

Schedule 1: Designer Information

Use one form for each individual who reviews and takes responsibility for design activities with respect to the project.

A. Project Information				
Building number, street name			Unit no.	Lot/con.
Municipality HAMILTON	Postal code	Plan number/ other description		
B. Individual who reviews and takes responsibility for design activities				
Name MICHAEL O'ROURKE		Firm HVAC DESIGNS LTD.		
Street address 375 FINLEY AVE		Unit no. 202	Lot/con. N/A	
Municipality AJAX	Postal code L1S 2E2	Province ONTARIO	E-mail info@hvacdsgns.ca	
Telephone number (905) 619-2300	Fax number (905) 619-2375	Cell number ()		
C. Design activities undertaken by individual identified in Section B. [Building Code Table 3.5.2.1 OF Division C]				
☐ House ☐ Small Buildings ☐ Large Buildings ☐ Complex Buildings ☒ HVAC – House ☐ Building Services ☐ Detection, Lighting and Power ☐ Fire Protection ☐ Building Structural ☐ Plumbing – House ☐ Plumbing – All Buildings ☐ On-site Sewage Systems				
Description of designer's work HEAT LOSS / GAIN CALCULATIONS DUCT SIZING RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY RESIDENTIAL SYSTEM DESIGN per CSA-F280-12		Model: ROSEWOOD 3 WOB Project: RUSSEL GARDEN		
D. Declaration of Designer				
I <u>MICHAEL O'ROURKE</u> (print name) declare that (choose one as appropriate):				
☐ I review and take responsibility for the design work on behalf of a firm registered under subsection 3.2.4. of Division C, of the Building Code. I am qualified, and the firm is registered, in the appropriate classes/categories. Individual BCIN: _____ Firm BCIN: _____				
☒ I review and take responsibility for the design and am qualified in the appropriate category as an "other designer" under subsection 3.2.5. of Division C, of the Building Code. Individual BCIN: 19669 Basis for exemption from registration and qualification: O.B.C SENTENCE 3.2.4.1 (4)				
☐ The design work is exempt from the registration and qualification requirements of the Building Code. Basis for exemption from registration and qualification: _____				
I certify that:				
1. The information contained in this schedule is true to the best of my knowledge. 2. I have submitted this application with the knowledge and consent of the firm.				
January 9, 2018				
Date		Signature of Designer		

NOTE:

- For the purposes of this form, "individual" means the "person" referred to in Clause 3.2.4.7(1) d) of Division C, Article 3.2.5.1. of Division C, and all other persons who are exempt from qualification under Subsections 3.2.4. and 3.2.5. of Division C.
- Schedule 1 is not required to be completed by a holder of a license, temporary license, or a certificate of authorization, issued by the Ontario Association of Architects. Schedule 1 is also not required to be completed by a holder of a license to practise, a limited license to practise, or a certificate of authorization, issued by the Association of Professional Engineers of Ontario.

SITE NAME: RUSSEL GARDEN
BUILDING: GREENPARK HOMES
TYPE: ROSEWOOD 3
WOB
DATE: Jan-18
LO# 77366
GFA: 2868
WINTER NATURAL AIR CHANGE RATE 0.365
SUMMER NATURAL AIR CHANGE RATE 0.142
HEAT LOSS AT °F: 71
HEAT GAIN AT °F: 16
CSA-F280-12
SB-12 PACKAGE A1

ROOM USE EXP. WALL CLG. HT.	MBR	ENS	WIC	BED-2	BED-3	BED-4	BATH	ENS-2	HEAT LOSS AT °F	HEAT GAIN AT °F
GRS.WALL AREA GLAZING	468	216	63	108	143	399	198	54		
FACTORS										
LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN		
NORTH	0	0	0	0	0	0	0	0	0	0
EAST	36	16	0	0	0	0	0	0	0	0
SOUTH	198	316	0	16	0	0	0	0	0	0
WEST	198	424	0	0	0	0	0	0	0	0
SKYL.T.	34.6	103.0	0	0	25	494	1060	10	198	424
DOORS	23.6	6.2	0	0	0	0	0	0	0	0
NET EXPOSED WALL	4.1	0.9	432	1791	186	63	261	58	92	381
NET EXPOSED BMT WALL ABOVE GR	3.3	0.7	0	0	0	0	0	0	0	0
EXPOSED CLG	667	796	428	143	170	91	98	117	63	164
NO A TIC EXPOSED CLG	2.6	1.4	0	0	0	0	0	0	0	0
EXPOSED FLOOR	0	0	0	0	0	0	0	0	0	0
BASEMENT/CRAWL HEAT LOSS	0	0	0	0	0	0	0	0	0	0
SLAB ON GRADE HEAT LOSS	0	0	0	0	0	0	0	0	0	0
SUBTOTAL HT LOSS	3298	1316	378	1064	1782	2764	1351	331	108	
SUB TOTAL HT GAIN	0.20	0.29	0.20	0.29	0.20	0.29	0.20	0.20	0.29	0.20
LEVEL FACTOR / MULTIFLIER	947	378	109	305	512	794	388	95	13	
AIR CHANGE HEAT LOSS	0	0	0	137	229	0	174	0	0	
DUCT LOSS	0	0	0	184	274	0	81	0	0	
DUCT GAIN	2	0	0	1	1	240	0	0	0	
HEAT GAIN PEOPLE	480	0	0	882	882	882	0	0	0	
HEAT GAIN APPLIANCES/LIGHTS	882	0	0	0	0	0	0	0	0	
TOTAL HT LOSS BTU/H	4245	1694	487	1506	2523	3557	1913	426	157	
TOTAL HT GAIN x 1.3 BTU/H	5208	1396	177	2628	3925	5285	1159			

ROOM USE EXP. WALL CLG. HT.	LIV	FACTORS	KITCHEN	LAUN	WIR	FOY	WOB	BAS	HEAT LOSS AT °F	HEAT GAIN AT °F
GRS.WALL AREA GLAZING	380	380	770	190	100	210	441	774		
FACTORS										
LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN		
NORTH	0	0	0	0	0	0	0	0	0	0
EAST	0	0	0	0	0	0	0	0	0	0
SOUTH	0	0	0	0	0	0	0	0	0	0
WEST	0	0	0	0	0	0	0	0	0	0
SKYL.T.	19.8	42.4	27	634	1146	6	119	254	0	0
DOORS	23.6	5.2	0	0	0	0	0	0	0	0
NET EXPOSED WALL	4.1	0.9	353	1463	328	40	469	105	20	469
NET EXPOSED BMT WALL ABOVE GR	3.3	0.7	0	0	0	0	0	0	0	0
EXPOSED CLG	1.2	0.6	0	0	0	0	0	0	0	0
NO A TIC EXPOSED CLG	2.6	1.4	10	26	14	0	0	0	0	0
EXPOSED FLOOR	0	0	0	0	0	0	0	0	0	0
BASEMENT/CRAWL HEAT LOSS	0	0	0	0	0	0	0	0	0	0
SLAB ON GRADE HEAT LOSS	0	0	0	0	0	0	0	0	0	0
SUBTOTAL HT LOSS	2023	1486	4697	1346	415	1737	3645	4315	462	
SUB TOTAL HT GAIN	0.30	0.52	0.30	0.52	0.30	0.52	0.30	0.50	1.11	
LEVEL FACTOR / MULTIFLIER	1047	1047	2432	697	215	899	697	8818	215	
AIR CHANGE HEAT LOSS	0	0	0	0	0	0	0	0	0	
DUCT LOSS	0	0	0	0	0	0	0	0	0	
DUCT GAIN	0	0	0	0	0	0	0	0	0	
HEAT GAIN PEOPLE	0	0	0	0	0	0	0	0	0	
HEAT GAIN APPLIANCES/LIGHTS	882	0	882	0	0	0	0	0	0	
TOTAL HT LOSS BTU/H	3070	3317	7130	2043	629	2636	4312	13133	882	
TOTAL HT GAIN x 1.3 BTU/H			6577	763	136	901	1656	2026		

TOTAL HEAT GAIN BTU/H: 35923 TONS: 2.99 LOSS DUE TO VENTILATION LOAD BTU/H: 2650 STRUCTURAL HEAT LOSS: 49303 TOTAL COMBINED HEAT LOSS BTU/H: 51853

SITE NAME: RUSSEL GARDEN
BUILDER: GREENPARK HOMESWOB
TYPE: ROSEWOOD 3

DATE: Jan-18

GFA: 2858 LO# 77366

HEATING CFM 1131 COOLING CFM 1131
TOTAL HEAT LOSS 49,303 TOTAL HEAT GAIN 35,330
AIR FLOW RATE CFM 22.94 AIR FLOW RATE CFM 32.01furnace pressure 0.6
furnace filter 0.05
a/c coil pressure 0.2
available pressure
for s/a & r/a 0.35#GOODMAN
GMEC960603BNA 60
FAN SPEED
LOW
MEDIUM
HIGHAFUE = 96 %
INPUT (BTU/H) = 60,000
OUTPUT (BTU/H) = 57,600
DESIGN CFM = 1131
CFM @ 8" E.S.P.

RUN COUNT	4th	3rd	2nd	1st	Bas
S/A	0	0	11	7	4
R/A	0	0	4	2	1

All S/A diffusers 4"x10" unless noted otherwise on layout.

All S/A runs 5"Ø unless noted otherwise on layout.

RUN #	1	2	3	4	5	6	7	8	9	10	11	13	14	15	16	17	18	19	21	22	23	24
ROOM NAME	MBR	ENS	WIC	BED-2	BED-3	BED-4	BATH	BED-4	BED-3	MBR	ENS-2	LIV	KT/FM	KT/FM	KT/FM	LAUN	W/R	FOY	BAS	BAS	BAS	BAS
RM LOSS MBH	2.12	1.69	0.49	1.51	1.26	1.78	1.91	1.78	1.26	2.12	0.43	3.07	2.38	2.38	2.38	2.04	0.63	2.64	4.36	4.36	4.36	4.36
CFM PER RUN HEAT	49	39	11	35	29	41	44	41	29	49	10	70	55	55	55	47	14	60	100	100	100	100
RM GAIN MBH	2.60	1.40	0.18	2.63	1.96	2.64	1.16	2.64	1.96	2.60	0.16	3.32	2.19	2.19	2.19	0.78	0.14	0.90	0.92	0.92	0.92	0.92
CFM PER RUN COOLING	83	45	6	84	63	85	37	85	63	83	5	106	70	70	70	25	4	29	29	29	29	29
ADJUSTED PRESSURE	0.16	0.17	0.17	0.16	0.17	0.16	0.17	0.16	0.17	0.16	0.17	0.16	0.17	0.17	0.17	0.17	0.17	0.17	0.16	0.16	0.16	0.16
EQUIVALENT LENGTH	53	44	39	41	36	56	51	51	40	34	26	42	35	25	42	43	4	31	52	23	38	16
TOTAL EFFECTIVE LENGTH	203	184	179	231	196	216	231	181	210	154	166	232	185	215	192	223	84	181	192	203	158	176
ADJUSTED PRESSURE	0.08	0.09	0.1	0.07	0.09	0.08	0.07	0.09	0.08	0.11	0.11	0.07	0.09	0.08	0.09	0.08	0.2	0.1	0.08	0.08	0.1	0.09
ROUND DUCT SIZE	6	4	4	6	5	6	5	5	5	5	4	6	5	5	5	4	4	5	6	6	6	6
HEATING VELOCITY (ft/min)	250	447	126	178	213	209	323	301	213	360	115	357	404	404	404	539	161	441	510	510	510	510
COOLING VELOCITY (ft/min)	423	516	69	428	463	433	272	624	463	609	57	540	514	514	514	287	46	213	148	148	148	148
OUTLET GRILL SIZE	4X10	3X10	3X10	4X10	3X10	4X10	3X10	3X10	3X10	3X10	3X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10	4X10	4X10	4X10
TRUNK	A	B	B	E	E	D	E	D	E	C	E	D	A	B	B	B	B	D	A	A	A	D

TEMPERATURE RISE 47 °F

RUN

ROOM NAME

RM LOSS MBH

CFM PER RUN HEAT

RM GAIN MBH

CFM PER RUN COOLING

ADJUSTED PRESSURE

EQUIVALENT LENGTH

ADJUSTED PRESSURE

ROUND DUCT SIZE

HEATING VELOCITY (ft/min)

COOLING VELOCITY (ft/min)

OUTLET GRILL SIZE

TRUNK

SUPPLY AIR TRUNK SIZE

TRUNK	CFM	RECT	ROUND	STATIC PRESS.	DUCT	VELOCITY (ft/min)	RECT	ROUND	STATIC PRESS.	DUCT	VELOCITY (ft/min)	TRUNK	CFM	RECT	ROUND	STATIC PRESS.	DUCT	VELOCITY (ft/min)
TRUNK A	304	0.08	9	0.08	9	8	0	0	0.00	0	0	TRUNK O	0	0	0	0.06	0	8
TRUNK B	307	0.08	9	0.08	9	8	0	0	0.00	0	0	TRUNK P	0	0	0	0.06	0	8
TRUNK C	660	0.08	12	0.08	12	8	0	0	0.00	0	0	TRUNK Q	0	0	0	0.06	0	8
TRUNK D	312	0.07	9.4	0.07	9.4	8	0	0	0.00	0	0	TRUNK R	0	0	0	0.06	0	8
TRUNK E	459	0.07	10.8	0.07	10.8	8	0	0	0.00	0	0	TRUNK S	0	0	0	0.06	0	8
TRUNK F	0	0.00	0	0.00	0	8	0	0	0.00	0	0	TRUNK T	0	0	0	0.06	0	8
												TRUNK U	0	0	0	0.06	0	8
												TRUNK V	0	0	0	0.06	0	8
												TRUNK W	0	0	0	0.06	0	8
												TRUNK X	1131	0	0	0.06	0	8
												TRUNK Y	665	0	0	0.06	0	8
												TRUNK Z	0	0	0	0.06	0	8
												DROP	1131	0	0	0.06	0	10

RETURN AIR

AIR VOLUME

PLENUM PRESSURE

ACTUAL DUCT LGH.

EQUIVALENT LENGTH

TOTAL EFFECTIVE LENGTH

ADJUSTED PRESSURE

ROUND DUCT SIZE

INLET GRILL SIZE

INLET GRILL SIZE

VELOCITY (ft/min)

VELOCITY (ft/min)

VELOCITY (ft/min)

VELOCITY (ft/min)

VELOCITY (ft/min)

VELOCITY (ft/min)

VELOCITY (ft/min)

I REVIEW AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED IN THE APPROPRIATE CATEGORY AS AN "OTHER DESIGNER" UNDER DIVISION C. 3.2.5 OF THE BUILDING CODE.

Michael O'Rourke

INDIVIDUAL BCIN: 19669

MICHAEL O'ROURKE

TYPE: ROSEWOOD 3
SITE NAME: RUSSEL GARDEN

LO # 77366
WOB

RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY

COMBUSTION APPLIANCES		9.32.3.1(1)
a) ☒	Direct vent (sealed combustion) only	
b) ☐	Positive venting induced draft (except fireplaces)	
c) ☐	Natural draft, B-vent or induced draft gas fireplace	
d) ☐	Solid Fuel (including fireplaces)	
e) ☐	No Combustion Appliances	

HEATING SYSTEM	
☒ Forced Air	☐ Non Forced Air
☐ Electric Space Heat	

HOUSE TYPE		9.32.1(2)
☒	I Type a) or b) appliance only, no solid fuel	
☐	II Type I except with solid fuel (including fireplaces)	
☐	III Any Type c) appliance	
☐	IV Type I, or II with electric space heat	
☐	Other: Type I, II or IV no forced air	

SYSTEM DESIGN OPTIONS		O.N.H.W.P.
☐	1 Exhaust only/Forced Air System	
☐	2 HRV with Ducting/Forced Air System	
☒	3 HRV Simplified/connected to forced air system	
☐	4 HRV with Ducting/non forced air system	
☐	Part 6 Design	

TOTAL VENTILATION CAPACITY		9.32.3.3(1)
Basement + Master Bedroom	2 @ 21.2 cfm	42.4 cfm
Other Bedrooms	3 @ 10.6 cfm	31.8 cfm
Kitchen & Bathrooms	5 @ 10.6 cfm	53 cfm
Other Rooms	2 @ 10.6 cfm	21.2 cfm
Table 9.32.3.A.	TOTAL	148.4 cfm

PRINCIPAL VENTILATION CAPACITY REQUIRED		9.32.3.4.(1)
1 Bedroom	31.8	cfm
2 Bedroom	47.7	cfm
3 Bedroom	63.6	cfm
4 Bedroom	79.5	cfm
5 Bedroom	95.4	cfm
TOTAL		79.5 cfm

SUPPLEMENTAL VENTILATION CAPACITY		9.32.3.5.
Total Ventilation Capacity	148.4	cfm
Less Principal Ventil. Capacity	139	cfm
Required Supplemental Capacity	9.4	cfm

PRINCIPAL EXHAUST FAN CAPACITY			
Model: VANEE 60H-V+	Location: BSMT		
139.0 cfm	3.0 sones		
☒ HVI Approved			
PRINCIPAL EXHAUST HEAT LOSS CALCULATION			
CFM	ΔT °F	FACTOR	% LOSS
139.0 CFM	X 71 F	X 1.08	X 0.25

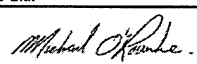
SUPPLEMENTAL FANS		NUTONE
Location	Model	cfm HVI Sones
ENS	QTXEN050C	50 ✓ 0.3
BATH	QTXEN050C	50 ✓ 0.3
ENS-2	QTXEN050C	50 ✓ 0.3
W/R	QTXEN050C	50 ✓ 0.3

HEAT RECOVERY VENTILATOR		9.32.3.11.
Model: VANEE 60H-V+		
139 cfm high	50 cfm low	
75 % Sensible Efficiency	☒ HVI Approved	
@ 32 deg F (0 deg C)		

LOCATION OF INSTALLATION	
Lot:	Concession
Township	Plan:
Address	
Roll #	Building Permit #

BUILDER: GREENPARK HOMES	
Name:	
Address:	
City:	
Telephone #:	Fax #:

INSTALLING CONTRACTOR	
Name:	
Address:	
City:	
Telephone #:	Fax #:

DESIGNER CERTIFICATION	
I hereby certify that this ventilation system has been designed in accordance with the Ontario Building Code.	
Name:	HVAC Designs Ltd.
Signature:	
HRAI #	001820
Date:	January-18

HEAT LOSS AND GAIN SUMMARY SHEET

MODEL: ROSEWOOD 3	WOB	BUILDER: GREENPARK HOMES
SFQT: 2858	LO# 77366	SITE: RUSSEL GARDEN

DESIGN ASSUMPTIONS

HEATING	°F	COOLING	°F
OUTDOOR DESIGN TEMP.	1	OUTDOOR DESIGN TEMP.	88
INDOOR DESIGN TEMP.	72	INDOOR DESIGN TEMP. (MAX 75°F)	72

BUILDING DATA

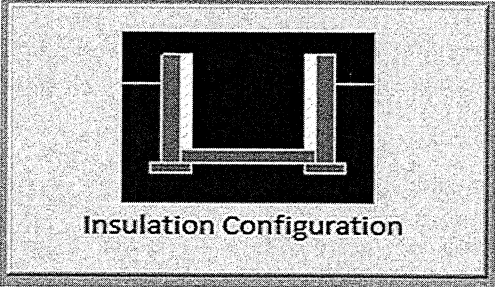
ATTACHMENT:	DETACHED	# OF STORIES (+BASEMENT):	3
FRONT FACES:	EAST	ASSUMED (Y/N):	Y
AIR CHANGES PER HOUR:	3.57	ASSUMED (Y/N):	Y
AIR TIGHTNESS CATEGORY:	AVERAGE	ASSUMED (Y/N):	Y
WIND EXPOSURE:	SHELTERED	ASSUMED (Y/N):	Y
HOUSE VOLUME (ft³):	38282.0	ASSUMED (Y/N):	Y
INTERNAL SHADING:	BLINDS/CURTAINS	ASSUMED OCCUPANTS:	5
INTERIOR LIGHTING LOAD (Btu/h/ft²):	1.50	DC BRUSHLESS MOTOR (Y/N):	Y
FOUNDATION CONFIGURATION	BCIN_1	DEPTH BELOW GRADE:	6.0 ft
LENGTH: 54.0 ft	WIDTH: 35.0 ft	EXPOSED PERIMETER:	129.0 ft
WOB INSULATION CONFIGURATION	SCB_9	WOB EXPOSED PERIMETER	49.0 ft

2012 OBC - COMPLIANCE PACKAGE

Component	Compliance Package A1	
	Nominal	Min. Eff.
Ceiling with Attic Space Minimum RSI (R)-Value	60	59.22
Ceiling Without Attic Space Minimum RSI (R)-Value	31	27.65
Exposed Floor Minimum RSI (R)-Value	31	29.80
Walls Above Grade Minimum RSI (R)-Value	22	17.03
Basement Walls Minimum RSI (R)-Value	20 ci	21.12
Below Grade Slab Entire surface > 600 mm below grade Minimum RSI (R)-Value	-	-
Edge of Below Grade Slab ≤ 600 mm Below Grade Minimum RSI (R)-Value	10	10
Heated Slab or Slab ≤ 600 mm below grade Minimum RSI (R)-Value	10	11.13
Windows and Sliding Glass Doors Maximum U-Value	0.28	-
Skylights Maximum U-Value	0.49	-
Space Heating Equipment Minimum AFUE	0.96	-
HRV Minimum Efficiency	75%	-
Domestic Hot Water Heater Minimum EF	0.8	-

Residential Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

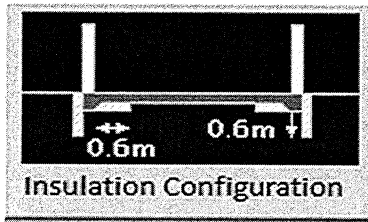
Weather Station Description		
Province:	Ontario	
Region:	Hamilton	
Site Description		
Soil Conductivity:	Normal conductivity: dry sand, loam, clay	
Water Table:	Normal (7-10 m, 23-33 ft)	
Foundation Dimensions		
Floor Length (m):	5.2	 Insulation Configuration
Floor Width (m):	10.7	
Exposed Perimeter (m):	39.3	
Wall Height (m):	2.7	
Depth Below Grade (m):	1.56	
Window Area (m ²):	0.4	
Door Area (m ²):	1.9	
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
Design Months		
Heating Month	1	
Foundation Loads		
Heating Load (Watts):		725

TYPE: ROSEWOOD 3
LO# 77366

WOB

Residential Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description		
Province:	Ontario	
Region:	Hamilton	
Site Description		
Soil Conductivity:	Normal conductivity: dry sand, loam, clay	
Water Table:	Normal (7-10 m, 23-33 ft)	
Foundation Dimensions		
Length (m):	2.1	 Insulation Configuration
Width (m):	10.7	
Exposed Perimeter (m):	14.9	
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
Design Months		
Heating Month	1	
Results		
Heating Load (Watts):		195

TYPE: ROSEWOOD 3
LO# 77366

WOB

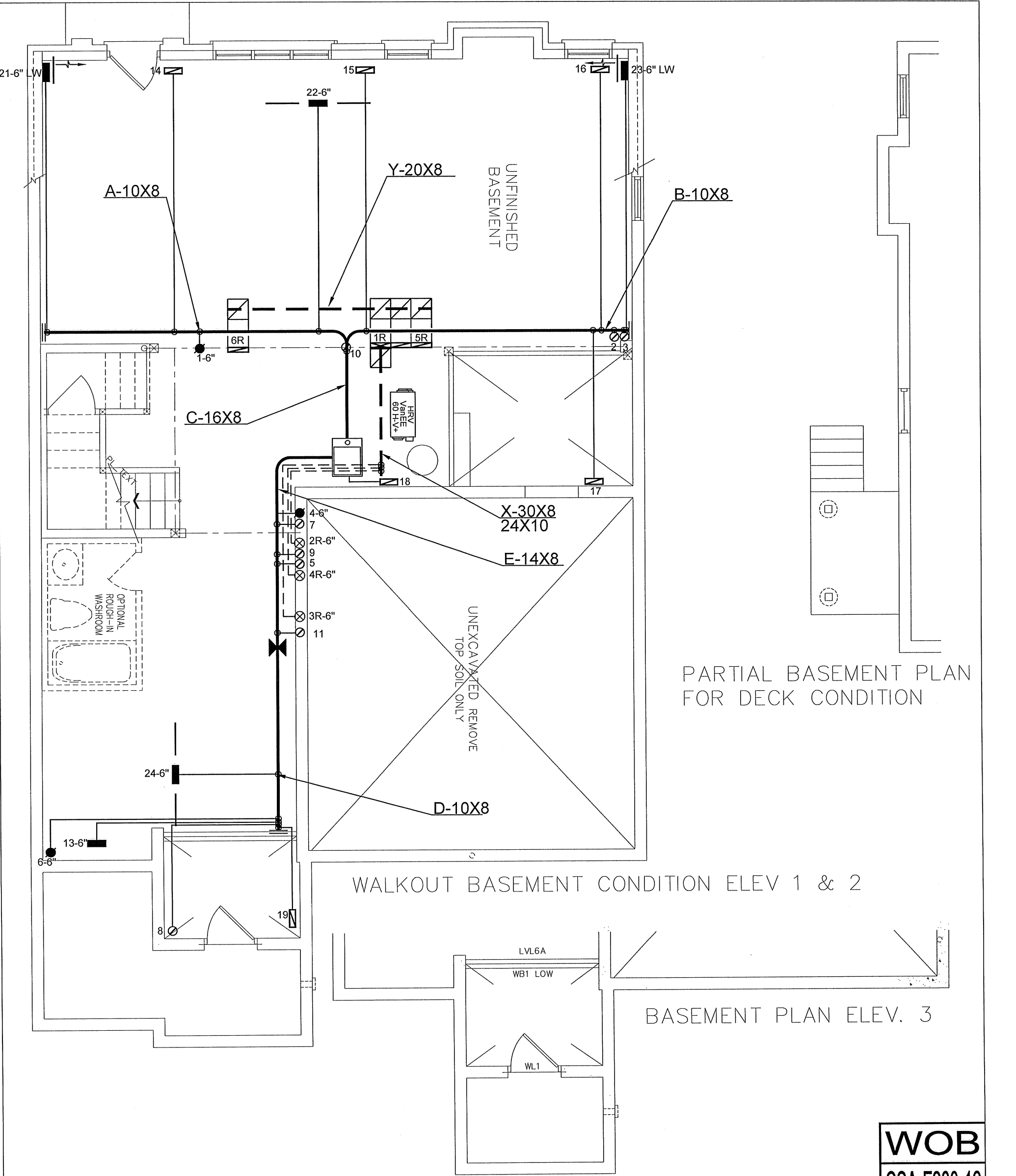
Air Infiltration Residential Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description			
Province:	Ontario		
Region:	Hamilton		
Weather Station Location:	Open flat terrain, grass		
Anemometer height (m):	10		
Local Shielding			
Building Site:	Suburban, forest		
Walls:	Heavy		
Flue:	Heavy		
Highest Ceiling Height (m):	8.53		
Building Configuration			
Type:	Detached		
Number of Stories:	Two		
Foundation:	Full		
House Volume (m ³):	1084.0		
Air Leakage/Ventilation			
Air Tightness Type:	Present (1961-) (3.57 ACH)		
Custom BDT Data:	ELA @ 10 Pa.	1445.0 cm ²	
	3.57	ACH @ 50 Pa	
Mechanical Ventilation (L/s):	Total Supply	Total Exhaust	
	65.6	65.6	
Flue Size			
Flue #:	#1	#2	#3
Diameter (mm):	0	0	0
Natural Infiltration Rates			
Heating Air Leakage Rate (ACH/H):	0.365		
Cooling Air Leakage Rate (ACH/H):	0.142		

TYPE: ROSEWOOD 3
LO# 77366

WOB



I MICHAEL O'ROURKE HAVE REVIEW AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED UNDER DIVISION C, 3.2.5 OF THE BUILDING CODE.

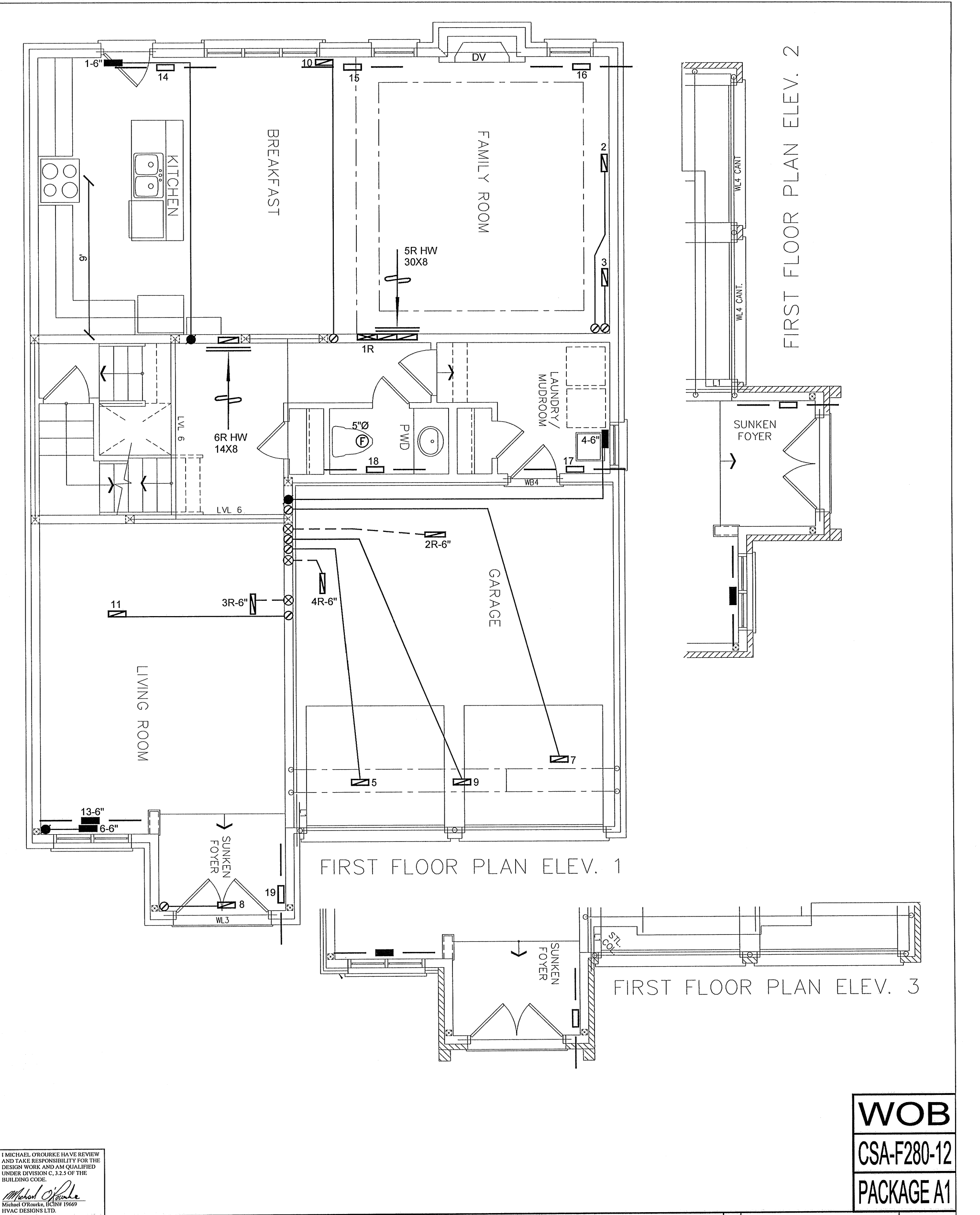
Michael O'Rourke
Michael O'Rourke, BCIN# 19669
HVAC DESIGNS LTD.

WOB
CSA-F280-12
PACKAGE A1

HVAC LEGEND								3.		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.		
	SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.		
	SUPPLY AIR GRILLE 6" BOOT		SUPPLY AIR STACK FROM 2nd FLOOR		30"x8" RETURN AIR GRILLE		RETURN AIR STACK 2nd FLOOR	No.	Description	Date
	SUPPLY AIR BOOT ABOVE		6" SUPPLY AIR STACK 2nd FLOOR		FRA- FLOOR RETURN AIR GRILLE		REDUCER	REVISIONS		

ALL DRAWINGS, CALCULATIONS AND SPECIFICATIONS ARE THE PROPERTY OF HVAC DESIGNS LTD.© AND MAY NOT BE REPRODUCED, MODIFIED OR ALTERED WITHOUT EXPRESSED WRITTEN CONSENT. THE DRAWINGS ARE DATED AND USE OF THESE DRAWINGS AFTER ONE YEAR FROM THE DATED NOTED IS NOT AUTHORIZED. CONTRACTOR SHALL CHECK ALL CONDITIONS BEFORE PROCEEDING WITH WORK. LATEST MUNICIPAL APPROVED DRAWINGS ONLY TO BE USED DURING INSTALLATION OF HEATING SYSTEM. HVAC DESIGNS LTD. IS NOT LIABLE FOR ANY CLAIMS ARISING FROM UNAUTHORIZED USE OF THE DRAWINGS OR FROM ANY CHANGES TO ACCEPTED STANDARDS AND/OR THE ONTARIO BUILDING CODE.

Client GREENPARK HOMES		HVACDESIGNS LTD. 375 Finley Ave. Suite 202 - Ajax, Ontario L1S 2E2 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375 Email: info@hvacdesigns.ca Web: www.hvacdesigns.ca Specializing in Residential Mechanical Design Services Installation to comply with the latest Ontario Building Code. All supply branch outlets shall be equipped with a manual balancing damper. Ductwork which passes through the garage or unheated spaces shall be adequately insulated and be gas-proofed.	HEAT LOSS 51953 BTU/H UNIT DATA		# OF RUNS S/A R/A FANS				Sheet Title BASEMENT HEATING LAYOUT		
Project Name RUSSEL GARDENS HAMILTON, ONTARIO			MAKE GOODMAN		3RD FLOOR						
			MODEL GMEC960603BNA-60		2ND FLOOR		11	4			3
WOB ROSEWOOD 3 2858 sqft			INPUT 60 MBTU/H		1ST FLOOR		7	2	2		
			OUTPUT 57.6 MBTU/H		BASEMENT		4	1	0		
			COOLING 3.0 TONS		ALL S/A DIFFUSERS 4 "x10" UNLESS NOTED OTHERWISE ON LAYOUT. ALL S/A RUNS 5"Ø UNLESS NOTED OTHERWISE ON LAYOUT. UNDERCUT DOORS 1" min. FOR R/A						
			FAN SPEED 1131 cfm @ 0.6" w.c.								
								Date	JAN/2018		
								Scale	3/16" = 1'-0"		
								BCIN# 19669			
								LO#	77366		



I MICHAEL O'ROURKE HAVE REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED UNDER DIVISION C, 3.2.5 OF THE BUILDING CODE.

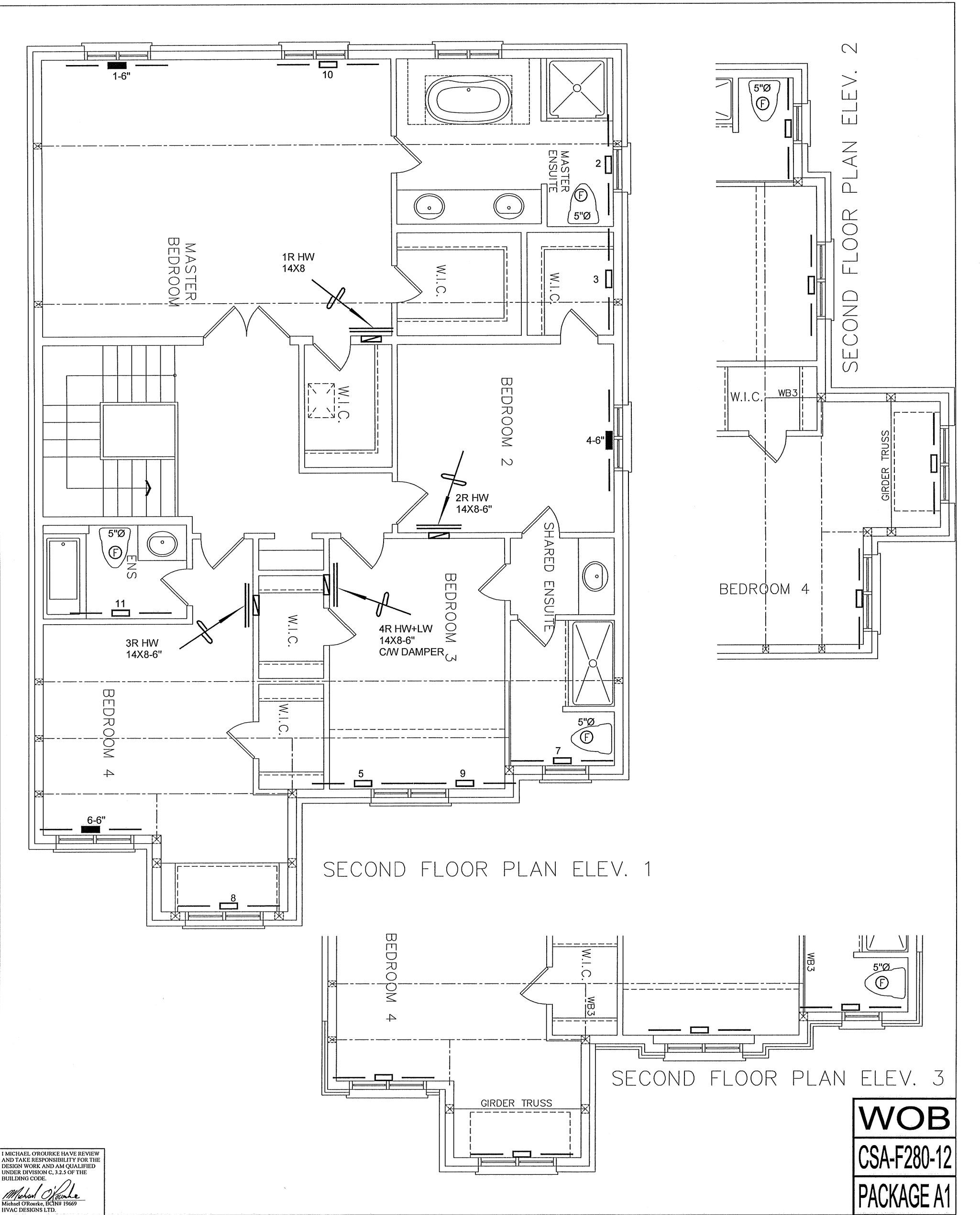
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Project Name RUSSEL GARDENS HAMILTON, ONTARIO			Date JAN/2018	
WOB ROSEWOOD 3 2858 sqft			Scale 3/16" = 1'-0"	
			BCIN# 19669	
			LO#	77366



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GREENPARK HOMES			SECOND FLOOR HEATING LAYOUT	
Project Name			Date	
RUSSEL GARDENS HAMILTON, ONTARIO			JAN/2018	
WOB			Scale	
ROSEWOOD 3 2858 sqft			3/16" = 1'-0"	
		BCIN# 19669		
		LO#	77366	