

MAPLE LEAF HOMES

Ontario Standard A277 Modular Building Spec - March 2018 **Specs are based on Modular homes installed on full basements**

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
- * 2012 Canadian Electrical Code
- * 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" High) (load bearing):

- * 1/2" (13mm) Gypsum
- * 6 mil vapor barrier
- * 2"x6" (38mmx140mm) SPF #2 or better studs at 16" o.c. (400mm)
- * 3/8" (10mm) Plywood Sheathing glued and stapled
- * Air barrier
- * Horizontal vinyl siding c/w 5 1/2" white vinyl corners 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)
- * 1/2" (13mm) Gypsum

Mate Wall (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
- * 7/16" (11mm) OSB Sheathing, Stapled
- * 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
- * 2"x10" (38mmx235mm) SPF #2 or better floor joists at 12" o.c. (300mm)(box size 16'-0"), joist hangers as required
- * Double 2"x10" (38mmx235mm) SPF #2 or better rim joist
- * Fabric Bottom Board for protection during shipping
- * Steel jackpots as required for center support

Roof Assembly:

- * Fiberglass Shingles - Limited lifetime warranty
- * Ice & Water Shield - 2 rows
- * 15 lbs. Felt Paper - entire roof
- * 1/2" (13mm) OSB Sheathing
- * R-50 Fiberglass Blown Insulation
- * 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.
- * Ridge Vent (for attic ventilation)
- * 6 mil vapor barrier
- * 1"x3" (19mmx64mm) strapping at 16" o.c. (400mm)
- * 1/2" (13mm) Gypsum
- * Attic access
- * Dupont Roof Protector -2018

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 wall to be crack filled and primed
- * Ceiling to be crack filled with stucco finish
- * Cabinetry to be stained, Atlantic style framed, w/maple melamine interiors by Glenwood Kitchen c/w brushed pewter hardware. Standard drawer over all base cabinets. Standard Drawers and Doors come with soft close.
- * Vanity and Kitchen countertop to be post formed laminate by Belanger
- * Closet Maid shelving
- * 24"x36" (38mmx75mm) Mirror c/w beveled edge above bath vanity

Heating and Ventilation:

- * Air Exchanger. Hookup in basements by others
- * 50 cfm Bathroom fan c/w dedicated switch
- * Range hood, black or white vented outside or charcoal filter when on interior wall
- * Upgraded Bathroom Fan

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

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 for hookup by Service Provider

Lighting:

- * Coach light at each exterior door, black or white
- * Incandescent 13" flush mount light in bedrooms
- * Incandescent 11" flush mount light in hall and large bathrooms
- * Standard 5-Lite Chandelier in dining room
- * 2-Lite Kitchen sink light

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 or CPVC
- * All solder to be lead free
- * 40gal electric water heater, shipped loose
- * Low flow toilet
- * Drop in vitreous china vanity sink c/w single lever faucet
- * 1 PCS Acrylic 5' dome top tub
- * Stainless steel double bowl Kitchen sink c/w single lever faucet
- * 1 Exterior Hose Bib

Windows & Doors:

Windows

- * Kohler White Vinyl windows, Select Series, with Low-E Argon c/w screens and shutters on front and sides

Doors

- * Exterior Steel Kohler doors c/w vinyl clad wood jamb. Front door c/w 1/2 lite/Rear door solid 6 panel
- * Two panel textured arch top hollow core interior doors w/wood jambs
- * All interior handles to be knob style
- * All exterior handles to be lever c/w deadbolt

Insulation Packages

Zone 1 - Furnace - Oil or Gas (Table 3.1.1.2.A.)

Compliance package A6 (All values are min. nominal)

| Item | Value | Notes |
|----------------------------------|-----------------------|------------------------------------------------------------------------------------|
| Ceilings w/Attic, incl cathedral | R-60 | (ft ²) |
| Ceilings w/o Attic | R-31 | Flat roof |
| Exposed Floor - Mini | R-31 | |
| 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. | MLH Std. |
| Skylights | U 2.8 max. | |
| Furnace | 92% min. | MLH std. is 95.1% |
| HRV | 65% | (ea) |
| Water Heater | EF 0.8 min. | MLH std. Giant electric water heater – meets requirements |

Zone 1 - Electric (Table 3.1.1.2.C.)

Compliance package C2 (All values are min. nominal)

| Item | Value | Notes |
|-----------------------------------------|---------------------------|---------------------------------------------------------------------------------------------------------|
| Ceilings w/Attic – Mods | R-60 w/10" heel | (ft ²) 10" heel is std. for Mods |
| Ceilings w/Attic – Mini, incl cathedral | R-60 w/10" heel | (ft ²) Low slope application |
| Ceilings w/o Attic | R-31 | 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. | Supreme Single Hung w/Energlass, NO GRILLS Supreme Casement w/Triple glaze, 1x Low-E & grills |
| Skylights | U 2.8 max. | |
| HRV | 75% | (ea) |
| Water Heater | n/a | MLH std. Giant electric water heater – meets requirements |

Zone 2 - Furnace - Oil or Gas (Table 3.1.1.3.A.)

Compliance package A6 (All values are min. nominal)

| Item | Value | Notes |
|----------------------------------|------------------------------|------------------------------------------------------------------------------------|
| Ceilings w/Attic, incl cathedral | R-50 | |
| Ceilings w/o Attic | R-31 | 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. | MLH standard |
| Skylights | U 2.8 max. | |
| Furnace | 92% min. | MLH std. is 95.1% |
| HRV | 75% | (ea) |
| Water Heater | EF 0.7 min. | 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 | Notes |
|-----------------------------------------|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ceilings w/Attic – Mods | R-60 w/10" heel | (ft ²) 10" heel is std. for Mods |
| Ceilings w/Attic – Mini, incl 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 | 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. | Supreme Single Hung w/Energlass, NO GRILLS Supreme Casement w/Triple glaze, 1x Low-E & grills |
| Skylights | U 2.8 max. | |
| HRV | 81% | ? |
| Water Heater | n/a | MLH std. Giant electric water heater – meets requirements |