

## Schedule 1: Designer Information

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

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                     |                                                                                                               |                                      |          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|---------------------------------------------------------------------------------------------------------------|--------------------------------------|----------|
| <b>A. Project Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                     |                                                                                                               |                                      |          |
| Building number, street name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                     |                                                                                                               | Unit no.                             | Lot/con. |
| Municipality<br>VAUGHAN (WOODBIDGE)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Postal code                         | Plan number/ other description                                                                                |                                      |          |
| <b>B. Individual who reviews and takes responsibility for design activities</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                     |                                                                                                               |                                      |          |
| Name<br><b>MICHAEL O'ROURKE</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                     | Firm<br><b>HVAC DESIGNS LTD.</b>                                                                              |                                      |          |
| Street address<br><b>375 FINLEY AVE</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                     | Unit no.<br><b>202</b>                                                                                        | Lot/con.<br><b>N/A</b>               |          |
| Municipality<br><b>AJAX</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Postal code<br><b>L1S 2E2</b>       | Province<br><b>ONTARIO</b>                                                                                    | E-mail<br><b>info@hvacdesigns.ca</b> |          |
| Telephone number<br><b>(905) 619-2300</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Fax number<br><b>(905) 619-2375</b> | Cell number<br>( )                                                                                            |                                      |          |
| <b>C. Design activities undertaken by individual identified in Section B. [Building Code Table 3.5.2.1 OF Division C]</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     |                                                                                                               |                                      |          |
| <input type="checkbox"/> House<br><input type="checkbox"/> Small Buildings<br><input type="checkbox"/> Large Buildings<br><input type="checkbox"/> Complex Buildings <input checked="" type="checkbox"/> HVAC – House<br><input type="checkbox"/> Building Services<br><input type="checkbox"/> Detection, Lighting and Power<br><input type="checkbox"/> Fire Protection <input type="checkbox"/> Building Structural<br><input type="checkbox"/> Plumbing – House<br><input type="checkbox"/> Plumbing – All Buildings<br><input type="checkbox"/> On-site Sewage Systems |                                     |                                                                                                               |                                      |          |
| Description of designer's work<br><b>HEAT LOSS / GAIN CALCULATIONS<br/>DUCT SIZING<br/>RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY<br/>RESIDENTIAL SYSTEM DESIGN per CSA-F280-12</b>                                                                                                                                                                                                                                                                                                                                                                                  |                                     | <b>Model:</b> 4204<br><br>BROOKVALLEY - OPT 5 BED - WOB<br><br><b>Project:</b> PINE VALLEY PH 2               |                                      |          |
| <b>D. Declaration of Designer</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                     |                                                                                                               |                                      |          |
| I, <u>MICHAEL O'ROURKE</u><br>(print name)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                     | declare that (choose one as appropriate):                                                                     |                                      |          |
| <input type="checkbox"/> 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.<br><br>Individual BCIN: _____<br>Firm BCIN: _____                                                                                                                                                                                                                                                              |                                     |                                                                                                               |                                      |          |
| <input checked="" type="checkbox"/> 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.<br><br>Individual BCIN: <u>19669</u><br>Basis for exemption from registration and qualification: <u>O.B.C SENTENCE 3.2.4.1 (4)</u>                                                                                                                                                                                                                     |                                     |                                                                                                               |                                      |          |
| <input type="checkbox"/> The design work is exempt from the registration and qualification requirements of the Building Code.<br>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.<br>2. I have submitted this application with the knowledge and consent of the firm.                                                                                                                                                                                                                                                                                                                                                                                                      |                                     |                                                                                                               |                                      |          |
| May 2, 2022<br>Date                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                     | <br>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.

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

SITE NAME: PINE VALLEY PH 2  
BUILDER: GOLD PARK HOMES  
TYPE: 4204  
DATE: May-22  
LO# 98513  
GFA: 3646  
BROOKVALEY - OPT 5 BED - WOB  
WINTER NATURAL AIR CHANGE RATE 0.407  
SUMMER NATURAL AIR CHANGE RATE 0.137  
HEAT LOSS AT °F. 76  
HEAT GAIN AT °F. 13  
CSA-F280-12  
SB-12 PACKAGE A1

| ROOM USE                       | EXP. WALL | CLG. HT. | FACTORS | MBR  | ENS  | WIC  | BED-3 | BED-4 | BED-5 | ENS-4 | BED-2 | S-BATH | ENS-3 |
|--------------------------------|-----------|----------|---------|------|------|------|-------|-------|-------|-------|-------|--------|-------|
| GRS.WALL AREA                  | 370       |          |         | 370  | 324  | 234  | 288   | 396   | 252   | 45    | 126   | 63     | 0     |
| GLAZING                        | 0         | 0        | 0       | 0    | 0    | 0    | 0     | 0     | 0     | 0     | 0     | 0      | 0     |
| NORTH                          | 21.3      | 16.0     | 0       | 0    | 0    | 0    | 0     | 0     | 0     | 0     | 0     | 0      | 0     |
| EAST                           | 21.3      | 41.6     | 0       | 0    | 0    | 0    | 0     | 0     | 0     | 0     | 0     | 0      | 0     |
| SOUTH                          | 21.3      | 24.9     | 0       | 0    | 0    | 0    | 0     | 0     | 0     | 0     | 0     | 0      | 0     |
| WEST                           | 21.3      | 41.6     | 0       | 0    | 0    | 0    | 0     | 0     | 0     | 0     | 0     | 0      | 0     |
| SKYL.T.                        | 37.2      | 101.5    | 0       | 0    | 0    | 0    | 0     | 0     | 0     | 0     | 0     | 0      | 0     |
| DOORS                          | 20.1      | 3.4      | 0       | 0    | 0    | 0    | 0     | 0     | 0     | 0     | 0     | 0      | 0     |
| NET EXPOSED WALL               | 4.5       | 0.8      | 325     | 1450 | 244  | 259  | 1156  | 195   | 224   | 1000  | 188   | 190    | 848   |
| NET EXPOSED BSMT WALL ABOVE GR | 3.6       | 0.6      | 0       | 0    | 0    | 0    | 0     | 0     | 0     | 0     | 0     | 0      | 0     |
| EXPOSED CLG                    | 1.3       | 0.6      | 268     | 344  | 157  | 233  | 299   | 137   | 132   | 169   | 78    | 205    | 263   |
| NO ATTIC EXPOSED CLG           | 2.7       | 1.3      | 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     |
| BASEMENT/CRAWL HEAT LOSS       |           |          |         |      |      |      |       |       |       |       |       |        |       |
| SLAB ON GRADE HEAT LOSS        |           |          |         |      |      |      |       |       |       |       |       |        |       |
| SUBTOTAL HT LOSS               | 2752      |          |         | 2752 | 2838 | 1382 | 3137  | 4132  | 2637  | 691   | 1303  | 692    | 163   |
| SUB TOTAL HT GAIN              | 0.20      | 0.30     |         | 0.20 | 0.30 | 0.20 | 0.30  | 0.20  | 0.30  | 0.20  | 0.30  | 0.20   | 0.30  |
| LEVEL FACTOR / MULTIPLIER      | 820       |          |         | 820  | 845  | 412  | 935   | 1231  | 786   | 206   | 388   | 206    | 49    |
| AIR CHANGE HEAT LOSS           |           |          |         |      |      |      |       |       |       |       |       |        |       |
| AIR CHANGE HEAT GAIN           | 131       |          |         | 131  | 131  | 0    | 407   | 0     | 0     | 90    | 0     | 90     | 0     |
| DUCT LOSS                      | 0         |          |         | 0    | 0    | 0    | 0     | 0     | 0     | 0     | 0     | 0      | 0     |
| DUCT GAIN                      | 0         |          |         | 0    | 0    | 0    | 0     | 0     | 0     | 0     | 0     | 0      | 0     |
| HEAT GAIN PEOPLE               | 2         |          |         | 480  | 0    | 0    | 1     | 240   | 1     | 0     | 1     | 240    | 0     |
| HEAT GAIN APPLIANCES/LIGHTS    | 685       |          |         | 685  | 0    | 0    | 685   | 685   | 685   | 0     | 685   | 685    | 0     |
| TOTAL HT LOSS BTU/H            | 3572      |          |         | 3572 | 3684 | 1794 | 4479  | 5364  | 3423  | 987   | 1691  | 988    | 212   |
| TOTAL HT GAIN x 1.3 BTU/H      | 4637      |          |         | 909  | 5653 | 7404 | 4282  | 4282  | 4282  | 802   | 2450  | 393    | 103   |

| ROOM USE                       | EXP. WALL | CLG. HT. | FACTORS | DIN  | KTGT  | LIB  | LAUN | PWD  | FOY  | MUD  | WOB  | BAS   |
|--------------------------------|-----------|----------|---------|------|-------|------|------|------|------|------|------|-------|
| GRS.WALL AREA                  | 286       |          |         | 286  | 858   | 550  | 0    | 176  | 440  | 308  | 450  | 1043  |
| GLAZING                        | 0         | 0        | 0       | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0     |
| NORTH                          | 21.3      | 16.0     | 0       | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0     |
| EAST                           | 21.3      | 41.6     | 0       | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0     |
| SOUTH                          | 21.3      | 24.9     | 0       | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0     |
| WEST                           | 21.3      | 41.6     | 0       | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0     |
| SKYL.T.                        | 37.2      | 101.5    | 0       | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0     |
| DOORS                          | 20.1      | 3.4      | 0       | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0     |
| NET EXPOSED WALL               | 4.5       | 0.8      | 224     | 1000 | 168   | 671  | 2984 | 504  | 421  | 1879 | 316  | 0     |
| NET EXPOSED BSMT WALL ABOVE GR | 3.6       | 0.6      | 0       | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0     |
| EXPOSED CLG                    | 1.3       | 0.6      | 0       | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0     |
| NO ATTIC EXPOSED CLG           | 2.7       | 1.3      | 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     |
| BASEMENT/CRAWL HEAT LOSS       |           |          |         |      |       |      |      |      |      |      |      |       |
| SLAB ON GRADE HEAT LOSS        |           |          |         |      |       |      |      |      |      |      |      |       |
| SUBTOTAL HT LOSS               | 2319      |          |         | 2319 | 6937  | 4624 | 158  | 785  | 3700 | 1886 | 592  | 2607  |
| SUB TOTAL HT GAIN              | 0.30      | 0.44     |         | 0.30 | 0.44  | 0.30 | 0.30 | 0.44 | 0.30 | 0.44 | 0.30 | 0.44  |
| LEVEL FACTOR / MULTIPLIER      | 1028      |          |         | 1028 | 3075  | 2050 | 47   | 348  | 1640 | 748  | 4216 | 4617  |
| AIR CHANGE HEAT LOSS           |           |          |         |      |       |      |      |      |      |      |      |       |
| AIR CHANGE HEAT GAIN           | 99        |          |         | 99   | 353   | 275  | 2    | 8    | 108  | 16   | 2723 | 338   |
| DUCT LOSS                      | 0         |          |         | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0     |
| DUCT GAIN                      | 0         |          |         | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0     |
| HEAT GAIN PEOPLE               | 240       |          |         | 480  | 0     | 0    | 73   | 0    | 0    | 0    | 0    | 0     |
| HEAT GAIN APPLIANCES/LIGHTS    | 685       |          |         | 685  | 685   | 685  | 685  | 685  | 685  | 685  | 685  | 685   |
| TOTAL HT LOSS BTU/H            | 3347      |          |         | 3347 | 10012 | 6674 | 226  | 1134 | 5340 | 2434 | 4216 | 19432 |
| TOTAL HT GAIN x 1.3 BTU/H      | 3244      |          |         | 9570 | 7458  | 7458 | 1043 | 182  | 2588 | 390  | 3539 | 1559  |

TOTAL HEAT GAIN BTU/H: 59686 TONS: 4.97 LOSS DUE TO VENTILATION LOAD BTU/H: 1958 STRUCTURAL HEAT LOSS: 79008 TOTAL COMBINED HEAT LOSS BTU/H: 80966

*Michael O'Rourke*

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

## BROOKVALLEY - OPT 5 BED - WOB

TYPE: 4204 DATE: May-22 GFA: 3646 LO# 96513

HEATING CFM 1995 COOLING CFM 1995  
TOTAL HEAT LOSS 79,008 TOTAL HEAT GAIN 59,357  
AIR FLOW RATE CFM 25.25 AIR FLOW RATE CFM 33.61\$LENNOX  
ML196UH110XE60C 110  
FAN SPEED 0  
LOW  
MEDIUM 1420  
MEDIUM HIGH 1550  
HIGH 1725AFUE = 96 %  
INPUT (BTU/H) = 110,000  
OUTPUT (BTU/H) = 107,200  
DESIGN CFM = 1995  
CFM @ 6" E.S.P.

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

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

| RUN COUNT | 4th | 3rd | 2nd | 1st | Bas |
|-----------|-----|-----|-----|-----|-----|
| S/A       | 0   | 0   | 17  | 13  | 7   |
| R/A       | 0   | 0   | 6   | 3   | 1   |

| 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                 | MBR  | ENS  | MBR  | BED-3 | BED-4 | BED-5 | ENS-4 | BED-3 | BED-4 | WIC  | ENS-3 | DIN  | KT/GT | KT/GT | KT/GT | LIB  | LAUN | PWD  | FOY  | MUD  | BAS  | BAS  | BAS  | BAS  |
| RM LOSS MBH               | 1.79 | 3.68 | 1.79 | 2.24  | 1.79  | 1.71  | 0.99  | 2.24  | 1.79  | 1.79 | 0.21  | 1.67 | 2.50  | 2.50  | 2.50  | 2.22 | 0.23 | 1.13 | 2.67 | 2.43 | 3.38 | 3.38 | 3.38 | 3.38 |
| CFM PER RUN HEAT          | 45   | 93   | 45   | 57    | 45    | 43    | 25    | 57    | 45    | 45   | 5     | 42   | 63    | 63    | 63    | 56   | 6    | 29   | 67   | 61   | 85   | 85   | 85   | 85   |
| RM GAIN MBH               | 2.32 | 3.14 | 2.32 | 2.83  | 2.47  | 2.14  | 0.80  | 2.83  | 2.47  | 0.91 | 0.10  | 1.62 | 2.39  | 2.39  | 2.39  | 2.49 | 1.04 | 0.18 | 1.29 | 0.39 | 0.73 | 0.73 | 0.73 | 0.73 |
| CFM PER RUN COOLING       | 78   | 105  | 78   | 95    | 83    | 72    | 27    | 95    | 83    | 31   | 3     | 55   | 80    | 80    | 80    | 84   | 35   | 6    | 43   | 13   | 24   | 24   | 24   | 24   |
| ADJUSTED PRESSURE         | 0.17 | 0.16 | 0.17 | 0.16  | 0.16  | 0.17  | 0.17  | 0.16  | 0.16  | 0.17 | 0.17  | 0.17 | 0.17  | 0.17  | 0.17  | 0.16 | 0.17 | 0.17 | 0.17 | 0.17 | 0.16 | 0.16 | 0.16 | 0.16 |
| ACTUAL DUCT LGH           | 51   | 47   | 47   | 52    | 72    | 45    | 50    | 56    | 63    | 43   | 25    | 29   | 26    | 26    | 43    | 53   | 50   | 34   | 36   | 10   | 59   | 40   | 16   | 52   |
| EQUIVALENT LENGTH         | 160  | 200  | 120  | 150   | 200   | 160   | 140   | 160   | 190   | 160  | 150   | 100  | 110   | 110   | 150   | 110  | 170  | 100  | 150  | 140  | 160  | 90   | 100  | 100  |
| TOTAL EFFECTIVE LENGTH    | 211  | 247  | 167  | 202   | 272   | 205   | 190   | 216   | 253   | 203  | 175   | 129  | 136   | 136   | 193   | 163  | 220  | 134  | 186  | 150  | 219  | 130  | 116  | 152  |
| ADJUSTED PRESSURE         | 0.08 | 0.07 | 0.1  | 0.08  | 0.06  | 0.08  | 0.09  | 0.08  | 0.06  | 0.06 | 0.1   | 0.13 | 0.13  | 0.13  | 0.09  | 0.1  | 0.08 | 0.13 | 0.09 | 0.11 | 0.07 | 0.12 | 0.14 | 0.11 |
| ROUND DUCT SIZE           | 6    | 6    | 6    | 6     | 6     | 6     | 4     | 6     | 6     | 5    | 4     | 5    | 6     | 6     | 6     | 6    | 4    | 4    | 5    | 5    | 6    | 6    | 6    | 6    |
| HEATING VELOCITY (ft/min) | 229  | 474  | 229  | 291   | 229   | 219   | 287   | 291   | 229   | 330  | 57    | 308  | 321   | 321   | 321   | 286  | 69   | 333  | 492  | 448  | 433  | 433  | 433  | 433  |
| COOLING VELOCITY (ft/min) | 398  | 535  | 398  | 484   | 423   | 367   | 310   | 484   | 423   | 228  | 34    | 404  | 408   | 408   | 408   | 428  | 402  | 69   | 316  | 95   | 122  | 122  | 122  | 122  |
| OUTLET GRILL SIZE         | 4X10 | 4X10 | 4X10 | 4X10  | 4X10  | 4X10  | 3X10  | 4X10  | 4X10  | 3X10 | 3X10  | 3X10 | 4X10  | 4X10  | 4X10  | 4X10 | 3X10 | 3X10 | 3X10 | 4X10 | 4X10 | 4X10 | 4X10 | 4X10 |
| TRUNK                     | E    | A    | D    | C     | B     | A     | C     | C     | B     | E    | D     | A    | D     | E     | A     | B    | C    | C    | C    | E    | A    | E    | D    | B    |

| RUN #                     | 25    | 26   | 27    | 28     | 29    | 30   | 31    | 32   | 33   | 34   | 35   | 36     | 37   |
|---------------------------|-------|------|-------|--------|-------|------|-------|------|------|------|------|--------|------|
| ROOM NAME                 | BED-5 | LIB  | KT/GT | S-BATH | BED-2 | BAS  | BED-4 | LIB  | FOY  | BAS  | DIN  | S-BATH | BAS  |
| RM LOSS MBH               | 1.71  | 2.22 | 2.50  | 0.49   | 1.69  | 3.38 | 1.79  | 2.22 | 2.67 | 3.38 | 1.67 | 0.49   | 3.38 |
| CFM PER RUN HEAT          | 43    | 56   | 63    | 12     | 43    | 85   | 45    | 56   | 67   | 85   | 42   | 12     | 85   |
| RM GAIN MBH               | 2.14  | 2.49 | 2.39  | 0.20   | 2.45  | 0.73 | 2.47  | 2.49 | 1.29 | 0.73 | 1.62 | 0.20   | 0.73 |
| CFM PER RUN COOLING       | 72    | 84   | 80    | 7      | 82    | 24   | 83    | 84   | 43   | 24   | 55   | 7      | 24   |
| ADJUSTED PRESSURE         | 0.17  | 0.16 | 0.17  | 0.17   | 0.16  | 0.16 | 0.16  | 0.16 | 0.17 | 0.16 | 0.17 | 0.17   | 0.16 |
| ACTUAL DUCT LGH           | 50    | 50   | 37    | 55     | 22    | 30   | 76    | 54   | 43   | 38   | 29   | 58     | 29   |
| EQUIVALENT LENGTH         | 150   | 150  | 150   | 160    | 160   | 120  | 160   | 140  | 170  | 180  | 120  | 130    | 150  |
| TOTAL EFFECTIVE LENGTH    | 200   | 200  | 187   | 215    | 182   | 150  | 236   | 194  | 213  | 218  | 149  | 188    | 179  |
| ADJUSTED PRESSURE         | 0.09  | 0.08 | 0.09  | 0.08   | 0.09  | 0.11 | 0.07  | 0.08 | 0.08 | 0.07 | 0.12 | 0.09   | 0.09 |
| ROUND DUCT SIZE           | 6     | 6    | 5     | 4      | 6     | 6    | 6     | 6    | 5    | 6    | 5    | 4      | 6    |
| HEATING VELOCITY (ft/min) | 219   | 286  | 463   | 138    | 219   | 433  | 229   | 286  | 492  | 433  | 308  | 138    | 433  |
| COOLING VELOCITY (ft/min) | 367   | 428  | 587   | 80     | 418   | 122  | 423   | 428  | 316  | 122  | 404  | 80     | 122  |
| OUTLET GRILL SIZE         | 4X10  | 4X10 | 3X10  | 3X10   | 4X10  | 4X10 | 4X10  | 4X10 | 3X10 | 4X10 | 3X10 | 4X10   | 4X10 |
| TRUNK                     | A     | B    | A     | C      | E     | D    | B     | B    | B    | C    | A    | C      | 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) | RETURN AIR TRUNK SIZE | TRUNK CFM | STATIC PRESS. | ROUND DUCT | RECT DUCT | VELOCITY (ft/min) |
|-----------|---------------|------------|-----------|-------------------|-----------|---------------|------------|-----------|-------------------|-----------------------|-----------|---------------|------------|-----------|-------------------|
| TRUNK A   | 559           | 0.07       | 11.7      | 16                | 0         | 0.00          | 0          | 0         | 0                 | TRUNK O               | 0         | 0.06          | 0          | 0         | 8                 |
| TRUNK B   | 455           | 0.06       | 11.2      | 16                | 0         | 0.00          | 0          | 0         | 0                 | TRUNK P               | 0         | 0.06          | 0          | 0         | 8                 |
| TRUNK C   | 805           | 0.06       | 13.9      | 24                | 0         | 0.00          | 0          | 0         | 0                 | TRUNK Q               | 0         | 0.06          | 0          | 0         | 8                 |
| TRUNK D   | 1647          | 0.06       | 18.2      | 30                | 0         | 0.00          | 0          | 0         | 0                 | TRUNK R               | 0         | 0.06          | 0          | 0         | 8                 |
| TRUNK E   | 342           | 0.08       | 9.4       | 10                | 0         | 0.00          | 0          | 0         | 0                 | TRUNK S               | 0         | 0.06          | 0          | 0         | 8                 |
| TRUNK F   | 0             | 0.00       | 0         | 0                 | 0         | 0.00          | 0          | 0         | 0                 | TRUNK T               | 0         | 0.06          | 0          | 0         | 8                 |
|           |               |            |           |                   |           |               |            |           |                   | TRUNK U               | 0         | 0.06          | 0          | 0         | 8                 |
|           |               |            |           |                   |           |               |            |           |                   | TRUNK V               | 0         | 0.06          | 0          | 0         | 8                 |
|           |               |            |           |                   |           |               |            |           |                   | TRUNK W               | 0         | 0.06          | 0          | 0         | 8                 |
|           |               |            |           |                   |           |               |            |           |                   | TRUNK X               | 1495      | 0.06          | 17.5       | 30        | 10                |
|           |               |            |           |                   |           |               |            |           |                   | TRUNK Y               | 660       | 0.06          | 12.9       | 20        | 8                 |
|           |               |            |           |                   |           |               |            |           |                   | TRUNK Z               | 1130      | 0.06          | 15.8       | 28        | 8                 |
|           |               |            |           |                   |           |               |            |           |                   | DROP                  | 1995      | 0.06          | 19.5       | 24        | 14                |

## RETURN AIR #

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TYPE: 4204  
SITE NAME: PINE VALLEY PH 2

LO # 96513  
BROOKVALLEY - OPT 5 BED - WOB

**RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY**

| COMBUSTION APPLIANCES 9.32.3.1(1)      |                                                      |
|----------------------------------------|------------------------------------------------------|
| a) <input checked="" type="checkbox"/> | Direct vent (sealed combustion) only                 |
| b) <input type="checkbox"/>            | Positive venting induced draft (except fireplaces)   |
| c) <input type="checkbox"/>            | Natural draft, B-vent or induced draft gas fireplace |
| d) <input type="checkbox"/>            | Solid Fuel (including fireplaces)                    |
| e) <input type="checkbox"/>            | No Combustion Appliances                             |

| HEATING SYSTEM                      |                     |
|-------------------------------------|---------------------|
| <input checked="" type="checkbox"/> | Forced Air          |
| <input type="checkbox"/>            | Non Forced Air      |
| <input type="checkbox"/>            | Electric Space Heat |

| HOUSE TYPE 9.32.1(2)                |                                                         |
|-------------------------------------|---------------------------------------------------------|
| <input checked="" type="checkbox"/> | I Type a) or b) appliance only, no solid fuel           |
| <input type="checkbox"/>            | II Type I except with solid fuel (including fireplaces) |
| <input type="checkbox"/>            | III Any Type c) appliance                               |
| <input type="checkbox"/>            | IV Type I, or II with electric space heat               |
| <input type="checkbox"/>            | Other: Type I, II or IV no forced air                   |

| SYSTEM DESIGN OPTIONS O.N.H.W.P.    |                                                 |
|-------------------------------------|-------------------------------------------------|
| <input type="checkbox"/>            | 1 Exhaust only/Forced Air System                |
| <input type="checkbox"/>            | 2 HRV with Ducting/Forced Air System            |
| <input checked="" type="checkbox"/> | 3 HRV Simplified/connected to forced air system |
| <input type="checkbox"/>            | 4 HRV with Ducting/non forced air system        |
| <input type="checkbox"/>            | Part 6 Design                                   |

| TOTAL VENTILATION CAPACITY 9.32.3.3(1) |                       |
|----------------------------------------|-----------------------|
| Basement + Master Bedroom              | 2 @ 21.2 cfm 42.4 cfm |
| Other Bedrooms                         | 4 @ 10.6 cfm 42.4 cfm |
| Kitchen & Bathrooms                    | 6 @ 10.6 cfm 63.6 cfm |
| Other Rooms                            | 4 @ 10.6 cfm 42.4 cfm |
| Table 9.32.3.A.                        | TOTAL 190.8 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        |
| <b>TOTAL</b>                                         | <b>95.4 cfm</b> |

| SUPPLEMENTAL VENTILATION CAPACITY 9.32.3.5. |           |
|---------------------------------------------|-----------|
| Total Ventilation Capacity                  | 190.8 cfm |
| Less Principal Ventil. Capacity             | 95.4 cfm  |
| Required Supplemental Capacity              | 95.4 cfm  |

| PRINCIPAL EXHAUST FAN CAPACITY |                                                  |
|--------------------------------|--------------------------------------------------|
| Model: VANEE V150H             | Location: BSMT                                   |
| 95.4 cfm                       | <input checked="" type="checkbox"/> HVI Approved |

| PRINCIPAL EXHAUST HEAT LOSS CALCULATION |       |        |        |      |
|-----------------------------------------|-------|--------|--------|------|
| CFM                                     | ΔT °F | FACTOR | % LOSS |      |
| 95.4 CFM                                | 76 F  | 1.08   | X      | 0.25 |

| SUPPLEMENTAL FANS BY INSTALLING CONTRACTOR |                          |     |     |       |
|--------------------------------------------|--------------------------|-----|-----|-------|
| Location                                   | Model                    | cfm | HVI | Sones |
| ENS                                        | BY INSTALLING CONTRACTOR | 50  | ✓   | 3.5   |
| ENS-4                                      | 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                  |                                                  |
| 150 cfm high                        | 35 cfm low                                       |
| 75 % Sensible Efficiency            | <input checked="" type="checkbox"/> HVI Approved |
| @ 32 deg F ( 0 deg C)               |                                                  |

| 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:                                                                                                         | May-22                  |

| <b>CSA F280-12 Residential Heat Loss and Heat Gain Calculations</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                   |                                                    |                                                    |                                                                         |   |                  |   |                                     |             |                                |                   |                                                    |                                                    |                                                                         |         |       |        |             |       |     |       |             |       |    |       |        |       |   |    |        |       |   |   |        |   |       |              |        |  |  |           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|----------------------------------------------------|----------------------------------------------------|-------------------------------------------------------------------------|---|------------------|---|-------------------------------------|-------------|--------------------------------|-------------------|----------------------------------------------------|----------------------------------------------------|-------------------------------------------------------------------------|---------|-------|--------|-------------|-------|-----|-------|-------------|-------|----|-------|--------|-------|---|----|--------|-------|---|---|--------|---|-------|--------------|--------|--|--|-----------|
| <b>Formula Sheet (For Air Leakage / Ventilation Calculation)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                   |                                                    |                                                    |                                                                         |   |                  |   |                                     |             |                                |                   |                                                    |                                                    |                                                                         |         |       |        |             |       |     |       |             |       |    |       |        |       |   |    |        |       |   |   |        |   |       |              |        |  |  |           |
| LO#: 96513                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                   | Model: 4204                                        |                                                    | Builder: GOLD PARK HOMES                                                |   | Date: 2022-05-02 |   |                                     |             |                                |                   |                                                    |                                                    |                                                                         |         |       |        |             |       |     |       |             |       |    |       |        |       |   |    |        |       |   |   |        |   |       |              |        |  |  |           |
| <b>Volume Calculation</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                   |                                                    |                                                    |                                                                         |   |                  |   |                                     |             |                                |                   |                                                    |                                                    |                                                                         |         |       |        |             |       |     |       |             |       |    |       |        |       |   |    |        |       |   |   |        |   |       |              |        |  |  |           |
| <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>House Volume Level</th> <th>Floor Area (ft²)</th> <th>Floor Height (ft)</th> <th>Volume (ft³)</th> </tr> <tr> <td>Bsmt</td> <td>1673</td> <td>10</td> <td>16730</td> </tr> <tr> <td>First</td> <td>1673</td> <td>11</td> <td>18403</td> </tr> <tr> <td>Second</td> <td>2047</td> <td>9</td> <td>18423</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="2">Total:</td> <td></td> <td>53,556.0 ft³</td> </tr> <tr> <td colspan="2">Total:</td> <td></td> <td>1516.5 m³</td> </tr> </table>                                 |                   |                                                    |                                                    |                                                                         |   |                  |   |                                     |             | House Volume Level             | Floor Area (ft²)  | Floor Height (ft)                                  | Volume (ft³)                                       | Bsmt                                                                    | 1673    | 10    | 16730  | First       | 1673  | 11  | 18403 | Second      | 2047  | 9  | 18423 | Third  | 0     | 9 | 0  | Fourth | 0     | 9 | 0 | Total: |   |       | 53,556.0 ft³ | Total: |  |  | 1516.5 m³ |
| House Volume Level                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Floor Area (ft²)  | Floor Height (ft)                                  | Volume (ft³)                                       |                                                                         |   |                  |   |                                     |             |                                |                   |                                                    |                                                    |                                                                         |         |       |        |             |       |     |       |             |       |    |       |        |       |   |    |        |       |   |   |        |   |       |              |        |  |  |           |
| Bsmt                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1673              | 10                                                 | 16730                                              |                                                                         |   |                  |   |                                     |             |                                |                   |                                                    |                                                    |                                                                         |         |       |        |             |       |     |       |             |       |    |       |        |       |   |    |        |       |   |   |        |   |       |              |        |  |  |           |
| First                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1673              | 11                                                 | 18403                                              |                                                                         |   |                  |   |                                     |             |                                |                   |                                                    |                                                    |                                                                         |         |       |        |             |       |     |       |             |       |    |       |        |       |   |    |        |       |   |   |        |   |       |              |        |  |  |           |
| Second                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 2047              | 9                                                  | 18423                                              |                                                                         |   |                  |   |                                     |             |                                |                   |                                                    |                                                    |                                                                         |         |       |        |             |       |     |       |             |       |    |       |        |       |   |    |        |       |   |   |        |   |       |              |        |  |  |           |
| Third                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 0                 | 9                                                  | 0                                                  |                                                                         |   |                  |   |                                     |             |                                |                   |                                                    |                                                    |                                                                         |         |       |        |             |       |     |       |             |       |    |       |        |       |   |    |        |       |   |   |        |   |       |              |        |  |  |           |
| Fourth                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 0                 | 9                                                  | 0                                                  |                                                                         |   |                  |   |                                     |             |                                |                   |                                                    |                                                    |                                                                         |         |       |        |             |       |     |       |             |       |    |       |        |       |   |    |        |       |   |   |        |   |       |              |        |  |  |           |
| Total:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                   |                                                    | 53,556.0 ft³                                       |                                                                         |   |                  |   |                                     |             |                                |                   |                                                    |                                                    |                                                                         |         |       |        |             |       |     |       |             |       |    |       |        |       |   |    |        |       |   |   |        |   |       |              |        |  |  |           |
| Total:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                   |                                                    | 1516.5 m³                                          |                                                                         |   |                  |   |                                     |             |                                |                   |                                                    |                                                    |                                                                         |         |       |        |             |       |     |       |             |       |    |       |        |       |   |    |        |       |   |   |        |   |       |              |        |  |  |           |
| <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2">WINTER NATURAL AIR CHANGE RATE</th> <th colspan="2">SUMMER NATURAL AIR CHANGE RATE</th> </tr> <tr> <td></td> <td>0.407</td> <td></td> <td>0.137</td> </tr> </table>                                                                                                                                                                                                                                                                                                                                                                                                                                             |                   |                                                    |                                                    |                                                                         |   |                  |   |                                     |             | WINTER NATURAL AIR CHANGE RATE |                   | SUMMER NATURAL AIR CHANGE RATE                     |                                                    |                                                                         | 0.407   |       | 0.137  |             |       |     |       |             |       |    |       |        |       |   |    |        |       |   |   |        |   |       |              |        |  |  |           |
| WINTER NATURAL AIR CHANGE RATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   | SUMMER NATURAL AIR CHANGE RATE                     |                                                    |                                                                         |   |                  |   |                                     |             |                                |                   |                                                    |                                                    |                                                                         |         |       |        |             |       |     |       |             |       |    |       |        |       |   |    |        |       |   |   |        |   |       |              |        |  |  |           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 0.407             |                                                    | 0.137                                              |                                                                         |   |                  |   |                                     |             |                                |                   |                                                    |                                                    |                                                                         |         |       |        |             |       |     |       |             |       |    |       |        |       |   |    |        |       |   |   |        |   |       |              |        |  |  |           |
| <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="4">Design Temperature Difference</th> </tr> <tr> <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> </tr> <tr> <td>Summer DTDc</td> <td>24</td> <td>31</td> <td>7</td> </tr> <tr> <td></td> <td></td> <td></td> <td>13</td> </tr> </table>                                                                                                                                                                                                                                                                                        |                   |                                                    |                                                    |                                                                         |   |                  |   |                                     |             | Design Temperature Difference  |                   |                                                    |                                                    | Tin °C                                                                  | Tout °C | ΔT °C | ΔT °F  | Winter DTDh | 22    | -20 | 42    | Summer DTDc | 24    | 31 | 7     |        |       |   | 13 |        |       |   |   |        |   |       |              |        |  |  |           |
| Design Temperature Difference                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                   |                                                    |                                                    |                                                                         |   |                  |   |                                     |             |                                |                   |                                                    |                                                    |                                                                         |         |       |        |             |       |     |       |             |       |    |       |        |       |   |    |        |       |   |   |        |   |       |              |        |  |  |           |
| Tin °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Tout °C           | ΔT °C                                              | ΔT °F                                              |                                                                         |   |                  |   |                                     |             |                                |                   |                                                    |                                                    |                                                                         |         |       |        |             |       |     |       |             |       |    |       |        |       |   |    |        |       |   |   |        |   |       |              |        |  |  |           |
| Winter DTDh                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 22                | -20                                                | 42                                                 |                                                                         |   |                  |   |                                     |             |                                |                   |                                                    |                                                    |                                                                         |         |       |        |             |       |     |       |             |       |    |       |        |       |   |    |        |       |   |   |        |   |       |              |        |  |  |           |
| Summer DTDc                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 24                | 31                                                 | 7                                                  |                                                                         |   |                  |   |                                     |             |                                |                   |                                                    |                                                    |                                                                         |         |       |        |             |       |     |       |             |       |    |       |        |       |   |    |        |       |   |   |        |   |       |              |        |  |  |           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                   |                                                    | 13                                                 |                                                                         |   |                  |   |                                     |             |                                |                   |                                                    |                                                    |                                                                         |         |       |        |             |       |     |       |             |       |    |       |        |       |   |    |        |       |   |   |        |   |       |              |        |  |  |           |
| <b>5.2.3.1 Heat Loss due to Air Leakage</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                   |                                                    |                                                    |                                                                         |   |                  |   |                                     |             |                                |                   |                                                    |                                                    |                                                                         |         |       |        |             |       |     |       |             |       |    |       |        |       |   |    |        |       |   |   |        |   |       |              |        |  |  |           |
| $HL_{airb} = LR_{airh} \times \frac{V_b}{3.6} \times DTD_h \times 1.2$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                   |                                                    |                                                    |                                                                         |   |                  |   |                                     |             |                                |                   |                                                    |                                                    |                                                                         |         |       |        |             |       |     |       |             |       |    |       |        |       |   |    |        |       |   |   |        |   |       |              |        |  |  |           |
| 0.407                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | x                 | 421.26                                             | x                                                  | 42 °C                                                                   | x | 1.2              | = | 8684 W                              |             |                                |                   |                                                    |                                                    |                                                                         |         |       |        |             |       |     |       |             |       |    |       |        |       |   |    |        |       |   |   |        |   |       |              |        |  |  |           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                   |                                                    |                                                    |                                                                         |   |                  |   | =                                   | 29631 Btu/h |                                |                   |                                                    |                                                    |                                                                         |         |       |        |             |       |     |       |             |       |    |       |        |       |   |    |        |       |   |   |        |   |       |              |        |  |  |           |
| <b>5.2.3.2 Heat Loss due to Mechanical Ventilation</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                   |                                                    |                                                    |                                                                         |   |                  |   |                                     |             |                                |                   |                                                    |                                                    |                                                                         |         |       |        |             |       |     |       |             |       |    |       |        |       |   |    |        |       |   |   |        |   |       |              |        |  |  |           |
| $HL_{vairb} = PVC \times DTD_h \times 1.08 \times (1 - E)$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                   |                                                    |                                                    |                                                                         |   |                  |   |                                     |             |                                |                   |                                                    |                                                    |                                                                         |         |       |        |             |       |     |       |             |       |    |       |        |       |   |    |        |       |   |   |        |   |       |              |        |  |  |           |
| 95 CFM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | x                 | 76 °F                                              | x                                                  | 1.08                                                                    | x | 0.25             | = | 1958 Btu/h                          |             |                                |                   |                                                    |                                                    |                                                                         |         |       |        |             |       |     |       |             |       |    |       |        |       |   |    |        |       |   |   |        |   |       |              |        |  |  |           |
| <b>5.2.3.3 Calculation of Air Change Heat Loss for Each Room (Floor Multiplier Section)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                   |                                                    |                                                    |                                                                         |   |                  |   |                                     |             |                                |                   |                                                    |                                                    |                                                                         |         |       |        |             |       |     |       |             |       |    |       |        |       |   |    |        |       |   |   |        |   |       |              |        |  |  |           |
| $HL_{airrr} = Level Factor \times HL_{airbv} \times \{(HL_{agcr} + HL_{bgcr}) \div (HL_{agclevel} + HL_{bgclevel})\}$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                   |                                                    |                                                    |                                                                         |   |                  |   |                                     |             |                                |                   |                                                    |                                                    |                                                                         |         |       |        |             |       |     |       |             |       |    |       |        |       |   |    |        |       |   |   |        |   |       |              |        |  |  |           |
| <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>Level</th> <th>Level Factor (LF)</th> <th>Hlaire Air Leakage + Ventilation Heat Loss (Btu/h)</th> <th>Level Conductive Heat Loss: (HL<sub>level</sub>)</th> <th>Air Leakage Heat Loss Multiplier (LF x Hlairebv / HL<sub>level</sub>)</th> </tr> <tr> <td>1</td> <td>0.5</td> <td rowspan="4">29,631</td> <td>8,833</td> <td>1.677</td> </tr> <tr> <td>2</td> <td>0.3</td> <td>20,051</td> <td>0.443</td> </tr> <tr> <td>3</td> <td>0.2</td> <td>19,885</td> <td>0.298</td> </tr> <tr> <td>4</td> <td>0</td> <td>0</td> <td>0.000</td> </tr> <tr> <td>5</td> <td>0</td> <td>0</td> <td>0</td> <td>0.000</td> </tr> </table> |                   |                                                    |                                                    |                                                                         |   |                  |   |                                     |             | Level                          | Level Factor (LF) | Hlaire Air Leakage + Ventilation Heat Loss (Btu/h) | Level Conductive Heat Loss: (HL <sub>level</sub> ) | Air Leakage Heat Loss Multiplier (LF x Hlairebv / HL <sub>level</sub> ) | 1       | 0.5   | 29,631 | 8,833       | 1.677 | 2   | 0.3   | 20,051      | 0.443 | 3  | 0.2   | 19,885 | 0.298 | 4 | 0  | 0      | 0.000 | 5 | 0 | 0      | 0 | 0.000 |              |        |  |  |           |
| Level                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Level Factor (LF) | Hlaire Air Leakage + Ventilation Heat Loss (Btu/h) | Level Conductive Heat Loss: (HL <sub>level</sub> ) | Air Leakage Heat Loss Multiplier (LF x Hlairebv / HL <sub>level</sub> ) |   |                  |   |                                     |             |                                |                   |                                                    |                                                    |                                                                         |         |       |        |             |       |     |       |             |       |    |       |        |       |   |    |        |       |   |   |        |   |       |              |        |  |  |           |
| 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 0.5               | 29,631                                             | 8,833                                              | 1.677                                                                   |   |                  |   |                                     |             |                                |                   |                                                    |                                                    |                                                                         |         |       |        |             |       |     |       |             |       |    |       |        |       |   |    |        |       |   |   |        |   |       |              |        |  |  |           |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 0.3               |                                                    | 20,051                                             | 0.443                                                                   |   |                  |   |                                     |             |                                |                   |                                                    |                                                    |                                                                         |         |       |        |             |       |     |       |             |       |    |       |        |       |   |    |        |       |   |   |        |   |       |              |        |  |  |           |
| 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 0.2               |                                                    | 19,885                                             | 0.298                                                                   |   |                  |   |                                     |             |                                |                   |                                                    |                                                    |                                                                         |         |       |        |             |       |     |       |             |       |    |       |        |       |   |    |        |       |   |   |        |   |       |              |        |  |  |           |
| 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 0                 |                                                    | 0                                                  | 0.000                                                                   |   |                  |   |                                     |             |                                |                   |                                                    |                                                    |                                                                         |         |       |        |             |       |     |       |             |       |    |       |        |       |   |    |        |       |   |   |        |   |       |              |        |  |  |           |
| 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 0                 | 0                                                  | 0                                                  | 0.000                                                                   |   |                  |   |                                     |             |                                |                   |                                                    |                                                    |                                                                         |         |       |        |             |       |     |       |             |       |    |       |        |       |   |    |        |       |   |   |        |   |       |              |        |  |  |           |
| <p>*HL<sub>airbv</sub> = Air leakage heat loss + ventilation heat loss<br/>         *For a balanced or supply only ventilation system HL<sub>airre</sub> = 0</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                   |                                                    |                                                    |                                                                         |   |                  |   |                                     |             |                                |                   |                                                    |                                                    |                                                                         |         |       |        |             |       |     |       |             |       |    |       |        |       |   |    |        |       |   |   |        |   |       |              |        |  |  |           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                   |                                                    |                                                    |                                                                         |   |                  |   | Michael O'Rourke<br>BCIN# 19669<br> |             |                                |                   |                                                    |                                                    |                                                                         |         |       |        |             |       |     |       |             |       |    |       |        |       |   |    |        |       |   |   |        |   |       |              |        |  |  |           |

**HEAT LOSS AND GAIN SUMMARY SHEET**

|                    |                                      |                                 |
|--------------------|--------------------------------------|---------------------------------|
| <b>MODEL:</b> 4204 | <b>BROOKVALLEY - OPT 5 BED - WOB</b> | <b>BUILDER:</b> GOLD PARK HOMES |
| <b>SFQT:</b> 3646  | <b>LO#</b> 96513                     | <b>SITE:</b> 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):                 | 53556.0         | ASSUMED (Y/N):            | Y        |
| INTERNAL SHADING:                   | BLINDS/CURTAINS | ASSUMED OCCUPANTS:        | 6        |
| INTERIOR LIGHTING LOAD (Btu/h/ft²): | 1.27            | DC BRUSHLESS MOTOR (Y/N): | Y        |
| FOUNDATION CONFIGURATION            | BCIN_1          | DEPTH BELOW GRADE:        | 7.0 ft   |
| LENGTH: 62.0 ft                     | WIDTH: 35.0 ft  | EXPOSED PERIMETER:        | 149.0 ft |
| WOB INSULATION CONFIGURATION        | SCB_9           | WOB EXPOSED PERIMETER     | 45.0 ft  |

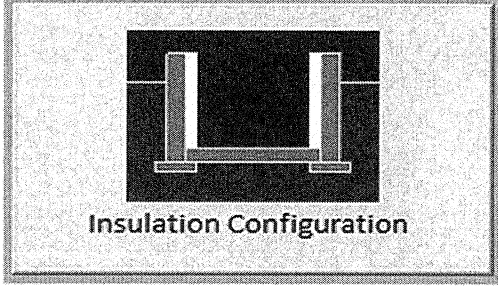
| 2012 OBC - COMPLIANCE PACKAGE                                              |  | Compliance Package A1 |           |
|----------------------------------------------------------------------------|--|-----------------------|-----------|
| Component                                                                  |  | 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                                       |  | 96%                   | -         |
| HRV/ERV 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

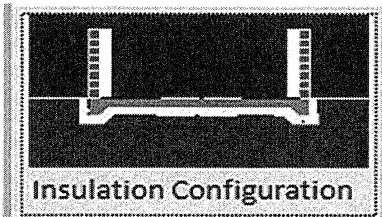
| Weather Station Description    |                                           |                                                                                                                 |
|--------------------------------|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| 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):              | 4.6                                       | <br>Insulation Configuration |
| Floor Width (m):               | 10.7                                      |                                                                                                                 |
| Exposed Perimeter (m):         | 45.4                                      |                                                                                                                 |
| Wall Height (m):               | 3.0                                       |                                                                                                                 |
| Depth Below Grade (m):         | 1.81                                      |                                                                                                                 |
| Window Area (m <sup>2</sup> ): | 0.0                                       |                                                                                                                 |
| Door Area (m <sup>2</sup> ):   | 1.9                                       |                                                                                                                 |
| Radiant Slab                   |                                           |                                                                                                                 |
| Heated Fraction of the Slab:   | 0                                         |                                                                                                                 |
| Fluid Temperature (°C):        | 33                                        |                                                                                                                 |
| Design Months                  |                                           |                                                                                                                 |
| Heating Month                  | 1                                         |                                                                                                                 |
| Foundation Loads               |                                           |                                                                                                                 |
| Heating Load (Watts):          |                                           | <b>764</b>                                                                                                      |

TYPE: 4204  
LO# 96513

BROOKVALLEY - OPT 5 BED - WOB

## Residential Slab on Grade 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        |                                           |                                                                                                                 |
| Length (m):                  | 1.5                                       | <br>Insulation Configuration |
| Width (m):                   | 10.7                                      |                                                                                                                 |
| Exposed Perimeter (m):       | 13.7                                      |                                                                                                                 |
| Radiant Slab                 |                                           |                                                                                                                 |
| Heated Fraction of the Slab: | 0                                         |                                                                                                                 |
| Fluid Temperature (°C):      | 33                                        |                                                                                                                 |
| Design Months                |                                           |                                                                                                                 |
| Heating Month                | 1                                         |                                                                                                                 |
| Results                      |                                           |                                                                                                                 |
| Heating Load (Watts):        |                                           | 174                                                                                                             |

TYPE: 4204  
LO# 96513

BROOKVALLEY - OPT 5 BED - WOB



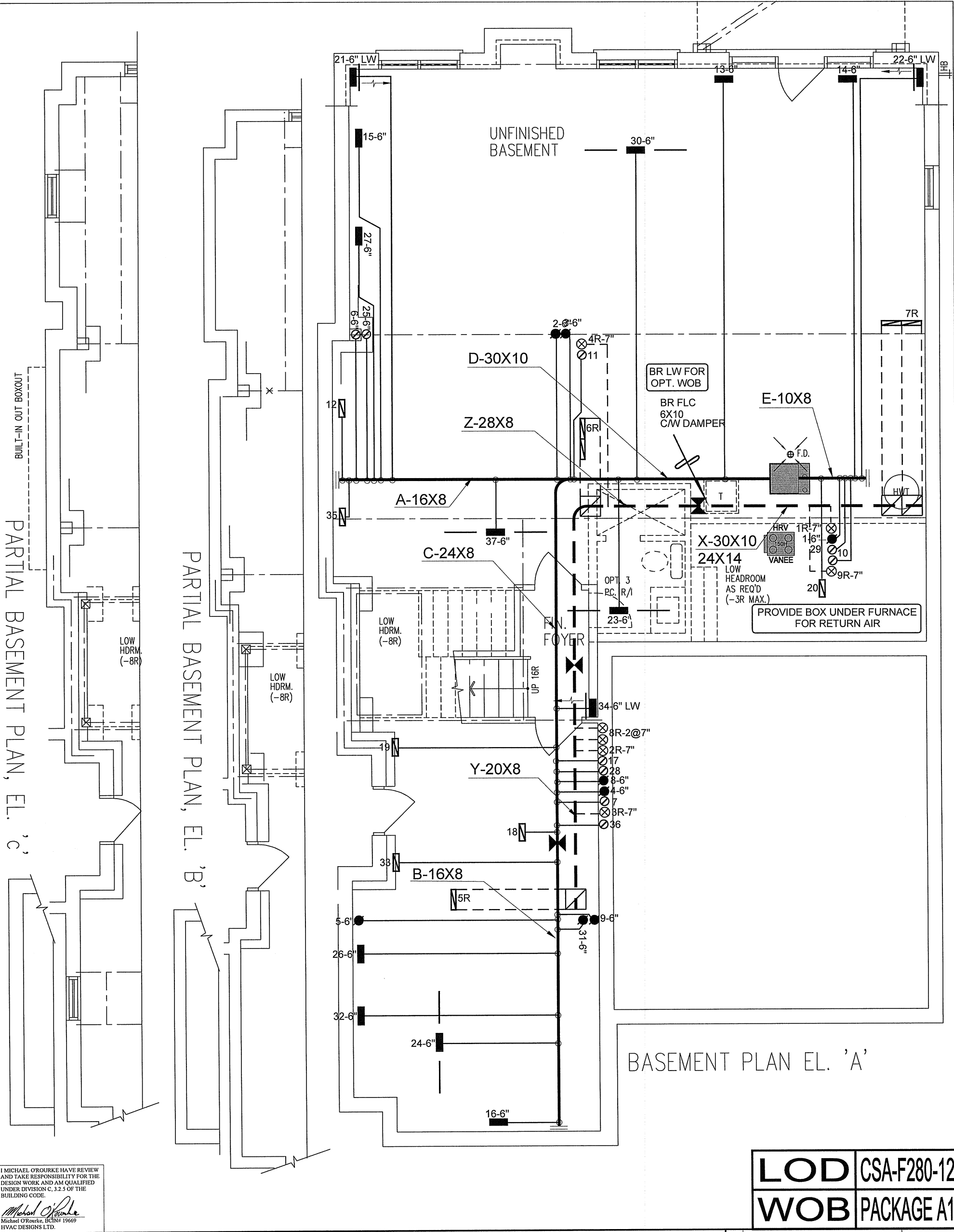
# Air Infiltration Residential Load Calculator

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):       | 9.14                       |                        |    |    |
| Building Configuration            |                            |                        |    |    |
| Type:                             | Detached                   |                        |    |    |
| Number of Stories:                | Two                        |                        |    |    |
| Foundation:                       | Full                       |                        |    |    |
| House Volume (m <sup>3</sup> ):   | 1516.5                     |                        |    |    |
| Air Leakage/Ventilation           |                            |                        |    |    |
| Air Tightness Type:               | Present (1961-) (3.57 ACH) |                        |    |    |
| Custom BDT Data:                  | ELA @ 10 Pa.               | 2021.6 cm <sup>2</sup> |    |    |
|                                   | 3.57                       | ACH @ 50 Pa            |    |    |
| Mechanical Ventilation (L/s):     | Total Supply               | Total Exhaust          |    |    |
|                                   | 45.0                       | 45.0                   |    |    |
| Flue Size                         |                            |                        |    |    |
| Flue #:                           | #1                         | #2                     | #3 | #4 |
| Diameter (mm):                    | 0                          | 0                      | 0  | 0  |
| Natural Infiltration Rates        |                            |                        |    |    |
| Heating Air Leakage Rate (ACH/H): | 0.407                      |                        |    |    |
| Cooling Air Leakage Rate (ACH/H): | 0.137                      |                        |    |    |

TYPE: 4204  
LO# 96513

BROOKVALLEY - OPT 5 BED - WOB



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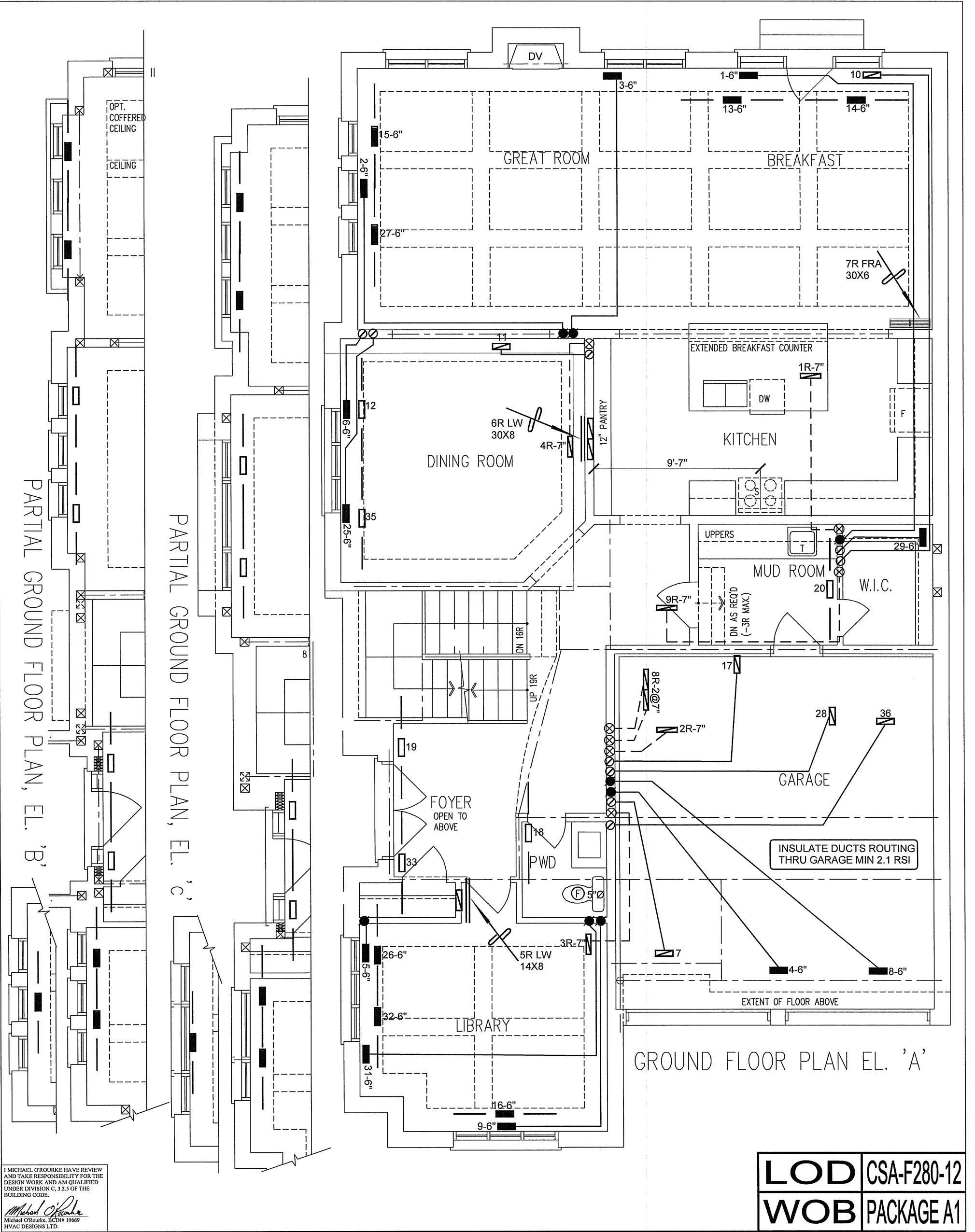
*Michael O'Rourke*  
Michael O'Rourke, BCIN# 19669  
HVAC DESIGNS LTD.

|     |             |
|-----|-------------|
| LOD | CSA-F280-12 |
| WOB | PACKAGE A1  |

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

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|                                      |  |                                                                                                                                                                                                                                                                                |                                    |                                                                                                                                                              |                        |           |   |                        |                               |
|--------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|-----------|---|------------------------|-------------------------------|
| Client                               |  | <div><div>HVACDESIGNS LTD.</div><div>375 Finley Ave. Suite 202 - Ajax, Ontario<br/>L1S 2E2 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375<br/>Email: info@hvacdesigns.ca<br/>Web: www.hvacdesigns.ca<br/>Specializing in Residential Mechanical Design Services</div></div> | HEAT LOSS 80966 BTU/H<br>UNIT DATA |                                                                                                                                                              | # OF RUNS S/A R/A FANS |           |   | Sheet Title            |                               |
| GOLD PARK HOMES                      |  |                                                                                                                                                                                                                                                                                | MAKE<br>LENNOX                     |                                                                                                                                                              | 3RD FLOOR              |           |   |                        | BASEMENT<br>HEATING<br>LAYOUT |
| Project Name                         |  |                                                                                                                                                                                                                                                                                | MODEL<br>ML196UH110XE60C           |                                                                                                                                                              | 2ND FLOOR              | 17        | 6 | 5                      |                               |
| PINE VALLEY PH 2<br>VAUGHAN, ONTARIO |  |                                                                                                                                                                                                                                                                                | INPUT<br>110                       | MBTU/H                                                                                                                                                       | 1ST FLOOR              | 13        | 3 | 2                      |                               |
| OPT 5 BED<br>BROOKVALLEY             |  |                                                                                                                                                                                                                                                                                | OUTPUT<br>107.2                    | MBTU/H                                                                                                                                                       | BASEMENT               | 7         | 1 | 0                      | Date<br>MAY/2022              |
| 4204 - WOB                           |  | COOLING<br>5.0                                                                                                                                                                                                                                                                 | TONS                               | ALL S/A DIFFUSERS 4 "x10"<br>UNLESS NOTED OTHERWISE<br>ON LAYOUT. ALL S/A RUNS 5"Ø<br>UNLESS NOTED OTHERWISE<br>ON LAYOUT. UNDERCUT<br>DOORS 1" min. FOR R/A |                        |           |   | Scale<br>3/16" = 1'-0" |                               |
| 3646 sqft                            |  | FAN SPEED<br>1995                                                                                                                                                                                                                                                              | cfm @<br>0.6" w.c.                 |                                                                                                                                                              |                        |           |   | BCIN# 19669            |                               |
|                                      |  |                                                                                                                                                                                                                                                                                |                                    |                                                                                                                                                              |                        | LO# 96513 |   |                        |                               |



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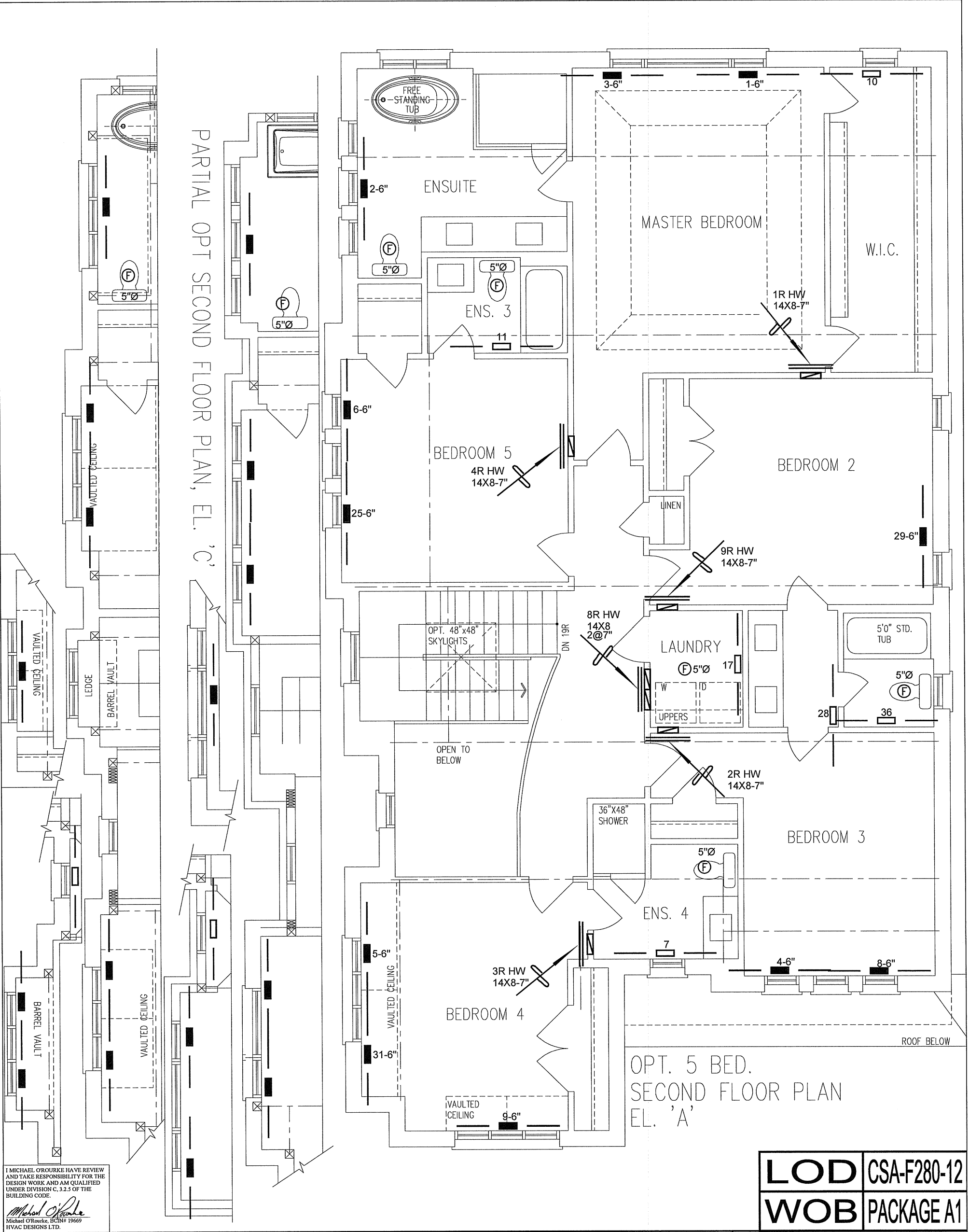
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Michael O'Rourke, BCIN# 19669  
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| LOD | CSA-F280-12 |
| WOB | PACKAGE A1  |

| 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 |
|             | SUPPLY AIR BOOT ABOVE     |        | 6" SUPPLY AIR STACK 2nd FLOOR   |        | FRA- FLOOR RETURN AIR GRILLE |        | REDUCER                    | REVISIONS |             |

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|                                        |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                            |               |
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| Client                                 |  | <div></div> <div>375 Finley Ave. Suite 202 - Ajax, Ontario<br/>L1S 2E2 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375<br/>Email: info@hvacdesigns.ca<br/>Web: www.hvacdesigns.ca<br/>Specializing in Residential Mechanical Design Services</div> <div>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.</div> | Sheet Title                |               |
| GOLD PARK HOMES                        |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | FIRST FLOOR HEATING LAYOUT |               |
| Project Name                           |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Date                       | MAY/2022      |
| PINE VALLEY PH 2<br>VAUGHAN, ONTARIO   |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Scale                      | 3/16" = 1'-0" |
| OPT 5 BED<br>BROOKVALLEY<br>4204 - WOB |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | BCIN# 19669                |               |
| 3646 sqft                              |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | LO#                        | 96513         |



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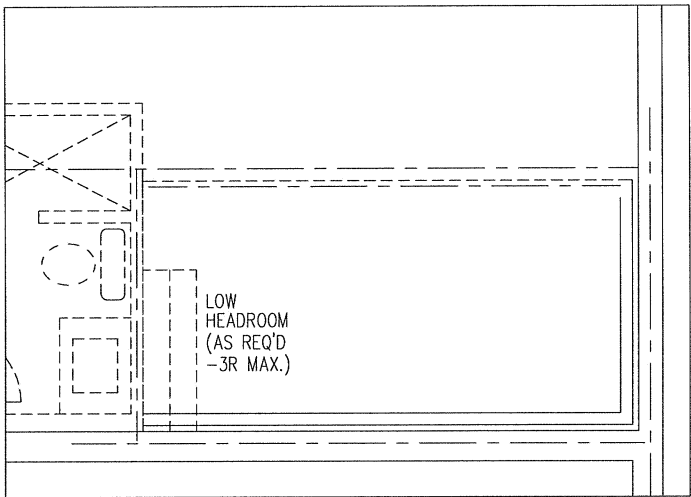
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|-----|-------------|
| LOD | CSA-F280-12 |
| WOB | PACKAGE A1  |

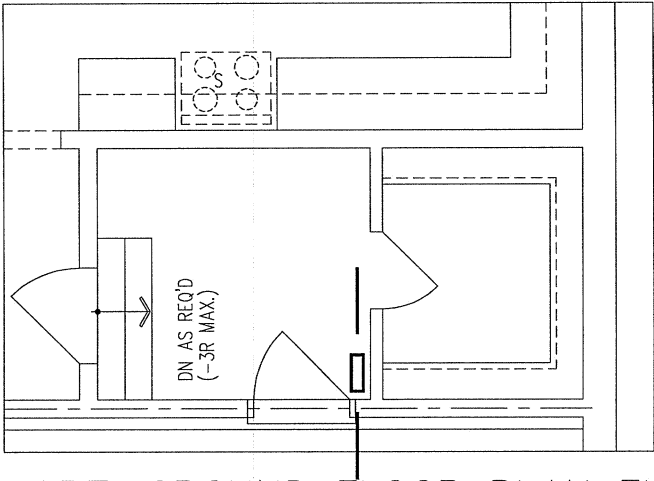
| HVAC LEGEND |                           |        |                                 |        |                              |        | 3.                         |      |
|-------------|---------------------------|--------|---------------------------------|--------|------------------------------|--------|----------------------------|------|
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|             | SUPPLY AIR BOOT ABOVE     |        | 6" SUPPLY AIR STACK 2nd FLOOR   |        | FRA- FLOOR RETURN AIR GRILLE |        | REDUCER                    |      |
|             |                           |        |                                 |        |                              |        | REVISIONS                  |      |
|             |                           |        |                                 |        |                              |        | Description                | Date |

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|                                      |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                   |  |
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| GOLD PARK HOMES                      |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | SECOND FLOOR<br>HEATING<br>LAYOUT |  |
| Project Name                         |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Date                              |  |
| PINE VALLEY PH 2<br>VAUGHAN, ONTARIO |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | MAY/2022                          |  |
| OPT 5 BED<br>BROOKVALLEY             |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Scale                             |  |
| 4204 - WOB                           |  | 3/16" = 1'-0"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   |  |
| 3646 sqft                            |  | BCIN# 19669                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                   |  |
|                                      |  | LO# 96513                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                   |  |



PART. BASEMENT PLAN EL. 'A' FOR  
-2R/3R SUNKEN MUDROOM



PART. GROUND FLOOR PLAN EL. 'A'  
FOR -2R/3R SUNKEN MUDROOM

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.

|     |             |
|-----|-------------|
| LOD | CSA-F280-12 |
| WOB | PACKAGE A1  |

| HVAC LEGEND |                           |        |                                 |        |                              |        |                            | 3.        |             |      |
|-------------|---------------------------|--------|---------------------------------|--------|------------------------------|--------|----------------------------|-----------|-------------|------|
| SYMBOL      | DESCRIPTION               | SYMBOL | DESCRIPTION                     | SYMBOL | DESCRIPTION                  | SYMBOL | DESCRIPTION                | 2.        |             |      |
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|                  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |             |  |
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| GOLD PARK HOMES  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | STRIP PLAN  |  |
| Project Name     |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | HEATING     |  |
| PINE VALLEY PH 2 |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | LAYOUT      |  |
| VAUGHAN, ONTARIO |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Date        |  |
| OPT 5 BED        |  | MAY/2022                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |             |  |
| BROOKVALLEY      |  | Scale                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |             |  |
| 4204 - WOB       |  | 3/16" = 1'-0"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |             |  |
| 3646 sqft        |  | BCIN# 19669                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |             |  |
|                  |  | LO#                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 96513       |  |