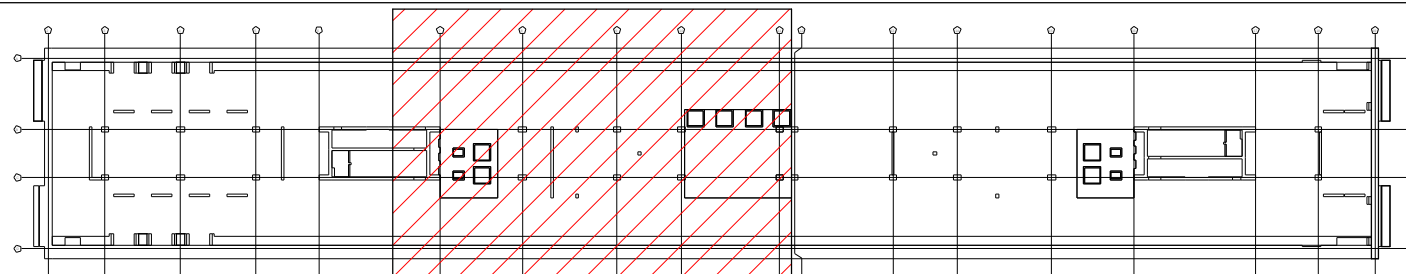
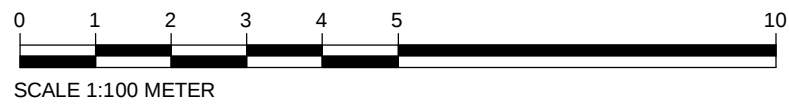
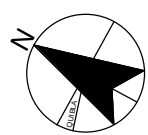
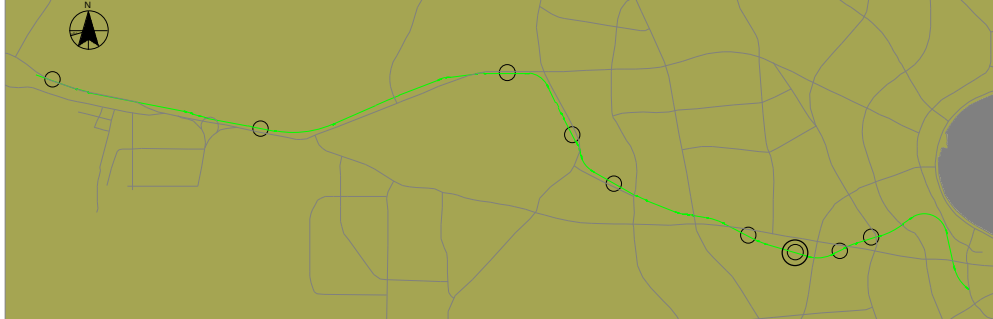


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KEYPLAN



NOTES

- All dimensions are in millimeter unless otherwise specified.
- All dimensions shall be checked on site before ductwork manufacture is commenced.
- Each piece of ductwork shall be wiped inside and out before installation and all open ends shall be capped and sealed to prevent entrance of dirt during construction.
- Ductwork shall not touch the building structure or building finishes directly, but shall be isolated with suitable spacer.
- Ductwork shall be rigidly suspended or supported from building structure.
- Necessary angle iron shall be provided for bracing of ductwork or equipment, and for supporting ductwork from building structure.
- When changes or offsets are necessary, the required cross-sectional areas shall be maintained.
- Support the vertical ducts installed in the various shafts at each floor level with galvanized supporting irons of approved size.
- All openings required through floors, walls, partitions etc., for the duct system are provided in the exact location required.
- All flexible connection will be an approved manufacturer, with ratings of fire spread strength etc., listed by a recognized Testing Authority.
- Volume dampers shall be installed in accessible locations at all branch connections and wherever necessary to adjust the flow of air to secure correct distribution.
- The control dampers shall be installed as required for the proper functioning of the system.
- Fire dampers shall be provided in locations required by ordinances and codes and as indicated the contract drawing.
- All smoke extract ductworks should be fire rated and as per approved material.

REFERENCES:

M008-ARE-ARC-MD3-GWST050-CL-00101.S4.P7
M008-ARE-ARC-MD3-GWST050-ZZ-00101.S4.P11
M008-HLQ-MEP-MD3-GWST050-CL-00101.RVT
M008-SSF-ARC-MD3-GWST050-CL-00301.S3.P16
M008-SSF-ARC-MD3-GWST050-ZZ-00101.S3.P19
M008-SSF-STR-MD3-GWST050-CL-00301.S3.P14
M008-SSF-STR-MD3-GWST050-ZZ-00101.S3.P24

SCHEMATICS AND DETAIL INSTALLATION REFERENCES:

M008-HLQ-MHV-DWG-GWST050-AA-10021-25
M008-HLQ-MHV-DWG-GWST050-AA-10031-32
M008-HLQ-MHV-DWG-GWST050-AA-10041
M008-HLQ-MHV-DWG-GWST050-AA-10051.S3-54
M008-RGP-MHV-DWG-GWST050-AA-10061-63

ISSUED FOR CONSTRUCTION			
MH	30-12-2017	JF	30-12-2017
ISSUED FOR CONSTRUCTION APPROVAL			
NN	13-11-2016	IM	13-11-2016

ISSUING OFFICE	PROJECT NUMBER
DOHA	M008

CLIENT APPROVAL	
A - APPROVED	
B - APPROVED WITH COMMENTS	
C - DO NOT USE	

STATUS	PURPOSE OF ISSUE
S4	FOR CONSTRUCTION APPROVAL

CONTRACTOR
PORR - SBG - HBK JOINT VENTURE
P.O. BOX 207471 DOHA
QATAR

CONSULTANT:
HOARE LEA QATAR LLC
P.O. BOX 201834 DOHA
QATAR

SUB CONTRACTOR
PSC S.P.A.
Viale Schiavonelli
27018 - 00173 ROMA
TEL: 06/7263048
FAX: 06/7261393
Website: www.pscgroup.com
QATAR - ITALY

Redco International W.L.L.
TEL: 444-15426
FAX: 444-13786
Email: redcointl@gmail.com
DOHA, QATAR

PROJECT
**DESIGN & BUILD PACKAGE 2
GREEN LINE UNDERGROUND**

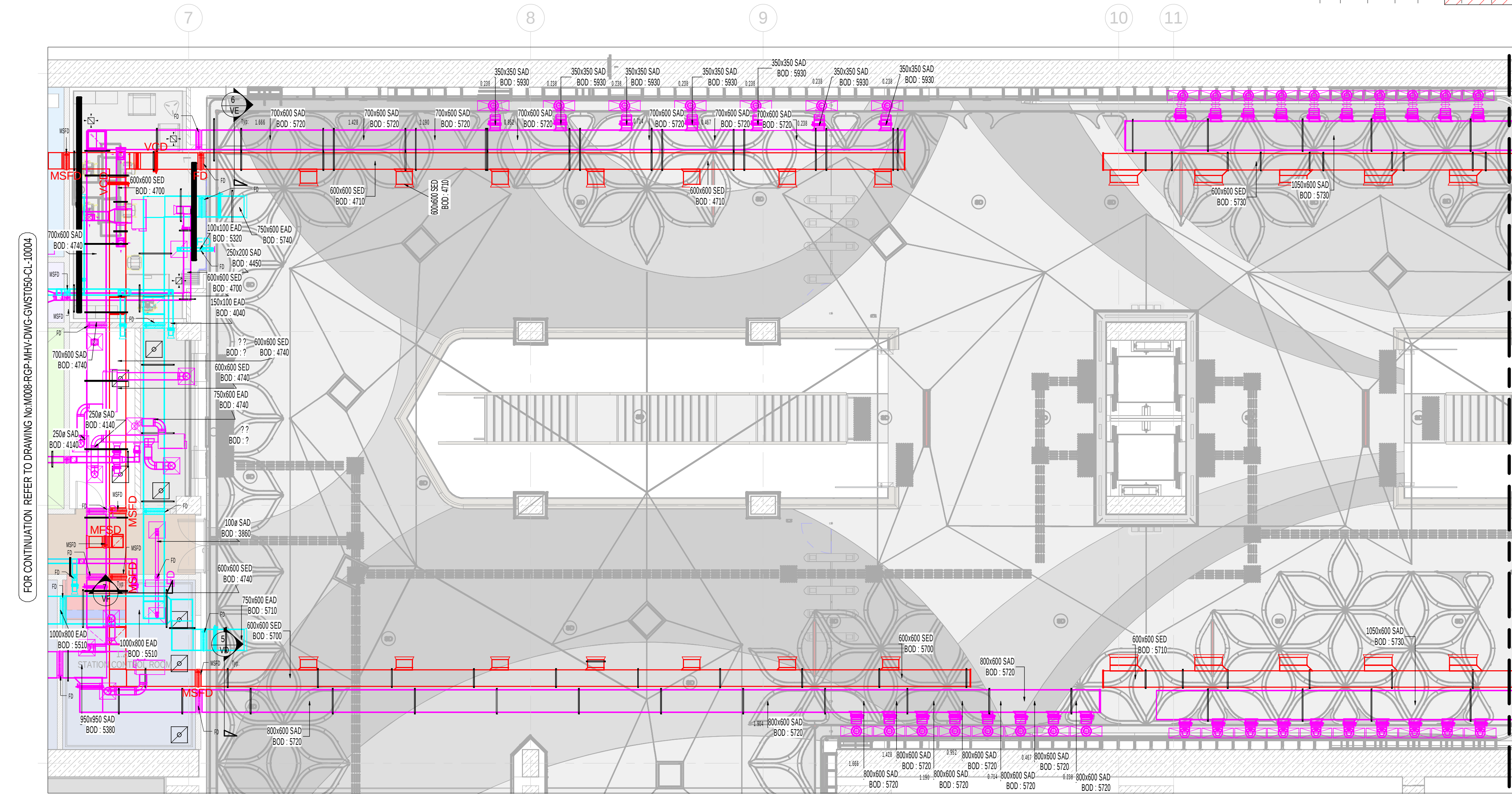
TITLE
**SHOP DRAWINGS STATION - AL RAYYAN / AL QADEEM CONCOURSE LEVEL -
VENTILATION SERVICES (STATION
CENTRAL WEST)**

CLIENT
QATAR RAILWAYS COMPANY
P.O. BOX 29988 DOHA
QATAR

DRAWING NUMBER
M008-RGP-MHV-DWG-GWST050-CL-10003

REV
C2

8/10/2018 6:26:07 PM



SHOP DRAWINGS STATION - AL RAYYAN / AL QADEEM CONCOURSE
LEVEL VENTILATION SERVICES (STATION CENTRAL WEST)

MSFDFD SCHEDULE			
TAG	ROOM REFERENCE	NECK SIZE IN (mm)	AIR FLOW (L/s)
MSFD-E-SE-06	CORRIDOR	100X300	1.67
MSFD-E-SE-07	CORRIDOR	100X300	1.67
MSFD-E-SE-08	CORRIDOR	100X300	1.67
MSFD-E-SE-09	CORRIDOR	100X300	1.67
MSFD-E-SE-10	CORRIDOR	100X300	1.67
FD-W-S-01	STATION CONTROL ROOM	150X150	1.60
FD-W-EA-01	STATION CONTROL ROOM	150X150	1.42

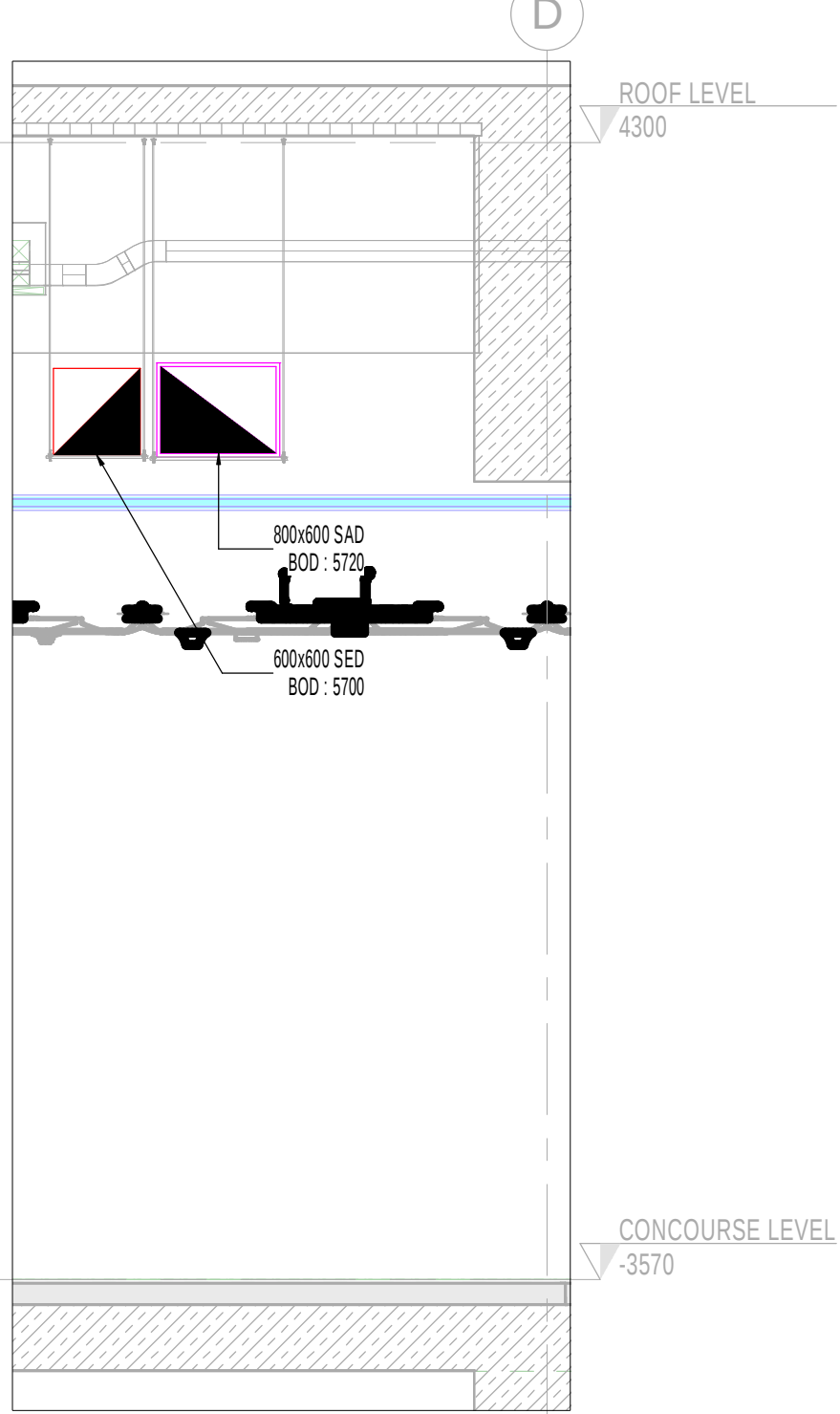
SUPPLY GRILL AND DIFFUSER SCHEDULE				
TAG	ROOM REFERENCE	TYPE	NECK SIZE IN (mm)	AIR FLOW (L/s)
SD-CL-W	FOH MEP CORRIDOR	GRILL	250X200	84
SD-CL-W	FOH MEP CORRIDOR	GRILL	250X200	84

HVAC DUCTING - SUPPORT SPACING SCHEDULE

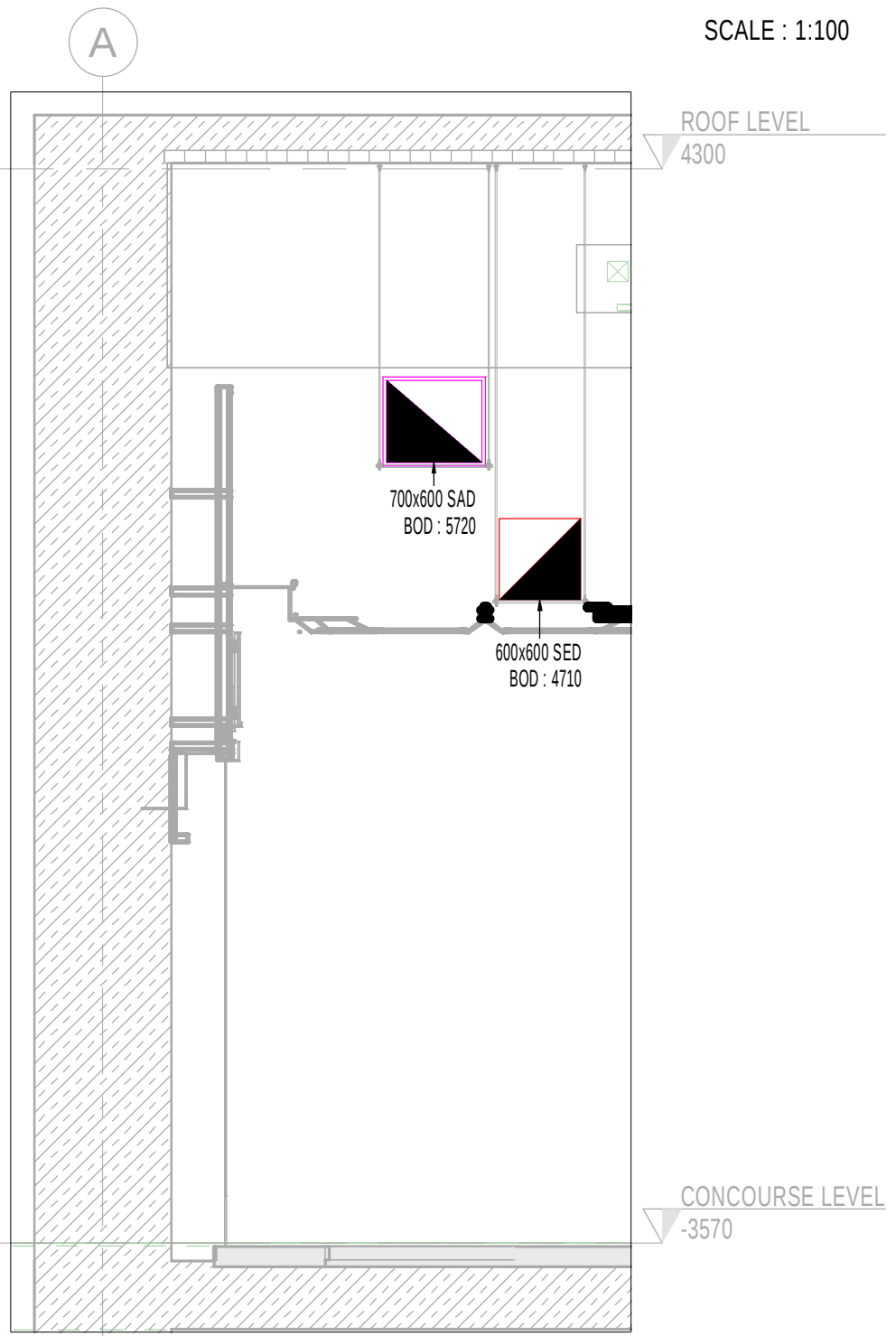
S.NO.	HEIGHT MM	WIDTH MM	MAXIMUM SUPPORT SPACING M	INSULATION DENSITY KG/CU.M.	SPAN MM	RECOMMENDED CHANNEL	THREADED ROD SIZE
1	150	150	3.0	48	350	FUS 21/2.0	M08
2	200	200	3.0	48	400	FUS 21/2.0	M08
3	250	250	3.0	48	450	FUS 21/2.0	M08
4	300	300	3.0	48	500	FUS 21/2.0	M08
5	350	350	3.0	48	550	FUS 21/2.0	M08
6	400	400	3.0	48	600	FUS 21/2.0	M08
7	450	450	2.5	48	650	FUS 21/2.0	M08
8	500	500	2.5	48	700	FUS 21/2.0	M08
9	550	550	2.5	48	750	FUS 21/2.0	M08
10	600	600	2.5	48	800	FUS 21/2.0	M08
11	650	650	2.5	48	850	FUS 21/2.0	M08
12	700	700	2.5	48	900	FUS 21/2.0	M08
13	750	750	2.5	48	950	FUS 21/2.0	M08
14	800	800	2.5	48	1000	FUS 21/2.0	M08
15	900	900	2.5	48	1100	FUS 21/2.0	M08
16	1000	1000	2.5	48	1200	FUS 41/2.0	M10
17	1200	1200	2.5	48	1400	FUS 41/2.0	M08
18	1250	1250	2.5	48	1450	FUS 41/2.0	M08
19	1300	1300	2.5	48	1500	FUS 41/2.0	M08
20	1400	1400	2.5	48	1600	FUS 41/2.0	M08
21	1500	1500	2.0	48	1700	FUS 62/2.5	M10
22	1600	1600	2.0	48	1800	FUS 62/2.5	M10
23	1800	1800	2.0	48	2000	FUS 62/2.5	M10
24	1900	1900	2.0	48	2100	FUS 62/2.5	M10
25	2000	2000	2.0	48	2200	FUS 62/2.5	M10
26	3000	3000	2.0	48	3200	FUS 62/2.5	M10

LEGENDS AND ABBREVIATION	
SYMBOLS	DESCRIPTION
	SAD SUPPLY AIR DUCT
	EAD EXHAUST AIR DUCT
	SED SMOKE EXTRACT FIRE RATED DUCT
	WRD WASTE ROOM EXTRACT AIR DUCT
	BRD BATTERY ROOM EXTRACT AIR DUCT
	SPD STAIR CASE PRESSURISATION
	TED TOILET EXHAUST AIR DUCT
	DUCTS WITH INSULATION
	SUPPLY AIR GRILL
	EXHAUST AIR GRILL
	BELL MOUTH
	VCD VOLUME CONTROL DAMPER
	FD FIRE DAMPERS
	MOTORIZED SMOKE AND FIRE DAMPER
	SUPPORTS
	BOD BOTTOM OF DUCT
	TYP TYPICAL
	FFL FINISH FLOOR LEVEL
	PL CONCOURSE LEVEL

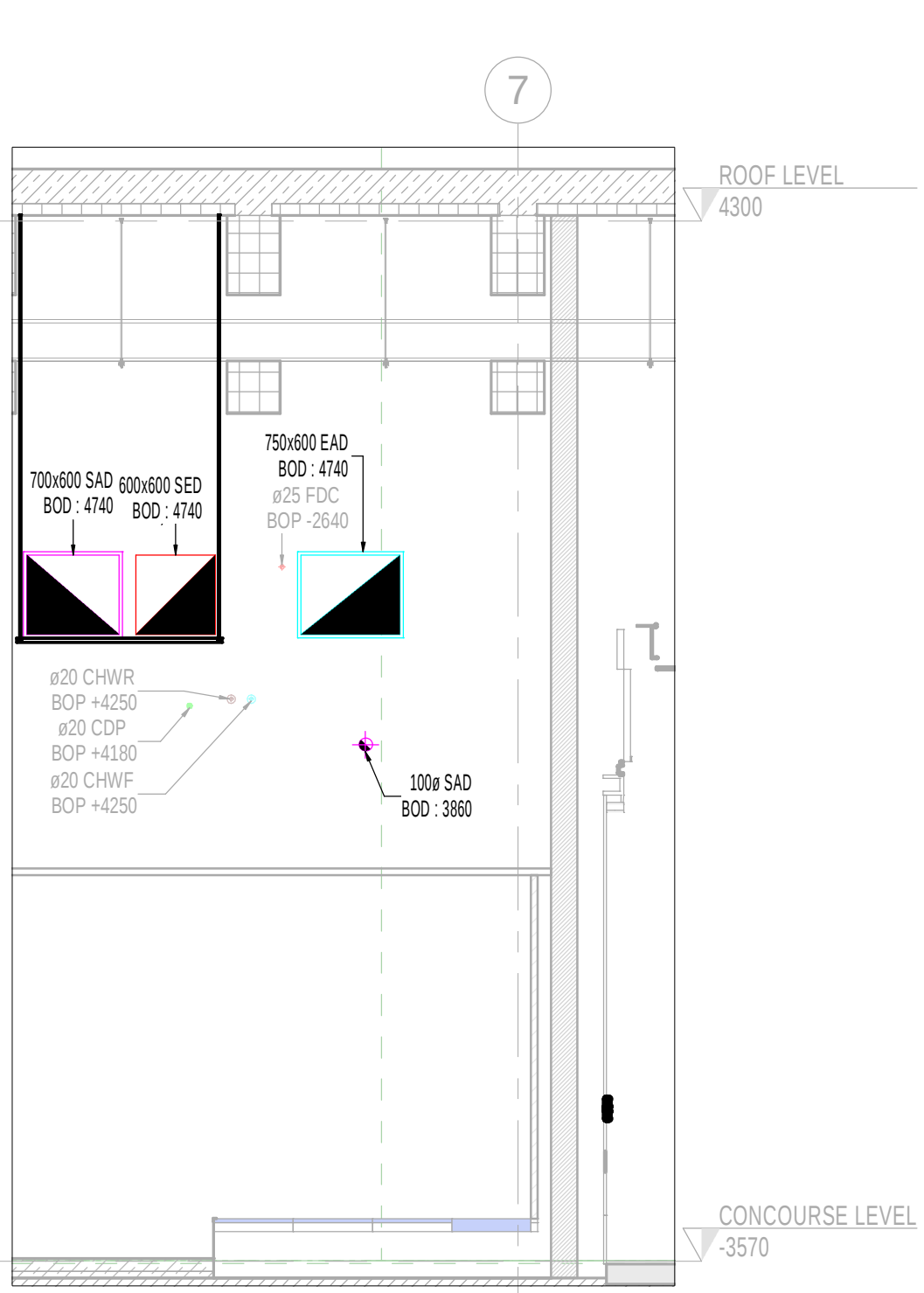
- THE HVAC DUCTING SHALL BE GI DUCTING WITH THE GAUGES OF SHEETS, REINFORCEMENTS AND VANES COMPLYING WITH SMACNA STANDARDS WITH RESPECT TO THE SIZE OF THE DUCT.
- THE HVAC DUCTING SHALL BE PROVIDED WITH INSULATION OF THICKNESS 25MM WITH 48KG/CU.M. DENSITY.
- THIS SUPPORT SPACING SCHEDULE IS NOT APPLICABLE FOR FIRE RATED DUCT.
- FOR THE CHANGE OF DIRECTION AND LEVELS, APPLICATION OF CONCENTRATED LOADS, JOINTS POINTS AND AT FITTINGS EXTRA SUPPORT SHALL BE PROVIDED AS PER THE SITE CONDITION.
- THREADED ROD SHALL BE HOT DIPPED GALVANIZED IRON.



SECTION-VD
SCALE: 1:50



SECTION-VE
SCALE: 1:50



SECTION-VF
SCALE: 1:50