ABBREVIATIONS

FACE & BYPASS

А	COMPRESSED AIR	FC	FAN COIL UNIT	NI C	NOT IN CONTRACT
AAV	AUTOMATIC AIR VENT	FD	FLOOR DRAIN	NO	NORMALLY OPEN
AD	AREA DRAIN/ACCESS DOOR	FF	FOULING FACTOR	NTS	NOT TO SCALE
AE AF	ADJUSTABLE AIR EXTRACTOR	FF- FF	FLY FAN FINISHED FLOOR	02 0A	OXYGEN OUTSIDE AIR
- AFF	AIR FOIL ABOVE FINISHED FLOOR	FF	FINAL FILTER	OAD	OUTSIDE AIR DAMPER
AV	ACID VENT	FFM	FIRE FLOW METER	OAL	OUTSIDE AIR LOUVER
AVD	AUTOMATIC VOLUME DAMPER	FLEX	FLEXIBLE	ODT	OUTDOOR TEMPERATURE
AW	ACID WASTE	FM	FIRE MAIN	PC	PUMP CONDENSATE
- AC	ABOVE CEILING	FMS	FLOW METER STATION	PD	PRESSURE DROP
AH-	AIR HANDLING UNIT	FOF	FUEL OIL FLOW	PRV	PRESSURE REDUCING VALVE
BBD	BOILER BLOW DOWN	FOR	FUEL OIL RETURN	PWF	PROPELLER WALL FAN
BE	BOTTOM ELEVATION	FOV	FUEL OIL VENT	R	REFRI GERANT
BOL	BOTTOM OF LINE (UNINSULATED)	FOP	FUEL OIL PUMP	RA	RETURN AIR
BOD	BOTTOM OF DUCT	FP	FIRE PUMP	RAD	RETURN AIR DAMPER
BP-	BOOSTER PUMP	FP-	FAN POWERED	RAO	RETURN AIR OPENING
BPD	BYPASS DAMPER	FPM	FEET PER MINUTE	RAS	RELIEF AIR SUPPLY
BTUH	BRITISH THERMAL UNIT PER HOUR	FPS	FEET PER SECOND	RP	RECIRCULATING PUMP
-BF	BELOW FLOOR	FRT	FLOW RATE TRANSMITTER	RHG	REFRIGERANT HOT GAS
BFP	BACK FLOW PREVENTOR	FSD	FIRE/SMOKE DAMPER	RL	REFRIGERANT LIQUID
C	CONDUI T	FT G	FEET	RS	REFRIGERANT SUCTION
СС	COOLING COIL CHILLED WATER RETURN	GA	LOW PRESSURE GAS	RD RV	ROOF DRAIN RELIEF VALVE
CHR CHS	CHILLED WATER SUPPLY	GPM	GAUGE GALLONS PER MINUTE	SR	SHORT RADIUS
CR	CONDENSER WATER RETURN	GT		SAN	SANI TARY SEWER
CS	CONDENSER WATER SUPPLY				
CW	DOMESTIC COLD WATER	Н		SCD	SMOKE DAMPER
CAB	CABINET FAN	HC		SCIM	STANDARD CUBIC INCHES
CF	CENTRIFICAL FAN	HB	HOSE BIBB		PER MINUTE
CFM	CUBIC FEET PER MINUTE	HBT		SD	
CFP	CHEMICAL FEED PUMP	HD	HUB DRAIN	SD	SMOKE DETECTOR
CFT	CHEMICAL FEED TANK	HDT	HORIZONTAL DRAW THROUGH	SDO	STORM DRAIN OVERFLOW
CH	CABINET HEATER	HP	HORSEPOWER/HIGH PRESSURE	SF	SQUARE FEET
CHR	CHI LLER	HPA	HIGH PRESSURE AIR	SG	SPECIALTY GAS
CL	CENTER LINE	HPG	HIGH PRESSURE GAS	SHC	SENSIBLE HEAT CAPACITY
CO	CLEANOUT	HPS	HIGH PRESSURE STEAM	SP	SPRINKLER PIPE
CP	CHILLER PUMP	HPWS	HEAT PUMP WATER SUPPLY	SP	STAND PIPE
CPHB	CHROME PLATED HOSE BIBB	HPWR	HEAT PUMP WATER RETURN	SP	SUMP PUMP
CT	COOLING TOWER	HSC	HORIZONTAL SPLIT CASE	SP	STATIC PRESSURE STATIC PRESSURE SENSOR
CU CV-	COPPER CONVECTOR	HWG HWR	HOT WATER GENERATOR HEATING WATER RETURN	SPS SST	
CV	VALVE COEFFICIENT	HWS	HEATING WATER SUPPLY	551	TEMPERATURE
D	DRAIN	ILC	IN-LINE CENTRIFICAL	STA	
DDC	DIRECT DIGITAL CONTROL	ΙΤ		STR	STRAINER
DHW	DOMESTIC HOT WATER	ΙN		T	TEMPERED WATER
DHR	DOMESTIC HOT WATER	INV	INVERT	TR	TEMPERED WATER RETURN
	RECI RCULATI NG	JB	JUNCTION BOX	TB	THRUST BLOCK
DN	DOWN	L	LENGTH	TE	TOP ELEVATION
DP	DIFFERENTIAL PRESSURE	LR			(UNI NSULATED)
DPT	DIFFERENTIAL PRESSURE		LEAVING AIR TEMPERATURE	TP	CONDENSER WATER
50		LCP	LOCAL CONTROL PANEL	TOO	(TOWER) PUMP
DS	DOWN SPOUT OVER ELOW	LDB	LEAVING DRY BULB		TOP OF STRUCTURE
DSO DX	DOWN SPOUT OVER FLOW DIRECT EXCHANGE	LN LWB	LIQUID NITROGEN LEAVING WET BULB	UC UG	UNDERCUT (DOOR - 3/4") UNDERGROUND
EA	EXHAUST AIR	LWD	LEAVING WATER TEMPERATURE	V	VENT
EAD	EXHAUST AIR DAMPER	LPS	LOW PRESSURE STEAM	V V –	VALVE
EAL	EXHAUST AIR LOUVER	MA	MI XED AIR	V VAC	VACUUM PIPING
EAT	ENTERING AIR TEMPERATURE	MAV	MANUAL AIR VENT	VAV	VARIABLE AIR VOLUME
ECH	ELECTRIC CABINET HEATER	MVD	MANUAL VOLUME DAMPER	VB	VACUUM BREAKER
EDB	ENTERING DRY BULB	MAX	MAXI MUM	VDT	VERTICAL DRAW THROUGH
EWB	ENTERING WET BULB	MBH	ONE THOUSAND BTUH PER HOUR	VFD	VARIABLE FREQUENCY DRIVE
ESP	END SUCTION PUMP	MCC	MOTOR CONTROL CENTER		VERTICAL TURBINE
ESP	EXTERNAL STATIC PRESSURE	MI N	MI NI MUM	VTR	VENT THROUGH ROOF
ELL	ELBOW	MH	MAN HOLE	W	WIDTH
ET	EXPANSION TANK	MP	SUMP (MUD) PUMP	W	WASTE
EQT	EQUIPMENT TRAP SET	MPS	MEDIUM PRESSURE STEAM	WB	WET BULB
EUH	ELECTRIC UNIT HEATER	MPR MTC	MEDIUM PRESSURE RETURN	WG \./Ll	WATER GAUGE
EWT	ENTERING WATER TEMPERATURE	MTS MTR	MEDIUM TEMPERATURE SUPPLY	WH	WATER LINE
EX EXT	EXPANSION TANK LINE EXTERNAL	MTR MUA	MEDIUM TEMPERATURE RETURN MAKE-UP AIR	WL WM	WATER LINE WATER METER
FOB	FLAT ON BOTTOM	MUW	MAKE-UP AIR MAKE-UP WATER	wi^i * C	DEGREES CENTIGRADE
FOT	FLAT ON TOP	MZ	MULTI ZONE	* F	
F&BP	FACE & BYPASS	NC	NORMALLY CLOSED		

NORMALLY CLOSED

SI	NGLE LINE DUCT LEGEND					
5	DUCT (SUPPLY, RETURN & EXHAUST)					
\ \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	DUCT WITH DUCT LINER					
<u> </u>	SUPPLY DUCT UP					
\	SUPPLY DUCT DOWN					
	RETURN OR EXHAUST DUCT UP					
	RETURN OR EXHAUST DUCT DOWN					
S III_ III S	DUCT RISE					
→ III_DN III— →	DUCT DOWN					
5	VOLUME DAMPER (MANUAL UNLESS INDICATED A.V.D.)					
, 	TRANSITION					
P	DUCT TAKE-OFF (SEE SPEC.PERTAINING TO DEFLECTROLS)					
	TRANSITION (FLAT ON TOP)					
← FOB	TRANSITION (FLAT ON BOTTOM)					
T OR B	TRANSITION (TOP OR BOTTOM ONLY)					
P OR ← X	SUPPLY CEILING DIFFUSER					
I	RETURN OR EXHAUST CEILING GRILLE					
→	SIDEWALL SUPPLY					
-1 	SIDEWALL RETURN					
, 	FLEXIBLE CONNECTION (DUCT)					
RAS	RELIEF AIR SUPPLY TO TOILET					
5 J. 12/10 SPLIT	DUCT SPLIT WITH SPLITTER DAMPER					
\	FLEX.DUCT WITH SCREW ON COLLAR, TAKE-OFF					
T	SQUARE ELBOW WITH TURNING VANES					
<u> </u>	RADIUS ELBOW (SEE SPECS. PERTAINING TO TURNING VANE					
AVD	AUTOMATIC VOLUME DAMPER					
SCD#	SMOKE CONTROL DAMPER					
FD/SCD th	COMBINATION FIRE/SMOKE CONTROL DAMPER					
← FD p	FIRE DAMPER					
	FIRE DAMPER (FD)					

	HVAC	LEGEND	
			DOUBLE WALL INSULATED
xxØ OR xx/xx⊖	ROUND OR FLAT OVAL DUCT	xxØK OR xx/xx⊖K	ROUND OR FLAT OVAL DUCT (K)
	DUCT/PLENUM w/LINER	7	FLEX. DUCT CONN.
}	DAMPER - BLADE VIEW	7 8	DAMPER - END VIEW
	FIRE DAMPER		ELBOW WITHOUT TURNING VANES
	ELBOW WITH TURNING VANES		DUCT SPLIT
	ADJUSTABLE AIR EXTRACTOR		INSULATED FLEX.DUCT
))))))	INSULATED FLEX.DUCT		DOOR GRILLE
24/12	DUCT SIZE FIRST DIMENSION IS SIDE SHOWN	#	C.F.M.
T	THERMOSTAT	1/M-4	REFERS TO DETAIL OR Plan on sheet m-1.
\bigcirc G	THERMOSTAT W/GROUND		GATE VALVE THREADED & FLANGED
⊘ I.T.	INTERVAL TIMER	<u>—</u>	BUTTERFLY VALVE THREADED & FLANGED
	BALANCE VALVE THREADED & FLANGED	——₩——	2-WAY MOTORIZED VALVE
	GLOBE VALVE Threaded & Flanged	4	RELIEF VALVE
	CHECK VALVE Threaded & Flanged		CONTROL VALVE PLAN VIEW
M	3-WAY MIXING VALVE	——————————————————————————————————————	FLANGED UNION
	SOLENOID VALVE		BRANCH OUT BOTTOM
_	GATE VALVE WITH 3/4" HOSE END		TEE OUT BOTTOM
——————————————————————————————————————	UNION		ELBOW DOWN
	BRANCH OUT TOP		THERMOMETER
O	TEE OUT TOP		ECCENTRIC REDUCER
	ELBOW UP		PIPE SLEEVE
_	GAUGE TAPPING		MANUAL AIR VENT
<u> </u>	GAUGE WITH TAPPING	———II	BLIND FLANGE
—	CONCENTRIC REDUCER		PIPE SOCKET WELL
X	PIPE ANCHOR	\boxtimes	COMBINATION STARTER
	PIPE CAP		PIPE TEST PLUG
——O AAV	AUTOMATIC AIR VENT		ANNULAR ELEMENT FLOW STATION
	STRAINER	—— CHS ——	CHILLED WATER FLOW
	FLEX. PIPE CONN.	—— CHR ——	CHILLED WATER RETURN
	BACKFLOW PREVENTER	· ·	HOT WATER DOMESTIC
— <u>\</u>	FLOW INDICATOR BALANCER	— cs —	CONDENSER WATER FLOW
— HWS —	HEATING WATER FLOW	— CR —	CONDENSER WATER RETURN
	HEATING WATER RETURN	\boxtimes	STARTER
•	COLD WATER DOMESTIC	SPS ■	STATIC PRESSURE SENSOR
—— G ———	NATURAL GAS	SD ()	SMOKE DETECTOR
D	DRAIN		POINT OF CONNECTION

۲		DESIGN CONDI	TIONS
		SUMMER	WINTER
	OUTSIDE	95°F DB / 78°F WB	20°F DB
	INSIDE	75°F DB / 55% RH	72°F DB

	SPLIT SYSTEM HEAT PUMP SCHEDULE																	
МΔ	\RK	TOTAL	MAX. MOTOR HP	APPROX. TOTAL SP IN. H20 SUPPLY	EXT. SP IN. H20	MAX COIL	TOTAL	COC TOTAL COIL	LING (LEAVING	AIR	MIN.	HOT GAS REHEAT MIN. COIL	ELECTRIC HEATING CAPACITY	UNIT LAT DB	LAYOUT BASIS UNITED	REMARKS
INDOOR	OUTDOOR	. CI W	SUPPLY	HZU SUPPLY	20PPL	FPM	MBH	MBH	DB (°F)	WB (°F)	DB (°F)	WB (°F)	ROWS	MBH	(Kw)	(°F)	COOL AIR	
DOAS-I	ACC-I	1550	3/4		0.75	274	70	126	96.0	78.0	55.4	55.3	6	33.5	30	68	OSAHIO/PBUI5	

VARIA	BLE REFRIC	GERANT FL	OW OUTDO	OR UNIT SCH	HEDULE
MARK	MINIMUM TOTAL COOLING (MBH)	MINIMUM TOTAL HEATING (MBH)	VOLTAGE / PHASE	LAYOUTS BASIS CARRIER MODEL #	REMARKS
VRHR-I	315	284	208/I	MMY-UP336IFT9P-UL	

	DUCTLESS SPLIT SYSTEM SCHEDULE						
INDOOR UNIT MARK	OUTDOOR UNIT MARK	MIN COOLING MBH	MIN EER	CARRIER INDOOR	MODEL # OUTDOOR		
DAC-I	DCU-I	24	13	40MHHC24	38MHRCC24		

	VAR	IABLE F	REFRIC	GERAI	NT F	LOW I	NDOOR	UNIT SCHEDULE	
MARK	TYPE	ASSOCIATED OUTDOOR UNIT	MINIMUM SENSIBLE COOLING (MBH)	MINIMUM TOTAL COOLING (MBH)	MINIMUM TOTAL HEATING (MBH)	VOLTAGE/ PHASE		LAYOUTS BASIS CARRIER MODEL #	REMARKS
VRC-I	CEILING CASETTE	VRHR-I	40.3	29.1	36.6	208/I		MMU-UP048IHP-UL	
VRC-2	CEILING CASETTE	VRHR-I	40.3	29.1	36.6	208/I		MMU-UP048IHP-UL	
VRC-3	CEILING CASETTE	VRHR-I	40.3	29.1	36.6	208/I		MMU-UP048IHP-UL	
VRC-4	CEILING CASETTE	VRHR-I	40.3	29.1	36.6	208/I		MMU-UP048IHP-UL	
VRC-5	CEILING CASETTE	VRHR-I	40.3	29.1	36.6	208/1		MMU-UP048IHP-UL	
VRC-6	CEILING CASETTE	VRHR-I	40.3	29.1	36.6	208/1		MMU-UP048IHP-UL	
VRC-7	CEILING CASETTE	VRHR-I	40.3	29.1	36.6	208/1		MMU-UP048IHP-UL	
VRC-8	CEILING CASETTE	VRHR-I	8.2	7.8	7.1	208/1		MMU-UP09IMHP-UL	
VRC-9	CEILING CASETTE	VRHR-I	8.2	7.8	7.1	208/1		MMU-UP09IMHP-UL	
VRC-IO	CEILING CASETTE	VRHR-I	8.2	7.8	7.1	208/1		MMU-UP09IMHP-UL	
VRC-II	CEILING CASETTE	VRHR-I	8.2	7.8	7.1	208/1		MMU-UP09IMHP-UL	

\bigcirc	GRILLE SCHEDULE							
MARK	TYPE	TITUS	FACE	NECK	FINISH	NECK VOLUME DAMPER	RUNOUT	REMARKS
Α	NBW	1700L	8"×4"	8"×4"	OFFWHITE	NO	8/4	
В	NBW	TMS	14"×8"	14"×8"	OFFWHITE	YES	14/8	
OTES:	OUT SIZE UNLESS	S OTHERWISE N	OTED.			$\sim \omega$		



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TO BE USED FOR THE PROJECT
SPECIFICALLY IDENTIFIED HEREIN AND TO
BE RETURNED UPON REQUEST.

1 ADDENDUM 1 No. REVISIONS/SUBMISSIONS

PROJECT NO. NFC-04-2024

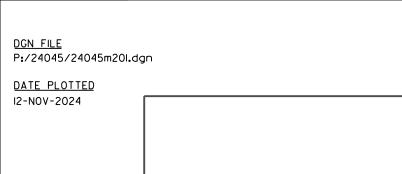
VG 8 HVAC REF BUILDING NORTH

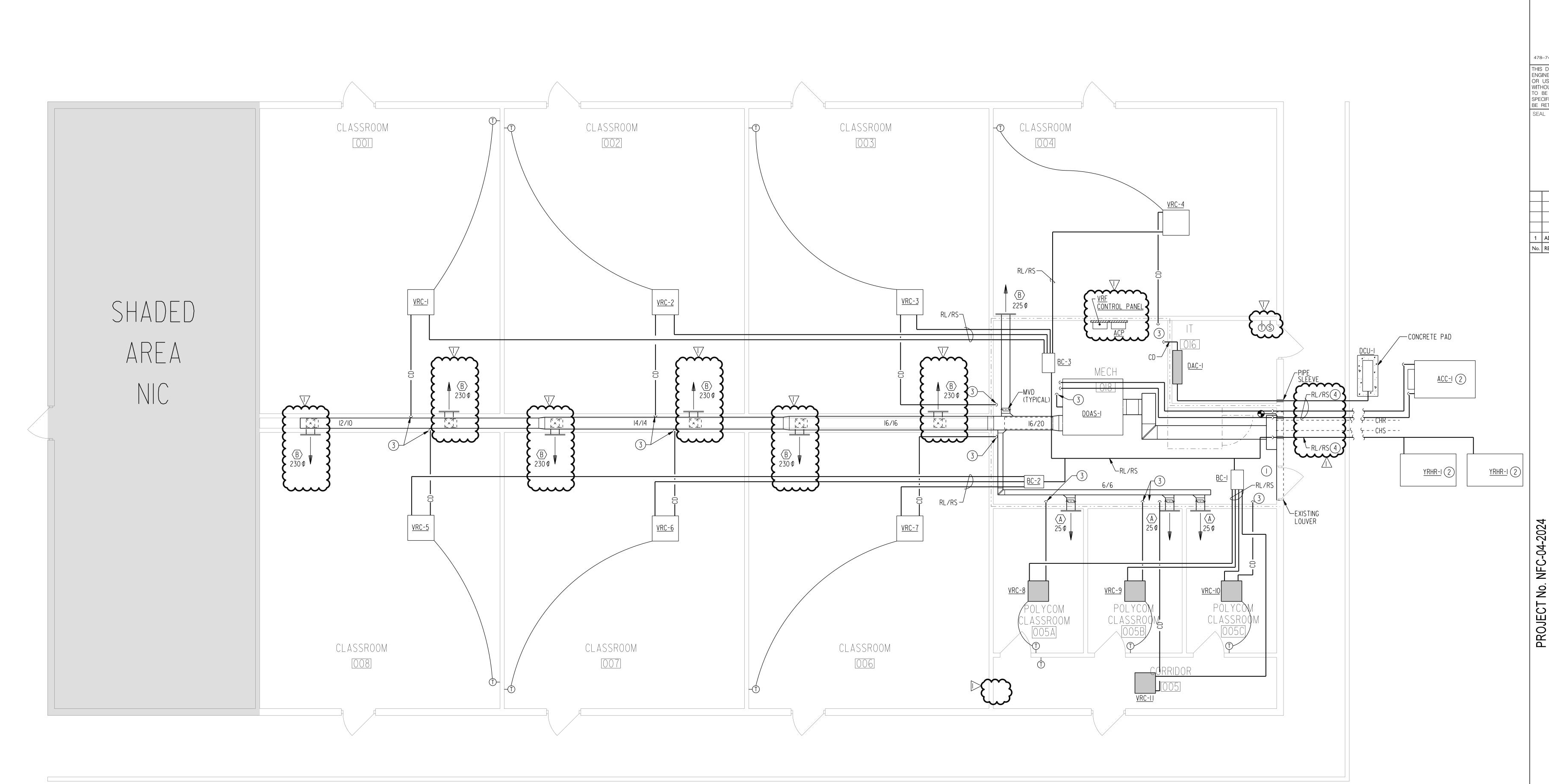
ABBREVIATIONS, LEGENDS &

Y

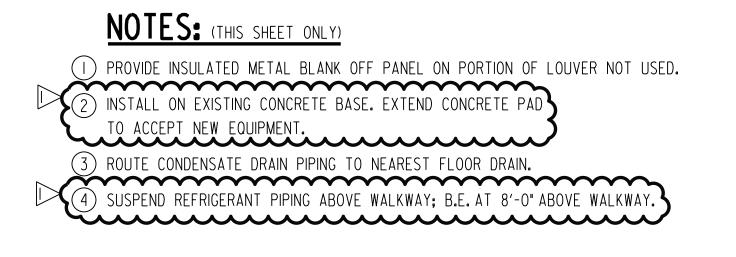
SCHEDULES - HVAC DESIGNED: WSH CHECKED: DRH DATE: 10.25.2024

PROJECT NUMBER:
24045
SCALE:
AS SHOWN
FILE PATH:
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SHEET NUMBER:

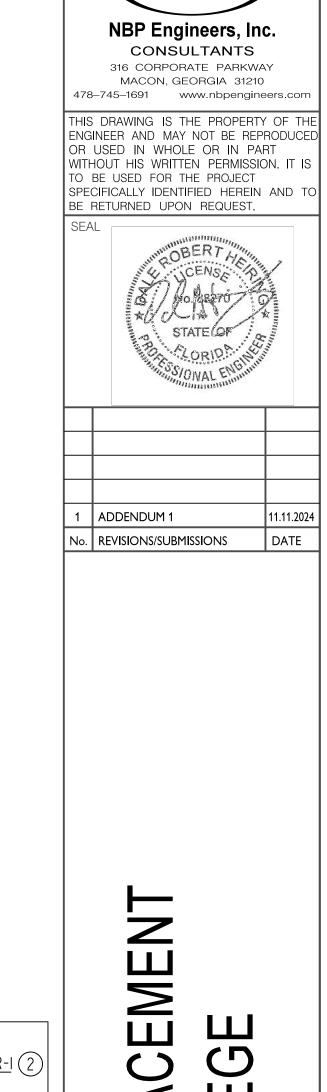








LINE LEGEND					
•	POINT OF CONNECTION				
	EXISTING TO REMAIN				
	NEW WORK				



NFC BUILDING 8 HVAC REPLAC
NORTH FLORIDA COLLEC

SHEET TITLE:
BUILDING 8 FLOOR PLAN NEW WORK - HVAC

DESIGNED:
WSH

DRAWN:
LTF

CHECKED:
DRH

DATE:
10.25.2024

PROJECT NUMBER:
24045

SCALE:
AS SHOWN

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SHEET NUMBER:

M201