

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 VAUGHAN (WOODBIDGE)	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@hvacdesigns.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: 6002 - KINGSVIEW LOT 132 Project: PINE VALLEY PH 2	
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: <u>19669</u> Basis for exemption from registration and qualification: <u>O.B.C SENTENCE 3.2.4.1 (4)</u>			
☐ 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.			
July 11, 2022		 Signature of Designer	
Date			

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.

Application for a Permit Construct or Demolish – Effective January 1, 2015

ROOM USE			OFFICE				FM/DN				KIT				GRT				CATER				PWD				FOY				MUD																BAS			
EXP. WALL			32				30				47				83				19				11				68				21																244			
CLG. HT.			11				11				11				11				11				11				11				11																10			
FACTORS			LOSS		GAIN																																													
GRS.WALL AREA			LOSS		GAIN																																1732													
GLAZING			LOSS		GAIN		LOSS		GAIN		LOSS		GAIN		LOSS		GAIN		LOSS		GAIN		LOSS		GAIN		LOSS		GAIN		LOSS		GAIN		LOSS		GAIN													
NORTH			21.3	16.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	255	192								0	0	0												
EAST			21.3	41.6	48	1021	1994				0	0	0	0	0	0	0	0	0	0	0	0	0	0	102	2171	4238	0	0	0							0	0	0											
SOUTH			21.3	24.9	32	681	797	106	2256	2639				0	0	0	74	1575	1843				0	0	0	0	0	0	0	0	0	0	0	0	8	170	199													
WEST			21.3	41.6	0	0	0			0	0	0	120	2554	4986	108	2298	4488	14	298	582			0	0	0	0	0	0	0	0	0	0	8	170	332														
SKYLT.			37.2	101.5	0	0	0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0														
DOORS			25.2	4.3	0	0	0			0	0	0	20	505	85			0	0	0	10	252	43			0	0	0	13	328	55			20	505	85														
NET EXPOSED WALL			4.5	0.8	275	1228	207	227	1013	171	382	1703	287	739	3299	556	187	834	140	122	545	92	640	2855	481	221	987	166						0	0	0														
NET EXPOSED BSMT WALL ABOVE GR			3.6	0.6	0	0	0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						732	2634	444															
EXPOSED CLG			1.3	0.6	0	0	0			0	0	0	0	0	0	375	481	220	0	0	0	0	0	0	116	149	68	0	0	0			0	0	0															
NO ATTIC EXPOSED CLG			2.7	1.3	0	0	0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0															
EXPOSED FLOOR			2.6	0.4	0	0	0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0															
BASEMENT/CRAWL HEAT LOSS																																				8615														
SLAB ON GRADE HEAT LOSS																																																		
SUBTOTAL HT LOSS						2931			3269			4762			7653			1384			545			5503			1242								12095															
SUB TOTAL HT GAIN							2998			2810			5358			7106			765			92			4843			358							1060															
LEVEL FACTOR / MULTIPLIER			0.30	0.46				0.30	0.46		0.30	0.46		0.30	0.46		0.30	0.46		0.30	0.46		0.30	0.46		0.30	0.46						0.50	1.71																
AIR CHANGE HEAT LOSS						1334			1488			2168			3484			630			248			2505			565							20704																
AIR CHANGE HEAT GAIN							219			205			391			518			56			7			353			26							77															
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			240			0		0		0		0		0		0		0		0		0		0		0		0					0		0															
HEAT GAIN APPLIANCES/LIGHTS							1111			1111			1111			1111			0			0			0			0							0															
TOTAL HT LOSS BTU/H						4265			4757			6930			11137			2015			793			8008			1807							32798																
TOTAL HT GAIN x 1.3 BTU/H							5626			5364			8918			11356			1067			128			6755			499							147															

TOTAL HEAT GAIN BTU/H:	77285	TONS: 6.44	LOSS DUE TO VENTILATION LOAD BTU/H: 6156	STRUCTURAL HEAT LOSS: 100216	TOTAL COMBINED HEAT LOSS BTU/H: 106372
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Michael Rourke

SITE NAME: PINE VALLEY PH 2										LOT 132				DATE Jul-22				WINTER NATURAL AIR CHANGE RATE 0.342								HEAT LOSS AT °F. 76				CSA-F280-12							
BUILDER: GOLD PARK HOMES										TYPE: 6002 - KINGSVIEW				GFA: 5692				LO# 98033				SUMMER NATURAL AIR CHANGE RATE 0.115								HEAT GAIN ΔT °F. 13				SB-12 PACKAGE A1			
ROOM USE			PRI		ENS			PWIC-1			PWIC-2			BED-2			WIC-2			ENS-2			BED-3			WIC-3			ENS-3								
EXP. WALL			21		35			0			0			14			0			5			39			0			5								
CLG. HT.			9		9			9			9			9			9			9			9			9			9								
FACTORS																																					
GRS.WALL AREA			LOSS GAIN		191			319			0			127			0			46			355			0			46								
GLAZING					LOSS GAIN			LOSS GAIN			LOSS GAIN			LOSS GAIN			LOSS GAIN			LOSS GAIN			LOSS GAIN			LOSS GAIN			LOSS GAIN								
NORTH			21.3	16.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	192	144	0	0	0	0	0	0	9	192	144						
EAST			21.3	41.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	79	1681	3283	0	0	0	0	0	0						
SOUTH			21.3	24.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
WEST			21.3	41.6	44	936	1828	28	596	1163	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
SKYLT.			37.2	101.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
DOORS			25.2	4.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
NET EXPOSED WALL			4.5	0.8	147	656	111	291	1296	218	0	0	0	0	0	107	479	81	0	0	0	37	163	27	276	1231	207	0	0	0	37	163	27				
NET EXPOSED BSMT WALL ABOVE GR			3.6	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
EXPOSED CLG			1.3	0.6	440	565	259	304	390	179	52	67	31	165	212	97	285	366	167	43	55	25	65	83	38	386	495	227	43	55	25	65	83	38			
NO ATTIC EXPOSED CLG			2.7	1.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
EXPOSED FLOOR			2.6	0.4	0	0	0	0	0	0	0	0	55	140	24	218	556	94	43	110	18	65	166	28	296	755	127	43	110	18	65	166	28				
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					2157			2282			67			352			1827			165			604			4163			165			604					
SUB TOTAL HT GAIN					2197			1560			31			121			661			44			237			3844			44			237					
LEVEL FACTOR / MULTIPLIER			0.20		0.45		0.20		0.45		0.20		0.45		0.20		0.45		0.20		0.45		0.20		0.45		0.20		0.45								
AIR CHANGE HEAT LOSS					977			1034			30			159			828			75			273			1886			75			273					
AIR CHANGE HEAT GAIN					160			114			2			9			48			3			17			280			3			17					
DUCT LOSS					0			0			0			51			265			24			88			605			24			88					
DUCT GAIN					0			0			0			124			206			5			137			548			5			25					
HEAT GAIN PEOPLE			240		2		480		0		0		0		1		240		0		0		1		240		0		0		0						
HEAT GAIN APPLIANCES/LIGHTS					1111			0			1111			1111			1111			0			1111			1111			0			0					
TOTAL HT LOSS BTU/H					3135			3316			97			563			2920			263			965			6653			263			965					
TOTAL HT GAIN x 1.3 BTU/H					5134			2177			1487			1774			2947			67			1953			7830			67			364					

ROOM USE			BED-4		ENS-4			LAUN			BED-5			ENS-5											
EXP. WALL			31		5			7			11			7											
CLG. HT.			9		9			9			9			9											
FACTORS																									
GRS.WALL AREA			LOSS	GAIN																					
GLAZING					LOSS		GAIN		LOSS		GAIN		LOSS		GAIN		LOSS		GAIN						
NORTH			21.3	16.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
EAST			21.3	41.6	48	1021	1994	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
SOUTH			21.3	24.9	0	0	0	16	340	398	16	340	398	32	681	797	16	340	398						
WEST			21.3	41.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
SKYLT.			37.2	101.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
DOORS			25.2	4.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
NET EXPOSED WALL			4.5	0.8	234	1045	176	30	132	22	48	213	36	68	304	51	48	213	36						
NET EXPOSED BSMT WALL ABOVE GR			3.6	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
EXPOSED CLG			1.3	0.6	332	426	195	56	72	33	220	282	129	300	385	176	78	100	46						
NO ATTIC EXPOSED CLG			2.7	1.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
EXPOSED FLOOR			2.6	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
BASEMENT/CRAWL HEAT LOSS					0			0			0			0			0								
SLAB ON GRADE HEAT LOSS					0			0			0			0			0								
SUBTOTAL HT LOSS					2492			544			836			1370			653								
SUB TOTAL HT GAIN						2366			453			564			1024			480							
LEVEL FACTOR / MULTIPLIER				0.20	0.45			0.20	0.45		0.20	0.45		0.20	0.45		0.20	0.45							
AIR CHANGE HEAT LOSS					1129			246			379			621			296								
AIR CHANGE HEAT GAIN						173			33			41			75			35							
DUCT LOSS					0			0			0			0			0								
DUCT GAIN					0			0			0			0			0								
HEAT GAIN PEOPLE			240		1		240	0		0	0		1		240	0		0							
HEAT GAIN APPLIANCES/LIGHTS						1111			0			1111			1111			0							
TOTAL HT LOSS BTU/H					3621			790			1214			1990			949								
TOTAL HT GAIN x 1.3 BTU/H						5056			632			2231			3185			670							

TOTAL HEAT GAIN BTU/H: 77285 TONS: 6.44 LOSS DUE TO VENTILATION LOAD BTU/H: 6156 STRUCTURAL HEAT LOSS: 100216 TOTAL COMBINED HEAT LOSS BTU/H: 106372

SITE NAME: PINE VALLEY PH 2
BUILDER: GOLD PARK HOMES

LOT 132
TYPE: 6002 - KINGSVIEW

DATE: Jul-22

GFA: 5692 LO# 98033

FURNACE 1

HEATING CFM 1340 COOLING CFM 1340
TOTAL HEAT LOSS 72,510 TOTAL HEAT GAIN 41,192
AIR FLOW RATE CFM 18.48 AIR FLOW RATE CFM 32.53

furnace pressure 0.6
furnace filter 0.05
a/c coil pressure 0.2
available pressure for s/a & r/a 0.35

**FURNACE HEAT LOSS +
HRV / ERV HEAT LOSS
= 75588 BTUH**
**\$*LENNOX
ML196UH090XE48C 90**

AFUE = 96 %
INPUT (BTU/H) = 88,000
OUTPUT (BTU/H) = **85,600**

RUN COUNT	4th	3rd	2nd	1st	Bas
S/A	0	0	0	17	7
R/A	0	0	0	4	1

plenium pressure s/a 0.18 r/a pressure 0.17
max s/a dif press. loss 0.03 r/a grille press. Loss 0.02
min adjusted pressure s/a 0.15 adjusted pressure r/a 0.15

FAN SPEED 0
LOW 0
MEDLOW 1080
MEDIUM 1190
MEDIUM HIGH 1340
HIGH 1575

DESIGN CFM = **1340**
CFM @ .6" E.S.P.

TEMPERATURE RISE 59 °F

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	12	13	14	15	16	17	18	19	20	21	22	23	24
ROOM NAME	FOY	FOY	FOY	OFFCE	OFFCE	FM/DN	FM/DN	GRT	GRT	GRT	KIT	KIT	KIT	KIT	CATER	MUD	PWD	BAS	BAS	BAS	BAS	BAS	BAS	BAS
RM LOSS MBH.	2.67	2.67	2.67	2.13	2.13	2.38	2.38	3.71	3.71	3.71	1.73	1.73	1.73	1.73	2.01	1.81	0.79	4.69	4.69	4.69	4.69	4.69	4.69	4.69
CFM PER RUN HEAT	49	49	49	39	39	44	44	69	69	69	32	32	32	32	37	33	15	87	87	87	87	87	87	87
RM GAIN MBH.	2.25	2.25	2.25	2.81	2.81	2.68	2.68	3.79	3.79	3.79	2.23	2.23	2.23	2.23	1.07	0.50	0.13	0.21	0.21	0.21	0.21	0.21	0.21	0.21
CFM PER RUN COOLING	73	73	73	92	92	87	87	123	123	123	73	73	73	73	35	16	4	7	7	7	7	7	7	7
ADJUSTED PRESSURE	0.17	0.17	0.17	0.16	0.16	0.16	0.16	0.15	0.15	0.15	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.16	0.16	0.16	0.16	0.16	0.16	0.16
ACTUAL DUCT LGH.	58	60	52	51	58	37	27	45	45	36	31	32	32	42	49	36	32	36	24	41	28	28	52	41
EQUIVALENT LENGTH	150	180	150	160	190	110	170	120	110	110	190	140	130	110	120	120	120	120	150	110	130	130	160	110
TOTAL EFFECTIVE LENGTH	208	240	202	211	248	147	197	165	155	146	221	172	162	152	169	156	152	156	174	151	158	158	212	151
ADJUSTED PRESSURE	0.08	0.07	0.09	0.08	0.07	0.11	0.08	0.09	0.1	0.1	0.08	0.1	0.11	0.11	0.1	0.11	0.11	0.1	0.09	0.11	0.1	0.1	0.08	0.11
ROUND DUCT SIZE	6	6	5	6	6	6	6	6	6	6	6	6	6	6	4	4	4	6	6	6	6	6	6	6
HEATING VELOCITY (ft/min)	250	250	360	199	199	224	224	352	352	352	163	163	163	163	424	379	172	444	444	444	444	444	444	444
COOLING VELOCITY (ft/min)	372	372	536	469	469	444	444	627	627	627	372	372	372	372	402	184	46	36	36	36	36	36	36	36
OUTLET GRILL SIZE	4X10	4X10	3X10	4X10	4X10	4X10	4X10	4X10	4X10	4X10	4X10	4X10	4X10	4X10	3X10	3X10	3X10	4X10	4X10	4X10	4X10	4X10	4X10	4X10
TRUNK	A	A	A	A	A	B	B	C	C	C	E	E	E	E	E	E	B	E	E	C	C	B	A	B

RUN #	ROOM NAME	RM LOSS MBH.	CFM PER RUN HEAT	RM GAIN MBH.	CFM PER RUN COOLING	ADJUSTED PRESSURE	ACTUAL DUCT LGH.	EQUIVALENT LENGTH	TOTAL EFFECTIVE LENGTH	ADJUSTED PRESSURE	ROUND DUCT SIZE	HEATING VELOCITY (ft/min)	COOLING VELOCITY (ft/min)	OUTLET GRILL SIZE	TRUNK
1	FOY	2.67	49	2.25	73	0.17	58	150	208	0.08	6	250	372	4X10	A
2	FOY	2.67	49	2.25	73	0.17	60	180	240	0.07	6	250	372	4X10	A
3	FOY	2.67	49	2.25	73	0.17	52	150	202	0.09	5	360	536	3X10	A
4	OFFCE	2.13	39	2.81	92	0.16	51	160	211	0.08	6	199	469	4X10	A
5	OFFCE	2.13	39	2.81	92	0.16	58	190	248	0.07	6	199	469	4X10	A
6	FM/DN	2.38	44	2.68	87	0.16	37	110	147	0.11	6	224	444	4X10	B
7	FM/DN	2.38	44	2.68	87	0.16	27	170	197	0.08	6	224	444	4X10	B
8	GRT	3.71	69	3.79	123	0.15	45	120	165	0.09	6	352	627	4X10	C
9	GRT	3.71	69	3.79	123	0.15	45	110	155	0.1	6	352	627	4X10	C
10	GRT	3.71	69	3.79	123	0.15	36	110	146	0.1	6	352	627	4X10	C
11	KIT	1.73	32	2.23	73	0.17	31	190	221	0.08	6	163	372	4X10	E
12	KIT	1.73	32	2.23	73	0.17	32	140	172	0.1	6	163	372	4X10	E
13	KIT	1.73	32	2.23	73	0.17	32	110	162	0.11	6	163	372	4X10	E
14	KIT	1.73	32	2.23	73	0.17	42	110	152	0.11	6	163	372	4X10	E
15	CATER	2.01	37	1.07	35	0.17	49	120	169	0.1	4	424	402	3X10	E
16	MUD	1.81	33	0.50	16	0.17	36	120	156	0.11	4	379	184	3X10	E
17	PWD	0.79	15	0.13	4	0.17	32	120	152	0.11	4	172	46	3X10	B
18	BAS	4.69	87	0.21	7	0.16	36	120	156	0.1	6	444	36	4X10	E
19	BAS	4.69	87	0.21	7	0.16	24	150	174	0.09	6	444	36	4X10	E
20	BAS	4.69	87	0.21	7	0.16	41	110	151	0.11	6	444	36	4X10	C
21	BAS	4.69	87	0.21	7	0.16	28	130	158	0.1	6	444	36	4X10	C
22	BAS	4.69	87	0.21	7	0.16	28	130	158	0.1	6	444	36	4X10	B
23	BAS	4.69	87	0.21	7	0.16	52	160	212	0.08	6	444	36	4X10	A
24	BAS	4.69	87	0.21	7	0.16	41	110	151	0.11	6	444	36	4X10	B

SUPPLY AIR TRUNK SIZE															RETURN AIR TRUNK SIZE														
	TRUNK	STATIC	ROUND	RECT						TRUNK	STATIC	ROUND	RECT						TRUNK	STATIC	ROUND	RECT							
	CFM	PRESS.	DUCT	DUCT						CFM	PRESS.	DUCT	DUCT						CFM	PRESS.	DUCT	DUCT							
					(ft/min)									(ft/min)									(ft/min)						
TRUNK A	312	0.07	9.4	14	x	8	401		TRUNK G	0	0.00	0	0	x	8	0	TRUNK O	0	0.06	0	0	x	8	0					
TRUNK B	589	0.07	11.9	18	x	8	589		TRUNK H	0	0.00	0	0	x	8	0	TRUNK P	0	0.06	0	0	x	8	0					
TRUNK C	381	0.09	9.5	10	x	8	686		TRUNK I	0	0.00	0	0	x	8	0	TRUNK Q	0	0.06	0	0	x	8	0					
TRUNK D	970	0.07	14.3	24	x	8	728		TRUNK J	0	0.00	0	0	x	8	0	TRUNK R	0	0.06	0	0	x	8	0					
TRUNK E	372	0.08	9.7	12	x	8	558		TRUNK K	0	0.00	0	0	x	8	0	TRUNK S	0	0.06	0	0	x	8	0					
TRUNK F	0	0.00	0	0	x	8	0		TRUNK L	0	0.00	0	0	x	8	0	TRUNK T	0	0.06	0	0	x	8	0					

RETURN AIR #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
AIR VOLUME	130	340	420	185	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PLENUM PRESSURE	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
ACTUAL DUCT LGH.	58	53	44	34	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
EQUIVALENT LENGTH	195	200	150	160	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL EFFECTIVE LH	253	253	194	194	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
ADJUSTED PRESSURE	0.06	0.06	0.08	0.08	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80
ROUND DUCT SIZE	7	10.1	10.1	7.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INLET GRILL SIZE	8	8	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
INLET GRILL SIZE	14	30	30	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SITE NAME: PINE VALLEY PH 2
BUILDER: GOLD PARK HOMES

LOT 132
TYPE: 6002 - KINGSVIEW

DATE: Jul-22

GFA: 5692

LO# 98033

FURNACE 2

HEATING CFM 1110 COOLING CFM 1110
TOTAL HEAT LOSS 27,706 TOTAL HEAT GAIN 35,574
AIR FLOW RATE CFM 40.06 AIR FLOW RATE CFM 31.2

furnace pressure 0.6
furnace filter 0.05
a/c coil pressure 0.2
available pressure for s/a & r/a 0.35

**FURNACE HEAT LOSS +
HRV / ERV HEAT LOSS
= 30784 BTUH**
\$LENNOX
ML196UH045XE36B
45
FAN SPEED
LOW 620
MEDLOW 685
MEDIUM 980
MEDIUM HIGH 1110
HIGH 0

AFUE = 96 %
INPUT (BTU/H) = 44,000
OUTPUT (BTU/H) = **42,800**

DESIGN CFM = **1110**
CFM @ .6" E.S.P.

TEMPERATURE RISE 36 °F

RUN COUNT	4th	3rd	2nd	1st	Bas
S/A	0	0	23	0	0
R/A	0	0	6	0	0

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

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

RUN #	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47
ROOM NAME	PRI	PRI	ENS	ENS	PWIC-1	PWIC-2	BED-2	BED-2	ENS-2	WIC-2	WIC-3	ENS-3	BED-3	BED-3	BED-3	BED-4	BED-4	BED-4	ENS-4	LAUN	BED-5	ENS-5	BED-5
RM LOSS MBH.	1.57	1.57	1.24	2.07	0.10	0.56	1.46	1.46	0.96	0.26	0.26	0.96	2.22	2.22	2.22	1.21	1.21	1.21	0.79	1.21	1.00	0.95	1.00
CFM PER RUN HEAT	63	63	50	83	4	23	58	58	39	11	11	39	89	89	89	48	48	48	32	49	40	38	40
RM GAIN MBH.	2.57	2.57	0.82	1.36	1.49	1.77	1.47	1.47	1.95	0.07	0.07	0.36	2.61	2.61	2.61	1.69	1.69	1.69	0.63	2.23	1.59	0.67	1.59
CFM PER RUN COOLING	80	80	25	42	46	55	46	46	61	2	2	11	81	81	81	53	53	53	20	70	50	21	50
ADJUSTED PRESSURE	0.17	0.17	0.17	0.16	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.16	0.16	0.16	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
ACTUAL DUCT LGH.	55	67	61	57	29	26	40	42	43	31	40	47	57	53	50	59	79	72	60	49	45	55	48
EQUIVALENT LENGTH	200	170	170	160	170	180	190	200	110	130	140	120	160	170	180	150	190	170	160	160	170	200	170
TOTAL EFFECTIVE LENGTH	255	237	231	217	199	206	230	242	153	161	180	167	217	223	230	209	269	242	220	209	215	255	218
ADJUSTED PRESSURE	0.07	0.07	0.07	0.07	0.09	0.08	0.07	0.07	0.11	0.11	0.1	0.1	0.07	0.07	0.07	0.08	0.06	0.07	0.08	0.08	0.08	0.07	0.08
ROUND DUCT SIZE	6	6	5	6	4	5	5	5	5	4	4	4	6	6	6	5	5	5	4	5	5	5	5
HEATING VELOCITY (ft/min)	321	321	367	423	46	169	426	426	286	126	126	447	454	454	454	352	352	352	367	360	294	279	294
COOLING VELOCITY (ft/min)	408	408	184	214	528	404	338	338	448	23	23	126	413	413	413	389	389	389	229	514	367	154	367
OUTLET GRILL SIZE	4X10	4X10	3X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10	4X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10
TRUNK	B	B	B	B	B	B	B	B	C	C	C	C	C	C	C	A	A	A	A	A	A	B	A

SUPPLY AIR TRUNK SIZE

	TRUNK CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT		VELOCITY (ft/min)		TRUNK CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT		VELOCITY (ft/min)
TRUNK A	305	0.06	9.7	14	x	8	392	TRUNK G	0	0.00	0	0	8
TRUNK B	440	0.07	10.7	14	x	8	566	TRUNK H	0	0.00	0	0	8
TRUNK C	807	0.07	13.4	20	x	8	726	TRUNK I	0	0.00	0	0	8
TRUNK D	0	0.00	0	0	x	8	0	TRUNK J	0	0.00	0	0	8
TRUNK E	0	0.00	0	0	x	8	0	TRUNK K	0	0.00	0	0	8
TRUNK F	0	0.00	0	0	x	8	0	TRUNK L	0	0.00	0	0	8

RETURN AIR TRUNK SIZE

	TRUNK CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT		VELOCITY (ft/min)
TRUNK O	0	0.05	0	0	x	8
TRUNK P	0	0.05	0	0	x	8
TRUNK Q	0	0.05	0	0	x	8
TRUNK R	0	0.05	0	0	x	8
TRUNK S	0	0.05	0	0	x	8
TRUNK T	0	0.05	0	0	x	8
TRUNK U	0	0.05	0	0	x	8
TRUNK V	0	0.05	0	0	x	8
TRUNK W	270	0.05	9.7	12	x	8
TRUNK X	1110	0.05	16.4	32	x	8
TRUNK Y	550	0.05	12.6	20	x	8
TRUNK Z	420	0.05	11.4	16	x	8
DROP	1110	0.05	16.4	24	x	10

RETURN AIR #

	1	2	3	4	5	6										
AIR VOLUME	270	155	135	110	130	310	0	0	0	0	0	0	0	0	0	0
PLENUM PRESSURE	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
ACTUAL DUCT LGH.	90	31	48	78	91	75	1	1	1	1	1	1	1	1	1	1
EQUIVALENT LENGTH	110	135	175	200	150	195	0	0	0	0	0	0	0	0	0	0
TOTAL EFFECTIVE LH	200	166	223	278	241	270	1	1	1	1	1	1	1	1	1	1
ADJUSTED PRESSURE	0.07	0.09	0.07	0.05	0.06	0.05	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80
ROUND DUCT SIZE	8.9	6.8	6.8	6.9	7	10.2	0	0	0	0	0	0	0	0	0	0
INLET GRILL SIZE	8	8	8	8	8	8	0	0	0	0	0	0	0	0	0	0
	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
INLET GRILL SIZE	30	14	14	14	14	30	0	0	0	0	0	0	0	0	0	0

TYPE: 6002 - KINGSVIEW
SITE NAME: PINE VALLEY PH 2

LO # 98033
LOT 132

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	<u>2</u> @ 21.2 cfm	<u>42.4</u> cfm
Other Bedrooms	<u>4</u> @ 10.6 cfm	<u>42.4</u> cfm
Kitchen & Bathrooms	<u>7</u> @ 10.6 cfm	<u>74.2</u> cfm
Other Rooms	<u>6</u> @ 10.6 cfm	<u>63.6</u> cfm
Table 9.32.3.A.	TOTAL	<u>222.6</u> 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		<u>95.4</u> cfm

SUPPLEMENTAL VENTILATION CAPACITY		9.32.3.5.
Total Ventilation Capacity	<u>222.6</u>	cfm
Less Principal Ventil. Capacity	<u>150</u>	cfm
Required Supplemental Capacity	<u>72.6</u>	cfm

PRINCIPAL EXHAUST FAN CAPACITY	
Model:	VANEE V150H
Location:	BSMT
<u>150.0</u> cfm	☒ HVI Approved

PRINCIPAL EXHAUST HEAT LOSS CALCULATION				
CFM	ΔT °F	FACTOR	% LOSS	
150.0 CFM	X 76 F	X 1.08	X	0.25

SUPPLEMENTAL FANS		BY INSTALLING CONTRACTOR		
Location	Model	cfm	HVI	Sones
ENS	BY INSTALLING CONTRACTOR	50	☒	3.5
ENS-2	BY INSTALLING CONTRACTOR	50	☒	3.5
ENS-3	BY INSTALLING CONTRACTOR	50	☒	3.5
PWD	BY INSTALLING CONTRACTOR	50	☒	3.5

HEAT RECOVERY VENTILATOR		9.32.3.11.
Model:	VANEE V150H	INSTALL 2 HRV / ERV's
<u>150</u>	cfm high	<u>35</u> cfm low
<u>75</u>	% Sensible Efficiency @ 32 deg F (0 deg C)	☒ HVI Approved

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

BUILDER:	
GOLD PARK 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:	<i>Michael O'Rourke</i>
HRAI #	001820
Date:	July-22

CSA F280-12 Residential Heat Loss and Heat Gain Calculations																																																												
Formula Sheet (For Air Leakage / Ventilation Calculation)																																																												
LO#: 98033	Model: 6002 - KINGSVIEW	Builder: GOLD PARK HOMES	Date: 2022-07-11																																																									
Volume Calculation			Air Change & Delta T Data																																																									
House Volume <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Level</th> <th>Floor Area (ft²)</th> <th>Floor Height (ft)</th> <th>Volume (ft³)</th> </tr> </thead> <tbody> <tr> <td>Bsmt</td> <td>2707</td> <td>10</td> <td>27340.7</td> </tr> <tr> <td>First</td> <td>2707</td> <td>11</td> <td>30047.7</td> </tr> <tr> <td>Second</td> <td>3476</td> <td>9</td> <td>31631.6</td> </tr> <tr> <td>Third</td> <td>0</td> <td>9</td> <td>0</td> </tr> <tr> <td>Fourth</td> <td>0</td> <td>9</td> <td>0</td> </tr> <tr> <td colspan="3" style="text-align: right;">Total:</td> <td>89,020.0 ft³</td> </tr> <tr> <td colspan="3" style="text-align: right;">Total:</td> <td>2520.8 m³</td> </tr> </tbody> </table>			Level	Floor Area (ft²)	Floor Height (ft)	Volume (ft³)	Bsmt	2707	10	27340.7	First	2707	11	30047.7	Second	3476	9	31631.6	Third	0	9	0	Fourth	0	9	0	Total:			89,020.0 ft³	Total:			2520.8 m³	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">WINTER NATURAL AIR CHANGE RATE</td> <td style="width: 20%;">0.342</td> </tr> <tr> <td>SUMMER NATURAL AIR CHANGE RATE</td> <td>0.115</td> </tr> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="5" style="text-align: center;">Design Temperature Difference</th> </tr> <tr> <th></th> <th>Tin °C</th> <th>Tout °C</th> <th>ΔT °C</th> <th>ΔT °F</th> </tr> <tr> <td>Winter DTDh</td> <td>22</td> <td>-20</td> <td>42</td> <td>76</td> </tr> <tr> <td>Summer DTDc</td> <td>24</td> <td>31</td> <td>7</td> <td>13</td> </tr> </table>		WINTER NATURAL AIR CHANGE RATE	0.342	SUMMER NATURAL AIR CHANGE RATE	0.115	Design Temperature Difference						Tin °C	Tout °C	ΔT °C	ΔT °F	Winter DTDh	22	-20	42	76	Summer DTDc	24	31	7	13
Level	Floor Area (ft²)	Floor Height (ft)	Volume (ft³)																																																									
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5.2.3.1 Heat Loss due to Air Leakage			6.2.6 Sensible Gain due to Air Leakage																																																									
$HL_{airb} = LR_{airh} \times \frac{V_b}{3.6} \times DTD_h \times 1.2$ 0.342 x 700.21 x 42 °C x 1.2 = 12136 W = 41407 Btu/h			$HG_{salb} = LR_{airc} \times \frac{V_b}{3.6} \times DTD_c \times 1.2$ = 0.115 x 700.21 x 7 °C x 1.2 = 687 W = 2344 Btu/h																																																									
5.2.3.2 Heat Loss due to Mechanical Ventilation			6.2.7 Sensible heat Gain due to Ventilation																																																									
$HL_{vairb} = PVC \times DTD_h \times 1.08 \times (1 - E) \times 2 \text{ HRV / ERV's}$ 300 CFM x 76 °F x 1.08 x 0.25 = 6156 Btu/h			$HL_{vairb} = PVC \times DTD_h \times 1.08 \times (1 - E)$ 300 CFM x 13 °F x 1.08 x 0.25 = 1,037 Btu/h																																																									
5.2.3.3 Calculation of Air Change Heat Loss for Each Room (Floor Multiplier Section)																																																												
$HL_{airr} = Level \ Factor \times HL_{airbv} \times \{(HL_{agcr} + HL_{bgcr}) \div (HL_{agclevel} + HL_{bgclevel})\}$																																																												
Level	Level Factor (LF)	HLairve Air Leakage + Ventilation Heat Loss (Btu/h)	Level Conductive Heat Loss: (HL _{clevel})	Air Leakage Heat Loss Multiplier (LF x HLairbv / HLlevel)																																																								
1	0.5	41,407	12,095	1.712																																																								
2	0.3		27,289	0.455																																																								
3	0.2		18,280	0.453																																																								
4	0		0	0.000																																																								
5	0		0	0.000																																																								
*HLairbv = Air leakage heat loss + ventilation heat loss *For a balanced or supply only ventilation system HLairve = 0																																																												
				Michael O'Rourke BCIN# 19669 																																																								

HEAT LOSS AND GAIN SUMMARY SHEET

MODEL: 6002 - KINGSVIEW	LOT 132	BUILDER: GOLD PARK HOMES
SFQT: 5692	LO# 98033	SITE: PINE VALLEY PH 2

DESIGN ASSUMPTIONS

HEATING	°F	COOLING	°F
OUTDOOR DESIGN TEMP.	-4	OUTDOOR DESIGN TEMP.	88
INDOOR DESIGN TEMP.	72	INDOOR DESIGN TEMP. (MAX 75°F)	75
		WINDOW SHGC	0.50

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):	89020.0	ASSUMED (Y/N):	Y
INTERNAL SHADING:	BLINDS/CURTAINS	ASSUMED OCCUPANTS:	6
INTERIOR LIGHTING LOAD (Btu/h/ft²):	1.75	DC BRUSHLESS MOTOR (Y/N):	Y
FOUNDATION CONFIGURATION	BCIN_1	DEPTH BELOW GRADE:	7.1 ft
LENGTH: 69.0 ft	WIDTH: 53.0 ft	EXPOSED PERIMETER:	244.0 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	-

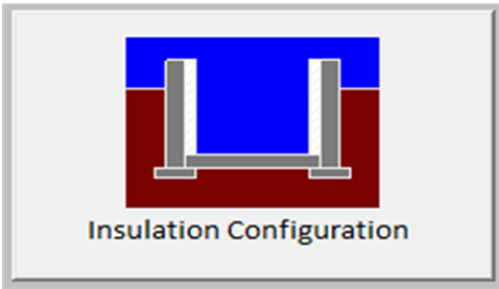
INDIVIDUAL BCIN: 19669

MICHAEL O'ROURKE



Residential Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description		
Province:	Ontario	
Region:	Vaughan (Woodbridge)	
Site Description		
Soil Conductivity:	Normal conductivity: dry sand, loam, clay	
Water Table:	Normal (7-10 m, 23-33 ft)	
Foundation Dimensions		
Floor Length (m):	21.0	
Floor Width (m):	16.2	
Exposed Perimeter (m):	0.0	
Wall Height (m):	3.1	
Depth Below Grade (m):	2.16	
Window Area (m ²):	1.5	
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):		2524

TYPE: 6002 - KINGSVIEW
LO# 98033

LOT 132

Air Infiltration Residential Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description				
Province:	Ontario			
Region:	Vaughan (Woodbridge)			
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):	7.07			
Building Configuration				
Type:	Detached			
Number of Stories:	Two			
Foundation:	Full			
House Volume (m ³):	2520.8			
Air Leakage/Ventilation				
Air Tightness Type:	Present (1961-) (3.57 ACH)			
Custom BDT Data:	ELA @ 10 Pa.	3360.3 cm ²		
	3.57	ACH @ 50 Pa		
Mechanical Ventilation (L/s):	Total Supply	Total Exhaust		
	70.8	70.8		
Flue Size				
Flue #:	#1	#2	#3	#4
Diameter (mm):	0	0	0	0
Natural Infiltration Rates				
Heating Air Leakage Rate (ACH/H):	0.342			
Cooling Air Leakage Rate (ACH/H):	0.115			

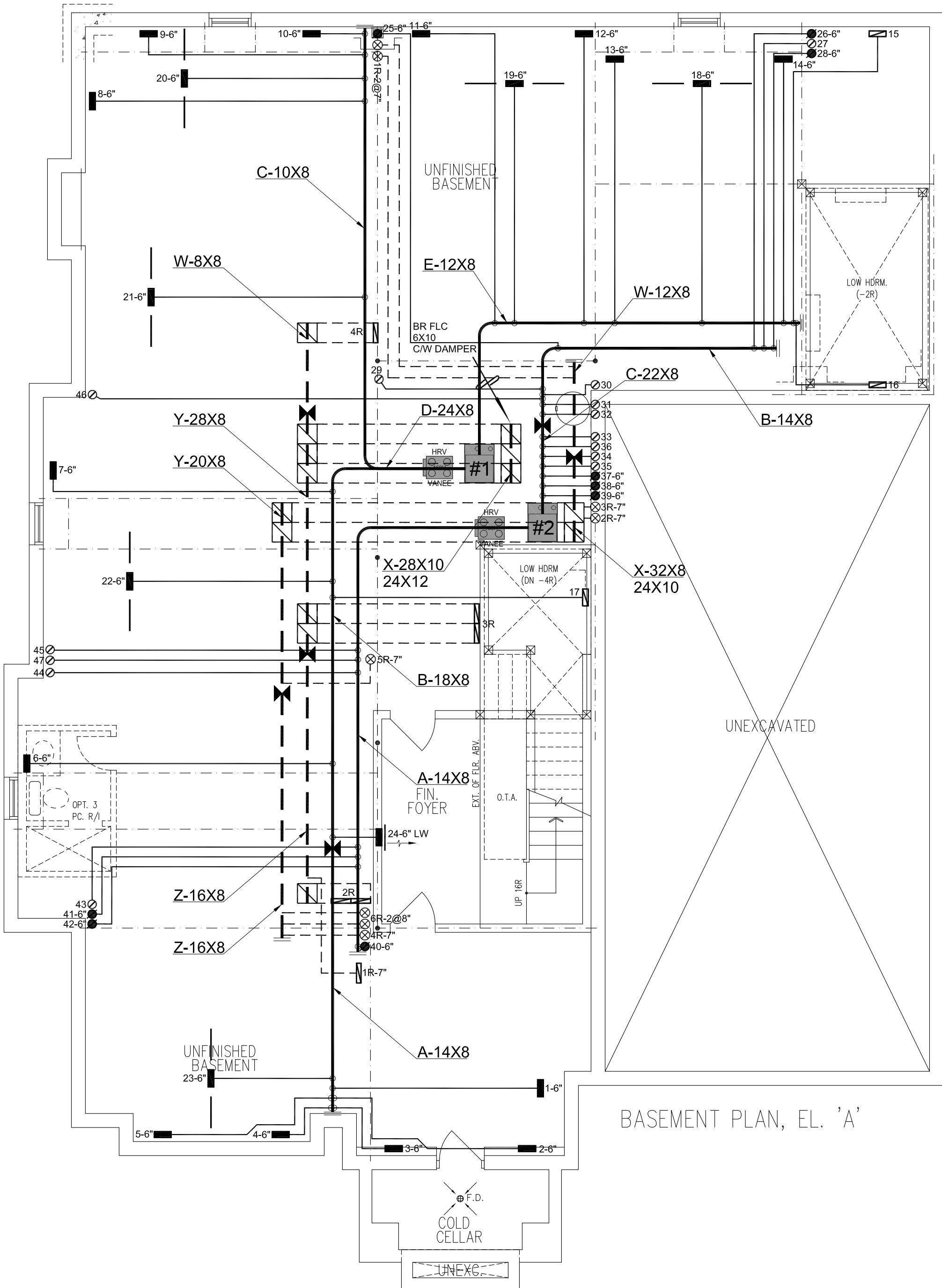
TYPE: 6002 - KINGSVIEW
LO# 98033

LOT 132

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ALL S/A DIFFUSERS "4x10" UNLESS NOTED OTHERWISE ON LAYOUT. ALL S/A RUNS 5'Ø UNLESS NOTED OTHERWISE ON LAYOUT. UNDERCUT DOORS 1" min. FOR R/A



FURNACE 1
LENNOX ML196UH090XE48C
85,600 BTU/H OUTPUT
3.5 TONS A/C @ 1340 cfm

FURNACE 2
LENNOX ML196UH045XE36B
42,800 BTU/H OUTPUT
3.0 TONS A/C @ 1110 cfm

	S/A	R/A	FANS
2ND	23	6	6
1ST	17	4	2
BAS	7	1	0

HVAC LEGEND	
	4X10 SUPPLY GRILLE
	14X8 RETURN GRILLE
	4X10 SUPPLY GRILLE 6'Ø BOOT
	30X8 RETURN GRILLE
	SUPPLY DUCTWORK
	RETURN DUCTWORK
	EXHAUST FAN
	LOW WALL
	HIGH WALL

WE HEREBY ORDER AND HAVE REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND ANY QUANTITIES UNDER DRAWING NO. 123 FOR THE FOLLOWING CODE:
Model Officials, OCTO 1969
BY: J. C. DESIGNS LTD.

2	1	ISSUED FOR PERMIT	JULY 2022	JC
No.	Revision	Date	By	

SB-12 PACKAGE

A1

HVACDESIGNS LTD.
375 Finley Ave - Unit 202 - Ajax, Ontario L1S 2E2
Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375
Email: info@hvacdsgns.ca
Web: www.hvacdsgns.ca
Specializing in Residential Mechanical Design Services

Client: GOLDPARK HOMES
Project Name: PINE VALLEY PH2
VAUGHAN, ONTARIO
6002 - KINGSVIEW
LOT 132
5692 SQFT

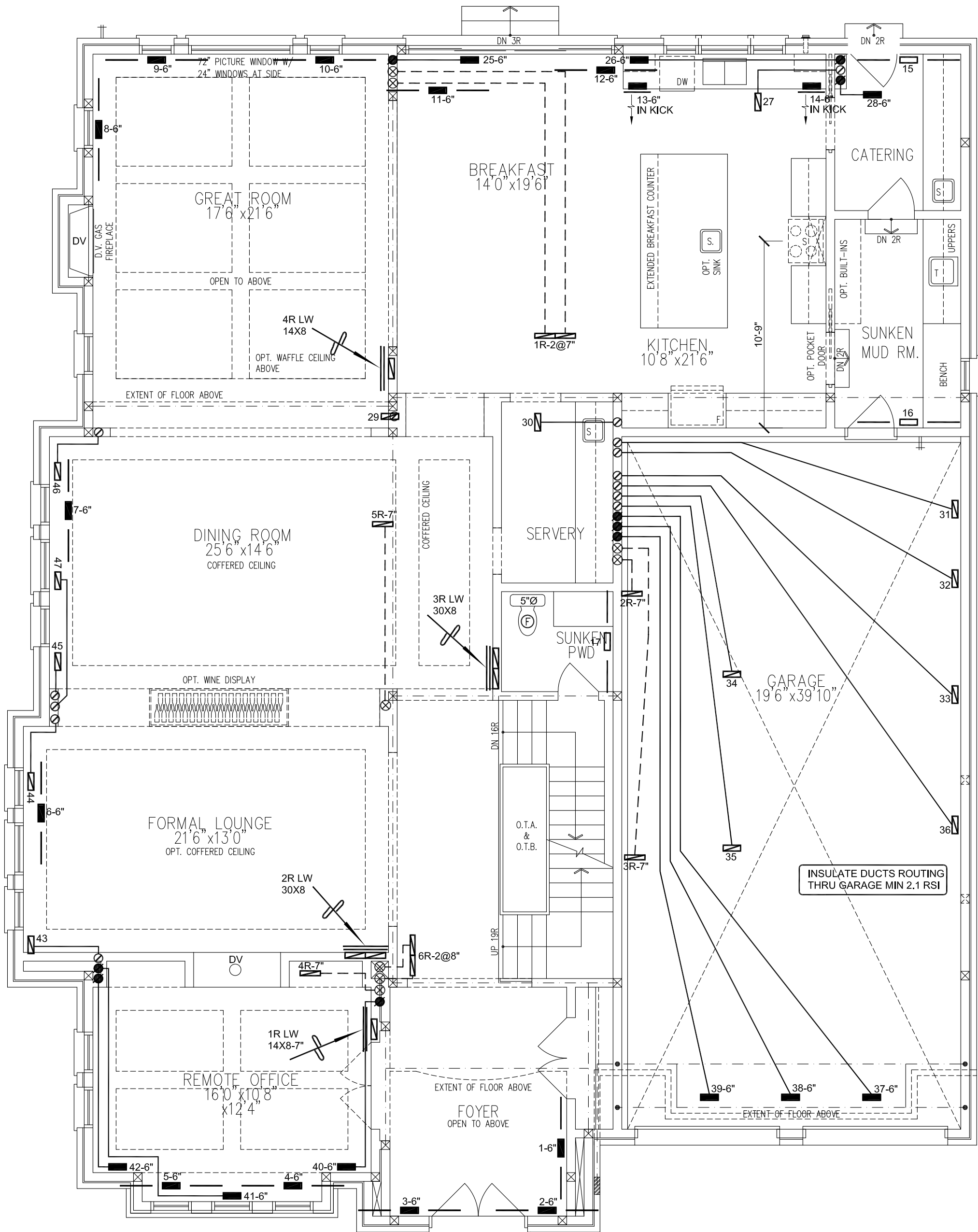
Sheet Title	BASEMENT HVAC LAYOUT		
Drawn By	JC	Checked By	MO
Scale	3/16"=1'-0"	Sheet No.	
Date	JULY 2022		
LO #	98033		1

LOT 132

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ALL S/A DIFFUSERS "4x10" UNLESS NOTED OTHERWISE ON LAYOUT. ALL S/A RUNS 5'0" UNLESS NOTED OTHERWISE ON LAYOUT. UNDERCUT DOORS 1" min. FOR R/A



GROUND FLOOR PLAN, EL. 'A'

HVAC LEGEND	
	4X10 SUPPLY GRILLE
	14X8 RETURN GRILLE
	4X10 SUPPLY GRILLE 6'0\"/>
	30X8 RETURN GRILLE
	SUPPLY DUCTWORK
	RETURN DUCTWORK
	EXHAUST FAN
	LOW WALL
	HIGH WALL

I HEREBY ORDERED HAVE REVIEW AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM GUARANTEED UNDER OATH TO 2.2 FOR THE FOLLOWING CODE:
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BY: J.C. DESIGNS LTD. *J.C. Designs*

2	ISSUED FOR PERMIT	JULY 2022	JC
No.	Revision	Date	By

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HVACDESIGNS LTD.
375 Finley Ave - Unit 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

Client: GOLDPARK HOMES

Project Name: PINE VALLEY PH2
VAUGHAN, ONTARIO
6002 - KINGSVIEW
LOT 132
5692 SQFT

Sheet Title	FIRST FLOOR HVAC LAYOUT		
Drawn By	JC	Checked By	MO
Scale	3/16"=1'-0"		
Date	JULY 2022		
LO #	98033		

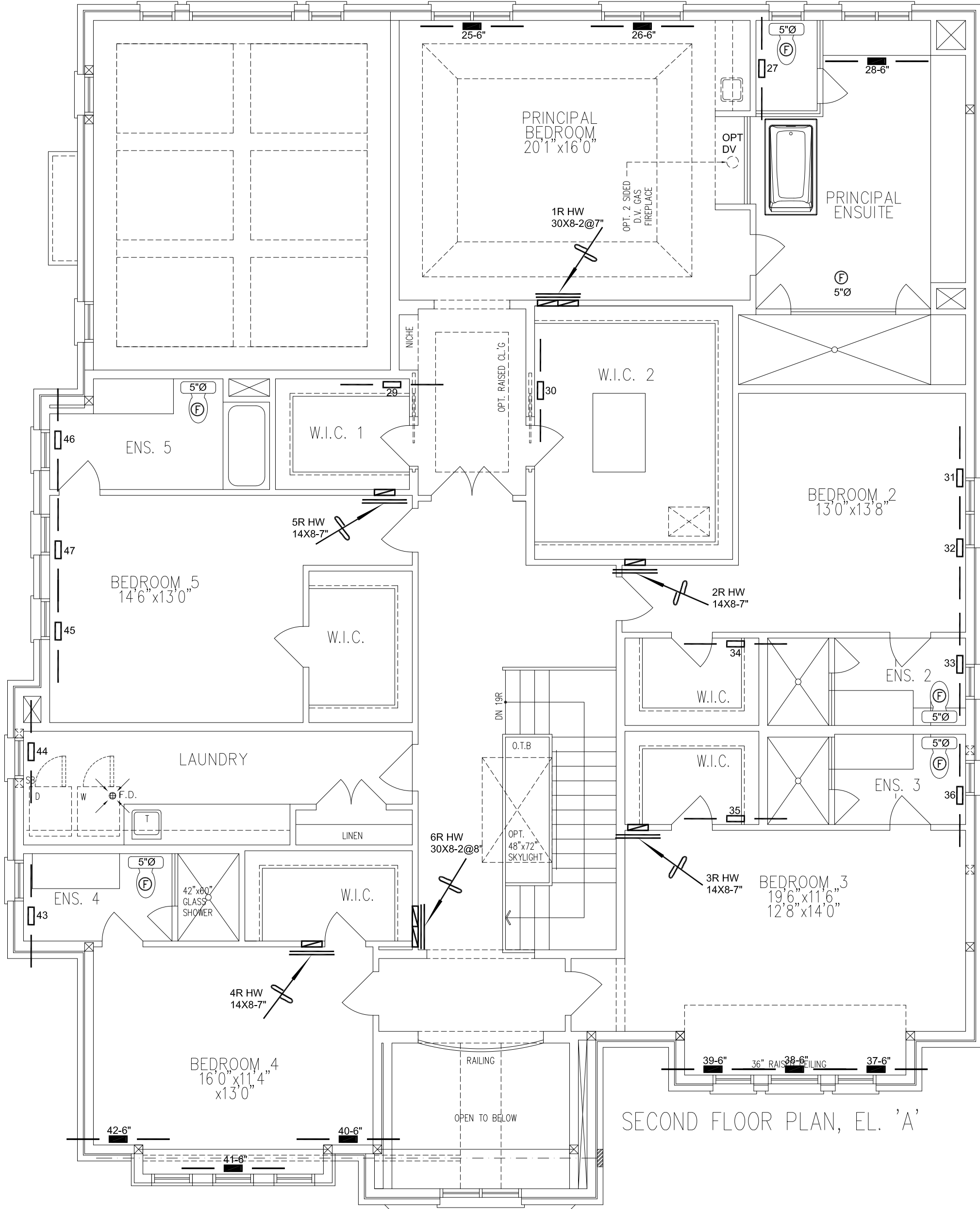
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ALL S/A DIFFUSERS "4x10" UNLESS NOTED OTHERWISE ON LAYOUT. ALL S/A RUNS 5"Ø UNLESS NOTED OTHERWISE ON LAYOUT. UNDERCUT DOORS 1" min. FOR R/A



HVAC LEGEND	
	4X10 SUPPLY GRILLE
	14X8 RETURN GRILLE
	4X10 SUPPLY GRILLE 6'Ø BOOT
	30X8 RETURN GRILLE
	SUPPLY DUCTWORK
	RETURN DUCTWORK
	EXHAUST FAN
	LOW WALL
	HIGH WALL

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BY: J.C. DESIGNS LTD. *John C. Designs*

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No.	Revision	Date	By	

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HVACDESIGNS LTD.

375 Finley Ave - Unit 202 - Ajax, Ontario L1S 2E2
Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375
Email: info@hvacdsgns.ca
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Specializing in Residential Mechanical Design Services

Client: GOLDPARK HOMES

Project Name: PINE VALLEY PH2

VAUGHAN, ONTARIO

6002 - KINGSVIEW

LOT 132

5692 SQFT

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Sheet Title: SECOND FLOOR HVAC LAYOUT

Drawn By: JC

Scale: 3/16"=1'-0"

Date: JULY 2022

LO # 98033

3

LOT 132