

MAPLE LEAF HOMES

Ontario Standard A277 Modular and Mini Home Building Spec - 2024

Building Code:

- * CSA A277 Standard
- * 2010 National Building Code of Canada (NBC)
- * 2012 Building code of Ontario including supplementary standard SB-12
- * 2010 National Plumbing Code
- * 2018 Canadian Electrical Code with amendments
- * All equipment to be CSA approved

Design Criteria:

- * Live Floor Load
40 psf
- * Specified snow load
psf to be determined by area
- * Zones - Zone 1 above 5000 degree days
- Zone 2 below 5000 degree days

Exterior Wall (8'-0" Mod/7'-6" Mini) (load bearing):

- * 1/2" (13mm) Gypsum
- * 6 mil vapor barrier
- * 2"x6" (38mmx140mm) SPF #2 or better studs at 16" o.c. (400mm)
- * See tables below for insulation requirements
- * 3/8" (10mm) Plywood Sheathing glued and stapled
- * Air barrier
- * Oregon Pride Double 4" Horizontal Vinyl Siding by Mitten c/w 5 1/2" White Vinyl Corners & White Accessories.
Limited Lifetime Warranty
- * DuPont Flashing system around windows and doors

Interior Wall (non-rated Wall) (non load bearing):

- * 1/2" (13mm) Gypsum
- * 2"x4" (38mmx89mm) SPF #2 or better studs at 16" o.c. (400mm), 2"x3" (38mmx75mm) for Mini Homes
- * 1/2" (13mm) Gypsum

Mate Wall - Mod Only (load bearing):

- * 1/2" (13mm) Gypsum
- * 2"x4" (38mmx89mm) SPF #2 or better studs at 16" o.c. (400mm) or 2"x3" (38mmx75mm)
SPF #2 or better depending on intermodular openings
- * 7/16" (11mm) OSB Sheathing, Stapled
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- * 2"x4" (38mmx89mm) SPF #2 or better studs at 16" o.c. (400mm) or 2"x3" (38mmx75mm)
SPF #2 or better depending on intermodular openings
- * 1/2" (13mm) Gypsum

Floor Assembly:

- * Cushion and/or carpet (40 oz.)
- * 3/8" (10mm) underlay for rolled good areas
- * 5/8" (16mm) T&G Plywood Sheathing, glued and stapled
- * 2"x10" (38mmx235mm) SPF #2 or better floor joists at 16" o.c. (400mm)(box sizes 12'-0"-15'-0"), joist hangers as required - Typical
- * 2"x10" (38mmx235mm) SPF #2 or better floor joists at 12" o.c. (300mm)(box size 16'-0"), joist hangers as required - Modular or Mini on foundation
- * Double 2"x10" (38mmx235mm) SPF #2 or better rim joist
- * See tables below for insulation requirements
- * Fabric Bottom Board for protection during shipping
- * Steel jackpots as required for center support - Modular Homes on foundation
- * 2"x8" Wood Beams - Modular and Mini on blocking

Roof Assembly:

- * Asphalt Shingles - Limited lifetime warranty
- * Eave Protection
- * DuPont Roof Protector Underlay - entire roof
- * 1/2" (13mm) OSB Sheathing
- * See tables below for insulation requirements
- * Engineered Monohinge trusses at 24" o.c. (600mm), 5/12 Slope, 13 1/4" (336mm) overhang front & back, 12" (300mm) on gables. Tie downs as required - Modulares
- * Engineered trusses at 24" o.c. (600mm), 4/12 Slope, 8 3/8" finished overhang all sides - Mini Homes
- * Ridge Vent (for attic ventilation)
- * 6 mil vapor barrier
- * 1"x3" (19mmx64mm) strapping at 16" o.c. (400mm)
- * 1/2" (13mm) Gypsum
- * Attic access - Modulares only

Trim & finish:

- * White wood, colonial package (2 1/4" casing) trim & white painted jambs
- * 3 1/2" Wood baseboard trim throughout
- * Solid Wood White window build outs
- * All Gypsum walls to be crack filled and primed - Modular
- * 1/2" (13mm) Square Board and Battens - Mini
- * Ceiling to be crack filled and painted smooth
- * Frameless cabinetry c/w maple melamine interiors & brushed pewter hardware. Standard kitchen base cabinets are 24" deep x 35" high. Standard vanity cabinets are 21" deep x 31" high.
- * Vanity and Kitchen countertop to be post formed laminate c/w 2300 profile by Belanger
- * Rubbermaid Easy Slide shelving - 1 shelf per standard closet, 5 shelves for pantry & linen closets
- * 24"x36" (38mmx75mm) Mirror c/w beveled edge above bath vanity

Heating and Ventilation:

- * Heating as per tables below
- * Air Exchanger as per tables below
- * 50 cfm Bathroom fan c/w dedicated switch
- * Range hood, black or white vented outside or charcoal filter when on interior wall

Electrical:

- * 120/240V single phase 200amp panel
- * Wiring within modules is copper
- * Smoke detectors c/w strobe lights in each bedroom and 1 outside bedrooms
- * Decora style devices

Communications:

- * Phone Jack (CAT5E) one standard with every home
- * Cable Jack (RG-6), optional
- * Phone and Cable jack wiring to be coiled under floor joists - Homes on foundation
- * Phone and Cable jack wiring to be wired to junction box in water heater closet - Homes on blocking or crawl space

Lighting:

- * Residential coach light at each exterior door (IOL1, black or white)
- * 12" Flush mount lights in various areas within Unit (IFM1612-O BPT)
- * Standard 5-Lite Chandelier in dining room (ICHAN75BPT)
- * 2-Lite Kitchen sink light (ICW52BPT)
- * 2-head Vanity Light (IVL202BPT)
- * All light bulbs to be LED

DWV:

- * ABS plastic DWV pipe, sized as required by code
- * All ABS lines are dropped through floor joists - Tie in's by others

Potable Water:

- * Potable water pipe to be PEX (cross-linked polyethylene)
- * Shut-off valve provided at each fixture
- * All domestic water is distributed by insulated PEX
- * All solder to be lead free
- * 40gal electric water heater
- * Low flow toilet
- * Drop in vitreous china vanity sink c/w single lever faucet
- * 1 PCS Acrylic 5' dome top tub c/w single lever faucet
- * Stainless steel double bowl Kitchen sink c/w single lever faucet

Windows & Doors:**Windows**

- * Kohltech White Vinyl windows, Single Hung - See table below for glazing

Doors

- * 36" Steel Exterior Kohltech doors c/w vinyl clad wood frame, threshold, weather strip, door sweep, deadbolt, lever handle & 9 lite (front door), solid 6 panel (rear door)
- * Two panel smooth square hollow core interior doors w/wood jambs
- * All interior handles to be knob style

Insulation Packages

Zone 1 - Furnace – Gas Only (Table 3.1.1.2.A.) - Compliance package A6 (All values are min. nominal)

Item	Value	Cost	Notes
Ceilings w/Attic, <u>incls</u> cathedral	R-60	\$\$	(ft ²)
Ceilings w/o Attic	R-31	n/a	Flat roof
Exposed Floor - Mini	R-31	n/a	
Exposed Floor - Mod	R-31	\$\$	(ft ²)
Walls above Grade	R-22 + 1" (R-5) Rigid	\$\$	(8ft wall) Per perimeter foot of wall. Includes covering floor joists & truss heel
Windows & Sliding Glass Doors	ER 25 or U 1.6 max.	n/a	MLH Std.
Skylights	U 2.8 max.	n/a	
Furnace	92% min.	n/a	MLH std. is 95.1%
HRV	65%	n/a	Solace1.2H c/w STS2.0 – on main level or RNC2.0 – on foundation/basement
Water Heater	EF 0.8 min.	n/a	

Zone 1 - Electric (Table 3.1.1.2.C.) - Compliance package C2 (All values are min. nominal)

Item	Value	Cost	Notes
Ceilings w/Attic – Mods	R-60 w/10" heel	\$\$	(ft ²) 10" heel is std. for Mods
Ceilings w/Attic – Mini, <u>incls</u> cathedral	R-60 w/10" heel	\$\$	(ft ²) Low slope application
Ceilings w/o Attic	R-31	n/a	Flat Roof
Exposed Floor - Mini	R-35	\$\$	(ft ²) R-24 + R-12 batt insulation
Exposed Floor - Mod	R-35	\$\$	(ft ²) R-24 + R-12 batt insulation
Walls above Grade	R-22 + 2" (R-10) Rigid	\$\$	(8ft wall) Per perimeter foot of wall. Includes covering floor joists & truss heel
Windows & Sliding Glass Doors	ER 34 or U 1.2 max.	n/a	Standard MLH Windows, NO GRILLS
Skylights	U 2.8 max.	n/a	
HRV	75%	n/a	Solace1.2H c/w STS2.0 – on main level or RNC2.0 – on foundation/basement
Water Heater	n/a	n/a	

Zone 1 - Oil (Table 3.1.1.2.B.) - Compliance package B5 (All values are min. nominal)

Item	Value	Cost	Notes
Ceilings w/Attic, <u>incls</u> cathedral	R-50	n/a	(ft ²)
Ceilings w/o Attic	R-31	n/a	Flat roof
Exposed Floor - Mini	R-35	\$\$	(ft ²) R-24 + R-12 batt insulation
Exposed Floor - Mod	R-35	\$\$	(ft ²) R-24 + R-12 batt insulation
Walls above Grade	R-19 + 2" (R-10) Rigid	\$\$	(8ft wall) Per perimeter foot of wall. Includes covering floor joists & truss heel
Windows & Sliding Glass Doors	ER 29 or U 0.25 max.	n/a	MLH Std.
Skylights	U 0.49 max.	n/a	
Furnace	84% min.	n/a	MLH std. is 86%
HRV	75%	n/a	Solace1.2H c/w STS2.0 – on main level or RNC2.0 – on foundation/basement
Water Heater	EF 0.66 min.	n/a	

Zone 2 - Furnace – Gas Only (Table 3.1.1.3.A.) - Compliance package A6 (All values are min. nominal)

Item	Value	Cost	Notes
Ceilings w/Attic, <u>incls</u> cathedral	R-50	n/a	
Ceilings w/o Attic	R-31	n/a	Flat roof
Exposed Floor - Mini	R-35	\$\$	(ft ²) R-24 + R-12 batt insulation
Exposed Floor - Mod	R-35	\$\$	(ft ²) R-24 + R-12 batt insulation
Walls above Grade	R-22 + 1.5" (R-7.5) Rigid	\$\$	(8ft wall) Per perimeter foot of wall. Includes covering floor joists & truss heel
Windows & Sliding Glass Doors	ER 29 or U 1.4 max.	n/a	MLH standard
Skylights	U 2.8 max.	n/a	
Furnace	92% min.	n/a	MLH std. is 95.1%
HRV	75%	n/a	Solace1.2H c/w STS2.0 – on main level or RNC2.0 – on foundation/basement
Water Heater	EF 0.7 min.	n/a	MLH std. Giant electric water heater – meets requirements

Zone 2 - Electric (Table 3.1.1.3.C.) - Compliance package C1 (All values are min. nominal)

Item	Value	Cost	Notes
Ceilings w/Attic – Mods	R-60 w/10" heel	\$\$	(ft ²) 10" heel is std. for Mods
Ceilings w/Attic – Mini, <u>incls</u> cathedral	R-60 w/10" heel	\$\$	(ft ²) Low slope application. Longer baffles will be required in mini home cathedral areas which may result in extra labor due to installation time.
Ceilings w/o Attic	R-31	n/a	Flat Roof
Exposed Floor - Mini	R-31 + 2" (R-10) Rigid	\$\$	(ft ²)
Exposed Floor – Mod	R-31 + 2" (R-10) Rigid	\$\$	(ft ²)
Walls above Grade	R-24 + 2" (R-10) Rigid	\$\$	(8ft wall) Per perimeter foot of wall. Includes covering floor joists & truss heel
Windows & Sliding Glass Doors	ER 34 or U 1.2 max.	n/a	Standard MLH Windows, NO GRILLS
Skylights	U 2.8 max.	n/a	
HRV	81%	n/a	Solace1.2H c/w STS2.0
Water Heater	n/a	n/a	MLH std. Giant electric water heater – meets requirements

Zone 2 - Oil (Table 3.1.1.3.B.) - Compliance package B5 (All values are min. nominal)

Item	Value	Cost	Notes
Ceilings w/Attic, <u>incls</u> cathedral	R-50	n/a	(ft ²)
Ceilings w/o Attic	R-31	n/a	Flat roof
Exposed Floor - Mini	R-35	\$\$	(ft ²) R-24 + R-12 batt insulation
Exposed Floor - Mod	R-35	\$\$	(ft ²) R-24 + R-12 batt insulation
Walls above Grade	R-19 + 2" (R-10) Rigid	\$\$	(8ft wall) Per perimeter foot of wall. Includes covering floor joists & truss heel
Windows & Sliding Glass Doors	ER 29 or U 0.25 max.	n/a	MLH Std.
Skylights	U 0.49 max.	n/a	
Furnace	84% min.	n/a	MLH std. is 86%
HRV	81%	n/a	Solace1.2H c/w STS2.0
Water Heater	EF 0.66 min.	n/a	MLH std. Giant electric water heater – meets requirements

"Maple Leaf Homes reserves the right to change the specification, if required, with advance notice given to purchaser in writing"