

HVAC Design Checks- Airflow and Instrumentation Diagrams

Drawing No: xxxxx

	Item Description	Checked-OK/Not OK/NA			Remarks
		OK	NOK	NA	
ROOM DATA					
1	Are all rooms/areas covered?				
2	Do room names and numbers match with architectural drawings?				
3	Do the following room parameters match with HVAC Calculation Sheet?				
4	- Area				
5	- Volume				
6	- Supply air				
7	- Exhaust air				
8	- Return air				
9	- ACH				
10	- Temp.				
11	- RH				
12	- Pressure				
13	- Grade/classification				
14	- Leakage directions and quantities				
EQUIPMENT					
15	- AHU configuration (filters, sections, number of coils, etc.) correct?				
16	- AHU instruments (FT, V, TT, PT, MT) correct?				
17	- AHU capacity - matches with calculation sheet +20%?				
18	- Test ports - numbers and locations?				
19	- Exhaust fan capacity correct?				
20	- Fan starter correct - VFD/DOL?				
21	- CAV capacity correct?				
22	- VAV capacity correct?				
AIR QUANTITIES					
23	- Main supply air quantity correct?				
24	- Main return air quantity correct?				
25	- Main fresh air quantity correct?				
26	- Main exhaust air quantity correct?				
27	- Supply, return, fresh and exhaust air quantities match?				
DIFFUSERS AND GRILLES					
28	- Number of supply air diffusers /HEPA filters correct?				
29	- Type and size of supply air diffusers /HEPA filters correct?				
30	- Number of return air grilles correct?				
31	- Type and size of return air grilles correct?				
32	- Number of exhaust air diffusers correct?				
33	- Type of exhaust air diffusers correct?				
AIR DISTRIBUTION					
34	- Supply air distribution match the zoning?				
FIRE DAMPERS, FIRE-RATED DUCT & SMOKE DETECTORS					
35	- All fire dampers included?				
36	- Fire rated duct shown (if applicable)?				
37	- Smoke detector included in the right location?				
VOLUME CONTROL / MOTORIZED / NRD DAMPERS					
38	- VCDs included at the right locations?				
39	- NRDs included at the right locations?				
40	- Motorized dampers included where applicable?				
TEST PORTS					
41	- Duct test ports included at all relevant locations?				
PIPING					
42	- CHW: All valves, vents, drains, PI, TI, flexible connections included?				
43	- HW: All valves, vents, drains, PI, TI, flexible connections included?				
44	- Drain piping shown				
AUTOMATION					
45	- CHW: TT-TCV link shown				
46	- HW: TT-TCV link shown				
47	- Supply duct: PT-VFD link shown				
48	- Supply duct: TT included				
49	- Return air: TT included				
50	- Return air: MT included				
51	- Fan: FT sensor included				
52	- Fan: Vibration sensor included				
53	- Filter: PDIS included				

Sample/Draft Checklist - hvac-ca.com

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ROOM DATA					
54	- Room PDT included				
55	- Room TT (EMS) included				
56	- Room MT (EMS) included				
INTERLOCKS					
57	- All relevant interlocks marked on the drawing?				
58	- All interlocks listed near the title block?				
LEGEND					
59	- Legend correct and complete?				
TAG NOS					
60	- Tag nos correct?				
NOTES					
61	- Relevant notes included?				
TITLE BLOCK					
62	- Is the drawing title correct?				
63	- Is the revision history updated?				