



5	ISSUED FOR TENDER	09.15.2017
4	RS4 100% SUBMISSION	09.01.2017
3	RS4 99% SUBMISSION	06.30.2017
2	RS4 66% SUBMISSION	05.31.2017
1	RS4 33% SUBMISSION	04.30.2017
0	RS3 SUBMISSION	03.31.2017

project GREEN GABLES-PHASE 2
NEW VISITOR CENTRE
QUEENS CO., PEI

drawing MECHANICAL
HVAC SCHEDULES

designed CJR
date MAR-2017
drawn DTA
date MAR-2017
approved
date
Tender
PWSSC Project Manager
project number R.081199.001
drawing no. M03 OF 5

THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF THE PROVINCE OF PRINCE EDWARD ISLAND
C.J. Ruddick
No. 1459
DATE: 15/03/2017
LICENSED PROFESSIONAL ENGINEER
PROVINCE OF PRINCE EDWARD ISLAND

DES. No.	LOCATION	SERVICE	TYPE	DEPTH (mm)	SIZE (WxH)	COMMENT
L-1	MECHANICAL E101	EXHAUST AIR	STATIONARY	150	900 X 600	ALUMINUM DRAINABLE BLADE. COLOUR BY ARCHITECT.
L-2	SAFE/STORAGE AREA E113	EXHAUST AIR	STATIONARY	150		ALUMINUM DRAINABLE BLADE. COLOUR BY ARCHITECT. SEE ARCHITECTURAL PLANS FOR EXACT SIZE AND ANGLES.
L-3	SAFE/STORAGE AREA E113	OUTDOOR AIR INTAKE	STATIONARY	150		ALUMINUM DRAINABLE BLADE. COLOUR BY ARCHITECT. SEE ARCHITECTURAL PLANS FOR EXACT SIZE AND ANGLES.
L-4	EXHIBIT HALL CLOSET	EXHAUST AIR	STATIONARY	150	600 x 760	ALUMINUM DRAINABLE BLADE. COLOUR BY ARCHITECT.
L-5	CLOSET E122	EXHAUST AIR	STATIONARY	150	400 X 400	ALUMINUM DRAINABLE BLADE. COLOUR BY ARCHITECT.
L-6	MECHANICAL E101	OUTDOOR AIR	STATIONARY	150	900 X 600	ALUMINUM DRAINABLE BLADE. COLOUR BY ARCHITECT.

TAG	AREA SERVED	TYPE	COOLING CAPACITY (KWMBH)	HEATING CAPACITY (KWMBH)	MIN AIRFLOW (L/s)	MAX AIRFLOW (L/s)	EXTERNAL STATIC PRESSURE (PA)	POWER SUPPLY (V/Hz/PH)	OA FLOW FROM HRV DUCTWORK (L/s)
HP-1	GIFT SHOP	DUCTED	7.0/24.0	8.8/30.0	208	300	250	208/60/1	178
HP-2	GIFT SHOP	DUCTED	7.0/24.0	8.8/30.0	208	300	250	208/60/1	178
HP-3	STORAGE	WALL	3.9/12.0	4.0/13.5	-	-	-	208/60/1	45
HP-4	LOBBY	DUCTED	21.1/72.0	23.4/80.0	967	967	250	208/60/3	295
HP-5	LOBBY	DUCTED	21.1/72.0	23.4/80.0	967	967	250	208/60/3	295
HP-6	EXHIBIT HALL	DUCTED	21.1/72.0	23.4/80.0	967	967	250	208/60/3	595
HP-7	EXHIBIT HALL	DUCTED	14.1/48.0	15.8/54.0	442	633	250	208/60/1	264
HP-8	MULTIPURPOSE	DUCTED	3.5/12.0	4.0/13.5	100	142	186	208/60/1	87
HP-9	OFFICES	DUCTED	3.5/12.0	4.0/13.5	100	142	186	208/60/1	37
HP-10	MEETING ROOM	DUCTED	1.8/6.0	2.0/6.7	100	142	186	208/60/1	29
HP-11	STAFF ROOM	DUCTED	3.5/12.0	4.0/13.5	100	142	186	208/60/1	73

TAG	TYPE	AIRFOIL QUANTITY	AIRFOIL MATERIAL	FAN DIA. (mm)	ELECTRIC	REMARKS
CPF-1	CEILING FAN	3	BAMBOO	2100	120/1/60 EC MOTOR WITH DIGITAL INVERTER DRIVE. 38W MAX.	c/w 1524mm EXTENSION TUBE. COLOUR AND FINISH BY ARCHITECT (SUBMIT COLOUR CHART WITH SHOP DRAWINGS). c/w WALL CONTROLLER

UNIT No.	LOCATION	SERVICE	TYPE	AIRFLOW (L/s)	TOTAL S.P. (Pa)	FAN SPEED (RPM)	BACKDRAFT DAMPER	ELECTRIC MOTOR SERVICE (V/Hz/PH)	REMARKS
EF-1	ELECTRICAL ROOM	COOLING	CEILING CABINET	300	125	<1800	N	120/60/1	COMPLETE WITH WHITE PLASTIC GRILLE. DIRECT DRIVE ECM MOTOR WITH 0-10VDC INPUT FROM EMCS. RUBBER ISOLATORS.
EF-2	TELECOM ROOM	COOLING	CEILING CABINET	350	250	<1800	N	120/60/1	COMPLETE WITH FILTER BOX. DIRECT DRIVE ECM MOTOR WITH 0-10VDC INPUT FROM EMCS. RUBBER ISOLATORS.

TAG	LOCATION	TYPE	COOLING CAPACITY (KWMBH)	HEATING CAPACITY (KWMBH)	POWER INPUT COOLING/HEATING (kW)	POWER SUPPLY (V/Hz/PH)	REFRIGERANT TYPE	REMARKS
HP-OU-1	MECHANICAL ROOM	AIR SOURCE WITH SIMULTANEOUS COOLING AND HEATING	49.2/168	55.1/188	13.86/15.26	208/60/3	R410A	COMPLETE WITH TOP DISCHARGE AIR DEFLECTOR AND 450 HIGH ALUMINUM STAND
HP-OU-2	MECHANICAL ROOM	AIR SOURCE WITH SIMULTANEOUS COOLING AND HEATING	56.3/192	63.0/215	16.07/17.84	208/60/3	R410A	COMPLETE WITH TOP DISCHARGE AIR DEFLECTOR AND 450 HIGH ALUMINUM STAND

UNIT NO.	LOCATION	TOTAL EFFICIENCY SUMMER/WINTER (%) (AHRI 1080 CERTIFIED)	SUPPLY AIR CAPACITY (L/s)	EXHAUST AIR CAPACITY (L/s)	EXTERNAL STATIC PRESSURE SUPPLY (Pa)	EXTERNAL STATIC PRESSURE EXHAUST (Pa)	MINIMUM S/A FLOW (L/s)	MINIMUM E/A FLOW (L/s)	SUPPLY FAN MOTOR (HP)	EXHAUST FAN MOTOR (HP)	FILTERS	ELECTRICAL SERVICE (V/Hz/PH)	DIMENSIONS LxWxH (MM)	REMARKS
HRV-1	MECHANICAL ROOM	52/62	540	540	250	250	220	220	1	1	MERV 13	208/60/1	1350x870x1370	C/W ECM DIRECT DRIVE FANS WITH INDIVIDUAL BLOWER SPEED CONTROL BASED ON 0-10 VDC FROM DDC.
HRV-2	SAFE/STORAGE AREA	55/67	676	676	250	250	676	676	1.5	1.5	MERV 13	208/60/1	1200x1060x1320	C/W ECM DIRECT DRIVE FANS WITH INDIVIDUAL BLOWER SPEED CONTROL BASED ON 0-10 VDC FROM DDC.
HRV-3	EXHIBIT HALL	49/60	858	858	250	250	140	140	2	2	MERV 13	208/60/3	1200x1060x1320	C/W FACTORY INSTALLED VFD ON SUPPLY AND EXHAUST; BELT DRIVE FANS. INDIVIDUAL BLOWER SPEED CONTROL BASED ON 0-10 VDC FROM DDC.
HRV-4	STAFF ROOM	56/68	276	276	250	250	276	276	0.5	0.5	MERV 13	208/60/1	1020x600x1300	C/W ECM DIRECT DRIVE FANS WITH INDIVIDUAL BLOWER SPEED CONTROL BASED ON 0-10 VDC FROM DDC.

UNIT NO.	LOCATION SERVED	SYSTEM SERVED	AIR FLOW MIN (L/S)	AIR FLOW MAX (L/S)	HEATING CAPACITY (KW)	DUCT SIZE (MM)	ELECTRICAL SERVICE	REMARKS
DH-HP-1	GIFT SHOP	HP-1	208	300	7.0	1100 X 200	208V/3PH/60HZ	C/W SCR MODULATING CONTROL, AIRFLOW PROVING SWITCH, TO ACCEPT 0-10 VDC SIGNAL FROM DDC
DH-HP-2	GIFT SHOP	HP-2	208	300	7.0	1100 X 200	208V/3PH/60HZ	C/W SCR MODULATING CONTROL, AIRFLOW PROVING SWITCH, TO ACCEPT 0-10 VDC SIGNAL FROM DDC
DH-HP-4	LOBBY	HP-4	967	967	20.0	1100 X 420	208V/3PH/60HZ	C/W SCR MODULATING CONTROL, AIRFLOW PROVING SWITCH, TO ACCEPT 0-10 VDC SIGNAL FROM DDC
DH-HP-5	LOBBY	HP-5	967	967	20.0	1100 X 420	208V/3PH/60HZ	C/W SCR MODULATING CONTROL, AIRFLOW PROVING SWITCH, TO ACCEPT 0-10 VDC SIGNAL FROM DDC
DH-HP-6	EXHIBIT HALL	HP-6	967	967	20.0	1100 X 420	208V/3PH/60HZ	C/W SCR MODULATING CONTROL, AIRFLOW PROVING SWITCH, TO ACCEPT 0-10 VDC SIGNAL FROM DDC
DH-HP-7	EXHIBIT HALL	HP-7	442	633	12.0	1100 X 250	208V/3PH/60HZ	C/W SCR MODULATING CONTROL, AIRFLOW PROVING SWITCH, TO ACCEPT 0-10 VDC SIGNAL FROM DDC
DH-HP-8	MULTIPURPOSE	HP-8	100	142	3.5	660 X 200	208V/3PH/60HZ	C/W SCR MODULATING CONTROL, AIRFLOW PROVING SWITCH, TO ACCEPT 0-10 VDC SIGNAL FROM DDC
DH-HP-9	OFFICES	HP-9	100	142	3.5	660 X 200	208V/3PH/60HZ	C/W SCR MODULATING CONTROL, AIRFLOW PROVING SWITCH, TO ACCEPT 0-10 VDC SIGNAL FROM DDC
DH-HP-10	MEETING ROOM	HP-10	100	142	1.5	660 X 200	208V/3PH/60HZ	C/W SCR MODULATING CONTROL, AIRFLOW PROVING SWITCH, TO ACCEPT 0-10 VDC SIGNAL FROM DDC
DH-HP-11	STAFF ROOM	HP-11	100	142	3.5	660 X 200	208V/3PH/60HZ	C/W SCR MODULATING CONTROL, AIRFLOW PROVING SWITCH, TO ACCEPT 0-10 VDC SIGNAL FROM DDC

DES. No.	LOCATION	SERVICE	BACKDRAFT DAMPER	ROOF CURB HEIGHT (MM)	THROAT SIZE (VxH)	COMMENT
GV-1	CLOSET E122	OUTDOOR AIR INTAKE	N	450	450 X 450	ROUND ALUMINUM GRAVITY VENTILATOR C/W FACTORY ROOF CURB
GV-2	KITCHEN	EXHAUST AIR	N	450	300 X 300	ROUND ALUMINUM GRAVITY VENTILATOR C/W FACTORY ROOF CURB

DESIG	TYPE	SIZE (mm)	CAPACITY (L/s)	NECK SIZE (mm)	REMARKS
S-1	LINEAR SLOT SUPPLY GRILLE FOR CURVED SPIRAL DUCT	1200 LONG	AS SHOWN	-	4 X 25MM WIDE SLOT, WIPER BLADE PATTERN CONTROLLER, c/w BALANCING SCOOP. MOUNTING TO SUIT SPIRAL DUCT, COLOUR: BY ARCHITECT
S-2	LINEAR SLOT SUPPLY GRILLE FOR CONTINUOUS PRESSURIZED PLENUM	1200 LONG	AS SHOWN	-	4 X 25MM WIDE SLOT, WIPER BLADE PATTERN CONTROLLER, c/w BALANCING SCOOP. MOUNTING TO SUIT RECTANGULAR DUCT, COLOUR: BY ARCHITECT
S-3	LINEAR SLOT SUPPLY GRILLE FOR CONTINUOUS PRESSURIZED PLENUM	1200 LONG	AS SHOWN	250	4 X 25MM WIDE SLOT, WIPER BLADE PATTERN CONTROLLER, c/w BALANCING SCOOP. MOUNTING TO SUIT RECTANGULAR DUCT, COLOUR: BY ARCHITECT. CONTRACTOR TO FABRICATE 275 DEEP PLENUM C/W INLET NECK.
S-4	LINEAR SLOT SUPPLY GRILLE FOR CONTINUOUS PRESSURIZED PLENUM	1200 LONG	AS SHOWN	200	3 X 25MM WIDE SLOT, WIPER BLADE PATTERN CONTROLLER, c/w BALANCING SCOOP. MOUNTING TO SUIT RECTANGULAR DUCT, COLOUR: BY ARCHITECT. CONTRACTOR TO FABRICATE 275 DEEP PLENUM C/W INLET NECK.
S-5	LINEAR SLOT SUPPLY GRILLE FOR CONTINUOUS PRESSURIZED PLENUM	1200 LONG	AS SHOWN	200	2 X 25MM WIDE SLOT, WIPER BLADE PATTERN CONTROLLER, c/w BALANCING SCOOP. MOUNTING TO SUIT RECTANGULAR DUCT, COLOUR: BY ARCHITECT. CONTRACTOR TO FABRICATE 275 DEEP PLENUM C/W INLET NECK.
S-6	DOUBLE DEFLECTION	200X200	40-90	-	STEEL 19mm BLADE SPACING. MOUNTING TO SUIT APPLICATION, COLOUR: BY ARCHITECT
S-7	DOUBLE DEFLECTION	300X250	90-180	-	STEEL 19mm BLADE SPACING. MOUNTING TO SUIT APPLICATION, COLOUR: BY ARCHITECT
S-8	DOUBLE DEFLECTION	500X300	181-350	-	STEEL 19mm BLADE SPACING. MOUNTING TO SUIT APPLICATION, COLOUR: BY ARCHITECT
S-9	SQUARE CEILING PLAQUE DIFFUSER	600X600	91-115	150	PAINTED STEEL, MOUNTING TO SUIT T-BAR LAY-IN, COLOUR: WHITE
E-1	LOUVERED RETURN	200X200	AS SHOWN	-	STEEL 19mm BLADE SPACING. MOUNTING TO SUIT APPLICATION, COLOUR: BY ARCHITECT
E-2	LOUVERED RETURN	300X300	AS SHOWN	-	STEEL 19mm BLADE SPACING. MOUNTING TO SUIT APPLICATION, COLOUR: BY ARCHITECT
E-3	LOUVERED RETURN	600X600	AS SHOWN	-	STEEL 19mm BLADE SPACING. MOUNTING TO SUIT APPLICATION, COLOUR: BY ARCHITECT
R-1	PERFORATED	600X600	AS SHOWN	-	PAINTED STEEL, MOUNTING TO SUIT INSTALLATION, COLOUR: WHITE
R-2	LOUVERED RETURN	900X300	AS SHOWN	-	STEEL 19mm BLADE SPACING. MOUNTING TO SUIT APPLICATION, COLOUR: BY ARCHITECT
R-3	LOUVERED RETURN	900X600	AS SHOWN	-	STEEL 19mm BLADE SPACING. MOUNTING TO SUIT APPLICATION, COLOUR: BY ARCHITECT
DG	DOOR GRILLE	400X400	AS SHOWN	-	FINISHED BORDERS BOTH SIDES OF DOOR. COLOUR BY ARCHITECT

