
11. ALL EXPOSED DUCTS TO BE PAINTED TO SPECIFICATION.	
12. ALL DUCTS WITH SEMI-PERIMETER OF 1150mm OR LESS TO BE 3/8" DRINK JOINTS, AND DUCTS ABOVE TO BE MEZZ FLANGED.	
13. ALL ROUND DUCT BENDS UP TO 90° TO HAVE A RADIUS OF 200mm - OVER 90° TO HAVE A RADIUS OF 300mm.	
14. DUCT BENDS TO BE 150mm LONG @ 45°.	
15. SPIGOTS TO BE 100mm LONG, UNLESS OTHERWISE STATED.	
16. REFRIGERANT / VRY PIPES TO BE COPPER AND INSULATED.	

ABBREVIATIONS	
B.D.	BALANCING DAMPER
D.G.	DOOR GRILLE
EAD / G	EXTRACT AIR DIFFUSER OR GRILLE
FAD / G	FRESH AIR DIFFUSER OR GRILLE
F.D.L.	FIRE DAMPER (FUSIBLE LINK)
F.D.M.	FIRE DAMPER (MOTORISED)
F.D.S.	FIRE DAMPER (SOLID)
F.O.B.	FLAT ON BOTTOM (DUCT)
F.O.T.	FLAT ON TOP (DUCT)
H.O.S.	MEASURE ON SITE
N.T.S.	NOT TO SCALE
O.B.D.	OPPOSED BLADE DAMPER
R.A.C.	RETURN AIR GRILLE
SAD / G	SUPPLY AIR DIFFUSER OR GRILLE
T.R.F.	TRANSFORMATION OF DUCT
W.L.	WEATHER LOUVER
W.R.S.	WIRE REIN SCREEN
R.L.	REFRIGERATION LINES
C.P.	CONDENSATE PIPES

CONTRACTOR / CONSULTANT				TRANSNET CAPITAL PROJECTS			
TITLE	NAME	SIGN	DATE	TITLE	NAME	SIGN	DATE
05 DUCTING AND SECOND FIX ITEMS CHANGED TO SUIT FINAL CO-ORDINATION LAYOUTS	KO	VV	VR	Sep 2016	DRAWN	J.P. P.P.	17 02 14
04 ARCHITECTURAL LAYOUT MODIFIED.	JP	VV	VR	Jul 2016	CHECKED	E.M. P.P.	18 02 14
03 CONDENSATE PIPE SIZES ADDED.	JP	VV	VR	Apr 2016	DESIGNED	E.M. P.P.	20 01 13
02 AC UNITS MOVED TO AVOID CLASH WITH CABLE TRAY. ALL AC UNIT LENGTHS ADAPTED TO ACTUAL SIZES	KO	VV	VR	Mar 2016	CHECKED	V.R.	27 01 13
01 ARCHITECT LAYOUT MODIFIED	JP	VV	VR	Aug 2015	PR. ENG. / PR. TECH. / PR. ARCH		
00 ISSUED FOR CONSTRUCTION	JP	VV	VR	May 2015	NAME	JOHN DRISCOLL	DATE
NO. DESCRIPTION BY CHKD APPD DATE				SIGNATURE P.P.			
REVISIONS				REG. NUMBER CIBSE NO. 17710			
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 63 WORRAKER STREET PORT ELIZABETH TEL: 041 507 4300

TRANSNET

PORT OF NGQURA

TNPA ADMINISTRATION BUILDING MECHANICAL SECOND FLOOR EAST WING

PROJECT NUMBER	OD	FBS	DIS	TYPE	DRAWING NO.	SHEET	REV	ID
H5100204	1	1	2	0	M-GA-5102	01	0	5 JV

AIR TERMINAL SCHEDULE			
BC REF.	No. OFF	DESCRIPTION	AIR QTY. (L/s) each
RAG 01	03	* 600x600 RETURN AIR GRILLE - Ø250 CONNECTION	---
RAG 02	20	* 600x600 RETURN AIR GRILLE - Ø300 CONNECTION	---
DG 01	02	* 300x300 DOOR GRILLES (NECK SIZE)	90.0
EAD 01	07	* Ø150 EXTRACT AIR DISC VALVES	30.00
SAD 01	02	* Ø200 CONSTANT VOLUME AIR DIFFUSERS - TYPE (CCD)	71.00
SLD 01	04	* 900 LONG SLOT DIFFUSER - Ø200 CONNECTION	70.75
SLD 02	04	* 900 LONG SLOT DIFFUSER - Ø200 CONNECTION	71.00
SLD 03	15	* 900 LONG SLOT DIFFUSER - Ø200 CONNECTION	77.67
SLD 04	04	* 900 LONG SLOT DIFFUSER - Ø200 CONNECTION	79.25
SLD 05	24	* 900 LONG SLOT DIFFUSER - Ø200 CONNECTION	87.5

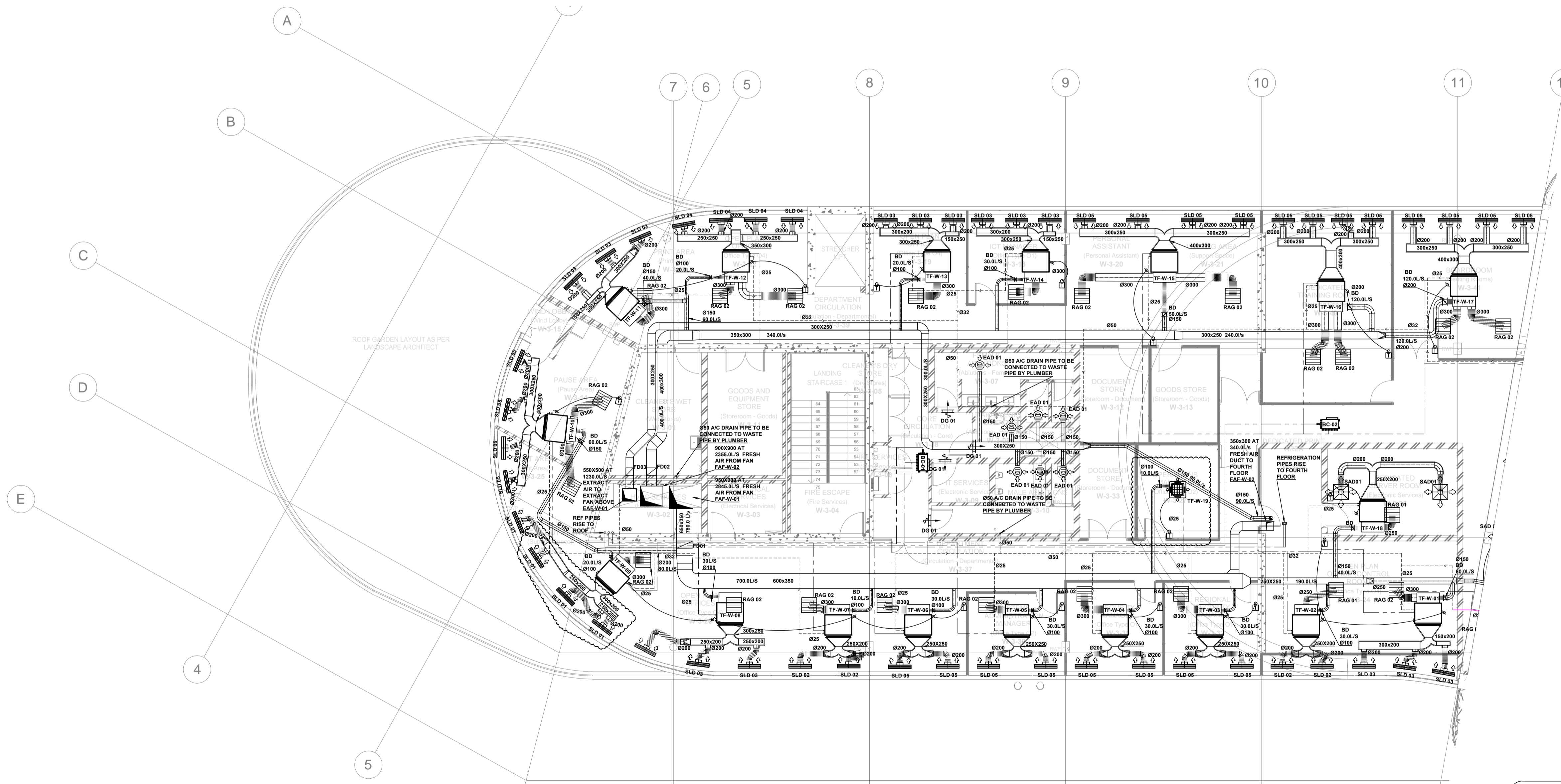
FIRE DAMPER SCHEDULE			
FD REF.	No. OFF	DESCRIPTION	SIZE
FD01	01	* FIRE DAMPER C/W FUSIBLE CURTAIN	650X350
FD02	01	* FIRE DAMPER C/W FUSIBLE CURTAIN	400X300
FD03	01	* FIRE DAMPER C/W FUSIBLE CURTAIN	300X250

BC SCHEDULE		
BC REF.	No. OFF	UNIT SCHEDULE
BC-01	10	* TF-W-05 * TF-W-06 * TF-W-07 * TF-W-08 * TF-W-09 * TF-W-10 * TF-W-11 * TF-W-12 * TF-W-13 * TF-W-14
OUTDOOR UNIT REFERENCE No.		ODU-2-01

BC SCHEDULE		
BC REF.	No. OFF	UNIT SCHEDULE
BC-02	11	* TF-W-01 * TF-W-02 * TF-W-03 * TF-W-04 * TF-W-15 * TF-W-16 * TF-W-17 * TF-W-18 * TF-W-19 * TT-AT-01 * TT-AT-02
OUTDOOR UNIT REFERENCE No.		ODU-2-02

AIR CONDITIONING UNIT SCHEDULE								
UNIT REF.	No. OFF	DESCRIPTION	MODEL No.	AIR QTY. (L/s) each	CAPACITY (KW)		POWER REQUIREMENTS	
					COOLING	HEATING	(V / Ph / Hz)	ABSORBED (KW)
TF-W-01	01	IN-CEILING DUCTED UNIT	PEFY-P40-VMA-E	233	4.5	5.0	230 / 1 / 50	0.09
TF-W-02	01	IN-CEILING DUCTED UNIT	PEFY-P25-VMA-E	142	2.8	3.2	230 / 1 / 50	0.06
TF-W-03	01	IN-CEILING DUCTED UNIT	PEFY-P32-VMA-E	175	3.6	4.0	230 / 1 / 50	0.07
TF-W-04	01	IN-CEILING DUCTED UNIT	PEFY-P32-VMA-E	175	3.6	4.0	230 / 1 / 50	0.07
TF-W-05	01	IN-CEILING DUCTED UNIT	PEFY-P32-VMA-E	175	3.6	4.0	230 / 1 / 50	0.07
TF-W-06	01	IN-CEILING DUCTED UNIT	PEFY-P32-VMA-E	175	3.6	4.0	230 / 1 / 50	0.07
TF-W-07	01	IN-CEILING DUCTED UNIT	PEFY-P20-VMA-E	142	2.2	2.5	230 / 1 / 50	0.06
TF-W-08	01	IN-CEILING DUCTED UNIT	PEFY-P50-VMA-E	283	5.6	6.3	230 / 1 / 50	0.11
TF-W-09	01	IN-CEILING DUCTED UNIT	PEFY-P50-VMA-E	283	5.6	6.3	230 / 1 / 50	0.11
TF-W-10	01	IN-CEILING DUCTED UNIT	PEFY-P71-VMA-E	350	8.0	9.0	230 / 1 / 50	0.14
TF-W-11	01	IN-CEILING DUCTED UNIT	PEFY-P40-VMA-E	233	4.5	5.0	230 / 1 / 50	0.09
TF-W-12	01	IN-CEILING DUCTED UNIT	PEFY-P63-VMA-E	317	7.1	8.0	230 / 1 / 50	0.12
TF-W-13	01	IN-CEILING DUCTED UNIT	PEFY-P40-VMA-E	233	4.5	5.0	230 / 1 / 50	0.09
TF-W-14	01	IN-CEILING DUCTED UNIT	PEFY-P40-VMA-E	233	4.5	5.0	230 / 1 / 50	0.09
TF-W-15	01	IN-CEILING DUCTED UNIT	PEFY-P71-VMA-E	350	9.0	10	230 / 1 / 50	0.14
TF-W-16	01	IN-CEILING DUCTED UNIT	PEFY-P80-VMA-E	350	9.0	10	230 / 1 / 50	0.14
TF-W-17	01	IN-CEILING DUCTED UNIT	PEFY-P71-VMA-E	350	8.0	9.0	230 / 1 / 50	0.14
TF-W-18	01	IN-CEILING DUCTED UNIT	PEFY-P25-VMA-E	142	2.8	3.2	230 / 1 / 50	0.06
TF-W-19	01	CASSETTE UNIT	PEFY-P20-VCM-E	142	2.2	2.5	230 / 1 / 50	0.06

* MITSUBISHI OR SIMILAR APPROVED



REFER TO THIRD FLOOR ATRIUM DRAWING M-GA-6101

ISSUED FOR CONSTRUCTION

DRAWING NO.	REFERENCE
	REFERENCE DRAWINGS

GENERAL NOTES:

- ALL DIMENSIONS TO BE CHECKED ON SITE BEFORE ANY WORK PUT IN HAND.
- ALL WORK TO COMPLY TO LOCAL MUNICIPAL BY-LAWS.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE ALL CO-ORDINATION & CORRECT DIMENSIONS OF DRAWINGS IS DONE WITH ALL OTHER RESPECTIVE CONTRACTORS PRIOR TO PROCUREMENT & INSTALLATION.
- QUALITY MUST BE ADHERED TO ALL STANDARDS AS PER TENDER SPECIFICATIONS.

HVAC NOTES:

- THIS DRAWING FORMS PART OF THE SPECIFICATION AND MUST BE READ IN CONJUNCTION WITH THE SAME.
- ALL DUCTWORK TO BE MANUFACTURED IN ACCORDANCE WITH SABS-1238-1978 LOW VELOCITY DUCT STANDARDS.
- ALL DUCT SIZES SHOWN ARE ACTUAL SHEETMETAL SIZES.
- SUPPLY DUCTS TO BE EXTERNALLY INSULATED WITH 25mm FRK INSULATION - UNLESS OTHERWISE SPECIFIED.
- ALL OTHER DUCTS TO BE UNINSULATED, UNLESS SPECIFIED.
- BE READ IN CONJUNCTION WITH THE SAME.
- ALL EXPOSED DUCTS TO BE PAINTED TO SPECIFICATION.
- ALL DUCTS WITH SEMI-PERIMETER OF 1100mm OR LESS TO BE 3 & 8 DRIVE JOINTS AND DUCTS ABOVE TO BE MEZC FLANGED.
- ALL RIGID DUCT RINGS UP TO 350mm TO HAVE A RADIUS OF 200mm - OVER 350mm TO HAVE A RADIUS OF 300mm.
- DUCT SIZES TO BE 150mm LONG @ 45°.
- SPIGOTS TO BE 100mm LONG, UNLESS OTHERWISE STATED.
- REFRIGERANT / PVV PIPES TO BE COPPER AND INSULATED.

ABBREVIATIONS	
B.D.	BALANCING DAMPER
D.G.	DOOR GRILLE
EAD 01	EXTRACT AIR DIFFUSER OR GRILLE
FAD 01	FRESH AIR DIFFUSER OR GRILLE
F.D.L.	FIRE DAMPER (FUSIBLE LINK)
F.D.M.	FIRE DAMPER (MOTORISED)
F.D.S.	FIRE DAMPER (SOLID)
F.F.B.	FLAT ON BOTTOM (DUCT)
F.O.T.	FLAT ON TOP (DUCT)
M.O.S.	MEASURE ON SITE
N.T.S.	NOT TO SCALE
O.B.D.	OPPOSED BLADE DAMPER
RAG.	RETURN AIR GRILLE
SAD 01	SUPPLY AIR DIFFUSER OR GRILLE
TRF.	TRANSFORMATION OF DUCT
W.L.	WEATHER LOUVER
W.M.S.	WIRE MESH SCREEN
REF.	REFRIGERATION LINES
COND.	CONDENSATE PIPES

NO.	DESCRIPTION	BY	CHKD	APPD	DATE
06	DUCTING AND SECOND FIX ITEMS CHANGED TO SUIT FINAL CO-ORDINATION LAYOUTS	KO	WV	VR	Sep 2016
05	UNITS REMOVED	JP	VV	VR	Aug 2016
04	ARCHITECT LAYOUT MODIFIED	JP	VV	VR	Jul 2016
03	CONDENSATE PIPE SIZES ADDED.	JP	VV	VR	Apr 2016
02	AC UNITS MOVED TO AVOID CLASH WITH CABLE TRAY. ALL AC UNIT LENGTHS ADAPTED TO ACTUAL SIZES	JP	VV	VR	Mar 2016
01	ARCHITECT LAYOUT MODIFIED	JP	VV	VR	Aug 2015
00	ISSUED FOR CONSTRUCTION	JP	VV	VR	May 2015

CONTRACTOR / CONSULTANT				TRANSNET CAPITAL PROJECTS			
TITLE	NAME	SIGN	DATE	TITLE	NAME	SIGN	DATE
				DRAWN	J.P. PP	[Signature]	18 02 14
				CHECKED	E.M. PP	[Signature]	19 02 14
				DESIGNED	E.M. PP	[Signature]	20 01 13
				CHECKED	V.R.	[Signature]	27 01 13

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TRANSNET

PORT OF NGQURA

**TNPA ADMINISTRATION BUILDING
 MECHANICAL
 HVAC & VENTILATION
 THIRD FLOOR WEST WING**

PROJECT NUMBER	OD	FBS	DIS	TYPE	WING	SHEET	REV	ID
H500204	1	1	2	0	M-GA	6100	01	06 JV

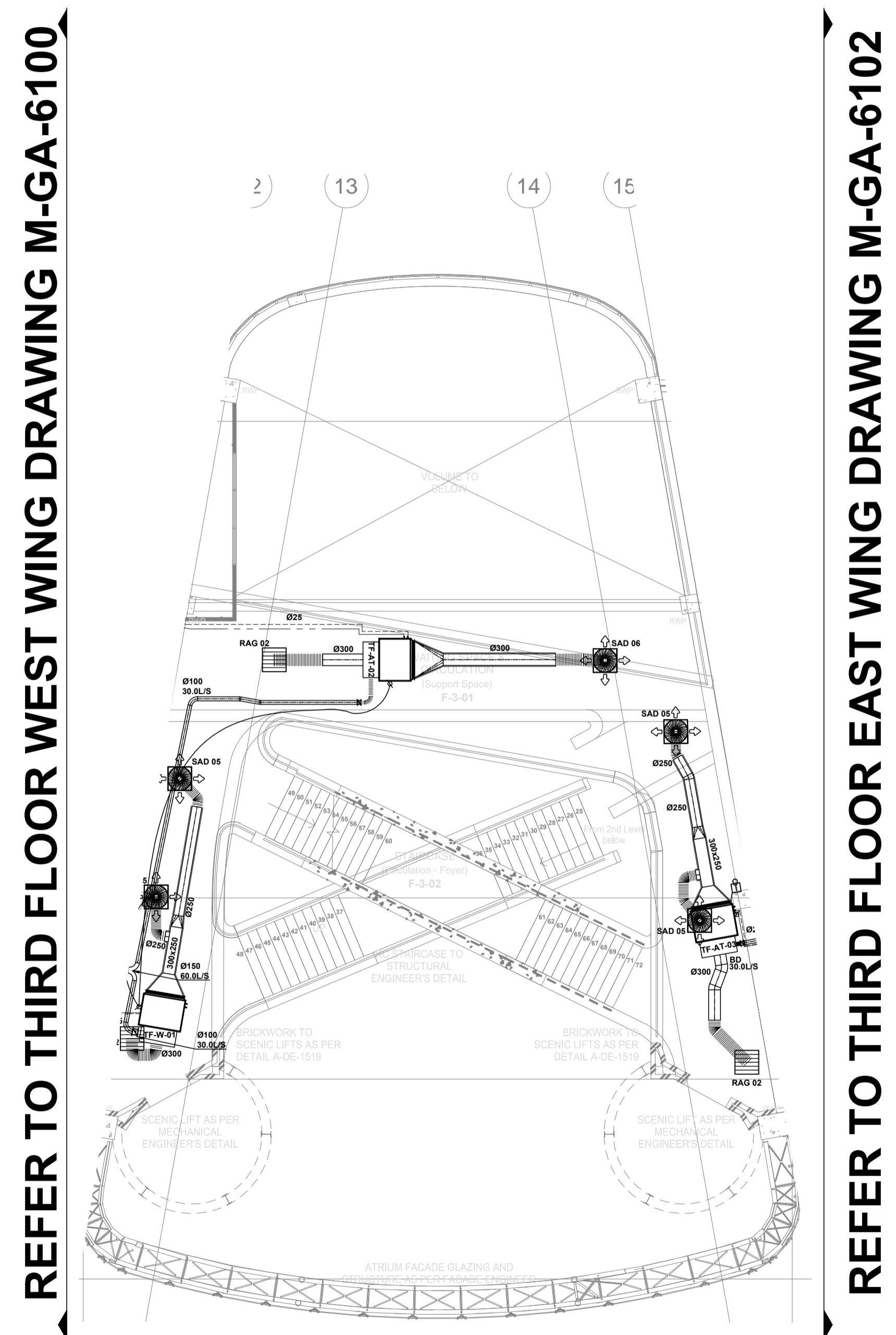
REG. NUMBER CIBSE NO. 17710
 SCALE: 1:100

AIR TERMINAL SCHEDULE			
GRILLE REF.	No. OFF	DESCRIPTION	AIR QTY. (L/s) each
SAD 05	04	*Ø250 CONSTANT VOLUME SWIRL AIR DIFFUSERS-TYPE (CSW)	77.67
SAD 06	01	*Ø300 CONSTANT VOLUME SWIRL AIR DIFFUSERS-TYPE (CSW)	233.0
RAG 02	03	*600x600 RETURN AIR GRILLE-Ø300 CONNECTION	---

* TROX/RICKARD OR SIMILAR APPROVED

AIR CONDITIONING UNIT SCHEDULE								
UNIT REF.	No. OFF	DESCRIPTION	MODEL No.	AIR QTY. (L/s) each	CAPACITY (kW)		POWER REQUIREMENTS	
					COOLING	HEATING	(V / Ph / Hz)	ABSORBED (kW)
TF-AT-01	01	IN-CEILING DUCTED UNIT	PEFY-P40-VMA-E	200	5.0	4.5	230 / 1 / 50	0.09
TF-AT-02	01	IN-CEILING DUCTED UNIT	PEFY-P40-VMA-E	200	5.0	4.5	230 / 1 / 50	0.09
TF-AT-03	01	IN-CEILING DUCTED UNIT	PEFY-P40-VMA-E	200	5.0	4.5	230 / 1 / 50	0.09

* MITSUBISHI OR SIMILAR APPROVED



REFER TO THIRD FLOOR WEST WING DRAWING M-GA-6100

REFER TO THIRD FLOOR EAST WING DRAWING M-GA-6102

ISSUED FOR CONSTRUCTION

DRAWING NO.	REFERENCE
	REFERENCE DRAWINGS

GENERAL NOTES:	
1.	THIS DRAWING FORMS PART OF THE SPECIFICATION AND MUST BE READ IN CONJUNCTION WITH THE SAME.
2.	ALL DUCTWORK TO BE MANUFACTURED IN ACCORDANCE WITH SABS-1238-1978 LOW VELOCITY DUCT STANDARDS.
3.	ALL DUCT SIZES SHOWN ARE ACTUAL SHEETMETAL SIZES.
4.	SUPPLY DUCTS TO BE EXTERNALLY INSULATED WITH 25mm FRK INSULATION - UNLESS OTHERWISE SPECIFIED.
5.	ALL OTHER DUCTS TO BE UNINSULATED, UNLESS SPECIFIED.
6.	BE READ IN CONJUNCTION WITH THE SAME.
7.	ALL DUCTS WITH SEMI-PERIMETER OF 1150mm OR LESS TO BE 7.5 & DRIVE JOINTS AND DUCTS ABOVE TO BE MEZZ FLANGED.
8.	ALL RINGS TO HAVE INTERNAL RADII OF 150mm AND SPLITTERS UNLESS OTHERWISE SPECIFIED.
9.	ALL ROUND DUCT RINGS UP TO 350mm TO HAVE A RADIUS OF 200mm - OVER Ø350mm TO HAVE A RADIUS OF 300mm.
10.	DUCT SIZES TO BE 150mm LONG @ 45°.
11.	SPIGOTS TO BE 100mm LONG, UNLESS OTHERWISE STATED.
12.	REFRIGERANT / VPP VIEWS TO BE COPPER AND INSULATED.

HVAC BUILDERSWORK:	
15.	ALL OPENINGS TO BE 100mm BIGGER THAN DUCT SIZES SHOWN (BUILDER TO MAKE GOOD AFTER DUCTS ARE INSTALLED).
16.	ALL OPENINGS TO BE 20mm BIGGER THAN GRILLE SIZES SHOWN WHICH INCLUDES A 20mm THK. TIMBER FRAME ALL AROUND OPENINGS - BY BUILDER.
17.	SLEEVES IN WALLS, SLABS & BEAMS (SIZE SHOWN ON DRAWING) (BUILDER TO MAKE GOOD AFTER DUCTS ARE INSTALLED).
18.	ALL EQUIPMENT DRAINS TO BE Ø25mm RIGID PVC WITH A 1:100mm FALL UNLESS OTHERWISE STATED.

ABBREVIATIONS	
B.D.	BALANCING DAMPER
D.G.	DOOR GRILLE
EAD / G	EXTRACT AIR DIFFUSER OR GRILLE
FAD / G	FRESH AIR DIFFUSER OR GRILLE
F.D.L.	FIRE DAMPER (FUSIBLE LINK)
F.D.M.	FIRE DAMPER (MOTORISED)
F.D.S.	FIRE DAMPER (SOLID)
F.F.B.	FLAT ON BOTTOM (DUCT)
F.O.T.	FLAT ON TOP (DUCT)
M.O.S.	MEASURE ON SITE
N.T.S.	NOT TO SCALE
O.B.D.	OPPOSED BLADE DAMPER
RAG.	RETURN AIR GRILLE
SAD / G	SUPPLY AIR DIFFUSER OR GRILLE
TRF.	TRANSFORMATION OF DUCT
W.L.	WEATHER LOUVER
W.M.S.	WIRE MESH SCREEN
---	REFRIGERATION LINES
---	CONDENSATE PIPES

CONTRACTOR / CONSULTANT		TRANSNET CAPITAL PROJECTS	
TITLE	NAME	SIGN	DATE
05	DUCTING AND SECOND FIX ITEMS CHANGED TO SUIT FINAL CO-ORDINATION LAYOUTS	KO	VV
04	ARCHITECT LAYOUT MODIFIED	JP	VV
03	CONDENSATE PIPE SIZES ADDED.	JP	VV
02	AC UNITS MOVED TO AVOID CLASH WITH CABLE TRAY. ALL AC UNIT LENGTHS ADAPTED TO ACTUAL SIZES	JP	VV
01	ARCHITECT LAYOUT MODIFIED	JP	VV
00	ISSUED FOR CONSTRUCTION	JP	VV

OPERATING DIVISIONS	
TITLE	DATE
PR. ENG. / PR. TECH. / PR. ARCH	
NAME JOHN DRISCOLL	
SIGNATURE	19 08 15
REG. NUMBER CIBSE NO. 17710	
SCALE: 1:100	

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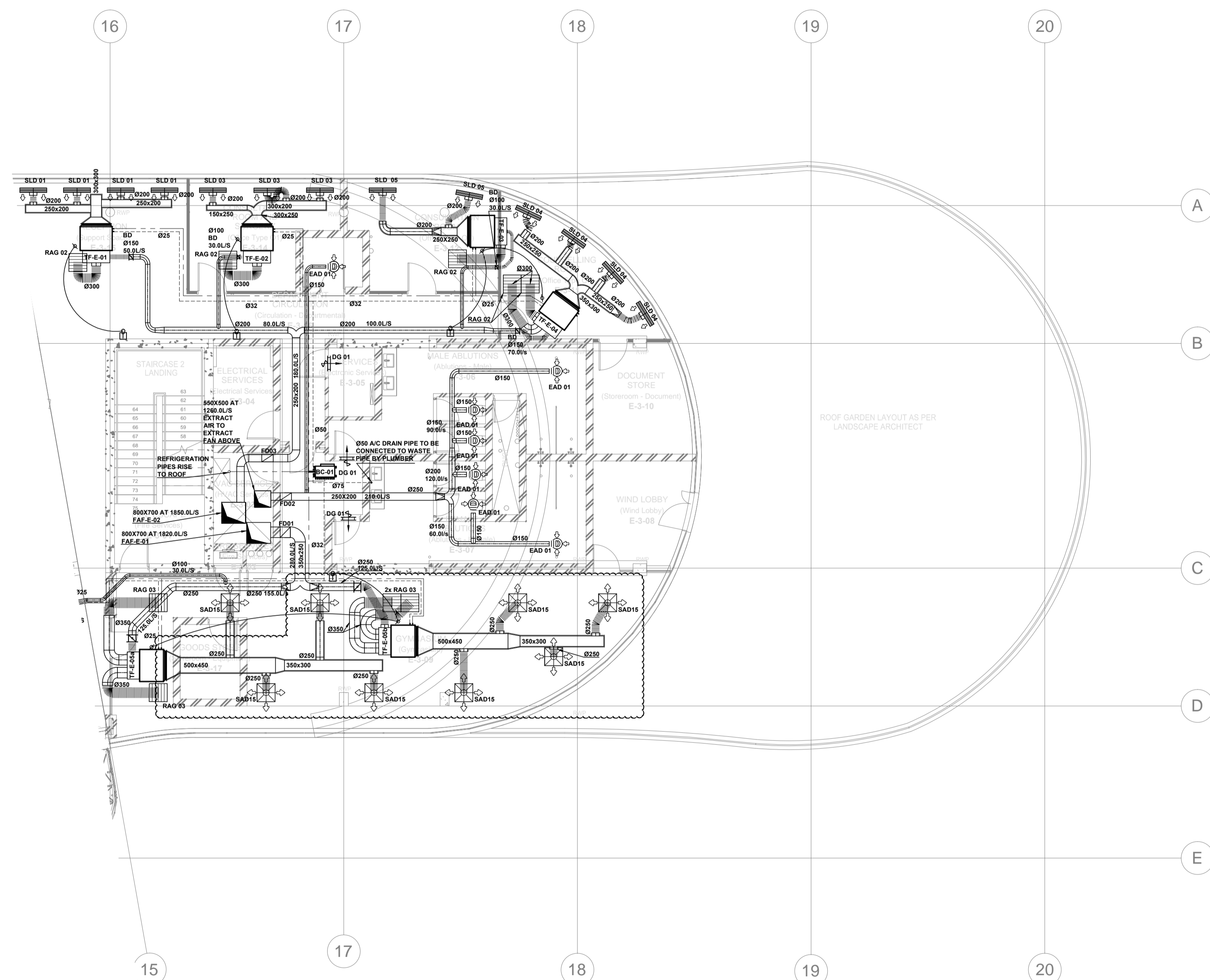
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PORT OF NGQURA

**TNPA ADMINISTRATION BUILDING
 MECHANICAL
 HVAC & VENTILATION
 THIRD FLOOR ATRIUM**

PROJECT NUMBER	OD	FBS	DIS	TYPE	DRAWING NO.	SHEET	REV	ID
H 5 0 0 2 0 4	1	1	2	0	M-GA-6101	01	05	JV

REFER TO THIRD FLOOR ATRIUM DRAWING M-GA-6101



BC SCHEDULE		
BC REF.	No. OFF	UNIT SCHEDULE
BC-01	07	* TF-E-01 * TF-E-02 * TF-E-03 * TF-E-04 * TF-E-05a * TF-E-05b * TF-AT-03
OUTDOOR UNIT REFERENCE No.		ODU-3-03

AIR CONDITIONING UNIT SCHEDULE								
UNIT REF.	No. OFF	DESCRIPTION	MODEL No.	AIR QTY. (L/s) each	CAPACITY (KW)		POWER REQUIREMENTS (V / Ph / Hz)	
					COOLING	HEATING	ABSORBED (KW)	
TF-E-01	01	IN-CEILING DUCTED UNIT	PEFY-P50-VMA-E	283	5.6	6.3	230 / 1 / 50	0.11
TF-E-02	01	IN-CEILING DUCTED UNIT	PEFY-P40-VMA-E	233	4.5	5.0	230 / 1 / 50	0.09
TF-E-03	01	IN-CEILING DUCTED UNIT	PEFY-P32-VMA-E	175	3.6	4.0	230 / 1 / 50	0.07
TF-E-04	01	IN-CEILING DUCTED UNIT	PEFY-P63-VMA-E	317	7.1	8.0	230 / 1 / 50	0.12
TF-E-05a	01	IN-CEILING DUCTED UNIT	PEFY-P125-VMA-E	667	14.0	16.0	230 / 1 / 50	0.34
TF-E-05b	01	IN-CEILING DUCTED UNIT	PEFY-P125-VMA-E	667	14.0	16.0	230 / 1 / 50	0.34

* MITSUBISHI OR SIMILAR APPROVED

AIR TERMINAL SCHEDULE			
GRILLE REF.	No. OFF	DESCRIPTION	AIR QTY. (L/s) each
EAD 01	07	* Ø150 EXTRACT AIR DISC VALVES	30.00
SAD 15	08	* Ø250 CONSTANT VOLUME AIR DIFFUSERS - TYPE (CCD)	166.75
RAG 02	05	* 600x600 RETURN AIR GRILLE - Ø300 CONNECTION	---
RAG 03	04	* 600x600 RETURN AIR GRILLE - Ø350 CONNECTION	---
SLD 01	04	* 900 LONG SLOT DIFFUSER - Ø200 CONNECTION	70.75
SLD 03	03	* 900 LONG SLOT DIFFUSER - Ø200 CONNECTION	77.67
SLD 04	04	* 900 LONG SLOT DIFFUSER - Ø200 CONNECTION	79.25
SLD 05	02	* 900 LONG SLOT DIFFUSER - Ø200 CONNECTION	87.5
DG 01	02	* 300x300 DOOR GRILLES (NECK SIZE)	90.0

* TROX/RICKARD OR SIMILAR APPROVED

FIRE DAMPER SCHEDULE			
FD REF.	No. OFF	DISCRIPTION	SIZE
FD01	01	* FIRE DAMPER C/W FUSIBLE CURTAIN	350X250
FD02	01	* FIRE DAMPER C/W FUSIBLE CURTAIN	250X200
FD03	01	* FIRE DAMPER C/W FUSIBLE CURTAIN	250X200

ISSUED FOR CONSTRUCTION

DRAWING NO.	REFERENCE
	REFERENCE DRAWINGS

GENERAL NOTES:

- ALL DIMENSIONS TO BE CHECKED ON SITE BEFORE ANY WORK PUT IN HAND.
- ALL WORK TO COMPLY TO LOCAL MUNICIPAL BY-LAWS.
- IT IS THE RELEVANT SUB-CONTRACTORS RESPONSIBILITY TO ENSURE ALL CO-ORDINATION & CORRECT DIMENSIONS OF DRAWINGS IS DONE WITH ALL OTHER RESPECTIVE CONTRACTORS PRIOR TO PROCUREMENT & INSTALLATION.
- QUALITY MUST BE ADHERED TO ALL STANDARDS AS PER TENDER SPECIFICATIONS.

HVAC NOTES:

- THIS DRAWING FORMS PART OF THE SPECIFICATION AND MUST BE READ IN CONJUNCTION WITH THE SAME.
- ALL DUCTWORK TO BE MANUFACTURED IN ACCORDANCE WITH SABS-1238-1978 LOW VELOCITY DUCT STANDARDS.
- ALL DUCT SIZES SHOWN ARE ACTUAL SHEETMETAL SIZES.
- SUPPLY DUCTS TO BE EXTERNALLY INSULATED WITH 25mm FRK INSULATION - UNLESS OTHERWISE SPECIFIED.
- ALL OTHER DUCTS TO BE UNINSULATED, UNLESS SPECIFIED. BE READ IN CONJUNCTION WITH THE SAME.
- ALL EXPOSED DUCTS TO BE PAINTED TO SPECIFICATION.
- ALL DUCTS WITH SEMI-PERIMETER OF 1150mm OR LESS TO BE 7.5 & DRIVE JOINTS AND DUCTS ABOVE TO BE MEZZ FLANGED UNLESS OTHERWISE SPECIFIED.
- ALL RIGID DUCTS TO HAVE INTERNAL RADII OF 150mm AND SPLITTERS 200mm - OVER Ø500mm TO HAVE A RADIUS OF 300mm.
- DUCT SHEDS TO BE 150mm LONG @ 45°.
- SPIGOTS TO BE 100mm LONG, UNLESS OTHERWISE STATED.
- REFRIGERANT / PVV PIPES TO BE COPPER AND INSULATED.

HVAC BUILDERSWORK:

- ALL OPENINGS TO BE 100mm BIGGER THAN DUCT SIZES SHOWN (BUILDER TO MAKE GOOD AFTER DUCTS ARE INSTALLED).
- ALL OPENINGS TO BE 50mm BIGGER THAN GRILLE SIZES SHOWN WHICH INCLUDES A 20mm THK. TIMBER FRAME ALL AROUND OPENINGS - BY BUILDER.
- SLEEVES IN WALLS, SLABS & BEAMS (SIZE SHOWN ON DRAWING) (BUILDER TO MAKE GOOD AFTER DUCTS ARE INSTALLED).
- ALL EQUIPMENT DRAINS TO BE Ø25mm RIGID PVC WITH A 1:100mm FALL UNLESS OTHERWISE STATED.

LEGEND:

- 40V / 1PH / 150W POWER SUPPLY TERMINATING IN ISOLATOR WITHIN ONE METRE OF EQUIPMENT - BY ELECTRICIAN
- 230V / 1PH / 150W POWER SUPPLY TERMINATING IN ISOLATOR WITHIN ONE METRE OF EQUIPMENT - BY ELECTRICIAN
- 230V / 1PH / 300W INDOOR UNIT POWER SUPPLY TERMINATING IN ISOLATOR WITHIN ONE METRE OF UNIT - BY FRIG SUB-CONTRACTOR (CAPACITY TO BE SIZED TO SPECIALIST UNITS REQUIREMENTS)
- WALL MOUNTED THERMOSTAT CONTROLLER AT 1500mm AFFL. (Ø4 Ø25mm CONDUIT AND 44 BOX IN WALL) - BY ELECTRICIAN AND BUILDER
- ON / OFF SWITCH MOUNTED TO SIDE OF CANOPIES OR WALLS (Ø4 Ø25mm CONDUIT AND 44 BOX IN WALL) - BY ELECTRICIAN AND BUILDER
- INFRARED REMOTE THERMOSTAT CONTROLLER
- CONDENSATE DRAIN POINT - BY PLUMBER
- WATER SUPPLY POINT (SIZE AS SHOWN) - BY PLUMBER
- DOOR TO BE UNDERCUT BY 25mm - BY BUILDER

ABBREVIATIONS	
B.D.	BALANCING DAMPER
D.G.	DOOR GRILLE
EAD / G	EXTRACT AIR DIFFUSER OR GRILLE
FAD / G	FRESH AIR DIFFUSER OR GRILLE
F.D.L.	FIRE DAMPER (FUSIBLE LINK)
F.D.M.	FIRE DAMPER (MOTORISED)
F.D.S.	FIRE DAMPER (SOLID)
F.F.B.	FLAT ON BOTTOM (DUCT)
F.F.T.	FLAT ON TOP (DUCT)
M.O.S.	MEASURE ON SITE
N.T.S.	NOT TO SCALE
O.B.D.	OPPOSED BLADE DAMPER
RAG.	RETURN AIR GRILLE
SAD / G	SUPPLY AIR DIFFUSER OR GRILLE
TRF.	TRANSFORMATION OF DUCT
W.L.	WEATHER LOUVER
W.M.S.	WIRE MESH SCREEN
---	REFRIGERATION LINES
---	CONDENSATE PIPES

NO.	DESCRIPTION	BY	CHKD	APPD	DATE
05	DUCTING AND SECOND FIX ITEMS CHANGED TO SUIT FINAL CO-ORDINATION LAYOUTS	KO	VV	VR	Sep 2016
04	ARCHITECT LAYOUT MODIFIED	JP	VV	VR	Jul 2016
03	CONDENSATE PIPE SIZES ADDED.	JP	VV	VR	Apr 2016
02	AC UNITS MOVED TO AVOID CLASH WITH CABLE TRAY. ALL AC UNIT LENGTHS ADAPTED TO ACTUAL SIZES	JP	VV	VR	Mar 2016
01	ARCHITECT LAYOUT MODIFIED	JP	VV	VR	Aug 2015
00	ISSUED FOR CONSTRUCTION	JP	VV	VR	May 2015

REVISIONS

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CONTRACTOR / CONSULTANT				TRANSNET CAPITAL PROJECTS			
TITLE	NAME	SIGN	DATE	TITLE	NAME	SIGN	DATE
				DRAWN	J.P. PP		18 02 14
				CHECKED	E.M. PP		19 02 14
				DESIGNED	E.M. PP		20 01 13
				CHECKED	V.R.		27 01 13

OPERATING DIVISIONS

TITLE	NAME	SIGN	DATE

PR. ENG. / PR. TECH. / PR. ARCH

NAME	DATE
JOHN DRISCOLL	
PP	19 08 15

REG. NUMBER CIBSE NO. 17710
SCALE: 1:100

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PORT OF NGQURA

**TNPA ADMINISTRATION BUILDING
MECHANICAL
HVAC & VENTILATION
THIRD FLOOR EAST WING**

PROJECT NUMBER	OD	FBS	DIS	TYPE	DRAWING NO.	SHEET	REV	ID
H500204	1	1	2	0	M-GA-6102	01	05	JV

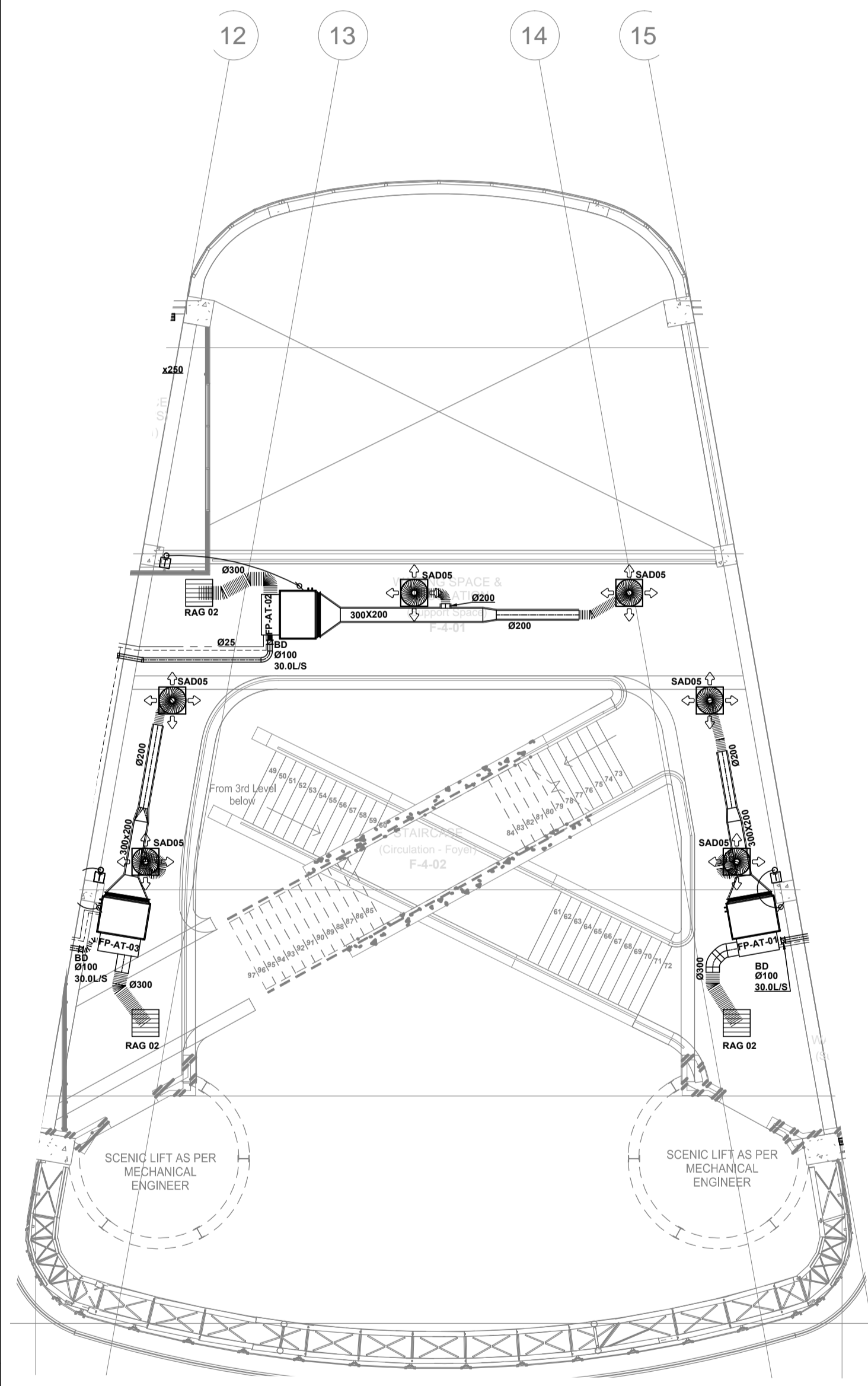
AIR TERMINAL SCHEDULE			
GRILLE REF.	No. OFF	DESCRIPTION	AIR QTY. (L/s) each
RAG 02	03	*600x600 RETURN AIR GRILLE - Ø300 CONNECTION	---
SAD 05	06	*Ø200 CONSTANT VOLUME SWIRL AIR DIFFUSERS-TYPE (CSW)	71.0

* TROX/RICKARD OR SIMILAR APPROVED

AIR CONDITIONING UNIT SCHEDULE								
UNIT REF.	No. OFF	DESCRIPTION	MODEL No.	AIR QTY. (L/s) each	CAPACITY (kW)		POWER REQUIREMENTS	
					COOLING	HEATING	(V / Ph / Hz)	ABSORBED (kW)
FP-AT-01	01	IN-CEILING DUCTED UNIT	PEFY-P50-VMA-E	242	5.6	6.3	230 / 1 / 50	0.09
FP-AT-02	01	IN-CEILING DUCTED UNIT	PEFY-P50-VMA-E	242	5.6	6.3	230 / 1 / 50	0.09
FP-AT-03	01	IN-CEILING DUCTED UNIT	PEFY-P50-VMA-E	242	5.6	6.3	230 / 1 / 50	0.09

* MITSUBISHI OR SIMILAR APPROVED

REFER TO FOURTH FLOOR WEST WING DRAWING M-GA-7100



REFER TO FOURTH FLOOR EAST WING DRAWING M-GA-7102

ISSUED FOR CONSTRUCTION

DRAWING NO.	REFERENCE
	REFERENCE DRAWINGS

GENERAL NOTES:

- ALL DIMENSIONS TO BE CHECKED ON SITE BEFORE ANY WORK PUT IN HAND.
- ALL WORK TO COMPLY TO LOCAL MUNICIPAL BY-LAWS.
- IT IS THE RELEVANT SUB-CONTRACTORS RESPONSIBILITY TO ENSURE ALL CO-ORDINATION & CORRECT DIMENSIONS OF DRAWINGS IS DONE WITH ALL OTHER RESPECTIVE CONTRACTORS PRIOR TO PROCUREMENT & INSTALLATION.
- QUALITY MUST BE ADHERED TO ALL STANDARDS AS PER TENDER SPECIFICATIONS.

HVAC NOTES:

- THIS DRAWING FORMS PART OF THE SPECIFICATION AND MUST BE READ IN CONJUNCTION WITH THE SAME.
- ALL DUCTWORK TO BE MANUFACTURED IN ACCORDANCE WITH SABS-1234-1978 LOW VELOCITY DUCT STANDARDS.
- ALL DUCT SIZES SHOWN ARE ACTUAL SHEETMETAL SIZES.
- SUPPLY DUCTS TO BE EXTERNALLY INSULATED WITH 25mm FRK INSULATION - UNLESS OTHERWISE SPECIFIED.
- ALL OTHER DUCTS TO BE UNINSULATED, UNLESS SPECIFIED.
- BE READ IN CONJUNCTION WITH THE SAME.
- ALL EXPOSED DUCTS TO BE PAINTED TO SPECIFICATION.
- ALL DUCTS WITH SEMI-PERIMETER OF 1150mm OR LESS TO BE "S" & DRIVE JOINTS, AND DUCTS ABOVE TO BE MEZZ FLANGED.
- ALL BENDS TO HAVE INTERNAL RADIUS OF 150mm AND SPLITTERS UNLESS OTHERWISE SPECIFIED.
- ALL ROUND DUCT BENDS UP TO 900mm TO HAVE A RADIUS OF 200mm - OVER 900mm TO HAVE A RADIUS OF 300mm.
- DUCT SIZES TO BE 150mm LONG @ 45°.
- SPIGOTS TO BE 100mm LONG, UNLESS OTHERWISE STATED.
- REFRIGERANT / R/VV PIPES TO BE COPPER AND INSULATED.

HVAC BUILDERSWORK:

- ALL OPENINGS TO BE 100mm BIGGER THAN DUCT SIZES SHOWN (BUILDER TO MAKE GOOD AFTER DUCTS ARE INSTALLED).
- ALL OPENINGS TO BE 50mm BIGGER THAN GRILLE SIZES SHOWN WHICH INCLUDES A 20mm THK. TIMBER FRAME ALL AROUND OPENING - BY BUILDER.
- SLEEVES IN WALLS, SLABS & BEAMS (SIZE SHOWN ON DRAWING) (BUILDER TO MAKE GOOD AFTER DUCTS ARE INSTALLED).
- ALL EQUIPMENT DRAINS TO BE Ø25mm RIGID PVC WITH A 1:100mm FALL, UNLESS OTHERWISE STATED.

LEGEND:

- Ø300 1/2" Ø300 POWER SUPPLY TERMINATING IN ISOLATOR WITH ONE METRE OF EQUIPMENT - BY ELECTRICIAN
- Ø200 3/4" Ø200 POWER SUPPLY TERMINATING IN ISOLATOR WITH ONE METRE OF EQUIPMENT - BY ELECTRICIAN
- Ø150 5/8" Ø150 POWER SUPPLY TERMINATING IN ISOLATOR ADJACENT TO UNIT - BY HVAC SUB-CONTRACTOR (CAPACITY TO BE SIZED TO SPECIALIST UNIT'S REQUIREMENTS)
- WALL MOUNTED THERMOSTAT CONTROLLER AT 1350 AFPL (1.0m FROM CONDUIT AND 400mm IN WALL) - BY ELECTRICIAN AND BUILDER
- ON/OFF SWITCH REQUIRED TO SIZE OF CANOPIES OR WALLS (E.g. Ø25mm CONDUIT AND 400mm IN WALL) - BY ELECTRICIAN AND BUILDER
- INFRARED REMOTE THERMOSTAT CONTROLLER
- CONDENSATE DRAIN POINT - BY PLUMBER
- WATER SUPPLY POINT (SIZE AS SHOWN) - BY PLUMBER
- DOOR TO BE UNDERCUT BY 25mm - BY BUILDER

ABBREVIATIONS

B.D.	BALANCING DAMPER
D.G.	DOOR GRILLE
EAD / G	EXTRACT AIR DIFFUSER OR GRILLE
FAD / G	FRESH AIR DIFFUSER OR GRILLE
F.D.L.	FIRE DAMPER (FUSIBLE LINK)
F.D.M.	FIRE DAMPER (MOTORISED)
F.D.S.	FIRE DAMPER (SOLID)
F.O.B.	FLAT ON BOTTOM (DUCT)
F.O.T.	FLAT ON TOP (DUCT)
M.O.S.	MEASURE ON SITE
N.T.S.	NOT TO SCALE
O.B.D.	OPPOSED BLADE DAMPER
R.A.C.	RETURN AIR GRILLE
SAD / G	SUPPLY AIR DIFFUSER OR GRILLE
TRF.	TRANSFORMATION OF DUCT
W.L.	WEATHER LOUVER
W.M.S.	WIRE MESH SCREEN
R.	REFRIGERATION LINES
C.	CONDENSATE PIPES

NO.	DESCRIPTION	BY	CHKD	APPD	DATE
05	DUCTING AND SECOND FIX ITEMS CHANGED TO SUIT FINAL CO-ORDINATION LAYOUTS	KO	VV	VR	Sep 2016
04	ARCHITECTURAL LAYOUT MODIFIED.	JP	VV	VR	Jul 2016
03	CONDENSATE PIPE SIZES ADDED.	JP	VV	VR	Apr 2016
02	AC UNITS MOVED TO AVOID CLASH WITH CABLE TRAY. ALL AC UNIT LENGTHS ADAPTED TO ACTUAL SIZES	JP	VV	VR	Mar 2016
01	ARCHITECT LAYOUT MODIFIED	JP	VV	VR	Aug 2015
00	ISSUED FOR CONSTRUCTION	JP	VV	VR	May 2015

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TITLE	NAME	SIGN	DATE	TITLE	NAME	SIGN	DATE
				DRAWN	J.P. P.P.		01 08 14
				CHECKED	V.R. P.P.		17 04 14
				DESIGNED	E.M. P.P.		17 04 14
				CHECKED	V.R.		17 04 14

OPERATING DIVISIONS			
TITLE	NAME	SIGN	DATE

PR. ENG. / PR. TECH. / PR. ARCH

NAME	JOHN DRISCOLL	DATE	
SIGNATURE	PP	DATE	19 08 15

REG. NUMBER CIBSE NO. 17710
SCALE: 1:100

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PORT OF NGQURA
TNPA ADMINISTRATION BUILDING
MECHANICAL
HVAC & VENTILATION
FOURTH FLOOR ATRIUM

PROJECT NUMBER	OD	FBS	DIS	TYPE	DRAWING NO.	SHEET	REV	ID
H500204	1	1	20	M-GA	7101	01	05	JV

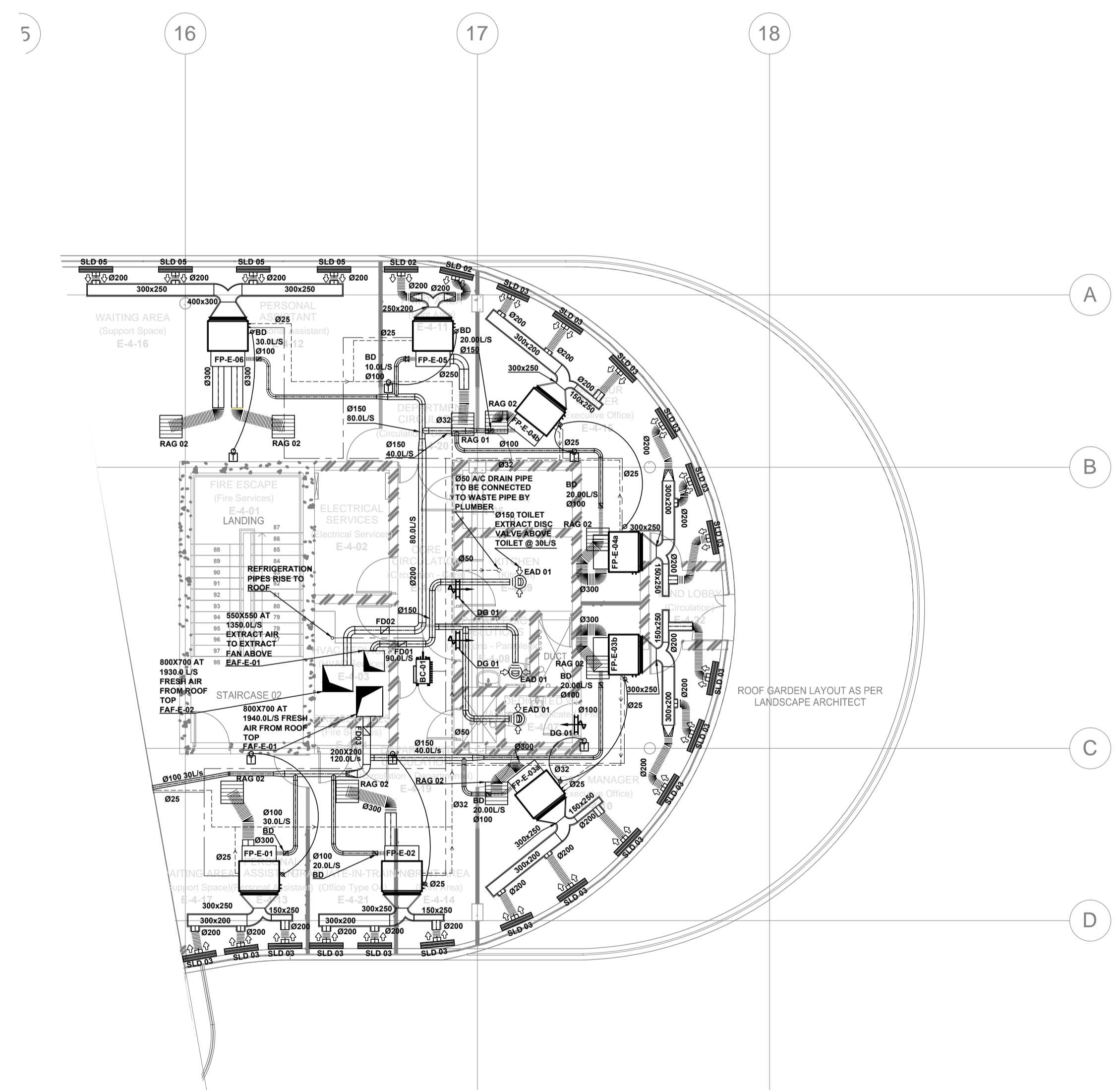
REFER TO FOURTH FLOOR ATRIUM DRAWING-7101

BC SCHEDULE		
BC REF.	No. OFF	UNIT SCHEDULE
BC-01	09	* FP-E-01 * FP-E-02 * FP-E-03a * FP-E-03b * FP-E-04a * FP-E-04b * FP-E-05 * FP-E-06 * FP-AT-01
OUTDOOR UNIT REFERENCE No.		ODU-4-02

AIR CONDITIONING UNIT SCHEDULE								
UNIT REF.	No. OFF	DESCRIPTION	MODEL No.	AIR QTY. (L/s) each	CAPACITY (kW)			POWER REQUIREMENTS (V/Ph/Hz)
					COOLING	HEATING	ABSORBED (kW)	
FP-E-01	01	IN-CEILING DUCTED UNIT	PEFY-P40-VMA-E	233	4.5	5.0	230 / 1 / 50	0.09
FP-E-02	01	IN-CEILING DUCTED UNIT	PEFY-P40-VMA-E	233	4.5	5.0	230 / 1 / 50	0.09
FP-E-03a	01	IN-CEILING DUCTED UNIT	PEFY-P40-VMA-E	233	4.5	5.0	230 / 1 / 50	0.09
FP-E-03b	01	IN-CEILING DUCTED UNIT	PEFY-P40-VMA-E	233	4.5	5.0	230 / 1 / 50	0.09
FP-E-04a	01	IN-CEILING DUCTED UNIT	PEFY-P40-VMA-E	233	4.5	5.0	230 / 1 / 50	0.09
FP-E-04b	01	IN-CEILING DUCTED UNIT	PEFY-P40-VMA-E	233	4.5	5.0	230 / 1 / 50	0.09
FP-E-05	01	IN-CEILING DUCTED UNIT	PEFY-P25-VMA-E	142	2.8	3.2	230 / 1 / 50	0.06
FP-E-06	01	IN-CEILING DUCTED UNIT	PEFY-P80-VMA-E	350	9.0	10	230 / 1 / 50	0.14

AIR TERMINAL SCHEDULE			
GRILLE REF.	No. OFF	DESCRIPTION	AIR QTY. (L/s) each
RAG 01	01	* 600x600 RETURN AIR GRILLE - Ø250 CONNECTION	---
RAG 02	08	* 600x600 RETURN AIR GRILLE - Ø300 CONNECTION	---
DG 01	02	* 300x300 DOOR GRILLES (NECK SIZE)	30.0
EAD 01	03	* Ø150 EXTRACT AIR DISK VALVES	30.0
SLD 02	02	* 900 LONG SLOT DIFFUSER - Ø200 CONNECTION	71.00
SLD 03	18	* 900 LONG SLOT DIFFUSER - Ø200 CONNECTION	77.67
SLD 05	04	* 900 LONG SLOT DIFFUSER - Ø200 CONNECTION	87.5

FIRE DAMPER SCHEDULE			
FD REF.	No. OFF	DISCRPTION	SIZE
FD01	01	* FIRE DAMPER C/W FUSIBLE CURTAIN	Ø150
FD02	01	* FIRE DAMPER C/W FUSIBLE CURTAIN	Ø200
FD03	01	* FIRE DAMPER C/W FUSIBLE CURTAIN	200x200



DRAWING NO.	REFERENCE
	REFERENCE DRAWINGS

GENERAL NOTES:	
1.	ALL DIMENSIONS TO BE CHECKED ON SITE BEFORE ANY WORK PUT IN HAND.
2.	ALL WORK TO COMPLY TO LOCAL MUNICIPAL BY-LAWS.
3.	IT IS THE RELEVANT SUB-CONTRACTORS RESPONSIBILITY TO ENSURE ALL CO-ORDINATION & CORRECT DIMENSIONS OF DRAWINGS IS DONE WITH ALL OTHER RESPECTIVE CONTRACTORS PRIOR TO PROCUREMENT & INSTALLATION.
4.	QUALITY MUST BE ADHERED TO ALL STANDARDS AS PER TENDER SPECIFICATIONS.
HVAC BUILDERSWORK:	
15.	ALL OPENINGS TO BE 100mm BIGGER THAN DUCT SIZES SHOWN (BUILDER TO MAKE GOOD AFTER DUCTS ARE INSTALLED).
16.	ALL OPENINGS TO BE 50mm THICK TIMBER FRAME ALL AROUND WHICH INCLUDES A 20mm THK. TYPICAL FRAME ALL AROUND OPENING - BY BUILDER.
17.	SLEEVES IN WALLS, SLABS & BEAMS (SIZE SHOWN ON DRAWING) (BUILDER TO MAKE GOOD AFTER DUCTS ARE INSTALLED).
18.	ALL EQUIPMENT DRAINS TO BE Ø25mm RIGID PVC WITH A 1:100mm FALL, UNLESS OTHERWISE STATED.
LEGEND:	
[Symbol]	230V 3PH 3WZ POWER SUPPLY TERMINATING IN ISOLATOR WITHIN ONE METRE OF EQUIPMENT - BY ELECTRICIAN.
[Symbol]	230V 1PH 1WZ POWER SUPPLY TERMINATING IN ISOLATOR WITHIN ONE METRE OF EQUIPMENT - BY ELECTRICIAN.
[Symbol]	SUPPLY AIR DUCT TO UNIT - BY HVAC SUB-CONTRACTOR (CAPACITY TO BE SIZES TO SPECIFICATIONS REQUIREMENTS).
[Symbol]	WALL MOUNTED THERMOSTAT CONTROLLER AT 1350 AFFL. (1.0m Ø50mm CONDUIT AND 4x Ø6mm IN WALL) - BY ELECTRICIAN AND BUILDER.
[Symbol]	ON/OFF SWITCH MOUNTED TO SIDE OF CANOPIES OR WALLS (1.0m Ø50mm CONDUIT AND 4x Ø6mm IN WALL) - BY ELECTRICIAN AND BUILDER.
[Symbol]	INFLARED REMOTE THERMOSTAT CONTROLLER.
[Symbol]	CONDENSATE DRAIN POINT - BY PLUMBER.
[Symbol]	WATER SUPPLY POINT (SIZE AS SHOWN) - BY PLUMBER.
[Symbol]	DOOR TO BE UNDERCUT BY 25mm - BY BUILDER.
ABBREVIATIONS:	
B.D.	BALANCING DAMPER
D.G.	DOOR GRILLE
EAD	EXTRACT AIR DIFFUSER OR GRILLE
FAD	FRESH AIR DIFFUSER OR GRILLE
F.D.	FIRE DAMPER (FUSIBLE LINK)
F.D.M.	FIRE DAMPER (MOTORISED)
F.O.S.	FIRE RESIST SCREEN
F.O.B.	FLAT ON BOTTOM (DUCT)
F.O.T.	FLAT ON TOP (DUCT)
M.O.S.	MEASURE ON SITE
N.T.S.	NOT TO SCALE
O.B.D.	OPPOSED BLADE DAMPER
RAG	RETURN AIR GRILLE
SAD	SUPPLY AIR DIFFUSER OR GRILLE
TRF.	TRANSFORMATION OF DUCT
W.L.	WEATHER LOUVER
W.R.S.	WIRE MESH SCREEN
---	REFRIGERATION LINES
---	CONDENSATE PIPES

NO.	DESCRIPTION	BY	CHKD	APPD	DATE
05	DUCTING AND SECOND FIX ITEMS CHANGED TO SUIT FINAL CO-ORDINATION LAYOUTS	KO	VV	VR	Sep 2016
04	ARCHITECTURAL LAYOUT MODIFIED.	JP	VV	VR	Jul 2016
03	CONDENSATE PIPE SIZES ADDED.	JP	VV	VR	Apr 2016
02	AC UNITS MOVED TO AVOID CLASH WITH CABLE TRAY. ALL AC UNIT LENGTHS ADAPTED TO ACTUAL SIZES	JP	VV	VR	Mar 2016
01	ARCHITECT LAYOUT MODIFIED	JP	VV	VR	Aug 2015
00	ISSUED FOR CONSTRUCTION	JP	VV	VR	May 2015

CONTRACTOR / CONSULTANT				TRANSNET CAPITAL PROJECTS			
TITLE	NAME	SIGN	DATE	TITLE	NAME	SIGN	DATE
				DRAWN	J.P. P.P.	[Signature]	01/08/14
				CHECKED	V.R. P.P.	[Signature]	17/04/14
				DESIGNED	E.M. P.P.	[Signature]	17/04/14
				CHECKED	V.R.	[Signature]	17/04/14
OPERATING DIVISIONS				PR. ENG. / PR. TECH. / PR. ARCH			
TITLE	NAME	SIGN	DATE	NAME	DATE	DATE	DATE
				PR. ENG.	PP	[Signature]	19/08/15
REG. NUMBER				CIBSE NO. 17710			
SCALE: 1:100				A1			

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 63 WORRAKER STREET
 PORT ELIZABETH TEL: 041 507 4300

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PORT OF NGQURA

**TNPA ADMINISTRATION BUILDING
 MECHANICAL
 HVAC & VENTILATION
 FOURTH FLOOR EAST WING**

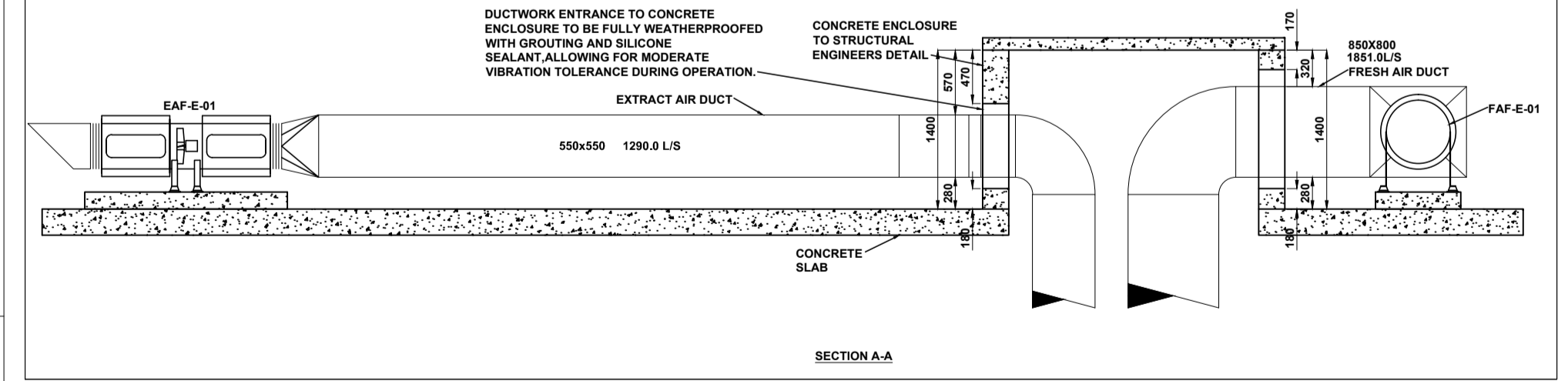
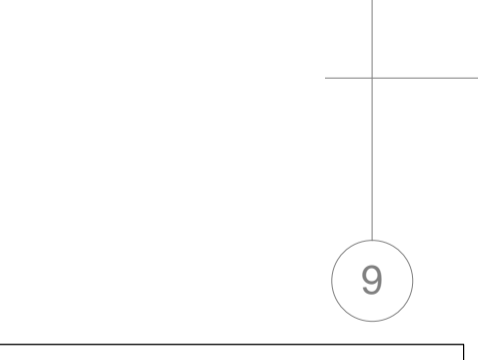
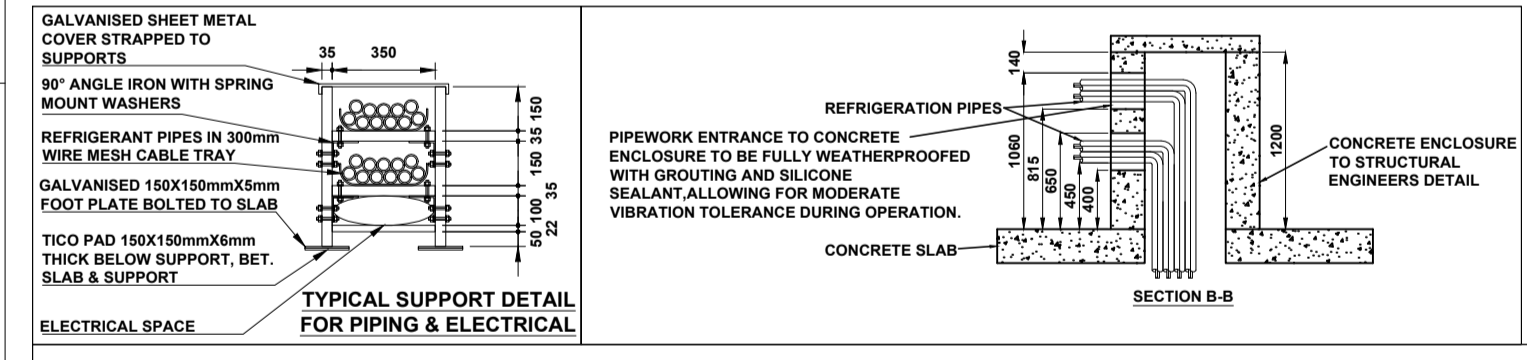
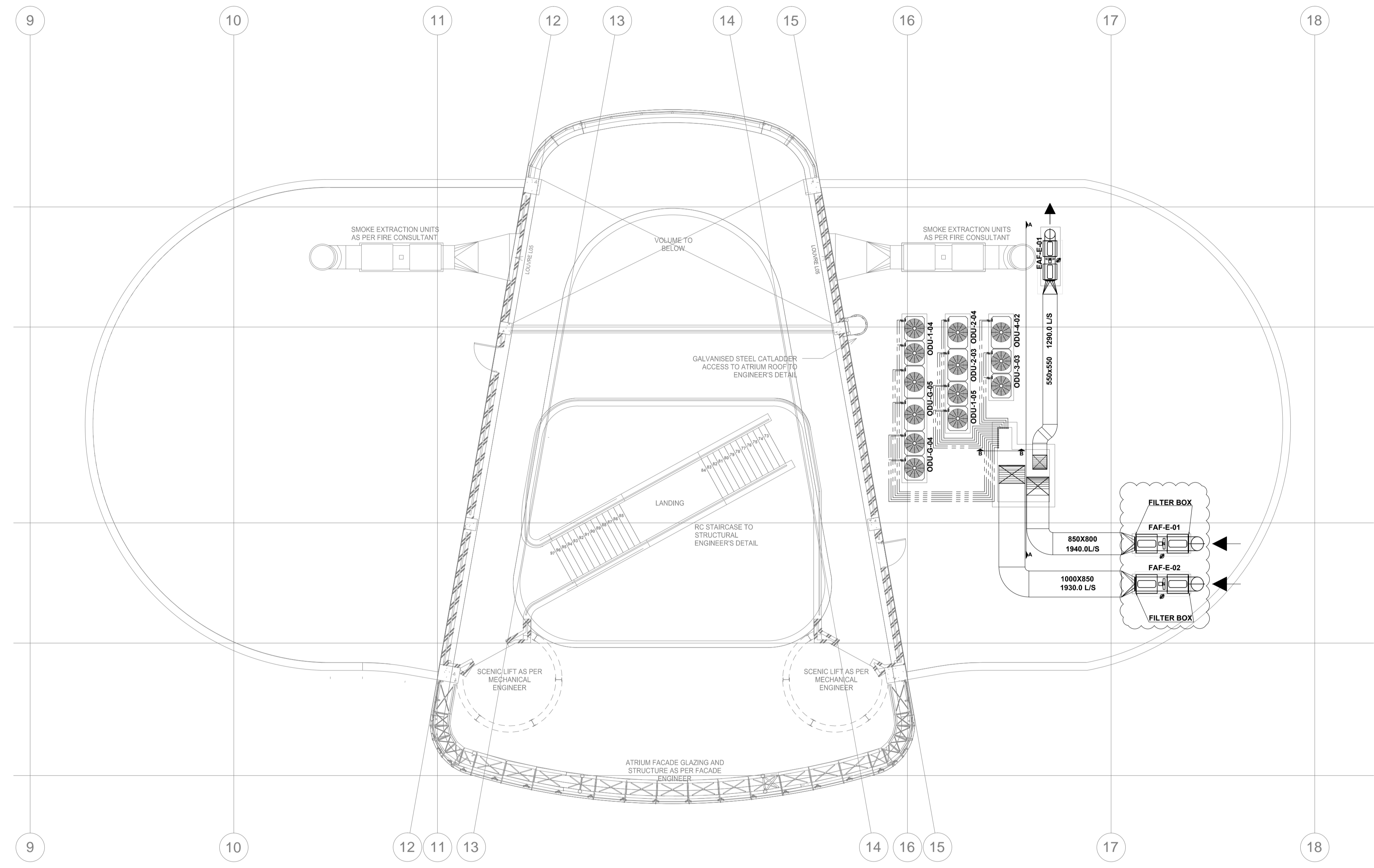
PROJECT NUMBER	OD	FBS	DIS	TYPE	DRAWING NO.	SHEET	REV	ID
H500204	1	1	2	0	M-GA	7102	01	05 JV

OUTDOOR UNIT SCHEDULE										
UNIT REF.	No OFF	LOCATION	DESCRIPTION	MODEL	WEIGHT (KG)	COOLING CAPACITY TOTAL (kW)	POWER ABSORBED (kW)	POWER SUPPLY (V / Ph / Hz)	SOUND PRESSURE LEVEL dB-A>	POWER PRESSURE LEVEL dB-A>
ODU-G-04	01	5TH FLOOR	HEAT RECOVERY OUTDOOR UNIT	PURY-P350YJM-A-BS	270	40	11.33	415/3/50	60	80
ODU-G-05	01	5TH FLOOR	HEAT RECOVERY OUTDOOR UNIT	PURY-P650YSJM-A-BS	515	73	21.53	415/3/50	62.5	82.5
ODU-1-04	01	5TH FLOOR	HEAT RECOVERY OUTDOOR UNIT	PURY-P350YJM-A-BS	270	40	11.33	415/3/50	60	80
ODU-1-05	01	5TH FLOOR	HEAT RECOVERY OUTDOOR UNIT	PURY-P500YSJM-A-BS	480	56	14.85	415/3/50	60	80
ODU-2-03	01	5TH FLOOR	HEAT RECOVERY OUTDOOR UNIT	PURY-P300YJM-A-BS	245	33.5	8.67	415/3/50	59	79
ODU-2-04	01	5TH FLOOR	HEAT RECOVERY OUTDOOR UNIT	PURY-P300YJM-A-BS	245	33.5	8.67	415/3/50	59	79
ODU-3-03	01	5TH FLOOR	HEAT RECOVERY OUTDOOR UNIT	PURY-P400YJM-A-BS	270	45	13.55	415/3/50	61	81
ODU-4-02	01	5TH FLOOR	HEAT RECOVERY OUTDOOR UNIT	PURY-P350YJM-A-BS	270	40	11.33	415/3/50	60	80

FAN SCHEDULE										
FAN REF.	No OFF	LOCATION	DESCRIPTION	AIR QTY. (L/s) each	STATIC PRES. (Pa)	FAN SPEED (RPM)	POWER REQUIREMENTS (V / Ph / Hz)	ABSORBED (kW)	SOUND PRESSURE LEVEL dB-A>	
EAF-E-01	01	5TH FLOOR	Ø400 AXIAL EXTRACT AIR FAN c/w (2-off) 1.5 DIA POD TYPE SOUND ATTENUATOR	1290.00	200 Pa	2880	380 / 3 / 50	0.52 kW	83	
FAF-E-01	01	5TH FLOOR	Ø560 AXIAL FRESH AIR FAN c/w (2-off) 1.5 DIA POD TYPE SOUND ATTENUATOR AND 25mm FILTER BOX	1940.00	350 Pa	2880	380 / 3 / 50	1.4 kW	85	
FAF-E-02	01	5TH FLOOR	Ø560 AXIAL FRESH AIR FAN c/w (2-off) 1.5 DIA POD TYPE SOUND ATTENUATOR AND 25mm FILTER BOX	1930.00	350 Pa	2880	380 / 3 / 50	1.4 kW	98	

* MITSUBISHI OR SIMILAR APPROVED
NOTE: ALL NOISE LEVELS ARE BASED ON MEASUREMENTS TAKEN IN ANECHOIC ROOM

* DUNKIN & XPELAIOR OR SIMILAR APPROVED



DRAWING NO.	REFERENCE
	REFERENCE DRAWINGS

GENERAL NOTES:	
1.	ALL DIMENSIONS TO BE CHECKED ON SITE BEFORE ANY WORK PUT IN HAND
2.	ALL WORK TO COMPLY TO LOCAL MUNICIPAL BY-LAWS
3.	IT IS ALL THE RELEVANT SUB-CONTRACTORS RESPONSIBILITY TO ENSURE ALL CO-ORDINATION & CORRECT DIMENSIONING OF DRAWINGS IS DONE WITH ALL OTHER RESPECTIVE CONTRACTORS PRIOR TO PROCUREMENT & INSTALLATION
4.	QUALITY MUST BE ADHERED TO ALL STANDARDS AS PER TENDER SPECIFICATIONS
HVAC BUILDERSWORK:	
15.	ALL OPENINGS TO BE 150mm BIGGER THAN DUCT SIZES SHOWN (BUILDER TO MAKE GOOD AFTER DUCTS ARE INSTALLED)
16.	ALL OPENINGS TO BE 50mm BIGGER THAN GRILLE SIZES SHOWN (BUILDER TO MAKE GOOD AFTER DUCTS ARE INSTALLED)
17.	SLEEVES IN WALLS, SLABS & BEAMS (SIZE SHOWN ON DRAWING) (BUILDER TO MAKE GOOD AFTER DUCTS ARE INSTALLED)
18.	ALL EQUIPMENT DRAINS TO BE 825mm RIGID PVC WITH A 1:150mm FALL UNLESS OTHERWISE STATED.
LEGEND:	
⊕	400V / 3PH / 50HZ POWER SUPPLY TERMINATING IN ISOLATOR WITHIN ONE METRE OF EQUIPMENT - BY ELECTRICIAN
⊕	230V / 1PH / 50HZ POWER SUPPLY TERMINATING IN ISOLATOR WITHIN ONE METRE OF EQUIPMENT - BY ELECTRICIAN
⊕	230V / 1PH / 50HZ 80000 UNIT POWER SUPPLY TERMINATING IN ISOLATOR WITHIN ONE METRE OF EQUIPMENT - BY HVAC CONTRACTOR (CAPACITY TO BE SIZED TO SPECIALIST UNITS REQUIREMENTS)
⊕	BE HEAD IN CONJUNCTION WITH THE SAME
⊕	ALL EXPOSED DUCTS TO BE PAINTED TO SPECIFICATION
⊕	ALL OTHER DUCTS TO BE UNINSULATED, UNLESS SPECIFIED
⊕	ALL DUCTS WITH SEMI-PERMEABLE OF 150mm OR LESS TO BE 75 & DRIVE JOINTS AND DUCTS ABOVE TO BE BEZZE FLANGES
⊕	ALL BEZZES TO HAVE INTERNAL RADIUS OF 150mm AND SPLITTERS UNLESS OTHERWISE SPECIFIED
⊕	ALL ROUND DUCT BENDS UP TO Ø600mm TO HAVE A RADIUS OF 300mm - OVER Ø600mm TO HAVE A RADIUS OF 300mm
⊕	DUCT SHOES TO BE 150mm LONG @ 45°
⊕	SPIGOTS TO BE 150mm LONG, UNLESS OTHERWISE STATED
⊕	REFRIGERANT / V/W PIPES TO BE COPPER AND INSULATED

ABBREVIATIONS	
B.D.	BALANCING DAMPER
D.O.	DOOR GRILLE
EAD / G	EXTRACT AIR DIFFUSER OR GRILLE
FAD / G	FRESH AIR DIFFUSER OR GRILLE
FD.L	FIRE DAMPER (FUSIBLE LINK)
FD.M	FIRE DAMPER (MOTORISED)
FD.S	FIRE DAMPER (SOLENOID)
F.O.B	FLAT ON BOTTOM (DUCT)
F.O.T	FLAT ON TOP (DUCT)
F.O.T	MEASURE ON SITE
M.O.S	NOT TO SCALE
N.T.S	NOT TO SCALE
O.B.D	OPPOSITE BLADE DAMPER
RAG	RETURN AIR GRILLE
SAD / G	SUPPLY AIR DIFFUSER OR GRILLE
TW	TRANSFER OR DUCT
W.L.	WEATHER LOUVER
W.M.S	WIRE MESH SCREEN

CONTRACTOR / CONSULTANT				TRANSNET CAPITAL PROJECTS			
TITLE	NAME	SIGN	DATE	TITLE	NAME	SIGN	DATE
04	FILTER BOXES ADDED FOR FRESH AIR FANS	JP	VV	VR	Aug 2016		
03	ARCHITECTURAL LAYOUT MODIFIED	JP	VV	VR	Jun 2016		
02	ARCHITECTURAL LAYOUT MODIFIED	JP	VV	VR	Jun 2016		
P9	CONCRETE ENCLOSURES BY STRUCTURAL ENG. AS PER ARCHITECTS DIRECTION	KO	VV	VR	Apr 2016		
P8	ENCLOSURES REVISED FROM BRICK WORK TO CONCRETE AS PER ARCHITECTS DIRECTION	KO	VV	VR	Apr 2016		
P7	SECTION A-A & SECTION B-B ADDED	KO	VV	VR	Mar 2016		
01	ISSUED FOR CONSTRUCTION	JP	VV	VR	Sep 2015		
00	ISSUED FOR CONSTRUCTION	JP	VV	VR	May 2015		

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PORT OF NGQURA
TNPA ADMINISTRATION BUILDING
MECHANICAL
EXTERNAL HVAC PLANTROOM
FIFTH FLOOR

PROJECT NUMBER	OD	FBS	DIS	TYPE	DRAWING NO.	SHEET	REV	ID
H 5 0 0 2 0 4	1	1	2	0	M-GA	8 1 0 0	0 1	0 4 JV