TAB REQUIREMENTS BY EQUIPMENT TYPE				
TYPE OF EQUIPMENT	DESCRIPTION	COMPONENT	TAB REQUIREMENTS	
	Split System or Mini-Split	Entering Air Temp	EAT (db and wb)	
		Cooling Mode	LAT (db and wb)	
			Supply Air CFM	
AHU/ACCU		Indoor Unit	Minimum Outside Air CFM	
			RPM	
			External Static Pressure (+/-)	
			Voltage/Phase	
			Amps	
		0	Voltage/Phase	
		Outdoor Unit —	Amps	
		Heating Mode	LAT	
DII WALLETIN	Electric Duct Heater, Electric Wall Unit Heater, Electric Unit Heater		НР	
DH, WUH, UH		Electrical	Voltage/Phase	
			Amps	
Ductwork			Duct Size	
		At each branch and/or fitting	Duct CFM	
			Duct Velocity	
Diffusers		Airflow at each Diffuser with referenced Mechanical drawing(s)		

	MECHANICAL AB	BREVIAT	TONS
AH AO X G C C C C C C C D D D D E E E E E E F F C D M F O B D D C A C A C C C C C C C C C C C C C C	AIR HANDLING UNIT ANALOG INPUT ANALOG OUTPUT AUXILLIARY AMERICAN WIRE GAUGE CONTROL DAMPER COMMON CONDENSING UNIT CONTROL VALVE VALVE COEFFICIENT DIRECT CURRENT DIGITAL INPUT DOWN DIGITAL OUTPUT EXISTING EXHAUST AIR EXHAUST FAN END OF LINE EXISTING TO REMAIN FIRE ALARM CONTROL PANEL FAN COIL UNIT FIRE DAMPER FLOW DISPLAY MODULE FLOW METER FLAT OVAL DUCTWORK FAN POWERED BOX FIRE SMOKE DAMPER GROUND HOT HEATED AIR CURTAIN HAND OFF AUTO HEATING RELAY LINE VOLTAGE LIQUID SENSOR MOTORIZED OR MODULATING DAMPER MINIMUM MODULATING NEUTRAL NORMALLY CLOSED NORMALLY OPEN OUTDOOR AIR OVERLOAD OVERRIDE PHOTOCELL PROGRAMMABLE THERMOSTAT RETURN AIR	RD RES RG RTU RVR SD SEF SMD SR TC TDM TS UH V VA VAC VAV VD WAP WSHP WUH X XMFR WMS	RETURN DIFFUSER RESISTOR RETURN GRILLE ROOFTOP UNIT REVERSING VALVE RELAY SUPPLY DIFFUSER SMOKE EXHAUST FAN SMOKE DETECTOR SUPPLY REGISTER TIME CLOCK TEMPERATURE DISPLAY MODULE TEMPERATURE SENSOR UNIT HEATER VOLT VOLT AMPERE VOLT ALTERNATING CURRENT VARIABLE AIR VOLUME VOLUME DAMPER WIRELESS ACCESS POINT WATER SOURCE HEAT PUMP WALL UNIT HEATER TRANSFORMED TRANSFORMER WIRE MESH SCREEN

TAB REQUIREMENTS BY EQUIPMENT TYPE						
TYPE OF EQUIPMENT	DE	ESCRIPTION	СОМРО	NENT	TAB REQUIREMEN	ITS
			Entering A	ir Temp	EAT (db and wb)	
			Cooling Mode		LAT (db and wb)	
				Supply Air CFM		
AHU/ACCU				Minimum Outside Air C	FM	
	Split System or Mini-Split	Indoor Unit	RPM			
			External Static Pressure	(+/-)		
			Voltage/Phase			
				Amps		
		Outdoor Unit		Voltage/Phase		
				Amps		
	Electric Duct Heater, Electric Wall Unit Heater, Electric Unit Heater	Heating	Mode	LAT		
DH, WUH, UH				HP		
		Electrical	Voltage/Phase			
				Amps		
Ductwork					Duct Size	
		At each branch and/or fitting	Duct CFM			
				Duct Velocity		
·			Airflow at each Diffus	er with referen	ced	

	DRAWING SCHEDULE			
NUMBER	TITLE			
M0-1	MECHANICAL NOTES AND LEGENDS			
MD1-0	MECHANICAL DEMOLITION PLANS			
M1-0	MECHANICAL PLANS			
M1-1	MECHANICAL PIPING PLANS			
M4-0	MECHANICAL SCHEDULES			
M4-1	MECHANICAL SCHEDULES			
M4-2	MECHANICAL LOAD CALCULATIONS			
M5-0	MECHANICAL DETAILS			
M8-0	TCS BASYS WIRING DIAGRAM			
P1-0	PLUMBING FLOOR PLANS			
P5-0	PLUMBING DETAILS AND RISERS			
F1-0	FIRE SPRINKLER PLANS			

NOTE TO CONTRACTOR:

MECHANICAL

3-POSITION SWITCH

2-WAY CONTROL VALVE

3-WAY CONTROL VALVE

BUTTERFLY VALVE

CEILING EXHAUST FAN

CLOSES ON PRESSURE RISE

CLOSES ON TEMPERATURE RISE

COMBINATION FIRE/SMOKE DAMPER

COMBINATION BALANCE/SHUT-OFF

CONCENTRIC DUCT TRANSITION

DUCT MTD. SMOKE DETECTOR

DUCTWORK TRANSITION -

RECTANGULAR TO ROUND

ECCENTRIC DUCT TRANSITION

FLEXIBLE DUCT CONNECTION

ELECTRIC BASEBOARD HEATER (EBBH)

CONTROL RELAY SOLENOID

CONTROL DAMPER

DETAIL SYMBOL

DRAIN VALVE

DUCT MOUNTED

SUPPLY REGISTER

EQUIPMENT SYMBOL

FLEXIBLE DUCT

FIRE DAMPER

GATE VALVE

GLOBE VALVE

INLINE PUMP

INTERNALLY LINED DUCT

FUSE

CHECK VALVE

DRAWINGS

ACCESS PANEL. SEE ARCHITECTURAL

→→• OFF AUTO ←

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SYMBOLS

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REFER TO SPECIFICATION BOOK FOR

MOTORIZED DAMPER

P & T RELIEF VALVE

PILOT LIGHT

RELAY

PRESSURE GAGE

RETURN GRILLE

ROUND DUCT - DOWN

ROUND DUCT - UP

SECTION SYMBOL

THERMOMETER

MOUNT 48" AFF

TRANSFORMER

TURNING VANES

UNIT HEATER (UH)

VOLUME DAMPER

Y-STRAINER

UNION

OPENS ON PRESSURE RISE

OPENS ON TEMPERATURE RISE

P.O.C.: POINT OF CONNECTION

RETURN DUCT ELBOW UP OR DOWN

SIDEWALL MOUNTED SUPPLY REGISTER

SUPPLY DIFFUSER - 4-WAY THROW

SUPPLY DIFFUSER - 2-WAY THROW

SUPPLY DUCT ELBOW UP OR DOWN

TEMP/LTG CONTROL PANEL (TLCP)

TEMP. SENSOR - MOUNT 48" AFF

THERMOSTAT - MOUNT 48" AFF

AIR CURTAIN FAN SPEED CONTROLLER

ADDITIONALLY INFORMATION AND REQUIREMENTS AS IT RELATES TO TESTING AND BALANCING.

MAGNETIC MOTOR STARTER COIL

UMBING DETAILS AND RISERS	
RE SPRINKLER PLANS	

RESPONSIBILITY MATRIX LEGEND

STOREFRONT EXTRUSION O GC FACTORY FINISHED L = LANDLORD COMMENTS **FURNISHED BY** O = OWNER (GAP INC.) GC = GENERAL CONTRACTOR **INSTALLED BY** E = EXISTING

RESPONSIBILITY MATRIX

ITEM	FURNISHED BY	INSTALLED BY	COMMENTS	
AIR HANDLING UNITS AND ASSOCIATED DUCT HEATERS AS SPECIFIED	0	GC	REFER TO AHU/ACCU SELECTION SCHEDULE ON SHEET M4-0 FOR FACTORY AND FIELD INSTALLED ACCESSORIES	
HVAC CONTROLS PARTS	0	GC	SEE M8-0 FOR DETAILS	
AHU DUCT MOUNTED SMOKE DETECTOR	GC	GC		
DAMPER, WIRING, ETC.	GC	GC		

GENERAL CONTRACTOR TO COORDINATE SCHEDULE AND DELIVERY WITH VENDOR. STANDARD SHIPPING PROVIDED BY GAP INC. ANY EXPEDITED SHIPPING COSTS ARE RESPONSIBILITY OF THE

2. FOR NATIONAL ACCOUNT PRICING FOR TRANE AND CARRIER EQUIPMENT PLEASE SEE CONTACT INFO BELOW:

A. THE RESPONSIBILITY MATRIX ONLY DELINEATES ITEMS SUPPLIED AND/OR INSTALLED BY OWNER AND/OR LANDLORD. ANY WORK SHOWN IN THE CONSTRUCTION DOCUMENTS NOT DEFINED AS RESPONSIBILITY OF OWNER OR LANDLORD IS FURNISHED AND INSTALLED BY THE CONTRACTOR. SEE BID CLARIFICATION LETTER FOR ANY VARIATION BY SCOPE OF WORK RESPONSIBILITY.

B.. THE CONTRACTOR IS RESPONSIBLE FOR THE UNLOADING OF ANY OWNER SUPPLIED CONSTRUCTION ITEMS.

C. G.C. IS RESPONSIBLE FOR CHECKING ALL LANDLORD FURNISHED AND/OR INSTALLED ITEMS TO ENSURE THEY MATCH THE PLANS. G.C. SHALL SUBMIT AN RFI PRIOR TO COMMENCING WORK IF ANYTHING DOES NOT MATCH PLANS. IF G.C. DOES NOT NOTIFY GAP PRIOR TO COMMENCING WORK, G.C. WILL BE LIABLE FOR CORRECTING ALL DISCREPANCIES.

FOR INFORMATION REGARDING PRICING, ORDERING AND DELIVERY INFORMATION ON THE TRANE EQUIPMENT PACKAGE CONTACT NICOLE CROFFOOT AT:

(408) 481-3600 OFFICE

È-MÁIL: <u>NICOLE.CROFFOOT@TRANE.COM</u>

È-MÁIL: <u>GLRICH@TRANE.COM</u>

FOR GENERAL ISSUES CONTACT GARY L. RICH GAP'S NATIONAL ACCOUNT EXECUTIVE.

(408) 481-3620 OFFICE OR (415) 317-2822 MOBILE

CONTROLS SEQUENCE AND REQUIREMENTS

1.1 GENERAL

A. SMOKE CONTROL, FIRE AND LIFE SAFETY SEQUENCES SHALL OVERRIDE OTHER AUTOMATIC CONTROL SEQUENCES INCLUDING HARDWIRED SAFETY

1.2 HVAC SYSTEM

A. GENERAL: 1. THE SYSTEM CONSISTS OF THE FOLLOWING EQUIPMENT:

A. AHU-1 AND AHU-2 WITH ELECTRIC DUCT HEATER (AIR HANDLING UNIT) B. ACCU-1 AND ACCU-2 (AIR COOLED CONDENSING UNIT)

C. DH-1 (ELECTRIC DUCT HEATER)

D. DH-2 (ELECTRIC DUCT HEATER)

E. MD-1, MD-2 - (MOTORIZED DAMPERS FOR OUTSIDE AIR/ECONOMIZER OPERATION). MD-3, MD-4, (MOTORIZED DAMPER FOR RETURN AIR/ECONOMIZER

OPERATION).

B. SYSTEM OFF: 1. OUTSIDE AIR DAMPERS CLOSED.

2. SUPPLY FANS OFF.

3. ELECTRIC DUCT HEATERS OFF.

OPTIMIZED START/STOP SCHEDULE.

C. SYSTEM START: 1. OPERATOR ENTERED COMMAND AT THE PROGRAMMABLE THERMOSTAT. 2. AUTOMATICALLY BY THE THERMOSTAT BASED ON PREPROGRAMMED

D. OCCUPIED MODE:

1. OCCUPIED PERIODS (NORMAL OPERATING MODE FOR AHU): OPERATE THE SYSTEM ON A PROGRAMMED OCCUPANCY SCHEDULE BASED ON STORE OPERATING HOURS. THESE PERIODS ARE CONSIDERED "OCCUPIED PERIODS". DURING OCCUPIED PERIODS, RUN THE SYSTEM IN OCCUPIED MODE.

E. UNOCCUPIED MODE:

1. UNOCCUPIED PERIODS: (NORMAL OPERATING MODE FOR AHU) ALL HOURS NOT INCLUDED IN AN OCCUPIED PERIOD ARE PART OF AN "UNOCCUPIED PERIOD". DURING THESE PERIODS, THE SYSTEM IS AVAILABLE FOR HEATING/COOLING AS NEEDED, BUT IS NOT RUNNING UNLESS COMMANDED.

F. SYSTEM SETPOINTS:

1. AHU SHALL HAVE A SETPOINT ADJUSTABLE WITHIN THE FOLLOWING RANGES:

A. OCCUPIED HEATING: 66°F TO 70°F DURING OCCUPIED HOURS. THE DEFAULT IS 68°F. SAME FOR FAN POWERED BOX.

B. OCCUPIED COOLING: 72°F TO 76°F DURING OCCUPIED HOURS. THE DEFAULT IS 74°F. C. MAINTAIN A DEADBAND OF AT LEAST 4°F BETWEEN HEATING AND COOLING SETPOINTS.

D. DURING UNOCCUPIED HOURS, SET THE HEATING SETPOINT DEFAULT TO 60°F (ADJUSTABLE) AND THE COOLING SETPOINT DEFAULT TO 80°F (ADJUSTABLE). MAINTAIN 68°F FOR HEATING AND 74°F FOR COOLING FOR FAN POWERED BOXES.

G. SYSTEM OPERATION:

1. OUTSIDE AIR DAMPERS AT AHU SHALL OPEN.

2. MOTORIZED DAMPERS SHALL OPEN FOR MINIMUM VENTILATION PER CODE TO ACHIEVE A 55°F MIXED AIR TEMPERATURE AT THE INLET OF AHU. WHEN THE MIXED AIR TEMPERATURE AT THE AHU INLET IS BELOW 55°F, OUTSIDE AIR SHALL CLOSE DAMPERS TO ACHIEVE 55°F AT MIXED AIR

TEMPERATURE SENSOR AT AHU INLET.

3. SUPPLY FAN IN AHU SHALL START. 4. COOLING MODE: ACCU COMPRESSOR SHALL CYCLE TO MAINTAIN SPACE

COOLING TEMPERATURE. 5. HEATING MODE: ELECTRIC DUCT HEATER TO MAINTAIN SPACE HEATING TEMPERATURE. DUCT HEATERS SHALL NOT OPERATE DURING AHU COOLING

H. SYSTEM STOP:

1. OPERATOR COMMAND AT THE THERMOSTAT BASED ON A PREPROGRAMMED OPTIMIZED SCHEDULE.

2. WHEN THE SYSTEM IS CALLED TO STOP, THE SYSTEM SHALL REVERT TO THAT "OFF" STATE AS DESCRIBED ABOVE.

I. NIGHT SETBACK/SETUP:

1. UPON SENSING A TEMPERATURE BELOW THE UNOCCUPIED HEATING

A. ENERGIZE THE SUPPLY FAN FOR AHU SERVING THE ZONE

B. ENERGIZE THE ELECTRIC DUCT HEATER 2. UPON SENSING A TEMPERATURE ABOVE THE UNOCCUPIED COOLING

SETPOINT:

A. ENERGIZE THE SUPPLY FAN FOR AHU SERVING THE ZONE. B. SET AHU TO COOLING MODE C. ENERGIZE THE COMPRESSORS

J. AIR ECONOMIZER CONTROL.

1. PROVIDE AIR-SIDE ECONOMIZER WITH DRY BULB CONTROL AND FREEZE-STAT.

2. DURING THE OCCUPIED MODE OF OPERATION, WHEN THE OUTDOOR AIR THE UNIT SHALL MODULATE THE OUTSIDE AIR AND RETURN AIR DAMPERS

TEMPERATURE IS BETWEEN 50°F AND 68°F (BOTH SET POINTS ADJUSTABLE), TO MAINTAIN THE DESIRED MIXED AIR TEMPERATURE AT AIR HANDLING UNIT INLET OF 55°F (ADJUSTABLE).

NEW STORE

| ⊗ ATHLETA|

GAP INC. CORPORATE ARCHITECTURE 1 HARRISON STREET

> SAN FRANCISCO, CA 94105 STORE NO .:

7641 STORE NAME:

PORTLAND STORE LOCATION: 152 MIDDLE STREET

PORTLAND, ME 04101

PROJ. I.D.:

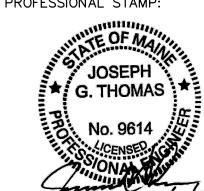
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PROTOTYPE DATE: 09/4/15 PROTOTYPE VERSION 4.1

CONSULTANT INFO:

Engineers, Inc. Tel. 630/595-8800 Fax 630/595-8818 www.WCWengineers.com

PROFESSIONAL STAMP:



ARCHITECT INFO:



HEREBY CERTIFY THAT THESE PLANS HAVE BEEN PREPARED N MY OFFICE AND UNDER MY SUPERVISION AND THAT TO THE EST OF MY KNOWLEDGE. THE SAME COMPLY WITH ALL LAWS ULES, REGULATIONS AND ORDINANCES OF PORTLAND, ME

ISSUE TYPE: 100% CD CHECKSET 5/20/16

PERMIT / BID

LL APPROVAL

RELATING TO STRUCTURES AND BUILDINGS.

DRAWN BY: DG A&E JOB NO.: 16-5433

SHEET TITLE: MECHANICAL NOTES

AND LEGENDS

SHEET NUMBER:

MO-