ROOFTOP UNIT SCHEDULE

UNIT NO.	SERVES	TYPE	COOLING				SUPPLY FAN SECTION						RETURN/EXHAUST FAN SECTION					EVAPORATOR COIL				GAS HEAT SECTION		CONDENSING SECTION		CONDENSING FAN		ELECTRIC SERVICE			WEIGHT Lbs	BASIS OF DESIGN	REMARKS
			SENS MBH	TOTAL MBH	NOMINAL TONS	EFFICIENCY EER	CFM	MIN. O/A CFM	RPM	ESP IN WG	TSP IN WG	BHP/HP	CFM	ESP IN WG	TSP IN WG	RPM	BHP/HP	NO. OF ROWS	E.A.T. (°F) DB/WB	L.A.T. (°F) DB/WB	REFRIGERANT TYPE	MBH INPUT	MBH OUTPUT	NO. OF COMP.	FLA EA. COMP.	kW	NO. OF MOTORS	FLA (TOTAL)	VOLTAGE	MCA	MROPD			
RTU-1	NORTH WING GUEST ROOMS O/A	ROOFTOP	87.5	130.8	12	11.2	2,614	2,614	2,223	2.0	3.5	2.24 / 4.0	1,690	2.0	-	2,200	1.25 / 2.3	4	82.1 / 67.9	51.5 / 51.5	R-410A	200	160	2	5.4 / 3.9	6.3	2	1.8	460 / 60 / 3	24.8	30	2,610	DAIKIN DPS012A	1 2
RTU-1A	SOUTH WING GUEST ROOMS O/A	ROOFTOP	77.7	121.6	10	17.6	2,668	2,668	2,541	2.0	3.37	2.27 / 5.0	2,080	2.0	3.35	2,097	2.12 / 3.0	6	80.8 / 68.0	52.5 / 52.5	R-410A	150	120	2	6.8 / 7.9	10.6	2	2.1	460 / 60 / 3	33.5	40	3,385	TRANE HORIZON	1 4
RTU-2	BALLROOM	ROOFTOP	315.7	381.9	35	10.1	12,000	2,420	1,860	2.0	3.39	10.7 / 15	9,000	0.5	-	-	- / 1.0	6	79.0 / 65.0	54.9 / 54.4	R-410A	300	240	3	23.9 / 18.6 / 13.1	29.9	3	2.0	460 / 60 / 3	83.5	100	4,381	DAIKIN MPS035F	1 3
RTU-3	PENTHOUSE	ROOFTOP	137.52	176.33	15	10.8	4,800	1,030	1,665	2.0	2.4	2.9 / 4.0	4,800	0.75	-	1,665	1.5 / 4.0	6	81.2 / 66.8	55.9 / 55.8	R-410A	300	240	2	7.9 / 12.8	14.0	2	1.8	460 / 60 / 3	33.7	45	2,711	DAIKIN DPS015A	1 3
RTU-4	BAR, DINING ROOM	ROOFTOP	310.9	390.0	35	13.6	12,000	2,135	791	2.0	2.9	10.9 / 15	12,000	0.75	-	-	- / 1.0	6	78.5 / 65.0	55.1 / 54.1	R-410A	350	280	3	14.1 / 19.2 / 19.2	41.6	3	3.5	460 / 60 / 3	89.4	100	4,981	TRANE YCH420	1 3

ROOFTOP UNIT SCHEDULE NOTES:

1. PROVIDE UNIT WITH SOLID DOUBLE-WALL CONSTRUCTION (R-7 MINIMUM), SUPPLY FAN VFD OR ECM MOTOR,100% MODULATING EXHUAST FAN W/VFD OR ECM MOTOR, COMBINATION 2"/4" FILTER RACK, SPRING ISOLATED FANS, MODULATING HOT GAS RE-HEAT, MODULATING GAS HEAT WITH SS HEAT EXCHANGER, SS DRAIN PAN, VARIABLE SPEED COMPRESSOR, PHASE FAILURE CONTACTS, LOW VOLTAGE RELAYS, INTEGRAL SMOKE DETECTOR, PLENUM CURB (HEIGHT TO SUIT DUCT SISES ON PLAN), BAS INTERFACE, 5 YEAR COMPRESSOR PARTS WARRANTY, FACTORY START-UP AND FIRST YEAR LABOR WARRANTY. PROVIDE THERMOSTAT THAT MATCHES UNIT CAPACITY CONTROL (MODULATING).
2. PROVIDE UNIT WITH ENTHALPY ENERGY RECOVERY WHEEL.
3. PROVIDE UNIT WITH COMIPARATIVE ENTHALPY ECONOMIZER.
4. PROVIDE UNIT WITH ENTHALPY ENERGY RECOVERY WHEEL. DUTY AS LISTED IN ADJACENT SCHEDULE.

ENERGY WHEEL SCHEDULE

RTU1

	AIRFLOW	SUMMER CONDITION DB	WB	PD	WINTER CONDITION DB	WB	PD
VENTILATION SUPPLY	2,614 CFM	82.2°F	67.9°F	0.60"	44.6°F	34.5°F	0.60"
VENTILATION RETURN	1,690 CFM	75.0°F	62.0°F	0.60"	70.0°F	50.0°F	0.60"
OUTSIDE AIR	2,614 CFM	93.0°F	75.0°F	-	10.0°F	7.0°F	-
EXHAUST	1,690 CFM	-°F	-°F	0.60"	-°F	-°F	0.60"

RTU1A

	AIRFLOW	SUMMER CONDITION DB	WB	PD	WINTER CONDITION DB	WB	PD
VENTILATION SUPPLY	2,668 CFM	80.8°F	68.0°F	1.14"	51.2°F	45.7°F	1.14"
VENTILATION RETURN	2,668 CFM	75.0°F	63.0°F	2.0"	70.0°F	58.0°F	2.0"
OUTSIDE AIR	2,861 CFM	95.0°F	78.0°F	-	10.0°F	8.0°F	-
EXHAUST	2,861 CFM	88.2°F	73.2°F	1.15"	30.3°F	29.6°F	1.15"

BUILDING DESIGN CONDITIONS

OUTSIDE DESIGN TEMPERATURE		INDOOR DESIGN TEMPERATURE
WINTER CONDITION	7° DB	70 ° 45% RH
SUMMER CONDITION	93° DB 75° WB	72° 50% RH

MAKE UP AIR UNIT SCHEDULE

UNIT NO.	TYPE	FAN SECTION						GAS HEATING SECTION				FILTERS			ELECTRIC SERVICE						WEIGHT Lbs.	BASIS OF DESIGN GREENHECK	REMARKS 1
		TOTAL CFM	MIN. O.A. CFM	RPM	HP	E.S.P. (IN. WC.)	E.S.P. (IN. WC.)	E.A.T (°F)	L.A.T. (°F)	MBH INPUT/OUTPUT	CFH	TYPE	AREA	FACE VELOCITY	PD	V.	Ø	Hz	MCA	MCP			
MUA-1	INDOOR INDIRECT GAS FIRED	3,423	3,423	1,162	3	1.75	1.75	0°	70°	300/240	350	2" DISPOSABLE	16.66 SQ.FT	205	0.06	208	3	60	15.2	25	1,285	IGK-112-H22	UNITS SHALL BE COMPLETE W/VAV OPERATION, VFD BY E.C., 8:1 FURNACE TURN DOWN RATIO, MERV 8 FILTERS, 1 COMPLETE SPARE SET, 1 SPARE BELT, DOUBLE WALL INSULATED GALVANIZED COATED CONSTRUCTION, CONTROL CENTER, HEAT INLET AIR SEMSOR, DIRTY FILTER SWITCH, LOOSE-SERVICE RECEPTACLE, SMOKE DETECTOR SUPPLIED, INSTALLED BY E.C., TERMINAL STRIP FOR UNIT CONTROLS & NF DISC SWITCH
MUA-2	INDOOR INDIRECT GAS FIRED	2,054	2,054	1,572	2	1.75	1.75	0°	70°	200/160	200		8.33 SQ.FT	246	0.08	208	3	60	10.2	15	951	IGK-109-H12	UNIT COMPLETE W/INSULATED ROOF CURB, ALUM. MESH WEATHER HOOD, DAMPERED AIR INLET, DOUBLE WALL INSULATED CASING W/PERMATECTOR EXTERIOR COATING,SPARE BELT AND FILTERS, CONTROL CENTER, FREEZE PROTECTION, HEAT AIR INLET SENSOR, DIRTY FILTER SWITCH,NO/NC SPARE CONTACTS ON STARTER,TERMINAL STRIP FOR UNIT CONTROLS, LOOSE SERVICE RECEPTACLE, SMOKE DETECTOR SUPPLIED- INSTALLED BY E.C., MOUNTING GPI-24-5/74.5-G12 & NF DISC SWITCH.
MUA-3	ROOF MOUNTED INDIRECT GAS FIRED	2,494	2,494	1,348	2	0.75	0.75	0°	60°	200/160	200		13.33 SQ.FT	187	0.07	208	3	60	10.2	15	916	IGK-109-H12	

1. PROVIDE THERMOSTAT THAT MATCHES UNIT CAPACITY CONTROL (STAGES/TURNDOWN).

AIR SOURCE HEAT PUMP UNIT SCHEDULE

NO.	QTY	LOCATION	SERVICE	TYPE	TOTAL CFM	O.A. CFM	INDOOR FAN DATA			INDOOR DX COIL				ELECTRIC SERVICE				REMARKS	BASIS OF DESIGN
							ESP IN WC	MOTOR HP	RPM	TOTAL COOLING CAPACITY MBH @ 95°F	SENSIBLE COOLING MBH	HTG MBH @ 37°F	KW HEATING INPUT	V.	Ø	V.	MCA	MOCP	
HP - 1	25	SEE PLANS	SEE PLANS	CEILING CONCEALED, DUCTED	300	-	0.6	-	-	5.9	5.7	4.1	0.04	208	1	60	1.05	15	-	MITSUBISH CITY MULTI PEFY-P06NMAU-E3
HP - 2	3	SEE PLANS	SEE PLANS	CEILING CONCEALED, DUCTED	371	-	0.6	-	-	11.8	8.3	8.6	0.07	208	1	60	1.20	15	-	MITSUBISH CITY MULTI PEFY-P12NMAU-E3
HP - 3	8	SEE PLANS	SEE PLANS	CEILING CONCEALED, DUCTED	494	-	0.6	-	-	14.7	11.3	10.7	0.07	208	1	60	1.45	15	-	MITSUBISH CITY MULTI PEFY-P15NMAU-E3
HP - 4	2	SEE PLANS	SEE PLANS	CEILING CONCEALED, DUCTED	600	-	0.6	-	-	17.2	13.4	12.3	0.09	208	1	60	1.56	15	-	MITSUBISH CITY MULTI PEFY-P18NMAU-E3
HP - 5	2	SEE PLANS	SEE PLANS	CEILING CONCEALED, DUCTED	883	-	0.6	-	-	23.1	18.9	17.0	0.15	208	1	60	2.73	15	-	MITSUBISH CITY MULTI PEFY-P24NMAU-E3
HP - 6	3	SEE PLANS	SEE PLANS	CEILING CONCEALED, DUCTED	883	-	0.6	-	-	28.9	23.6	21.2	0.15	208	1	60	2.76	15	-	MITSUBISH CITY MULTI PEFY-P30NMAU-E3
HP - 7	3	SEE PLANS	SEE PLANS	CEILING CONCEALED, DUCTED	1165	-	0.6	-	-	34.6	27.5	25.2	0.22	208	1	60	3.32	15	-	MITSUBISH CITY MULTI PEFY-P36NMAU-E3
HP - 8	3	SEE PLANS	SEE PLANS	CASSETTE	307	-	0.6	-	-	5.9	5.7	4.1	0.04	208	1	60	1.05	15	-	MITSUBISH CITY MULTI PMFY-P06NBMU-E

AIR DEVICE SCHEDULE

DEVICE NO.	FUNCTION	DAMPER	SIZE	CFM RANGE	DESCRIPTION	MANUFACTURER & MODEL NO.	FINISH	NC LEVEL	REMARKS
LSD-1	SUPPLY	YES	SEE PLANS	-	(3) 1" DISCHARGE SLOTS W/ ICE TONG SHAPED PATTERN CONTROLLERS.	PRICE 'SDS-100'	WHITE	-	MOUNT DIFFUSERS WITHIN A FACTORYINTERNALLY INSULATED AND FIELD EXTERNALLY WRAPPED SHEET METAL DISCHARGE PLENUM. SURFACE MOUNTING FRAME AND MITERED EDGE FLANGES
LSD-2	SUPPLY	YES	SEE PLANS	-	(4) 1" DISCHARGE SLOTS W/ ICE TONG SHAPED PATTERN CONTROLLERS.	PRICE 'SDS-100'	WHITE	-	
LSR-1	RETURN	YES	SEE PLANS	-	(3) 1" INLET SLOTS	PRICE 'SDR-100'	WHITE	-	
SG-1	SUPPLY	YES	SEE PLANS	-	SIDEWALL SUPPLY REGISTER	PRICE 'SDGE'	WHITE	-	-
SR-1	SUPPLY	YES	SEE PLANS	-	-	-	-	-	-
RR-1	RETURN	YES	SEE PLANS	-	ALUMINUM LOUVERED FACE REGISTER	PRICE '635'	WHITE	-	REGISTER BLADES PARALLEL TO LONG SIDE OF UNIT. UNIT SHALL INCLUDE AN ALUMINUM OPPOSED BLADE DAMPER, OPERABLE FROM FACE OF UNIT.
ER-1	EXHAUST	YES	SEE PLANS	-	ALUMINUM LOUVERED FACE REGISTER	PRICE '635'	WHITE	-	REGISTER BLADES PARALLEL TO LONG SIDE OF UNIT. UNIT SHALL INCLUDE AN ALUMINUM OPPOSED BLADE DAMPER, OPERABLE FROM FACE OF UNIT.
EG-1	EXHAUST	NO	SEE PLANS		SIDEWALL EXHAUST REGISTER	PRICE 'SDGER'	WHITE	-	-
CD-1	SUPPLY	YES	SEE PLANS	-	12/12 ALUMINUM LOUVERED FACE DIFFUSER	PRICE 'AMMDA'	WHITE		MODULAR ALUMINUM LOUVERED FACE CEILING DIFFUSERS W/SQUARE, ROUND OR RECTANGULAR NECK SIZES AND DISTRIBUTION PATTERNS (CORE STYLE) AS INDICATED
CD-2	SUPPLY	YES	SEE PLANS	-	24/24 ALUMINUM LOUVERED FACE DIFFUSER	PRICE 'AMMDA'	WHITE		
CD-3	SUPPLY	YES	SEE PLANS	-	RECTANGULAR ALUMINUM LOUVERED FACE DIFFUSER	PRICE 'AMMDA'	WHITE		

CONDENSING UNIT SCHEDULE

NO.	SYSTEM	NOMINAL TONS	COOLING MBH	COOLING EFF. IEER	HEATING MBH	HEATING EFF COP	REFRIGERANT		AMBIENT AIR ON UNIT, °F	CONDENSER FAN				COMPRESSOR										BASIS OF DESIGN
							TYPE	SUCTION TEMP. *		NO.	FLA EA.	ELECTRICAL SERVICE			QUAN.	KW EA.	RLA	LRA	ELECTRICAL SERVICE 2					
												V.	Ø	Hz					V.	Ø	Hz	MCA	MOCP	
CU-1	GUEST ROOMS HEAT PUMPS - NORTH	24	144.0 / 144.0	21.9	160.0 / 160.0	3.38	R-410A	-	95	2 / 2	-	-	-	-	1 / 1	-	-	-	208	3	60	52 / 52	80 / 80	MITSUBISH CITY MULTI PURY-P288TSLM0-A 1
CU-2	GUEST ROOMS HEAT PUMPS - SOUTH	26	168.0 / 144.0	19.7	188.0 / 160.0	3.27	R-410A	-	95	2 / 2	-	-	-	-	1 / 1	-	-	-	208	3	60	68 / 52	110 / 80	MITSUBISH CITY MULTI PURY-P312TSLM0-A 1

1. PROVIDE TWINNING KIT.
2. EACH OUTDOOR UNIT IS A PAIR OF MODULES THAT NEED SEPARATE POWER CONNECTIONS.

CABINET ELECTRIC UNIT HEATER SCHEDULE

NO.	SERVICE	TYPE	CAPACITY (kW)	ELECTRICAL SERVICE				
				V.	Ø	Hz		
CUH-1	STAIRS	CABINET	5	460	3	60	1 BERKO CUH5935	
CUH-2	VESTIBULE 101	CABINET	3	277	1	60	1 BERKO CUH935	
CUH-3	ENTRANCE VESTIBLE 118	CABINET	3	277	1	60	1 BERKO CUH935 W/SEMI RECESSED WALL TRIM KIT	
CUH-4	GRADE LEVEL HALL FROM STAIE 2	CABINET	3	277	1	60	1 BERKO CUH935	1

1. PROVIDE WITH UNIT MOUNTED TAMPERPROOF THERMOSTAT, FRONT INLET & TOP OUTLET ARCHITECTURAL GRILLES, POLYESTER POWDER COATING COLOR BY ARCHITECT.

FAN SCHEDULE

NO.	SERVICE	CFM	S.P. (IN. WG.)	HP	RPM	TYPE	CLASS	DRIVE	ELECTRICAL SERVICE			BASIS OF DESIGN GREENHECK	REMARKS
									V.	Ø	Hz		
EF-1	KITCHEN HOOD # 52	4,396	2.25	3	1,163	ROOF UPBLAST	1	BELT	208	3	60	MODEL CUBE-240HP-30	1 2 3
EF-2	KITCHEN HOOD # 90	2,567	2.0	1.5	1,476	ROOF UPBLAST	1	BELT	208	3	60	MODEL CUBE-180HP-20	1 2 3
EF-3	DISHWASHER HOOD	600	1.75	0.5	2,398	ROOF UPBLAST	1	BELT	115	1	60	MODEL CUBE-101H-VG	1
EF-4	TOILET ROOM & MISC. AREA EXHAUST	2,830	2.25	2	1,586	ROOF UPBLAST	1	BELT	208	3	60	MODEL CUBE-180HP-20	1
EF-5	PENTHOUSE KITCHEN HOOD # 122	3,117	1.75	2	1,684	UTILITY SET	1	BELT	208	3	60	MODEL USF-316-BI-G	2 3 4 5 6 7
EF-6	MUA/1 & 2 COMBUSTION AIR EXHAUST	600	1.0	0.5	2,326	UTILITY SET	1	BELT	208	3	60	MODEL CSW-9-BI-21-1/0-1-5	2 3 4 5 6 7
EF-7	PENTHOUSE LEVEL REST ROOMS	360	0.5	1/6	1,550	LOW SILHOUTTE ROOF FAN	1	DIRECT DRIVE	120	1	60	MODEL G-90	1
EF-8	PENTHOUSE ELECTRICAL ROOM	300	0.375	121 WATTS	947	CEILING FAN	-	DIRECT DRIVE	120	1	60	MODEL SP-A410	8 9 10
EF-9	STORAGE 006	300	0.375	121 WATTS	947	CEILING FAN	-	DIRECT DRIVE	120	1	60	MODEL SP-A410	8 9 10
-	-	-	-	-	-	-	-	-	-	-	-	-	-

EXHAUST FAN SCHEDULE NOTES:

1. 12" ROOF CURB
2. DISCONNECT SWITCH & VFD BY EC.
3. HIGH EFFICIENCY MOTOR SUITABLE FOR USE W/VFD
4. PROVIDE EQUIPMENT SUPPORT RAILS & VIBRATION ISOLATION
5. PROVIDE DRAIN OUTLET IN FAN SCROLL AND INSTALL GREASE CONTAINMENT CONTAINER BELOW FAN
6. INSTALL A SS SCREEN ON FAN DISCHARGE.
7. WEATHERPROOF MOTOR HOUSING
8. PROVIDE A 'WC-8 ALUMINUM WALL DISCHARGE CAP
9. PROVIDE REVERSE ACTING THERMOSTAT FOR FAN OPERATION
10. FAN TO HAVE INTEGRAL DISCONNECTION PLUG.

ELECTRIC UNIT HEATER SCHEDULE

NO.	SERVICE	TYPE	CAPACITY (kW)	FAN DATA			ELECTRICAL SERVICE			BASIS OF DESIGN
				CFM	HP	RPM	V.	Ø	Hz	
UH-1	STORAGE	VERTICAL	3.3	400	1/125	1550	480	3	60	1 2 TRANE UHEC

1. PROVIDE WITH UNIT MOUNTED ROOM AND STRATIFICATION THERMOSTATS.
2. UNITS SHALL BE 2-STAGE. PROVIDE WITH 24 V TRANSFORMER AND LOW-VOLTAGE CONTROLS FOR 2-STAGE OPERATION.

RIVERHOUSE AT
Odette's
274 SOUTH RIVER ROAD
NEW HOPE, PA 18938

OWNER/ OPERATOR:
GATEWAY TO NEW HOPE, LLC
274 South River Road
New Hope, PA 18938

ARCHITECT:
STOKES ARCHITECTURE
2103 Sansom Street
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tel: (215) 523-9190

INTERIOR DESIGNER
BALONGUE DESIGN INC
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tel: (610) 525-7593
fax: (610) 525-7594

CIVIL ENGINEER:
VAN CLEEF ENGINEERING ASSOCIATES, LLC
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STRUCTURAL ENGINEER:
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MEP ENGINEER:
WICK FISHER WHITE
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LIGHTING DESIGNER
BRIAN ORTER LIGHTING DESIGN LLC
227 W. 29th St 8th Floor
New York, NY 10001
tel: (646) 502-7568

STOKES. ARCHITECTURE + DESIGN
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SEAL

MARK	REVISIONS	DATE
	ISSUE FOR CONSTRUCTION	02.28.2019
3	COMMISSIONING COMMENTS	01.23.2019
2	PERMIT SET	07.25.2018
1	90% PRICING SET	06.18.2018

ALL DIMENSIONS AND RELATIONSHIPS MUST BE VERIFIED BY CONTRACTOR. THE ARCHITECT IS TO BE NOTIFIED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE CONSTRUCTION. DO NOT SCALE FROM DRAWINGS.

PROJECT #:	1401145.001
FILENAME:	-
DRAWN:	WFW
CHECKED:	WFW
DATE:	07/25/18

ISSUE FOR CONSTRUCTION
02-28-2019

MECHANICAL SCHEDULES

DRAWING

M-7