HVAC Standard Documentation for New Construction & Renovation Project

Rev.1
June 2024

1.0 PRE-DEMO BALANCING TEST SHEETS FORMAT
(System Survey)
(Air and Water)
for Renovation Project

Note: Submit this report to Mechanical Consultant and FMO-HVAC.

PRE-DEMO AIR BALANCING FORMAT (for Supply VAV's)
System Survey

Project Name: _____ Date: _____

Main Air Handling Unit System

Tag Number: _____

Air System Condition (at the time of survey):

Duct Static Pressure Setpoint : _____
Actual Duct Static Pressure : _____
AHU's settings (VFD) : _____

List of VAV's connected to this system

No.	VAV Drawing No.	DDC Tag No.	Control ID	Duct Size	Calibration Factor	Airflow						Comment/s
						Maximum (L/s)			Minimum (L/s)			
						Setpoint	Actual	%	Setpoint	Actual	%	

NOTE: This is summary of total airflow of individual VAV's only.

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PRE-DEMO AIR BALANCING FORMAT (for Return_Exhaust VAV's)
System Survey

Project Name: _____ Date: _____

Main Air Handling Unit System

Tag Number: _____

Air System Condition (at the time of survey):

Duct Static Pressure Setpoint : _____
Actual Duct Static Pressure : _____
AHU's settings (VFD) : _____

List of VAV's connected to this system

No.	VAV Drawing No.	DDC Tag No.	Control ID	Duct Size	Calibration Factor	Airflow						Comment/s
						Maximum (L/s)			Minimum (L/s)			
						Setpoint	Actual	%	Setpoint	Actual	%	

NOTE: This is summary of total airflow of individual VAV's only.

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PRE-DEMO AIR BALANCING FORMAT (for Supply Constant Volume)
System Survey

Project Name: _____ Date: _____

Main Air Handling Unit System

Tag Number: _____

Air System Condition (at the time of survey);

Duct Static Pressure Setpoint : _____
Actual Duct Static Pressure : _____
AHU's settings (VFD) : _____ (*if applicable*)

List of VAV's connected to this system

No.	Outlet No.	Room serves	Duct Size	Calibration Factor	Air flow			Comment/s
					Design	Actual	%	

PRE-DEMO AIR BALANCING FORMAT (for Return_Exhaust Constant Volume) System Survey

Project Name: _____ Date: _____

Main Air Handling Unit System

Tag Number: _____

Air System Condition (at the time of survey);

Duct Static Pressure Setpoint : _____
Actual Duct Static Pressure : _____
AHU's settings (VFD) : _____ (*if applicable*)

List of VAV's connected to this system

No.	Outlet No.	Room serves	Duct Size	Calibration Factor	Air flow			Comment/s
					Design	Actual	%	

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PRE-DEMO WATER BALANCING FORMAT
(Chilled Water System)
System Survey

Project Name: ____________ Date: ____________________

TOTAL SYSTEM ON FULL COOLING

Main Pump System

Tag Number: ______________

Water System Condition (at the time of survey);

Differential Pressure Setpoint : ____________
Actual Differential Pressure : ______________
Pumps setting : ____________
No. of Pump/s running : ____________

List of Balancing Circuit Valve (CBV) or Autoflow valve connected to this system

No.	Valve Tag	Serves	CBV Make / Size (")	Position	Specified	Operating		%	Comment/s
					Flowrate (L/s)	PD (ft)	Flowrate (L/s)		

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PRE-DEMO WATER BALANCING FORMAT
(Heating Water System)
System Survey

Project Name: ____________ Date: ____________________

TOTAL SYSTEM ON FULL HEATING

<u>Main Pump System</u>

Tag Number: _____________

Water System Condition (at the time of survey);

Differential Pressure Setpoint : _____________
Actual Differential Pressure : ______________
Pumps setting : _____________
No. of Pump/s running : _____________

List of Balancing Circuit Valve (CBV) or Autoflow valve connected to this system

No.	Valve Tag	Serves	CBV Make / Size (")	Position	Specified	Operating		%	Comment/s
					Flowrate (L/s)	PD (ft)	Flowrate (L/s)		

2.0 FINAL BALANCING TEST SHEETS FORMAT
(Air and Water)

FINAL AIR BALANCING FORMAT (for Supply VAV's)

Project Name: _____ Date: _____

Main Air Handling Unit System

Tag Number: _____

Air System Condition (at the time of balancing);

Duct Static Pressure Setpoint : _____
Actual Duct Static Pressure : _____
AHU's settings (VFD) : _____

List of VAV's connected to this system

No.	VAV Drawing No.	DDC Tag No.	Control ID	Duct Size	Calibration Factor	Airflow						Comment/s
						Maximum (L/s)			Minimum (L/s)			
						Setpoint	Actual	%	Setpoint	Actual	%	

NOTE: This is summary of total airflow of individual VAV's only.

FINAL AIR BALANCING FORMAT (for Return_Exhaust VAV's)

Project Name: _____ Date: _____

Main Air Handling Unit System

Tag Number: _____

Air System Condition (at the time of balancing);

Duct Static Pressure Setpoint : _____
Actual Duct Static Pressure : _____
AHU's settings (VFD) : _____

List of VAV's connected to this system

No.	VAV Drawing No.	DDC Tag No.	Control ID	Duct Size	Calibration Factor	Airflow						Comment/s
						Maximum (L/s)			Minimum (L/s)			
						Setpoint	Actual	%	Setpoint	Actual	%	

NOTE: This is summary of total airflow of individual VAV's only.

FINAL AIR BALANCING FORMAT (for Supply Constant Volume)

Project Name: ______________ Date: __________________

Main Air Handling Unit System

Tag Number: _____________

Air System Condition (at the time of balancing);

Duct Static Pressure Setpoint : ________
Actual Duct Static Pressure : __________
AHU's settings (VFD) : ___________ (*if applicable*)

List of VAV's connected to this system

No.	Outlet No.	Room serves	Duct Size	Duct Size	Air flow			Comment/s
					Design	Actual	%	

FINAL AIR BALANCING FORMAT (for Return_Exhaust Constant Volume)

Project Name: ____________ Date: ____________

Main Air Handling Unit System

Tag Number: ____________

Air System Condition (at the time of balancing);

Duct Static Pressure Setpoint : ________
Actual Duct Static Pressure : ________
AHU's settings (VFD) : ________ (*if applicable*)

List of VAV's connected to this system

No.	Outlet No.	Room serves	Duct Size	Duct Size	Air flow			Comment/s
					Design	Actual	%	

FINAL WATER BALANCING FORMAT
(Chilled Water System)

Project Name: ____________ Date: ____________________

TOTAL SYSTEM ON FULL COOLING

<u>Main Pump System</u>

Tag Number: _____________

<u>Water System Condition (at the time of balancing);</u>

Differential Pressure Setpoint : _____________
Actual Differential Pressure : _____________
Pumps setting : _____________
No. of Pump/s running : _____________

List of Balancing Circuit Valve (CBV) or Autoflow valve connected to this system

No.	Valve Tag	Serves	CBV Make / Size (")	Position	Specified	Operating		%	Comment/s
					Flowrate (L/s)	PD (ft)	Flowrate (L/s)		

FINAL WATER BALANCING FORMAT
(Heating Water System)

Project Name: ___________ Date: ___________________

TOTAL SYSTEM ON FULL HEATING

<u>Main Pump System</u>

Tag Number: ____________

<u>Water System Condition (at the time of balancing);</u>

Differential Pressure Setpoint : ____________
Actual Differential Pressure : ____________
Pumps setting : ____________
No. of Pump/s running : ____________

List of Balancing Circuit Valve (CBV) or Autoflow valve connected to this system

No.	Valve Tag	Serves	CBV Make / Size (")	Position	Specified	Operating		%	Comment/s
					Flowrate (L/s)	PD (ft)	Flowrate (L/s)		

3.0 MECHANICAL COMMISSIONING AGENT "PROJECT PROGRESS TRACKER" CHECKLIST AND CHECKOUT SHEETS (Individual) FORMAT

Note: *Mechanical Commissioning Agent Checklist serves as "PROJECT PROGRESS TRACKER" to be discussed the latest updates during Mechanical Commissioning Agent meeting and submit the updated list to the COMMISSIONING TEAM.*

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PROJECT ID : _____

PROJECT NAME: _____

PROJECT ID : _____

Updated as of : _____

SUMMARY EQUIPMENT COMMISSIONING AGENT CHECKLIST
"PROJECT PROGRESS TRACKER"

No.	Maximo ID No.	Equipment	Installed	Piping Complete	Duct/Vent complete	**Unit is accessible**	Electrical Rough-In	Electrical Terminated (OLs set)	Fire Interlock	Controls complete	Controls E-to-E Checks	Pre-start Checks	Area / System Clean	Equipment Start-ups/ Fans running	Balancing Complete	Functional Checks	Remarks
		In-Charge (Contractor)	Sheet Metal Contractor	Mechanical Contractor	Sheet Metal Contractor	General Contractor & Mechanical Contracotr	Electrical Contractor	Electrical Contractor	Electrical Contractor	Controls Contractor	Controls Contractor	Mechanical Commissioning Agent /& General Contractor	General Contractor & Mechanical Contracotr	Mechanical Commissioning Agent, Controls Contractor and Mechanical Contractor	Balancing Contractor	Mechanical Commissioning Agent / Controls Contractor	
AIR HANDLING UNITS																	
1		Tag No. _____ Location: ____ Serves: _____															
2		Tag No. _____ Location: ____ Serves: _____															
3		Tag No. _____ Location: ____ Serves: _____															
4		Tag No. _____ Location: ____ Serves: _____															
HEATING / COOLING COILS SYSTEM																	
1		Tag No. _____ Location: ____ Serves: _____															
2		Tag No. _____ Location: ____ Serves: _____															
3		Tag No. _____ Location: ____ Serves: _____															
4		Tag No. _____ Location: ____ Serves: _____															
RETURN / RELIEF FANS																	
1		Tag No. _____ Location: ____ Serves: _____															
2		Tag No. _____ Location: ____ Serves: _____															
3		Tag No. _____ Location: ____ Serves: _____															
4		Tag No. _____ Location: ____ Serves: _____															

PROJECT ID : _____ **PROJECT ID : _____**

PROJECT NAME: _____ **Updated as of : _____**

SUMMARY EQUIPMENT COMMISSIONING AGENT CHECKLIST
"PROJECT PROGRESS TRACKER"

No.	Maximo ID No.	Equipment	Installed	Piping Complete	Duct/Vent complete	**Unit is accessible**	Electrical Rough-In	Electrical Terminated (OLs set)	Fire Interlock	Controls complete	Controls E-to-E Checks	Pre-start Checks	Area / System Clean	Equipment Start-ups/ Fans running	Balancing Complete	Functional Checks	Remarks
		In-Charge (Contractor)	Sheet Metal Contractor	Mechanical Contractor	Sheet Metal Contractor	General Contractor & Mechanical Contracotr	Electrical Contractor	Electrical Contractor	Electrical Contractor	Controls Contractor	Controls Contractor	Mechanical Commissioning Agent /& General Contractor	General Contractor & Mechanical Contracotr	Mechanical Commissioning Agent, Controls Contractor and Mechanical Contractor	Balancing Contractor	Mechanical Commissioning Agent / Controls Contractor	
PRESSURIZATION / VESTIBULE FANS																	
1		Tag No. _____ Location: _____ Serves: _____															
2		Tag No. _____ Location: _____ Serves: _____															
3		Tag No. _____ Location: _____ Serves: _____															
4		Tag No. _____ Location: _____ Serves: _____															
SUPPLY / EXHAUST FANS																	
1		Tag No. _____ Location: _____ Serves: _____															
2		Tag No. _____ Location: _____ Serves: _____															
3		Tag No. _____ Location: _____ Serves: _____															
4		Tag No. _____ Location: _____ Serves: _____															
SPLIT DX / CHILLED WATER SYSTEM																	
1		Tag No. _____ Location: _____ Serves: _____															
2		Tag No. _____ Location: _____ Serves: _____															
3		Tag No. _____ Location: _____ Serves: _____															
4		Tag No. _____ Location: _____ Serves: _____															

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PROJECT ID : _____

PROJECT NAME: _____

PROJECT ID : _____

Updated as of : _____

SUMMARY EQUIPMENT COMMISSIONING AGENT CHECKLIST
"PROJECT PROGRESS TRACKER"

No.	Maximo ID No.	Equipment	Installed	Piping Complete	Duct/Vent complete	**Unit is accessible**	Electrical Rough-In	Electrical Terminated (OLs set)	Fire Interlock	Controls complete	Controls E-to-E Checks	Pre-start Checks	Area / System Clean	Equipment Start-ups/ Fans running	Balancing Complete	Functional Checks	Remarks
		In-Charge (Contractor)	Sheet Metal Contractor	Mechanical Contractor	Sheet Metal Contractor	General Contractor & Mechanical Contracotr	Electrical Contractor	Electrical Contractor	Electrical Contractor	Controls Contractor	Controls Contractor	Mechanical Commissioning Agent /& General Contractor	General Contractor & Mechanical Contracotr	Mechanical Commissioning Agent, Controls Contractor and Mechanical Contractor	Balancing Contractor	Mechanical Commissioning Agent / Controls Contractor	
HEAT PUMPS																	
1		Tag No. _____ Location: _____ Serves: _____															
2		Tag No. _____ Location: _____ Serves: _____															
3		Tag No. _____ Location: _____ Serves: _____															
4		Tag No. _____ Location: _____ Serves: _____															
COOLING TOWER																	
1		Tag No. _____ Location: _____ Serves: _____															
2		Tag No. _____ Location: _____ Serves: _____															
3		Tag No. _____ Location: _____ Serves: _____															
4		Tag No. _____ Location: _____ Serves: _____															
FAN COILS																	
1		Tag No. _____ Location: _____ Serves: _____															
2		Tag No. _____ Location: _____ Serves: _____															
3		Tag No. _____ Location: _____ Serves: _____															
4		Tag No. _____ Location: _____ Serves: _____															

PROJECT ID : _____ **PROJECT ID : _____**

PROJECT NAME: _____ **Updated as of : _____**

SUMMARY EQUIPMENT COMMISSIONING AGENT CHECKLIST
"PROJECT PROGRESS TRACKER"

No.	Maximo ID No.	Equipment	Installed	Piping Complete	Duct/Vent complete	**Unit is accessible**	Electrical Rough-In	Electrical Terminated (OLs set)	Fire Interlock	Controls complete	Controls E-to-E Checks	Pre-start Checks	Area / System Clean	Equipment Start-ups/ Fans running	Balancing Complete	Functional Checks	Remarks
		In-Charge (Contractor)	Sheet Metal Contractor	Mechanical Contractor	Sheet Metal Contractor	General Contractor & Mechanical Contracotr	Electrical Contractor	Electrical Contractor	Electrical Contractor	Controls Contractor	Controls Contractor	Mechanical Commissioning Agent /& General Contractor	General Contractor & Mechanical Contracotr	Mechanical Commissioning Agent, Controls Contractor and Mechanical Contractor	Balancing Contractor	Mechanical Commissioning Agent / Controls Contractor	
PUMPS																	
1		Tag No. _____ Location: _____ Serves: _____															
2		Tag No. _____ Location: _____ Serves: _____															
3		Tag No. _____ Location: _____ Serves: _____															
4		Tag No. _____ Location: _____ Serves: _____															
BOILERS																	
1		Tag No. _____ Location: _____ Serves: _____															
2		Tag No. _____ Location: _____ Serves: _____															
3		Tag No. _____ Location: _____ Serves: _____															
4		Tag No. _____ Location: _____ Serves: _____															
DOMESTIC HOT WATER TANK																	
1		Tag No. _____ Location: _____ Serves: _____															
2		Tag No. _____ Location: _____ Serves: _____															
3		Tag No. _____ Location: _____ Serves: _____															
4		Tag No. _____ Location: _____ Serves: _____															

PROJECT ID : _____ **PROJECT ID : _____**

PROJECT NAME: _____ **Updated as of : _____**

SUMMARY EQUIPMENT COMMISSIONING AGENT CHECKLIST
"PROJECT PROGRESS TRACKER"

No.	Maximo ID No.	Equipment	Installed	Piping Complete	Duct/Vent complete	**Unit is accessible**	Electrical Rough-In	Electrical Terminated (OLs set)	Fire Interlock	Controls complete	Controls E-to-E Checks	Pre-start Checks	Area / System Clean	Equipment Start-ups/ Fans running	Balancing Complete	Functional Checks	Remarks
		In-Charge (Contractor)	Sheet Metal Contractor	Mechanical Contractor	Sheet Metal Contractor	General Contractor & Mechanical Contracotr	Electrical Contractor	Electrical Contractor	Electrical Contractor	Controls Contractor	Controls Contractor	Mechanical Commissioning Agent /& General Contractor	General Contractor & Mechanical Contracotr	Mechanical Commissioning Agent, Controls Contractor and Mechanical Contractor	Balancing Contractor	Mechanical Commissioning Agent / Controls Contractor	
HOT WATER TANK																	
1		Tag No. _____ Location: _____ Serves: _____															
2		Tag No. _____ Location: _____ Serves: _____															
3		Tag No. _____ Location: _____ Serves: _____															
4		Tag No. _____ Location: _____ Serves: _____															
COMPRESSOR																	
1		Tag No. _____ Location: _____ Serves: _____															
2		Tag No. _____ Location: _____ Serves: _____															
3		Tag No. _____ Location: _____ Serves: _____															
4		Tag No. _____ Location: _____ Serves: _____															
UNIT HEATERS																	
1		Tag No. _____ Location: _____ Serves: _____															
2		Tag No. _____ Location: _____ Serves: _____															
3		Tag No. _____ Location: _____ Serves: _____															
4		Tag No. _____ Location: _____ Serves: _____															

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PROJECT ID : _____ **PROJECT ID** : _____

PROJECT NAME: _____ **Updated as of** : _____

SUMMARY EQUIPMENT COMMISSIONING AGENT CHECKLIST
"PROJECT PROGRESS TRACKER"

No.	Maximo ID No.	Equipment	Installed	Piping Complete	Duct/Vent complete	**Unit is accessible**	Electrical Rough-In	Electrical Terminated (OLs set)	Fire Interlock	Controls complete	Controls E-to-E Checks	Pre-start Checks	Area / System Clean	Equipment Start-ups/ Fans running	Balancing Complete	Functional Checks	Remarks
		In-Charge (Contractor)	Sheet Metal Contractor	Mechanical Contractor	Sheet Metal Contractor	General Contractor & Mechanical Contracotr	Electrical Contractor	Electrical Contractor	Electrical Contractor	Controls Contractor	Controls Contractor	Mechanical Commissioning Agent /& General Contractor	General Contractor & Mechanical Contracotr	Mechanical Commissioning Agent, Controls Contractor and Mechanical Contractor	Balancing Contractor	Mechanical Commissioning Agent / Controls Contractor	
RADIANT PANELS																	
1		Tag No. _____ Location: _____ Serves: _____															
2		Tag No. _____ Location: _____ Serves: _____															
3		Tag No. _____ Location: _____ Serves: _____															
4		Tag No. _____ Location: _____ Serves: _____															
5		Tag No. _____ Location: _____ Serves: _____															

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PROJECT ID : _____

PROJECT NAME: _____

PROJECT ID : _____

Updated as of : _____

SUMMARY VARIABLE AIR VALVE (VAV) COMMISSIONING CHECKLIST
"PROJECT PROGRESS TRACKER"

No.	Maximo ID No.	Equipment	VAV Size	Size Correction (installed)	Piping Complete	Coil & access complete & correct	Unit is accessible	Ducting completed & correct	Install. complete & Correct	Controls completed & correct	Controls End to-End	Damper strokes fully	Area or System Clean	Max/Min Programmed Box controlling (Calibration)	Balancing complete data recorded	No unusual sounds or leakage observed	Space temp. controlled Unit functions correctly	Remarks
		In-Charge (Contractor)	from shop Drawigs	Sheet Metal Contractor	Mechanical Contractor	Mechanical Contractor	General Contractor & Mechanical Contracotr	Sheet Metal Contractor	Mechanical Contractor	Controls Contractor	Controls Contractor	Controls Contractor	General Contractor & Mechanical Contracotr	Controls Contractor	Balancing Contractor	Balancing Contractor / Controls Contractor / Mechanical Contractor	Mechanical Commissioning Agent / Controls Contractor	
SUPPLY VARIABLE AIR VALVE																		
1		Tag No. _____ Location: _____ Serves:																
2		Tag No. _____ Location: _____ Serves:																
3		Tag No. _____ Location: _____ Serves:																
4		Tag No. _____ Location: _____ Serves:																
5		Tag No. _____ Location: _____ Serves:																
6		Tag No. _____ Location: _____ Serves:																
7		Tag No. _____ Location: _____ Serves:																
8		Tag No. _____ Location: _____ Serves:																
9		Tag No. _____ Location: _____ Serves:																
10		Tag No. _____ Location: _____ Serves:																
11		Tag No. _____ Location: _____ Serves:																
12		Tag No. _____ Location: _____ Serves:																
13		Tag No. _____ Location: _____ Serves:																
14		Tag No. _____ Location: _____ Serves:																
15		Tag No. _____ Location: _____ Serves:																

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PROJECT ID : _____ **PROJECT ID** : _____

PROJECT NAME: _____ **Updated as of** : _____

SUMMARY VARIABLE AIR VALVE (VAV) COMMISSIONING CHECKLIST
"PROJECT PROGRESS TRACKER"

No.	Maximo ID No.	Equipment	VAV Size	**Size Correction (installed)**	**Piping Complete**	**Coil & access complete & correct**	**Unit is accessible**	**Ducting completed & correct**	**Install. complete & Correct**	**Controls completed & correct**	**Controls End to-End**	**Damper strokes fully**	**Area or System Clean**	**Max/Min Programmed Box controlling (Calibration)**	**Balancing complete data recorded**	**No unusual sounds or leakage observed**	**Space temp. controlled Unit functions correctly**	Remarks
		In-Charge (Contractor)	from shop Drawigs	Sheet Metal Contractor	Mechanical Contractor	Mechanical Contractor	General Contractor & Mechanical Contracotr	Sheet Metal Contractor	Mechanical Contractor	Controls Contractor	Controls Contractor	Controls Contractor	General Contractor & Mechanical Contracotr	Controls Contractor	Balancing Contractor	Balancing Contractor / Controls Contractor / Mechanical Contractor	Mechanical Commissioning Agent / Controls Contractor	
RETURN VARIABLE AIR VALVE																		
1		Tag No. _____ Location: _____ Serves:																
2		Tag No. _____ Location: _____ Serves:																
3		Tag No. _____ Location: _____ Serves:																
4		Tag No. _____ Location: _____ Serves:																
5		Tag No. _____ Location: _____ Serves:																
6		Tag No. _____ Location: _____ Serves:																
7		Tag No. _____ Location: _____ Serves:																
8		Tag No. _____ Location: _____ Serves:																
9		Tag No. _____ Location: _____ Serves:																
10		Tag No. _____ Location: _____ Serves:																
11		Tag No. _____ Location: _____ Serves:																
12		Tag No. _____ Location: _____ Serves:																
13		Tag No. _____ Location: _____ Serves:																
14		Tag No. _____ Location: _____ Serves:																
15		Tag No. _____ Location: _____ Serves:																

Vancouver CoastalHealth | one VCH

PROJECT ID : _____

PROJECT NAME: _____

PROJECT ID : _____

Updated as of : _____

SUMMARY VARIABLE AIR VALVE (VAV) COMMISSIONING CHECKLIST
"PROJECT PROGRESS TRACKER"

No.	Maximo ID No.	Equipment	VAV Size	**Size Correction (installed)**	**Piping Complete**	**Coil & access complete & correct**	**Unit is accessible**	**Ducting completed & correct**	**Install. complete & Correct**	**Controls completed & correct**	**Controls End to-End**	**Damper strokes fully**	**Area or System Clean**	**Max/Min Programmed Box controlling (Calibration)**	**Balancing complete data recorded**	**No unusual sounds or leakage observed**	**Space temp. controlled Unit functions correctly**	Remarks
		In-Charge (Contractor)	from shop Drawigs	Sheet Metal Contractor	Mechanical Contractor	Mechanical Contractor	General Contractor & Mechanical Contracotr	Sheet Metal Contractor	Mechanical Contractor	Controls Contractor	Controls Contractor	Controls Contractor	General Contractor & Mechanical Contracotr	Controls Contractor	Balancing Contractor	Balancing Contractor / Controls Contractor / Mechanical Contractor	Mechanical Commissioning Agent / Controls Contractor	
1		Tag No. _____ Location: _____ Serves:																
2		Tag No. _____ Location: _____ Serves:																
3		Tag No. _____ Location: _____ Serves:																
4		Tag No. _____ Location: _____ Serves:																
5		Tag No. _____ Location: _____ Serves:																
6		Tag No. _____ Location: _____ Serves:																
7		Tag No. _____ Location: _____ Serves:																
8		Tag No. _____ Location: _____ Serves:																
9		Tag No. _____ Location: _____ Serves:																
10		Tag No. _____ Location: _____ Serves:																
11		Tag No. _____ Location: _____ Serves:																
12		Tag No. _____ Location: _____ Serves:																
13		Tag No. _____ Location: _____ Serves:																
14		Tag No. _____ Location: _____ Serves:																
15		Tag No. _____ Location: _____ Serves:																

Maximo ID No.

MECHANICAL
EQUIPMENT COMMISSIONING CHECKOUT SHEET VERIFICATION

PROJECT NAME:

PUMP

Unit Tag No.: _____ Motor Make: _____ Motor HP: _____
Location: _____ Motor Amp. Rating: _____
Manufacturer: _____ Motor Volts/Phase/Freq.: _____
Model: _____ Motor RPM: _____
Service: _____ Moto Frame: _____

Impeller Size: _____

Prestart Checks		**Date**	✓ or NA	Remarks
1.	Make, model, capacity & accessories/options as per shop drawings.			
2.	Unit O&M manual data available.			
3.	Unit installation complete (*as per manufacturers installation instructions.)*			
4.	Unit complete & no mfg. defects observed.			
5.	Unit system cleaned, flushed, vented & chemical treatment installed.			
6.	Setscrews & fasteners tightened.			
7.	Unit has been properly lubricated.			
8.	Prestart & start up approval / certificate by applicable agencies received.			
9.	Pump strainers & cleaned & replaced			
10.	Pump rotates freely.			
11.	Piping & fittings installed & complete.			
12.	Vibration isolation / seismic restraints installed and functional.			
13.	Controls & wiring complete & correct.			
14.	Manual valves positioned (open or closed) correctly.			
15.	Electrical complete & correct.			
16.	Electrical protection sized and adjusted correctly.			
17.	OK by electrical contractor to start unit.			
18.	Access to unit & components accessible.			
Operational Checks		**Date**	✓ or NA	Remarks
19.	Pump rotation direction correct.			
20.	No unusual sounds, temp., or odors observed.			
21.	No visible system leakage (*water leakage*).			
22.	Pump running amperage draw ≤ motor nameplate FLA rating. (*Please record the actual reading*)			
23.	Gauges & thermometers installed correctly & functioning.			
24.	VFD Start-up report submitted (*if applicable*).			
25.	Testing & balancing (TAB) complete,			

Maximo ID No.

MECHANICAL
EQUIPMENT COMMISSIONING CHECKOUT SHEET VERIFICATION

PROJECT NAME:

FANS

Unit Tag No.: _____ Motor Make: _____ Motor HP: _____
Location: _____ Motor Amp. Rating: _____
Manufacturer: _____ Motor Volts/Phase/Freq.: _____
Model: _____ Motor RPM: _____ ☐ Direct Drive ☐ Belt Drive
Service: _____ Moto Frame: _____

☐ Supply ☐ Exhaust ☐ Pressurization ☐ Vestibule

Prestart Checks		**Date**	✓ or NA	Remarks
1.	Make, model, capacity & accessories/options as per shop drawings.			
2.	Unit O&M manual data available.			
3.	Unit installation complete (as per manufacturers installation instructions.)			
4.	Unit complete & no mfg. defects observed.			
5.	Unit / Area clean, no debris or damage observed.			
6.	Setscrews & fasteners tightened.			
7.	Unit has been properly lubricated.			
8.	Filters in place & clean (*hand over filters available*)			
9.	Unit / Fans rotates freely.			
10.	Piping & fittings installed & complete.			
11.	Ductwork complete.			
12.	Vibration isolation / seismic restraints installed and functional.			
13.	Controls & wiring complete & correct.			
14.	Manual valves positioned (open ~~or closed~~) correctly.			
15.	Electrical complete & correct.			
16.	Electrical protection sized and adjusted correctly.			
17.	OK by electrical contractor to start unit.			
18.	Coil fins clean.			
19.	Unit correctly leveled, condensate drain installed & drains properly.			
20.	Access to unit & components accessible.			
Operational Checks		**Date**	✓ or NA	Remarks
21.	Fan(s) rotation direction correct.			
22.	Unit control dampers (& backdraft) stroke freely & completely			
23.	No unusual sounds, temp., or odors observed.			
24.	No visible air by-pass or leakage.			
25.	Fan(s) running amperage draw $\leq$ motor nameplate FLA rating. (*Please record the actual reading*)			
26.	VFD Start-up report submitted (*if applicable*).			
27.	Testing & balancing (TAB) complete. (& post TAB adjustments performed)			

Maximo ID No.

MECHANICAL
EQUIPMENT COMMISSIONING CHECKOUT SHEET VERIFICATION

PROJECT NAME:

FAN COIL

Unit Tag No.: _____ Motor Make: _____ Motor HP: _____
Location: _____ Motor Amp. Rating: _____
Manufacturer: _____ Motor Volts/Phase/Freq.: _____
Model: _____ Motor RPM: _____ ☐ Direct Drive ☐ Belt Drive
Service: _____ Moto Frame: _____

Prestart Checks		**Date**	✓ or NA	Remarks
1.	Make, model, capacity & accessories/options as per shop drawings.			
2.	Unit O&M manual data available.			
3.	Unit installation complete (as per manufacturers installation instructions.)			
4.	Unit complete & no mfg. defects observed.			
5.	Unit / Area clean, no debris or damage observed.			
6.	Setscrews & fasteners tightened.			
7.	Unit has been properly lubricated.			
8.	Filters in place & clean (*hand over filters available*)			
9.	Unit / Fans rotates freely.			
10.	Piping & fittings installed & complete.			
11.	Ductwork complete.			
12.	Vibration isolation / seismic restraints installed and functional.			
13.	Controls & wiring complete & correct.			
14.	Manual valves positioned (*open or closed*) correctly.			
15.	Electrical complete & correct.			
16.	Electrical protection sized and adjusted correctly.			
17.	OK by electrical contractor to start unit.			
18.	Coil fins clean.			
19.	Unit correctly leveled, condensate drain installed & drains properly.			
20.	Access to unit & components accessible.			
Operational Checks		**Date**	✓ or NA	Remarks
21.	Fan(s) rotation direction correct.			
22.	Unit control dampers (& backdraft) stroke freely & completely			
23.	No unusual sounds, temp., or odors observed.			
24.	No visible air by-pass or leakage.			
25.	Fan(s) running amperage draw ≤ motor nameplate FLA rating. (*Please record the actual reading*)			
26.	VFD Start-up report submitted (*if applicable*).			
27.	Testing & balancing (TAB) complete. (& post TAB adjustments performed)			

Maximo ID No.

MECHANICAL
EQUIPMENT COMMISSIONING CHECKOUT SHEET VERIFICATION

PROJECT NAME:

AIR HANDLING UNIT C/W RETURN FAN

Unit Tag No.: _____ Manufacturer: _____
Location: _____ Model No.: _____
Service: _____ Serial Number: _____

SUPPLY FAN

☐ **Direct Drive** ☐ **Belt Driven**
Data From : ☐*unit nameplate* ☐*motor nameplate*
Make: _____ HP.: _____
Amp. Rating: _____ No. of Motors: _____
Volts/Phase/Freq.: _____
RPM: _____
Frame: _____

RETURN FAN

☐ **Direct Drive** ☐ **Belt Driven**
Data From : ☐*unit nameplate* ☐*motor nameplate*
Make: _____ HP.: _____
Amp. Rating: _____ No. of Motors: _____
Volts/Phase/Freq.: _____
RPM: _____
Frame: _____

Prestart Checks		**Date**	/ or NA	Remarks
1.	Make, model, capacity & accessories/options as per shop drawings.			
2.	Unit O&M manual data available.			
3.	Unit installation complete (as per manufacturers installation instructions.)			
4.	Unit complete & no mfg. defects observed.			
5.	Unit / Area clean, no debris or damage observed.			
6.	Setscrews & fasteners tightened.			
7.	Unit has been properly lubricated.			
8.	Filters in place & clean (*hand over filters available*)			
9.	Unit / Fans rotates freely.			
10.	Piping & fittings installed & complete.			
11.	Ductwork complete.			
12.	Vibration isolation / seismic restraints installed and functional.			
13.	Controls & wiring complete & correct.			
14.	Manual valves positioned (*open or closed*) correctly. (*for supply*)			
15.	Electrical complete & correct.			
16.	Electrical protection sized and adjusted correctly.			
17.	OK by electrical contractor to start unit.			
18.	Coil fins clean (*for supply*)			
19.	Unit correctly leveled, condensate drain installed & drains properly.			
20.	Access to unit & components accessible.			
21.	Make, model, capacity & accessories/options as per shop drawings.			

Maximo ID No.

MECHANICAL
EQUIPMENT COMMISSIONING CHECKOUT SHEET VERIFICATION

PROJECT NAME:

AIR HANDLING UNIT C/W RETURN FAN

Unit Tag No.: _____ Manufacturer: _____
Location: _____ Model No.: _____
Service: _____ Serial Number: _____

Operational Checks		Date	✓ or NA	Remarks
	Check Out Items – Operational Checks			
22.	Supply Fan(s) rotation direction correct.			
23.	Return Fan(s) rotation direction correct.			
24.	Unit control dampers (& backdraft) stroke freely & completely			
25.	No unusual sounds, temp., or odors observed.			
26.	No visible air by-pass or leakage.			
27.	Supply Fan(s) running amperage draw ≤ motor nameplate FLA rating.. (*Please record the actual reading*)			
28.	Return Fan(s) running amperage draw ≤ motor nameplate FLA rating. (*Please record the actual reading*)			
29.	Gauges & thermometers installed correctly & functioning.			
30.	VFD Start-up report submitted (*if applicable*).			
31.	Testing & balancing (TAB) complete. (& post TAB adjustments performed)			

Maximo ID No.

MECHANICAL
EQUIPMENT COMMISSIONING CHECKOUT SHEET VERIFICATION

PROJECT NAME:

AIR HANDLING UNIT

Unit Tag No.: _____ Motor Make: _____ Motor HP: _____

Location: _____ Motor Amp. Rating: _____

Manufacturer: _____ Motor Volts/Phase/Freq.: _____

Model: _____ Motor RPM: _____ ☐ Direct Drive ☐ Belt Drive

Service: _____ Moto Frame: _____

Prestart Checks		**Date**	✓ or NA	Remarks
1.	Make, model, capacity & accessories/options as per shop drawings.			
2.	Unit O&M manual data available.			
3.	Unit installation complete (as per manufacturers installation instructions.)			
4.	Unit complete & no mfg. defects observed.			
5.	Unit / Area clean, no debris or damage observed.			
6.	Setscrews & fasteners tightened.			
7.	Unit has been properly lubricated.			
8.	Filters in place & clean (*hand over filters available*)			
9.	Unit / Fans rotates freely.			
10.	Piping & fittings installed & complete.			
11.	Ductwork complete.			
12.	Vibration isolation / seismic restraints installed and functional.			
13.	Controls & wiring complete & correct.			
14.	Manual valves positioned (*open or closed*) correctly.			
15.	Electrical complete & correct.			
16.	Electrical protection sized and adjusted correctly.			
17.	OK by electrical contractor to start unit.			
18.	Coil fins clean.			
19.	Unit correctly leveled, condensate drain installed & drains properly.			
20.	Access to unit & components accessible.			
Operational Checks		**Date**	✓ or NA	Remarks
21.	Fan(s) rotation direction correct.			
22.	Unit control dampers (& backdraft) stroke freely & completely			
23.	No unusual sounds, temp., or odors observed.			
24.	No visible air by-pass or leakage.			
25.	Fan(s) running amperage draw ≤ motor nameplate FLA rating. (*Please record the actual reading*)			
26.	Gauges & thermometers installed correctly & functioning.			
27.	VFD Start-up report submitted (*if applicable*).			
28.	Testing & balancing (TAB) complete. (& post TAB adjustments performed)			

4.0 MECHANICAL COMMISSIONING AGENT FUNCTIONAL VERIFICATION TEST SHEETS FORMAT (CONTROLLED PRESSURE ROOM - OPERATING ROOM, ISOLATION ROOM, PHARMACY ROOM, GENERIC ROOM - CT SCAN / X-RAY / EP LAB. / CATH. LAB /CT – ANGIO PROCEDURE ROOM)

and

AIR CHANGES PER HOUR

Operating Room (Controlled Pressure) and Air Changes per Hour Test Sheet

(for Mechanical Commissioning Agent)

Date: _____ (YY.MM.DD) Controlling Device ID: _____ Room Mode: Positive ☐ Negative ☐

Room No.: _____ Building: _____ Floor: _____

CONTROLLED PRESSURE TEST

System Conditions:

	Supply	Exhaust
Static Press Setpoint:	_____ (avg)	_____ (avg)
Static Press Actual. :	_____ (avg)	_____ (avg)

No. of AHU's Running: _____

Supply VFD Speed (%): _____

No. of Exhaust Fan Running: _____

Exhaust VFD Speed (%) : _____

Room Conditions:

Door Seal good .....: Yes ☐ No ☐

Exhaust grille clean .....: Yes ☐ No ☐

Test Data:

Room No.	Required Mode	Smoke Pencil Result	Supply VAV Tag No.	Supply Air VAV Boxes Volume (L/s)		Exhaust VAV Tag No.	Exhaust Air VAV Boxes Volume (L/s)		Differential Pressure (*As per CSAZ317.2:19*) (Pascal)		Notes
				Set point	Actual		Set point	Actual	Required	Actual	
OR's to Clean Corridor									+5.5 Pa		
OR's to Sterile Corridor									+2.5 Pa		

Remarks: * *= readings were taken when sterile east and west door at closed position.*

Note:

A. *For differential pressure measurement, please indicate the type of Display instrument used for readings.*
Manufacturer: _____ *Model No* _____ *Calibration Date:* _____

B. *Ensure that DDC graphics, Room DP (differential pressure) Display and Instrument used for readings are correlated.*
Correlated: Yes ☐ *No* ☐

Is Room meeting the RT (*Room Temperature*) Setpoint: Yes ☐ No ☐ Setpoint: _____ Actual: _____

Note: As per CSA Temp range is 18 deg. C – 23 deg. C.

Is Room meeting the Humid (Humidity) Setpoint: Yes ☐ No ☐ Setpoint: _____ Actual: _____

Note: As per CSA Relative Humidity (RH) range is 40% - 60%.

Local Audible Alarm operational : Yes ☐ No ☐ N/A ☐

BAS / DDC Graphics Door Command Functional: Yes ☐ No ☐ N/A ☐

BAS / OR Desk / Energy Centre Received the Alarm: Yes ☐ No ☐ N/A

BAS / DDC Graphics Completed: Yes ☐ No ☐ (*Please attached, graphics screen shot of room and system condition at the time of commissioning*).

Operating Room (Controlled Pressure) and Air Changes per Hour Test Sheet

(for Mechanical Commissioning Agent)

Operating Room (Controlled Pressure) and Air Changes per Hour Test Sheet

(for Mechanical Commissioning Agent)

Room Mode: Positive ☐ Negative ☐

Date: _____ (YY.MM.DD) Controlling Device ID: _____

Room No.: _____ Building: _____ Floor: _____

OPERATING ROOM DOOR POSITION:-

1. Yellow (warning) on the HMI Panel (OR Door Open):
   For Clean Corridor Door: Yes ☐ No ☐ N/A ☐ with audible alarm? Yes ☐ No ☐ N/A ☐
   For Sterile Corridor Door: Yes ☐ No ☐ N/A ☐ with audible alarm? Yes ☐ No ☐ N/A ☐

   Comments:

2. Red (Alarm) on the HMI Panel (OR Door Open):
   For Clean Corridor Door: Yes ☐ No ☐ N/A ☐ with audible alarm Yes ☐ No ☐ N/A ☐
   For Sterile Corridor Door: Yes ☐ No ☐ N/A ☐ with audible alarm Yes ☐ No ☐ N/A ☐

   Comments:

3. Is the "Audible Alarm OFF" after 20 minutes since Red alarm mode?
   For Clean Corridor Door: Yes ☐ No ☐ N/A ☐
   For Sterile Corridor Door: Yes ☐ No ☐ N/A ☐

   Comments:

4. Is the "Energy Centre" notified after 10 minutes since the initial Red alarm mode (audible alarm)?
   For Clean Corridor Door: Yes ☐ No ☐ N/A ☐
   For Sterile Corridor Door: Yes ☐ No ☐ N/A ☐

   Comments:

Operating Room (Controlled Pressure) and Air Changes per Hour Test Sheet

(for Mechanical Commissioning Agent)

Room Mode: Positive ☐ Negative ☐

Date: _____ (YY.MM.DD) Controlling Device ID: _____

Room No.: _____ Building: _____ Floor: _____

AIR CHANGES PER HOUR

No.	Room Name	VAV No.	Control ID No.	Supply Air Volume (L/s)		Room Dimension (in.)			Required ACH (min. 20 ACH	Actual ACH	Notes
				Design (CFM)	Actual (CFM)	Area (sq. ft.)	Height (ft.)	Volume (cu. ft.)			

Additional Information:

Operating Room (Controlled Pressure) and Air Changes per Hour Test Sheet

(for Mechanical Commissioning Agent)

Date: _____ (YY.MM.DD) Controlling Device ID: _____ Room Mode: Positive ☐ Negative ☐

Room No.: _____ Building: _____ Floor: _____

ATTACHED HERE THE SCREENSHOTS OF ROOM CONDITION FROM DDC GRAPHICS

A. System Condition (Supply Duct Static Pressure):

B. System Condition (Exhaust Duct Static Pressure):

C. OR # Room Graphics

D. BAS Alarm

E. OR Desk Panel

Isolation Room and Air Changes per Hour Test Sheet

(for Commissioning)

Date: __. __. __. (YY.MM.DD) Controlling Device ID: _____ Room Mode: Positive ☐ Negative ☐

CONTROLLED PRESSURE TEST

System Conditions:

	Supply	Exhaust
Static Press Setpoint:	_____ (avg)	_____ (avg)
Static Press Actual. :	_____ (avg)	(avg)

No. of AHU's Running: _____

Supply VFD Speed (%): _____

No. of Exhaust Fan Running: _____

Exhaust VFD Speed (%) : _____

Room Conditions:

Door Seal good .....: Yes ☐ No ☐

Return grille clean .....: Yes ☐ No ☐

Room Type:

Type I - ☐ Type II - ☐ Type III - ☐

Test Data:

Room No.	Required Mode	Smoke Pencil Result	Supply VAV Tag No.	Supply Air VAV Boxes Volume (L/s)		Exhaust VAV Tag No.	Exhaust Air VAV Boxes Volume (L/s)		Differential Pressure (*As per CSAZ317.2:19*) (Pascal)		Notes
				Set point	Actual		Set point	Actual	Required	Actual	
Corridor to Anteroom											
Anteroom to Isolation Rm.											
Corridor to Isolation Rm.											

Note:

A. *For differential pressure measurement, please indicate the type of instrument used for readings.*
Manufacturer: _____ *Model No.:* _____ *Calibration Date:* _____

B. *Ensure that DDC graphics, Room DP (differential pressure) Display and Instrument used for readings are correlated.*
Correlated: Yes ☐ *No* ☐

Is Room meeting the RT (*Room Temperature*) Setpoint: Yes ☐ No ☐ Setpoint: ____ Actual: _____

Note: As per CSA Temp range.

Is Room meeting the Humid (Humidity) Setpoint: Yes ☐ No ☐ Setpoint: ____ Actual: _____

Note: As per CSA Relative Humidity (RH) range.

Local Audible Alarm operational : Yes ☐ No ☐ N/A ☐

BAS / DDC Graphics Door Command Functional: Yes ☐ No ☐ N/A ☐

BAS / DDC Graphics Completed : Yes ☐ No ☐ (*Please attached, graphics screen shot of room and system*

condition at the time of commissioning).

Isolation Room and Air Changes per Hour Test Sheet

(for Commissioning)

Vancouver CoastalHealth | one VCH

Isolation Room and Air Changes per Hour Test Sheet

(for Commissioning)

Date: __. __. __. (YY.MM.DD) Controlling Device ID: _____ Room Type: Positive ☐ Negative ☐

AIR CHANGES PER HOUR

No.	Room Name	VAV No.	Control ID No.	Supply Air Volume (L/s)		Room Dimension (in.)			Required ACH (as per ISO 7) 30 – 60 ACH	Actual ACH	Notes
				Design (CFM)	Actual (CFM)	Area (sq. ft.)	Height (ft.)	Volume (cu. ft.)			

Additional Information:

Isolation Room and Air Changes per Hour Test Sheet

(for Commissioning)

Date: __. __. __. (YY.MM.DD) Controlling Device ID: _____ Room Type: Positive ☐ Negative ☐

ATTACHED HERE THE SCREENSHOTS OF ROOM CONDITION FROM DDC GRAPHICS

Pharmacy Controlled Pressure Room and Air Changes per Hour Test Sheet

(for Commissioning)

Date: __. __. __. (YY.MM.DD) Controlling Device ID: _____ Room Mode: Positive ☐ Negative ☐

CONTROLLED PRESSURE TEST

System Conditions:

	Supply	Exhaust
Static Press Setpoint:	_____ (avg)	_____ (avg)
Static Press Actual. :	_____ (avg)	(avg)

No. of AHU's Running: _____

Supply VFD Speed (%): _____

No. of Exhaust Fan Running: _____

Exhaust VFD Speed (%) : _____

Room Conditions:

Door Seal good .....: Yes ☐ No ☐

Return grille clean .....: Yes ☐ No ☐

Room Type:

Type I - ☐ Type II - ☐ Type III - ☐

Test Data:

Room No.	Required Mode	Smoke Pencil Result	Supply VAV Tag No.	Supply Air VAV Boxes Volume (CFM)		Exhaust VAV Tag No.	Exhaust Air VAV Boxes Volume (CFM)		Differential Pressure (*As per CSAZ317.2:19*) (Pascal)		Notes
				Set point	Actual		Set point	Actual	Required	Actual	

Note:

A. *For differential pressure measurement, please indicate the type of instrument used for readings.*
Manufacturer: _____ *Model No.:* _____ *Calibration Date:* _____

B. *Ensure that DDC graphics, Room DP (differential pressure) Display and Instrument used for readings are correlated.*
Correlated: Yes ☐ *No* ☐

Is Room meeting the RT (*Room Temperature*) Setpoint: Yes ☐ No ☐ Setpoint: ____ Actual: _____

Note: As per CSA Temp range.

Is Room meeting the Humid (Humidity) Setpoint: Yes ☐ No ☐ Setpoint: ____ Actual: _____

Note: As per CSA Relative Humidity (RH) range.

Local Audible Alarm operational : Yes ☐ No ☐ N/A ☐

BAS / DDC Graphics Door Command Functional: Yes ☐ No ☐ N/A ☐

BAS / DDC Graphics Completed : Yes ☐ No ☐ (*Please attached, graphics screen shot of room and system condition at the time of commissioning*).

Vancouver CoastalHealth | one VCH

Pharmacy Controlled Pressure Room and Air Changes per Hour Test Sheet

(for Commissioning)

Date: __. __. __. (YY.MM.DD) Controlling Device ID: _____ Room Type: Positive ☐ Negative ☐

AIR CHANGES PER HOUR

No.	Room Name	VAV No.	Control ID No.	Supply Air Volume (L/s)		Room Dimension (in.)			Required ACH (as per ISO 7) 30 – 60 ACH	Actual ACH	Notes
				Design (CFM)	Actual (CFM)	Area (sq. ft.)	Height (ft.)	Volume (cu. ft.)			

Note: Ensure to include the ISO 7 certification report by the certified agency for clean room testing.

Additional Information:

Pharmacy Controlled Pressure Room and Air Changes per Hour Test Sheet

(for Commissioning)

Date: __. __. __. (YY.MM.DD) Controlling Device ID: _____ Room Type: Positive ☐ Negative ☐

ATTACHED HERE THE SCREENSHOTS OF ROOM CONDITION FROM DDC GRAPHICS

Generic Controlled Pressure and Air Changes per Hour Test Sheet

(for Commissioning)

Date: __. __. __. (YY.MM.DD) Controlling Device ID: _____ Room Mode: Positive ☐ Negative ☐

CONTROLLED PRESSURE TEST

System Conditions:

	Supply	Exhaust
Static Press Setpoint:	_____ (avg)	_____ (avg)
Static Press Actual. :	_____ (avg)	_____ (avg)

No. of AHU's Running: _____

Supply VFD Speed (%): _____

No. of Exhaust Fan Running: _____

Exhaust VFD Speed (%) : _____

Room Serves:

CT Scan : ☐ CT / Angio : ☐

X-Ray : ☐ Procedure Rm.: ☐ Cath Lab. : ☐ EP Lab. : ☐

Room Conditions:

Door Seal good .....: Yes ☐ No ☐

Return grille clean .....: Yes ☐ No ☐

Room Type:

Type I - ☐ Type II - ☐ Type III - ☐

Test Data:

Room No.	Required Mode	Smoke Pencil Result	Supply VAV Tag No.	Supply Air VAV Boxes Volume (L/s)		Exhaust VAV Tag No.	Exhaust Air VAV Boxes Volume (L/s)		Differential Pressure (*As per CSAZ317.2:19*) (Pascal)		Notes
				Set point	Actual		Set point	Actual	Required	Actual	

Note:

A. *For differential pressure measurement, please indicate the type of instrument used for readings.*
Manufacturer: _____ *Model No.:* _____ *Calibration Date:* _____

B. *Ensure that DDC graphics, Room DP (differential pressure) Display and Instrument used for readings are correlated.*
Correlated: Yes ☐ *No* ☐

Is Room meeting the RT (*Room Temperature*) Setpoint: Yes ☐ No ☐ Setpoint: ____ Actual: _____

Note: As per CSA Temp range.

Is Room meeting the Humid (Humidity) Setpoint: Yes ☐ No ☐ Setpoint: ____ Actual: _____

Note: As per CSA Relative Humidity (RH) range.

Local Audible Alarm operational : Yes ☐ No ☐ N/A ☐

BAS / DDC Graphics Door Command Functional: Yes ☐ No ☐ N/A ☐

BAS / DDC Graphics Completed ____ Yes ☐ No ☐ (*Please attached, graphics screen shot of room and system showing at the time of commissioning*).

Generic Controlled Pressure and Air Changes per Hour Test Sheet (for Commissioning)

Vancouver CoastalHealth | one VCH

Generic Controlled Pressure and Air Changes per Hour Test Sheet

(for Commissioning)

Date: __. __. __. (YY.MM.DD) Controlling Device ID: _____ Room Type: Positive ☐ Negative ☐

AIR CHANGES PER HOUR

No.	Room Name	VAV No.	Control ID No.	Supply Air Volume (L/s)		Room Dimension (in.)			Required ACH (as per ISO 7) 30 – 60 ACH	Actual ACH	Notes
				Design (CFM)	Actual (CFM)	Area (sq. ft.)	Height (ft.)	Volume (cu. ft.)			

Additional Information:

Generic Controlled Pressure and Air Changes per Hour Test Sheet

(for Commissioning)

Date: __. __. __. (YY.MM.DD) Controlling Device ID: _____ Room Type: Positive ☐ Negative ☐

ATTACHED HERE THE SCREENSHOTS OF ROOM CONDITION FROM DDC GRAPHICS

5.0 MECHANICAL COMMISIONING AGENT FUNCTIONAL VERIFICATION
TEST SHEETS FORMAT
for
VAV's, Radiant Panels, Unit Heaters and Baseboard Functional Verification Sheet (Summary)

Vancouver Coastal Health | one VCH

PROJECT ID : _____ PROJECT ID : _____

PROJECT NAME: _____ Updated as of : _____

VAV'S, RADIANT PANELS, UNIT HEATERS AND BASEBOARD FUNCTIONAL VERIFICATION SHEET

(by the Mechanical Commissioing Agent)

No.	Tag Number	Level	Location	Serves	Contorl ID#	Installation Complete	Piping Complete & Correct (with coil only)	Controls Complete	Reheat / Radiant Control Valve Functioning	SAT Sensor Functioning	T-Stat / Zone Temperature Sensor Functioning	Control ID# Label Installed	Verification Completed as per S.O.O. (yy.mm.dd)	Remarks
Supply Variable Air Valve with Reheat Coil														
1														
2														
3														
4														
Supply Variable Air Valve without Reheat Coil														
1														
2														
3														
4														
Return Variable Air Valve														
1														
2														
3														
4														
Exhaust Variable Air Valve														
1														
2														
3														
4														
Radiant Panels														
1														
2														
3														
4														
Unit Heater / Baseboard Heater														
1														
2														
3														
4														

Note : S.O.O. = Sequence of Operation

6.0 DEMONSTRATION TO THE OWNER
(FMO – HVAC Document Requirements)

DEMONSTRATION to the OWNER
(by the Mechanical Agent)

FMO – HVAC Documents Requirements:

Please ensure that below documents are provided five (5) days before the scheduled date of "DEMO to the OWNER".

- Equipment Checklist and Checkout Sheets "Project Progress Tracker"
  (*by the Mechanical Commissioning Agent Agent*)

  A.1 Mechanical Equipment Checkout Sheets (*Individual Equipment*)
  A.2 Summary of Equipment Commissioning Checklist
  A.3 Summary of Variable Air Valve Commissioning Checklist
- FINAL / PRELIM Balancing Report (*by the Balancing Contractor*)
- FINAL / PRELIM Functional Verification Test Sheet (*by the Mechanical Agent / Controls Contractor*).
- Latest Status Report of Mechanical Commissioning Agent (*by the Mechanical Commissioning Agent*)
  Note: Status Report is a summary of deficiency item list during construction.
- Controlled Pressured and Air Changes per Hours Test Sheet (for commissioning)
  Note: Room Verification Test Sheets provided by FMO-HVAC (*if applicable - for Mechanical Commissioning Agent to be filled-out*)
- FINAL / DRAFT DDC Graphics (*by the Controls Contractor*).

After Demonstration to the Owner:

- Mechanical Agent / Controls Contractor to schedule the training of facility and controls system to the FMO – HVAC Staff.
- During warranty review prior the expiration date, ensure that construction deficiency item list related to construction period were resolved.

7.0 MECHANICAL OPERATION & MAINTENANCE MANUAL CHECKLIST

MECHANICAL OPERATION & MAINTENACE MANUAL CHECKLIST

(by the Mechanical Contractor)

TABLE OF CONTENTS

	Yes	No	N/A
1.0 LIST OF MECHANICAL DRAWINGS (As-Built)	☐	☐	☐
2.0 DESCRIPTION OF SYSTEMS – By Design Builder	☐	☐	☐
3.0 OPERATING DIVISION (DDC Control As-Built)	☐	☐	☐
4.0 MAINTENANCE AND LUBRICATION DIVISION, BELT SCHEDULE	☐	☐	☐
5.0 LIST OF EQUIPMENT SUPPLIERS AND SUB CONTRACTORS	☐	☐	☐
6.0 VALVE TAG SCHEDULE, PIPE COLOUR CODE, EQUIPMENT FILTER SCHEDULE	☐	☐	☐
7.0 BALANCING REPORT :			
7.1 PRE-DEMOLITION BALANCING BALANCING REPORT (*If applicable*)	☐	☐	☐
7.2 FINAL BALANCING BALANCING REPORT	☐	☐	☐
8.0 COMMISSIONING REPORT	☐	☐	☐
8.1 INCLUDES "COMMISSIONING PLAN".			
9.0 MISCELLANEOUS GUARANTEES, CERTIFICATES, PERMITS, START-UP	☐	☐	☐
10.0 AND SPECIFIC EQUIPMENT TEST REPORTS	☐	☐	☐
11.0 CHEMICAL WATER TREATMENT	☐	☐	☐
12.0 PIPE WELDING QUALIFICATIONS AND CERTIFICATIONS	☐	☐	☐
13.0 MAXIMO SCHEDULES (by Owner)	☐	☐	☐

MANUFACTURERS' EQUIPMENT DATA

14.0 AIR HANDLING UNITS	☐	☐	☐
15.0 ACTIVE CHILLER BEAMS	☐	☐	☐
16.0 FAN COIL UNITS	☐	☐	☐
17.0 FANS, LINT TRAPS	☐	☐	☐
18.0 GRILLES, REGISTER, DIFFUSERS, LOUVERS, SMOKE, FIRE & BACKDRAFT DAMPERS,	☐	☐	☐
19.0 ACCESS DOORS, SHEET METAL VENTING	☐	☐	☐
20. 0 HEAT RECOVERY CHILLERS	☐	☐	☐
21.0 HYDRONIC SYSTEMS	☐	☐	☐
22.0 HUMIDIFIERS	☐	☐	☐
23.0 HEAT EXCHANGERS	☐	☐	☐
24.0 HEATING BOILERS & CONDENSATE NEUTRALIZER	☐	☐	☐
25.0 HYDRONIC PUMPS, SUCTION DIFFUSERS, MULTI-FUNCTIONAL VALVES, PUMP VFD'S	☐	☐	☐
26.0 HYDRONIC SPECIALTIES (Expansion Tanks, Low Loss Headers Buffer Tanks)	☐	☐	☐
27.0 FIRE STOPPING, INSULATION AND HEAT TRACING	☐	☐	☐
28.0 RADIANT PANELS	☐	☐	☐
29.0 REHEAT COILS	☐	☐	☐
30.0 SILENCERS	☐	☐	☐
31.0 STEAM SYSTEM AND EQUIPMENT	☐	☐	☐
32.0 UNIT & FORCE FLOW HEATERS	☐	☐	☐
33.0 VARIABLE AIR VOLUME (VAV) BOXES	☐	☐	☐
34.0 VIBRATION ISOLATION	☐	☐	☐
35.0 VALVES, EARTHQUAKE SHUT-OFF VALVES	☐	☐	☐
36.0 Others _____	☐	☐	☐