

Building Summary

Canada Package A1 Reference

Property

Royal Pine Homes
Model 45-05 - Proposed
Richmond Hill,

Organization

Clearsphere Consulting
416-481-4218
John Godden

HERS

Projected Rating
June 13, 2021
Rating No:N/A
Rater ID:0001

Weather:Toronto, ON_CAN
Model 45-05 - Proposed
Model 45-05 - Proposed.blg

Builder

Royal Pine Homes

Property/Builder Information

Building Name	Model 45-05 - Proposed
Owner's Name	Royal Pine Homes
Property Address	Model 45-05 - Proposed
City, St, Zip	Richmond Hill,
Phone Number	
Builder's Name	Royal Pine Homes
Phone Number	
Email Address	
Plan/Model Name	Model
Community/Development	Centerfiled
Identifier/Other	

Organization Information

Organization Name	Clearsphere Consulting
Address	1632 O'Connor Dr.
City, St, Zip	Toronto, ON_CAN M4B 3P4
Phone Number	416-481-4218
Website	www.clearsphere.ca

Rating/RESNET Information

Provider ID	2006-001
Sample Set ID	00000000
Registry ID	
Registry Date Registered	
Rater's Name	John Godden
Rater's ID	0001
Rater's Email	howard@clearsphere.ca
Last Field Insp	June 13, 2021
Rating Type	Projected Rating
Reason for Rating	New Home
Rating Number	N/A
Rating Permit Date	11/22/2019

REM/Rate - Residential Energy Analysis and Rating Software v16.0.2 Canada

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General Building Information

Area of Conditioned. Space(sq ft)	4737
Volume of Conditioned. Space	47595
Year Built	2021
Housing Type	Single-family detached
Level Type(Apartments Only)	None
Floors on or Above-Grade	2
Number of Bedrooms	4
Foundation Type	Conditioned basement
Foundation is w/in Infiltration Volume:	N/A
Enclosed Crawl Space Type	N/A
Number of Stories Including Conditioned Basement	3
Thermal Boundary Location	N/A

Foundation Wall Information

Name	Library Entry	Location	Length(ft)	Total Height(ft)	Depth Below Grade(ft)	Height Above Grade(ft)	Uo Value Combo*	Uo Value (wall only)
Foundation Wall	N/A	Cond->ambient/grr	188.00	10.08	8.25	1.83	0.047	N/A

* Uo Value Combo combines wall, airfilm, and soil path

Slab Floor Information

Name	Library Entry	Area(sq ft)	Depth Below Grade(ft)	Full Perimeter(ft)	Exposed Perimeter(ft)	On-Grade Perimeter(ft)
Slab	(Under R-0.0; Per R-0.0; Per depth-0.00)	1443	8.25	188	188	0

Frame Floor Information

Name	Library Entry	Location	Area(sq ft)	Uo Value
Exposed Floor	N/A	Btwn cond & garage	421	0.047

Rim and Band Joist Information

Name	Location	Area(sq ft)	Continuous Ins	Framed Cavity Ins	Cavity Ins Thk(in)	Joist Spacing	Insulation Grade	Uo Value
Rim Band Joist	Cond -> ambient	372.30	N/A	N/A	N/A	N/A	1	0.065

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Above-Grade Wall

Name	Library Entry	Location	Exterior Color	Area(sq ft)	Uo Value
AGW	[frame wall]	Cond -> ambient	Medium	3682.20	0.065

Window Information

Name	Wall Assignment	Orient	U-Value	SHGC	Area (sqft)	Overhang			Interior		Adjacent	
						Depth (ft)	To Top (ft)	To Btm (ft)	Winter Shading	Summer Shading	Winter Shading	Summer Shading
front	AGWall 1	South	0.280	0.450	5.00	0.0	0.0	0.0	0.83	0.83	None	None
front Door	AGWall 1	South	0.280	0.450	5.50	0.0	0.0	0.0	0.83	0.83	None	None
front	AGWall 1	South	0.280	0.450	4.00	0.0	0.0	0.0	0.83	0.83	None	None
front	AGWall 1	South	0.280	0.450	30.00	0.0	0.0	0.0	0.83	0.83	None	None
front	AGWall 1	South	0.280	0.450	40.00	0.0	0.0	0.0	0.83	0.83	None	None
front	AGWall 1	South	0.280	0.450	37.00	0.0	0.0	0.0	0.83	0.83	None	None
front	AGWall 1	South	0.280	0.450	17.80	0.0	0.0	0.0	0.83	0.83	None	None
front	AGWall 1	South	0.280	0.450	33.30	0.0	0.0	0.0	0.83	0.83	None	None
front	AGWall 1	South	0.280	0.450	14.20	0.0	0.0	0.0	0.83	0.83	None	None
Left	FndWall 1	West	0.280	0.450	6.70	0.0	0.0	0.0	0.83	0.83	None	None
Left	AGWall 1	West	0.280	0.450	11.60	0.0	0.0	0.0	0.83	0.83	None	None
Left	AGWall 1	West	0.280	0.450	37.80	0.0	0.0	0.0	0.83	0.83	None	None
Left	AGWall 1	West	0.280	0.450	8.70	0.0	0.0	0.0	0.83	0.83	None	None
Left	AGWall 1	West	0.280	0.450	17.30	0.0	0.0	0.0	0.83	0.83	None	None
Left	AGWall 1	West	0.280	0.450	8.00	0.0	0.0	0.0	0.83	0.83	None	None
back	FndWall 1	North	0.280	0.450	3.33	0.0	0.0	0.0	0.83	0.83	None	None
back	AGWall 1	North	0.280	0.450	72.00	0.0	0.0	0.0	0.83	0.83	None	None
back Sliding	AGWall 1	North	0.280	0.450	55.00	0.0	0.0	0.0	0.83	0.83	None	None
back	AGWall 1	North	0.280	0.450	17.30	0.0	0.0	0.0	0.83	0.83	None	None
back	AGWall 1	North	0.280	0.450	14.00	0.0	0.0	0.0	0.83	0.83	None	None
back	AGWall 1	North	0.280	0.450	37.30	0.0	0.0	0.0	0.83	0.83	None	None
Right	FndWall 1	East	0.280	0.450	3.33	0.0	0.0	0.0	0.83	0.83	None	None
Right	AGWall 1	East	0.280	0.450	8.00	0.0	0.0	0.0	0.83	0.83	None	None
Right	AGWall 1	East	0.280	0.450	16.00	0.0	0.0	0.0	0.83	0.83	None	None
Right	AGWall 1	East	0.280	0.450	18.70	0.0	0.0	0.0	0.83	0.83	None	None

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Door Information

Name	Library Entry	Wall Assignment	Opaque Area(sq ft)	Uo Value	R-Value of Opaque Area	Storm Door
Front	N/A	AGWall 1	15.0	0.250	N/A	N/A
Back Sliding	N/A	AGWall 1	15.5	0.250	N/A	N/A
garage	N/A	AGWall 1	18.2	0.250	N/A	N/A
Cold Cellar	N/A	AGWall 1	17.1	0.250	N/A	N/A

Roof Information

Name	Library Entry	Ceiling Area(sq ft)	Roof Area(sq ft)	Exterior Color	Radiant Barrier	Type	Uo Value	Cement or Clay Tiles	Roof Tile Ventilation
Ceiling-with attic	N/A	1734.00	2167.50	Medium	No	Attic	0.017	No	No
Ceiling-with attic	N/A	117.00	117.00	Medium	No	Attic	0.017	No	No

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Mechanical Equipment

Number of Mechanical Systems	3
Heating SetPoint(F)	72.0
Heating Setback Thermostat	Not Present
Cooling SetPoint(F)	75.0
Cooling Setup Thermostat	Not Present
DHW SetPoint(F)	125.0

Heat: 96 AFUE Gas ECM 64k*****

SystemType	Fuel-fired air distribution
Fuel Type	Natural gas
Rated Output Capacity (kBtuh)	48.6
Seasonal Equipment Efficiency	96.0 AFUE
Auxiliary Electric	371 Watts
Note	
Number Of Units	1
Location	Conditioned area
Performance Adjustment	100
Percent Load Served	100

DHW: Reference DHW

Water Heater Type	Conventional
Fuel Type	Natural gas
Energy Factor	0.80
Recovery Efficiency	0.80
Water Tank Size (gallons)	50
Extra Tank Insulation (R-Value)	0.0
Note	
Number Of Units	1
Location	Conditioned area
Performance Adjustment	100
Percent Load Served	100

Cool: ***Code Generated Cooling***

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Mechanical Equipment

System Type	Air conditioner
Fuel Type	Electric
Rated Output Capacity (kBtuh)	24.4
Seasonal Equipment Efficiency	13.0 SEER
Sensible Heat Fraction (SHF)	0.70
Note	
Number Of Units	1
Location	Conditioned area
Performance Adjustment	100
Percent Load Served	100

DHW Efficiencies

All bath faucets & showers <= 2gpm	false
All DHW pipes fully insulated >= R-3	false
Recirculation type	None (standard system)
TOTAL Pipelength for longest DHW run	109
refPipeL	109
refLoopL	199
DWHR unit present?	true
DWHR unit efficiency per CSA 55.1	42.00
DWHR preheats cold supply for shower	false
DWHR preheats hot supply for shower	true
Number showerheads in home	2
Number showers connected to DWHR	2
DHW Diagnostics	Canada Package A1 Reference
dhwGpd	58.83
peRatio	1.00
EDef	1.00
ewaste	32.00
tmains	54.00

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Infiltration and Mechanical Ventilation

Whole Dwelling Infiltration

Input Type	Blower door
Heating Season Infiltration Value	0.26 CFM50/sf shell
Cooling Season Infiltration Value	0.26 CFM50/sf shell
Shelter Class	4
Code Verification	Tested

Mechanical Ventilation for IAQ

Type	Balanced
Unable to Measure Mechanical Ventilation	FALSE
Rate(cfm)	66
Adjusted Sensible Recovery Efficiency(%)	75.00
Adjusted Total Recovery Efficiency(%)	0.00
Hours per Day	24.0
Fan Power (watts)	70.40
ECM Fan Motor	false

Ventilation Strategy for Cooling

Cooling Season Ventilation	Natural Ventilation
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Good Air Exchange for Multi-Family	NA
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Lights and Appliances

Rating/RESNET audit

Ceiling Fan CFM / Watt	0.00
Refrigerator kWh/yr	691
Refrigerator Location	Conditioned
Range/Oven Fuel Type	Electric
Induction Range	No
Convection Oven	No

Dishwasher

Energy Factor	0.46
Dishwasher kWh/yr	0
Place Setting Capacity	12

Clothes Dryer

Fuel Type	Electric
Location	Conditioned
Moisture Sensing	No
CEF	2.62

Clothes Washer

Location	Conditioned
LER (kWh/yr)	704
IMEF	0.331
Capacity (CU.Ft)	2.874
Electricity Rate	0.08
Gas Rate	0.58
Annual Gas Cost	23.00

Qualifying Light Fixtures

Interior Lights %	0.0
Exterior Lights %	0.0
Garage Lights %	0.0
Interior LEDs %	0.0
Exterior LEDs %	0.0
Garage LEDs %	0.0

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