Evolution to Modern-Day Modular Homes

INFORMATION GUIDE 2013

MODULAR HOUSING ASSOCIATION
PRAIRIE PROVINCES

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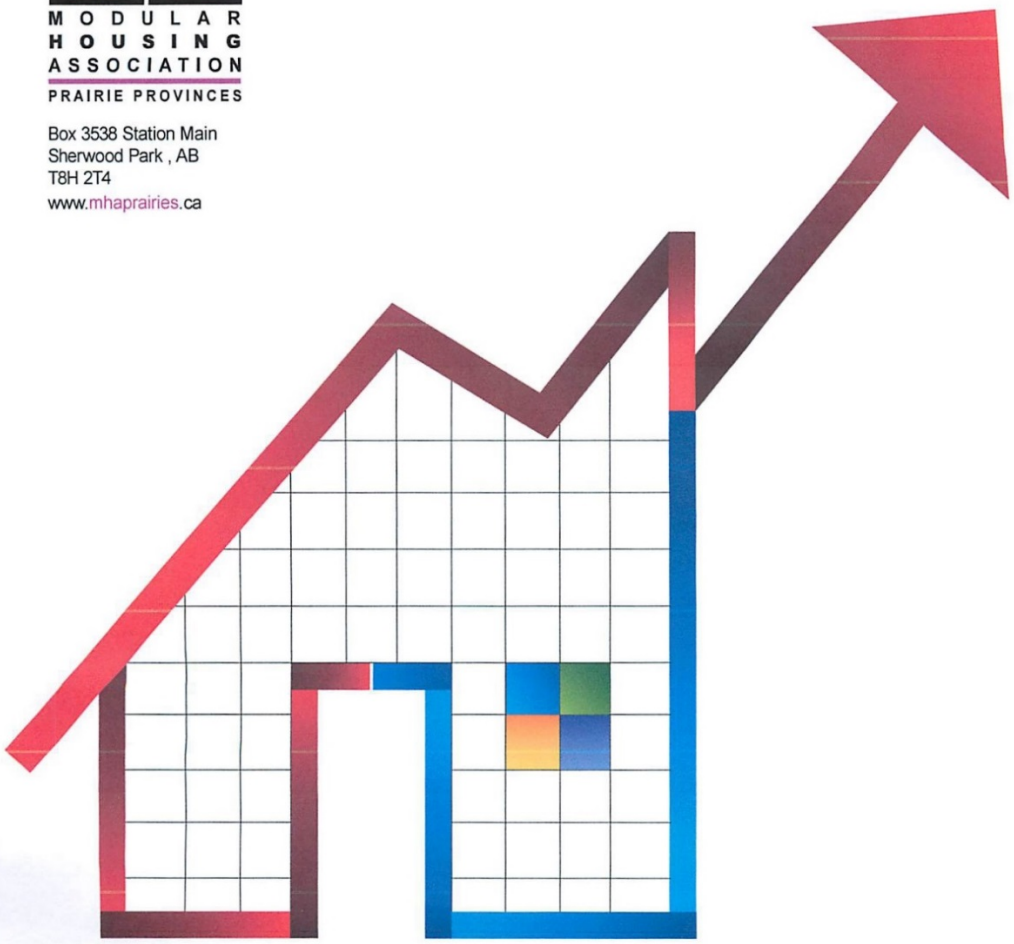

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MAKING **MODULAR** **MAINSTREAM**

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Reference Documents

Schedule 1	*Model Assignment of Lease Consent Agreement for Manufactured Homes*
Schedule 2	*Alberta Building Code*
Schedule 3	*Alberta Municipal Affairs Label*
Schedule 4	*Certification Inspection Procedure*
Schedule 5	*CSA Labels and CSA Inspection Sheet*
Schedule 6	*Intertek Label*
Schedule 7	*Quality Auditing Institute Label*
Schedule 8	*Modular Homes Specification Name Plate*
Schedule 9	*Calculating the Life Span of a Home*
Schedule 10	*CSA Z40.10.1 Foundation Standards*
Schedule 11	*National Building Code*
Schedule 12	*Building Codes, Regulations and Related Standards*

DISCLAIMER

The Modular Housing Association Prairie Provinces is supplying this manual containing illustrations, information, pictures, and other material that are provided solely as sample documents for illustrative purposes. If any of the information in this information guide is contrary to related legislation, legislation applies.

Current as of March 31, 2015

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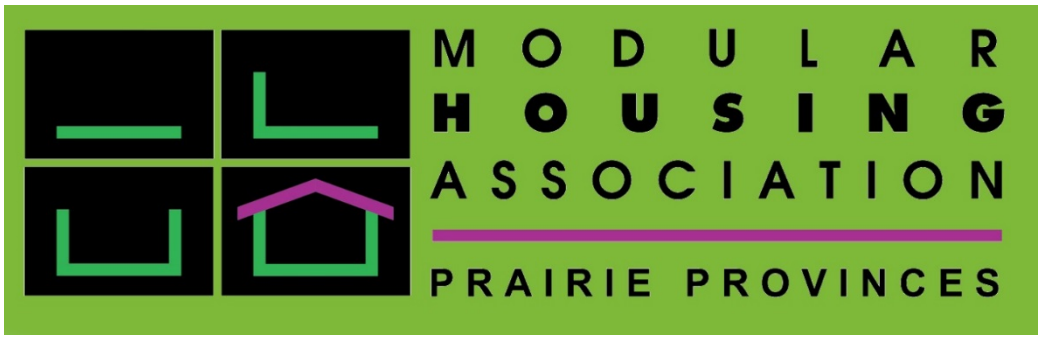
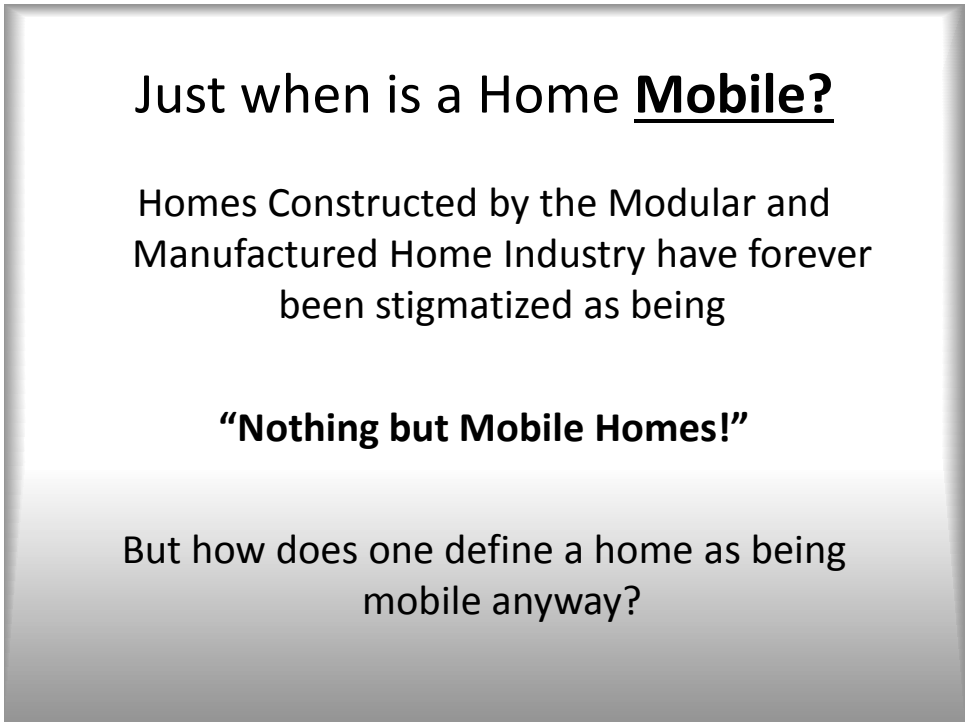


Slide Show Presentation



What Defines a Mobile Home?

For Many, the term Mobile Home is associated with Tin Sided, dome-roofed homes such as this:

Although this home was built in the early 1970's, this remains the image in many people's minds when they hear the terms:

- Mobile Home
- Manufactured Home
- Modular Home
- And even Pre-Fab homes

Despite the evolution of construction since this home was built, even new Modular Homes are often considered as being nothing but "Trailer Houses".

Is **THIS** home mobile?

- Is it fair to call this home a "Trailer House?"
- Is it right to finance, insure or appraise this home differently because part of it was pre-fabricated in a manufacturing facility?
- Or, should this be treated like any other piece of Real Estate?

This home was built using a combination of MODULAR and SITE BUILT construction. It has no obvious features that "Give it away" as being partially prefabricated. It will be appraised, financed, insured using the same criteria as though it were entirely SITE BUILT.

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Would you call this **Mobile**?

Or THIS?

This Home is Most Certainly Mobile, Right?

Or would you ever consider a **Mobile Hotel?**

The previous 3 structures were all SITE BUILT, but are being relocated for one reason or other. There are companies that can move structures across great distances. They are capable of causing minimal damage to the structure while removing from the old foundation and installation on the new foundation located somewhere else.

This is a Hotel that has been delivered via truck to this Barge will leave the barge and be delivered to it's next location by means of a regular Semi Tractor Trailer Truck.

So what do you do with **Mobile Homes** that are not **Mobile?**

This home is described as an early 1980's 14' wide Mobile Home defined by it's CSA Standards label.

- This home was certified to the CSA – Z240 (mobile home) standard
- The home is situated on and welded to permanent pilings (foundation)
- The home is part of the land and is generally sold combined
- By the nature of the foundation and the permanent foundation, this "Mobile Home" is no longer (easily) so Mobile!

For **Financing** purposes, this home should be considered as **Real Estate**. Regardless of the nature of construction of the home, it will appreciate at a similar rate to other Real Estate and should be financed with the same rate, terms and amortization period of any other home all because it is considered an improvement to the land.

Then is a **Modular Home** Mobile?

This home is described as a **Modular Home** defined by the CSA standard to which is was certified.
It is certified CSA A-277 (modular), which simply means it was built to meet the regional building code of where it will be set up.

It is easy to presume that this home is not movable, however this is a show home at a Modular Home retail centre that still must be sold and delivered to the customers location.
This home will be installed on a permanent, perimeter foundation (likely a full basement. Once attached to the foundation, this home is no more mobile than a similar home built on-site.
This home will be financed, insured and appraised and resold by Realtors using the same techniques as a home constructed using any other means.

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Can a **Modular Home** be Mobile?

This can be a very confusing topic. The term "Modular" is very misunderstood and is commonly used to refer to homes that are:

- Built in more than one section and put together on site.
- Built to be placed on a basement.
- This home does not possess either of the above features but none the less is a "Modular Home" that is situated on a rented pad

This home is a 1990's, 1200sq' home built to the CSA A-277 (Modular) certification, yet it is situated in a Mobile Home Park. It is built on steel frames and rests on wooden cribs as a foundation. The home owner leases the pad and pays a monthly rental fee for the land on which it stands. For all intents; this home is **Mobile**.

The home is built to current day building code standards, but will be financed differently specifically because it has not become part of the Real Estate. It is defined as a "Chattel" (movable object), and will be financed by regular institutions but the loan will be insured under a different CMHC program called C.L.I.P. (Chattel Loan Insured Program). Realtors will have to be careful when selling homes in Mobile Home Parks too. They must remember that they are selling a Chattel with a serial number, and not the location to which it stands. The MHP may have criteria that must be met for it's resale too. The contract to list and sell this home will not be the same as a home attached to the land.

Modular / Mobile Confusion

This home is only different from the previous because it has been made "Real Estate".

- 1990's 1200 sq' CSA A-277 (Modular)
- attached to the property
- Home owner owns both home and land
- This situation is not unlike a small affordable site built home.

Although this home is technically attached and inseparable from the land for financing, real estate and financing purposes. The fact still remains that this home is movable. However, the MHAPP (Modular Housing Association of Prairie Provinces) discourages the use of the term "Mobile" to describe this home. Not properly understood, this home may be sold improperly from realtors, or be forced to face unrealistic insurance criteria or even be financed separately from the land. In either case, if the home is not understood, it is certainly bound to face scrutiny and inappropriate discrimination.

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More than ONE PIECE Means Modular, Right?

This home is in the same Mobile Home Park. This home too is often mislabeled.
- This home delivered in 2 pieces that are set and tied together on site
- Built to CSA Z240 (Mobile) standard
- Situated in a land-lease community
- This home was built in the early 1980's (pre CSA A-277)

Despite the 2 floor nature of this home, and the not-so ease of mobility, it will still be considered as "Mobile" in the eyes of lenders and realtors because of the fact that it is not a permanent fixture to the Real Estate.

Movable vs. Mobile

One way or another, pretty well all homes and structures are movable. So then, what really is a "Mobile Home"?
A Mobile Home can be defined in two ways:
1) Constructed to the CSA Z-240 (Mobile Home Standard)
2) Situated in a "Land Lease Community"

Specific scenarios can have a combination of both, but for Real Estate purposes:
- A CSA Z-240 (Mobile Home) situated on Fee Simple Real Estate shall be sold in a similar fashion to a site-built home.
- A CSA A-277 (Modular Home) situated in a Land-Lease Community shall be sold as a chattel.

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Document Benefits Beyond R.E.C.A

This document and presentation can be modified to train and inform others:

- MHAPP Industry People (provide consistency)
- Insurance Companies
- Government Agencies
- Anyone else who could benefit from understanding current standards.

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Understanding Modular

The term modular simply describes a method of constructing a home in large sections, away from the home site, in a manufacturing facility. The type of housing constructed is determined by the building code to which it complies and definitively described using the following common housing configurations: Single detached or multi-family, single level or multi-storey. The term modular does not describe a type of home, just as the term site-built does not describe a type of home. They both describe alternative construction methods. Therefore, type of homes commonly described as a single family, town-home, duplex, two storey, etc. can be site-built, modular built, or built using a combination of both construction methods.

Modular Construction

"The Modular Housing Industry has the capability of providing a wide variety of home types, many of which focus greatly on affordability. For example, in many cases, you would not find site-builders that would build a home that does not require an expensive basement for its foundation, or that would use alternative interior finishing materials that help to bring the price down."

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Financing of Modular and Manufactured Homes

Chattel Loan Insurance

Canadian Mortgage & Housing Corporation (CMHC) provides loan insurance for loans to purchase or refinance of movable homes secured by a chattel mortgage (commonly understood as a mortgage). Maximum loan-to-values for purchase are 95% and 90% for refinance. Other CMHC underwriting policies and product-specific requirements apply unless otherwise noted.

A Modular home (built to the A277 Certification Standard) affixed permanently to land becomes real estate and therefore should be exactly the same for sales process, financing and insuring the home.

Terms and Conditions:

Eligible units: New or existing one-unit (single family) dwellings that are designed to be transportable and meet maximum road widths as prescribed by provincial/territorial authorities. In addition, the following is applicable:

- New homes must be certified in accordance with the CAN/CSA-Z240 MH Series-92 of standards (for Provinces that allow this standard).
- New homes which are modular built must be constructed in a manufacturing facility certified in accordance with CSA A277 (modular), "Procedure for Certification of Factory Built Houses" and conforming to the construction standards referenced therein.
- The borrower and the owner of the site must have entered into a site lease, tenancy agreement, or the borrower must have a letter of consent from the owner. The lease may be a short-term lease or a long-term lease if the unit is not permanently affixed.
- Compliance with provincial, territorial or municipal/local requirements with respect to the use of the site for residential purposes.
- Homes must be setup and anchored to meet provincial/territorial or local requirements. In the absence of these requirements, new homes must be set to comply with CSA standard *CAN/CSA-Z240.10.1*-94. Existing homes do not have to comply with this standard but may use it as a guide.
- If substantiated, lending value may include normal set-up costs and the value of attachments (i.e., garages, porches, decks) as long as they are included in the purchase transaction, and secured by the chattel loan document. The overall impact that attaching and removing these attachments will have on the home (damage, warranty, etc.) should also be considered.
- New Home Warranty Program - the new home warranty program provided by the industry meets or exceeds the required Provincial new home warranty requirements.
- Insurance coverage should include protection against damage during transport of the unit.
- The Approved Lender must register a form of chattel security that is valid and enforceable both as to remedies against the security and for the collection of loan repayments, in accordance with provincial/territorial law.
- The Approved Lender should obtain an assignment or sublease of the borrower's site lease, tenancy agreement, or letter of consent, as additional security. The assignment must allow the Approved Lender to keep the payments current so the unit may remain on the site in the event of borrower default on the chattel loan. An assignment is not necessary when the owner of the site does not agree to the unit being resold on the site. In such case, it is expected that the unit will be relocated prior to resale.

- Approved Lenders should note that specific loan servicing requirements apply to these loans which are in addition to or different from those requirements which apply to loans secured through a real estate mortgage. Contact CMHC Servicing Policy.
  Chattel Loan Insurance cannot be used in conjunction with:

  - CMHC Income Property (1-4 Unit Rental Properties)
  - CMHC Line of Credit
  - CMHC Self-Employed Simplified
  - Extended amortized periods
  - Non-traditional down payment sources

Note: Under progress advance processing only two advances are permitted (up to 85% of the outstanding balance on the delivery of the home for the first advance and the remainder upon setup). The manufacturer of the home is not eligible for the Homebuilder Pre-sold feature under progress advance processing policy.

If real estate mortgage is used to secure the loan then the home qualifies for all of CMHC's mortgage loan insurance products, as a real estate mortgage is secured by the land as well as any structures on the property.

Some lenders offer varying payment schedules. As well, lenders can choose to offer any, all or no CMHC programs.

Homes in Land Lease Communities

Model Assignment of Lease Consent Agreement (SCHEDULE 1)

This document was developed as a coordinated effort with the Canadian Bankers' Association and the modular /manufactured housing land lease communities in relation to a site lease agreement.

Please refer to the *Mobile Home Site Tenancies Act* (AB) *The Residential Tenancies Act, 2005* (SK) and the *Residential Tenancies Act* (MB) for more information regarding the sale of a home in a land lease community.

Notice to terminate a monthly tenancy by a Resident must be served on his landlord on or before the first day of a notice period of 2 consecutive tenancy months to be effective on the last day of the notice period in the case of AB. One Rental Period Notice in MB and in the case of SK; not earlier than one month after the date the notice is received; and the day before the day in the month, or in the other period on which the tenancy is based, that rent is payable under the tenancy agreement. (*It is recommended the landlord review the Provincial Legislation in the Province your community resides.*)

The Real Estate agent or potential purchaser must be aware of the following forms and that they must be filled out and executed before the new tenant takes possession of the site.

- Tenancy Application
- Landlords / Residents` Registration & Information Sheet

- Policies & Regulations
- Mobile Home Site Lease Agreement

Please check with the specific Community as each Community's policies and procedures vary.

Building Code Requirement (**SCHEDULE 2**)

All Modular homes are built to meet or exceed the Alberta Building Code (ABC) and be certified compliant to the (ABC) under the CSA-A277 Certification Standard.

In the case of Saskatchewan and Manitoba, all Modular homes must comply with the *National Building Code (NBC)* (**SCHEDULE 11**) and be certified compliant to the *(ABC)* under the *CSA-A277 Certification Standard.*

In the case of factory-built homes (modular-built) vs. site-built, modular homes are inspected through the production process, whereas site-built homes are inspected at various stages on the home site. Both modular-built and site-built homes must comply with the same building code. The evolution of site-built homes has been greatly influenced by changes made to building codes and Modular Homes have evolved in the same manner.

Understanding Labels

AMA Label (**SCHEDULE 3**)

As is the case with site-built homes, all Modular Homes *placed in Alberta* must bear an AMA label prior to occupancy. In order to receive this label, the home must also bear the CSA A277 label as inspected by one of 3 governing agencies. Site-built homes must undergo a series of inspections by the local municipal inspectors and be granted final inspection approval. The requirement for both site-built and Modular homes to bear the AMA label has only been effect in recent years.

The Province of Saskatchewan does not provide a specific label (as the AMA label in Alberta) indicating compliance with the National Building Code but rather rely on the Certification Organizations, (CSA, Intertek or QAI) to ensure compliance to the National Building Code (**SCHEDULE 11**)**.**

The Province of Manitoba does not provide a specific label (as the AMA label in Alberta) indicating compliance with the National Building Code but rather rely on the Certification Organizations, (CSA, Intertek or QAI) to ensure compliance to the National Building Code (**SCHEDULE 11**)**.**

CSA Certification Label (**SCHEDULE 4**)

The CSA A277 certification standard along with many other CSA standards can be enforced by any standards council accredited agency. In this case, CSA (Canadian Standards Association), Intertek and Quality Auditing Institute (QAI) are the only accredited agencies that can enforce the CSA A277 certification standard at the time of publication of this document.

To ensure the home has been built to the *Provincial Building Code,* the building inspector looks for the Label produced by one of CSA, QAI or Intertek certifying compliance to the specific Province's Building Code and as certified under the CSA A277 standard.

Effective in 1976, compliance to CSA Z240 (MH) standard became mandatory. The CSA Z240 (MH) standard is actually a building code heavily based on the *NBC*, but not fully compliant whereas the CSA A277 compliance standard certifies full compliance to the Alberta Building Code (ABC) *and the National Building Code (NBC).*
The CSA A277 standard was fully implemented by the late 1970's and was acknowledged in Alberta in conjunction with CSA Z240 until 1992. By 1992 the Alberta government mandated that ALL housing meet full compliance to the ABC, which resulted in the CSA Z240 standard no longer being accepted in Alberta for homes built post 1992.

However, all of the other provinces in Canada (including Saskatchewan and Manitoba) accept homes certified to the *CSA Z240 (MH) Standard.*

The Certification Mark includes:

- Manufacturer's name and address
- Model Identifier
- Serial Number
- Year of Manufacture
- Ground snow load and design snow load
- Thermal resistance of insulation and outdoor design temperature for heat loss calculations
- Factory installed appliances with make, model and energy source
- Complete electrical rating of circuitry (voltage, frequency, input current)

Built to the CSA Standard

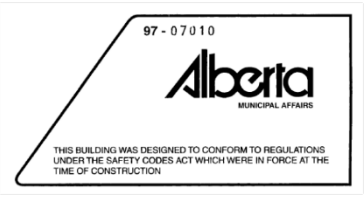
The *CSA A277 Standard* is a Certification Standard (not a building code). This Standard is used to certify a residential, commercial or industrial building for compliance to the building code it is required to comply with in the jurisdiction where the building will be sited.

In the case of Alberta, all homes must meet the Alberta Building Code and therefore, the A277 Standard. Whenever a home is constructed in a manufacturing facility for placement in Alberta, it must be confirmed its compliance to the Alberta Building Code by a modular label on each home Certifying compliance under Part 9 of the Building Code. This includes single section homes, multi section homes and multi-family dwellings.

From a building inspection perspective, the Provinces of Alberta, Saskatchewan and Manitoba subordinates all building inspection responsibilities associated with most new housing.

Three organizations can provide testing and certification to the CSA standard. The organizations include Canadian Standards Association (CSA), Intertek, and Quality Auditing Institute (QAI).

Illustration of Alberta Municipal Affairs (AMA) Label (**SCHEDULE 3**)



The Alberta Municipal Affairs Label is also required in Alberta.

Certification Inspection Procedure and company logos
*(**SCHEDULE 4**)*

Labels to look for:

Canadian Standards Association (CSA) Label and CSA Specification Sheet
*(**SCHEDULE 5**)*

Intertek Label
*(**SCHEDULE 6**)*

Quality Auditing Institute (QAI) Label)
*(**SCHEDULE 7**)*

Where Labels are Typically Found:

Newer Homes built after 1985
Most of these homes will have the SPECIFICATION SHEET on the inside of the door that covers the electrical panel. However, there is no specification for where the labels are to be posted other than they shall be placed in a readily accessible area. Generally the Specification Sheet, CSA A277 Label and AMA Label will be found close together. There are many numbers on this Specification

Sheet including; Serial Number, AMA Label Number *(in the case of Alberta)*, Make and Model, Size, etc. **(SCHEDULE 8)**

Older Homes built before 1985
Many homes built in the early 1980's should have the serial number in the same location as described above (Newer homes). Older homes also had most of the information on a specification sheet. The main difference is where this specification sheet is placed. Older homes usually had the specification sheet mounted on the inside of a door on one of the kitchen cabinets. The first location to check is the cabinet under the sink. If it is not found there it is recommended you check the inside door of all the cabinets. Remember that the specification sheet could still be on the inside of the door covering the electrical panel.

If all Else Fail If no serial number or specification sheet can be found inside the home the next place to look is on the exterior of the home. First look for any label or sticker that may have information regarding the home on it. If no such label is found the most common place to find the serial number is on the front cross member of the home. Some homes may have a label or a small steel plate and others may have the numbers stamped into the metal of the cross member.

Appreciation/Depreciation

The appreciation in value of a modular or manufactured homes comes back to the old real estate axiom – location, location, location. Modular or manufactured homes will appreciate at the same rate as other homes in surrounding neighborhoods when properly sited and maintained.

This common misunderstanding about depreciation comes from the movable nature of some types of Modular or Manufactured Homes. Some consumers look for used Modular or manufactured homes and will pay a depreciated value to move it to a different location not unlike they would if they purchased a used site-built home and removed it from its foundation to move to another location.

In the context regarding homes appreciation / depreciation value, cost of homes is site specific, market value and importance of maintenance will impact on the price of the home. In some circumstances, a modular or manufactured home could be more valuable because the home was built to be moved.

Life Span

Due to building code specifications, the CSA certification standards, the weather controlled building environment and quality of construction materials, modular or manufactured housing has an equal or longer life span than site built homes. Proper maintenance is the key to longevity in all housing types. **(SCHEDULE 9)**

Features of Modular Built Adding to the Life Span

Benefits that are a result of homes being built in a climate controlled factory conditions:

- Assembly line procedures optimize insulation & air/vapour barrier installation, resulting in a tighter and better insulated envelope which requires less energy to heat & cool.
- Ensures framing materials, sheathing, floor & roof decking are all installed dry and remain dry; therefore, moisture is not built into a structure during construction and that reduces potential for mould formation and moisture related performance and durability degradation.

- Modular homes/buildings usually carry total roof loads on the exterior walls of each module. This means most interior walls are not load bearing and can be easily removed or repositioned at any time to accommodate changing space needs which occur as children leave home, as adults' age, and for many other reasons.

Confirming the Size of Homes

Ensure the size of the home is the foot print of the home vs. home plus the hitch (if there is/was a hitch, normally the hitch would be 4 ft.). Including the 'length of the hitch' was common particularly with older homes; however, the dimensions still may include the length of the hitch to identify the shipping length, depending on the builder; therefore the recommendation is the Real Estate Agent measure the home / room sizes to ensure the exact dimensions.

Evolutionary Time Line

Code Changes and Evolutionary size increases and feature improvements (Significant Historical Dates related to Construction). Multi-section homes were available throughout this time-line, but for purposes of recognition we are focussing solely on single section homes.

Mobile Home - 1955 – 1965 - 400 sq. ft. (10 x 48 - Upper limit of available module at that time)
Pre-CSA Standards for Home Construction – typically the homes were built to American Mobile Home Standards and accepted as legal by Canadian Jurisdictions.
Common characteristics included: 2" exterior walls, 2 x 2 bow truss, metal roof, oil furnace, 6'6" height, and jalousie windows.

Mobile Home - 1966 – 1971 – 576 sq. ft. (12 x 48 - Upper limit of available module at that time)
Pre-CSA Standards for Home Construction – typically the homes were built to American Mobile Home Standards and accepted as legal by Canadian Jurisdictions.
Common characteristics included: Oil or propane furnace introduced, 2" or 3" exterior walls, 2 x 2 box truss, jalousie windows, exterior wood hollow core doors, ceiling height 7 ft.

Introduction of 952 sq. ft. (14' Wide) Mobile Homes

Mobile Home -1972 – 1975 -952 sq. ft. (14 x 68 - Upper limit of available module at that time)
CSA Certification Now Available
Common characteristics included: 2 x 2, 2 x 3, or 2 x 4 walls, gas or propane furnace, metal bow truss roof, metal slider mobile home windows, increased insulation, R-12 in the walls (Insulation becoming more important), ceiling height 7'6".

End of Jalousie (Metal Framed) **Windows**

Mobile Home - 1976 – 1977 – 952 sq. ft. (14 x 68 - Upper limit of available module at that time)
CSA Z240 (MH) standards became mandatory
Common characteristics included: 2 x 4 walls standard, slider windows, insulation R10, 2/12 metal roof introduced, metal exterior doors standard, end of metal bow truss roof, ceiling height 7.6 ft.

Mobile and Modular Home- 1978 – 1981 – 952 sq. ft. (14 x 68 - Upper limit of available module at that time) **Both CSA Z240 (MH) and CSA A277 (Modular) being used**
Common characteristics included: 2 x 4 walls, insulation R12, asphalt 2/12 pitched roof, metal exterior doors, metal slider windows, metal exterior storm doors, generally 7.6' ceiling height.

Mobile and Modular Home - 1981 – 1984 – 1008 sq. ft. (14 x 72 - Upper limit of available module at that time) Common characteristics included: 2 x 4 walls, asphalt roof, 2/12 pitch roof, metal slider windows, R12 insulation, 980 sq. ft. home (14 x 70) still popular because of park sizes, wood and vinyl siding introduced.

Introduction of 1216 sq. ft. (16' Wide) Mobile Homes
Now Commonly Referred as 'Manufactured Homes'

Mobile Home or Modular or Manufactured Home - 1985 – 1988 – 1216 sq. ft. (16 x 76 - Upper limit of available module at that time) Common characteristics included: 2 x 4 walls, some 2 x 6 walls, increased insulation to R15, introduction of dehumidifier to solve humidity problems, introduction of bogey-style transport systems, 2-1/2/12 asphalt pitched roof, metal thermal pane windows, more vinyl and wood siding, skylights introduced, cathedral ceilings.

Modular or Manufactured Home - 1989 – 1991 – 1248 sq. ft. (16 x 76 - Upper limit of available module at that time) **(Industry replaces term "Mobile Home" with "Manufactured Home")**
Common characteristics included: 2 x 6 walls, stippled ceilings now standard, introduced PVC vinyl double pane windows, dehumidifiers now standard, skylights and vinyl or wood siding standard, no more metal siding.

In 1992 the Alberta Government mandated all new homes would be required to comply with the Alberta Building Code (ABC). That ruling mandated that all Manufactured Homes be comply with the ABC.

Modular Home - 1992 – 1996 1216 sq. ft. **(16 x 76 standard foot print)**
Built to the *A277 Certification Standard* required by the *Alberta Building Code* (ABC) or greater, different building facilities build to different building specifications; however, always built to at least the minimum standard required by the Province where the home will be sited.

Modular Home - 1997 – 2000 1216 sq. ft. **(16 x 76 standard foot print)**
Built to the *A277 Certification Standard* required by the *Alberta Building Code* (ABC) or greater, different building facilities build to different building specifications; however, always built to at least the minimum standard required by the Province where the home will be sited.

Introduction of 20' Wide Homes

Modular Homes – 2001 – 1520 sq. ft. (20 x 76 standard foot print)
Built to the *A277 Certification Standard* required by the *Alberta Building Code* (ABC) or greater, different building facilities build to different building specifications; however, always built to at least the minimum standard required by the Province where the home will be sited.

Modular Homes - Current **(width of modular homes can go from 20, 22, 24, 28, up to 30ft)**
Built to the *A277 Certification Standard* required by the *Alberta Building Code* (ABC) or greater, different building facilities build to different building specifications; however, always built to at least the minimum standard required by the Province where the home will be sited.

For more information about today`s housing go to the MHAPP`s website at www.mhaprairies.ca
Locate the *Evolution to Modern Day Homes General Guide* online, go to:
http://mhaprairies.ca/resources/evolution-to-modern-day-modular-homes-informatio.aspx

Procedures for Listing and Selling within Land Lease Communities

Although some communities may vary, the following is a guideline to follow when listing and selling within a manufactured housing community.

- The Landlord requires notification when a home is listed within the community, therefore a "Notice of Listing" is to be completed, signed by the resident and submitted to the community office.
- Once the "Notice of Listing is received, the Landlord does a maintenance inspection of the lot and exterior of home to ensure that it is to community standards.
- After the inspection, a Maintenance Memo detailing the required work to be done (if any) will be issued to the resident and a copy forwarded to the Real Estate Agent. It is important to note items detailed during the inspection must be completed prior to the sale of the home.
- Customers interested in buying must be approved to live in the community; therefore a lease application must be submitted to the community office prior to finalizing the sale. Although processing times vary, it is important to provide the Landlord with as much time as possible to approve the customer.
- Each community may have their own set of "Community Guidelines" therefore it is important to check with the community office to make arrangements to have a copy of those policies provided to the Real Estate Agent and/or customer.
- Once a customer is approved, notification will be sent to the customer and/or Real Estate Agent.

Foundations

Permanent Foundations Refer to CSA Z240 10.1 (SCHEDULE 10)

Building inspectors approve the type of foundation used. All foundations in *CSA Z240 10.1* for permanent building code are not limited to modular or manufactured homes. Soil type is a key aspect on determining the foundation type and if there is a question regarding soil type, defer to the local building inspector. A correctly built foundation is critical to the longevity in all housing types.

Framed Homes vs. Non Framed Homes

Modular buildings are designed to be placed on basements, crawl spaces, pilings and other foundations compliant with the *Alberta Building Code* (ABC) in the case of homes sold for final location in Alberta. Alternatively, buildings may incorporate steel or wood longitudinal sub-frame rails which have been designed for placement on permanent surface foundation systems.

Surface Foundations

CSA Z240.10.1 is a National Standard covering site preparation, foundations, and anchorage of modular or manufactured homes and other homes/buildings that are deformation resistant foundations allowable under *CSA Z240.10.1* are uniquely designed to bear on surface footings, and offer excellent performance and durability. (The Foundation Standard should not to be confused with the *CSA Standard Z240 Manufactured Home Standard*). These surface foundations differ considerably from traditional foundations that must generally extend below the level of expected frost penetration, and are far more costly. Highly cost effective *CSA Z240.10.1* foundations provide major cost savings to help make modular or manufactured homes one of Canada's most affordable single family detached housing option.

Surface foundations systems described in *CSA National Standard Z240.10.1* and are clearly stated to be permanent foundations. That Standard further describes the conditions under which ground anchorage is required and that requirement is based on the ability of each home to resist 1/50 wind pressures found in the area where each home is sited. Those wind pressures are found in a Table found in the *National Building Code* (NBC). Similarly, *Z240.10.1* also describes the types of anchorage that can be used when it is required, and goes on to indicate: 'When wind-overturn calculations or local regulations require modular or manufactured homes to be anchored, the anchorage system should be based on the manufacturer's anchorage instructions.

In practice, under the provisions of *Z24 0.10.1* and with the exception of a couple of very high wind zones; for example in the Crowsnest Pass area of Alberta, anchorage is not required to resist the regional wind pressures on any homes 16 feet wide or greater and set on surface piers no higher than 20 inches, with a 'footprint" of no less than 24 inches. Local building code inspectors and / or lenders might require specific foundation and anchorage requirements.

For all Prairie Provinces, refer to the individual Provincial Building Codes to review appropriate legislation.

One type of Permitted Foundation

Types of Foundation Permitted

While *Z240.10.1* accommodates foundation options other than wood cribbing and concrete block, the latter (as described below) are the most cost-effective and most commonly used. Wood Cribbing Piers Piers constructed of sound lumber that is stacked with each layer placed at right angles and fastened securely to the one beneath. Unless the top surface of the footing under the crib is at least 2" above the adjacent ground surface, and the crib is separated from the footing by at least 0.15 mm-thick poly film, the first 6" of the crib must use lumber that has been pressure treated with a preservative or lumber in the form of recycled creosoted railroad ties. The top layer of the crib must use curbing or other means of restraint to prevent lateral sliding of the home.

Concrete Block Piers

Concrete block piers must utilize 8" minimum masonry units placed with their hollow cores in the vertical position. Cores may be filled with concrete or the masonry units may be dry-stacked. The top layer of block must use curbing or other means of restraint to prevent lateral sliding of the home.

Extending down 10 feet - the depth requirements is dependent on soil structure. Refer questions on full/in-ground piles to the appropriate section of the National Building Code of Canada (NBCC).

Anchorage to the foundation and anchorage below the frost line.

Full Pilings Cement & Steel

Other Considerations

In both cases above:

1) the foundation must always support the home by way of the frame rails;
2) the foundation pier spacing must comply with the manufacturers blocking plan;
3) the height of foundation piers above the footings should not exceed their horizontal dimension measured at right angles to the length of the home (H to B Ratio of 1 to 1).

The foundation used in Land-Lease Communities might have homes which were set up prior to 1998. In any case, all preparation to set up the homes was set up according to the CSA Standard in place at the time the home was originally set up. As in any situation where major renovating has been undertaken, it must be updated to current code. If only minor changes are undertaken on a home, updating to the current standard is not required.

Methods for ground preparation and foundations

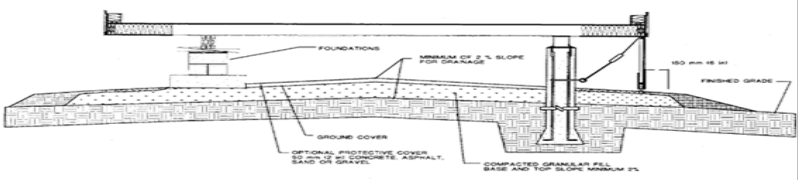
Modular homes can be designed to be placed on basements or other perimeter foundations compliant with the *Alberta Building Code* (ABC) or the *National Building Code* (NBC) (**SCHEDULE 11**) {see appropriate Provincial Legislation}. Alternatively they can incorporate longitudinal sub-frame rails, in which case they have been designed for placement on permanent surface

foundation systems that comply with ABC or NBC foundation requirements under the provisions of the *CSA Z240.10.1 N*

Appendix A
Site Preparation

Note: *This Appendix is not a mandatory part of this Standard.*

A1.
Typical site preparation for concrete pile or surface pier foundation systems is depicted in Figure A1.



Notes:
(1) *Ground cover to extend at least 150 mm (6 in) past the sides of the mobile home.*
(2) *Backfill base and ground cover to be graded centre to outside or from side to side with a minimum slope of 2%.*
(3) *Surrounding finished grade to slope away from home.*

Ground Cover and Clearance Requirements

Ground Cover

Where normal soil conditions exist, a *National Building Code of Canada* (NBCC) compliant ground cover must be placed over the entire area under the home and extend 6" beyond the perimeter to prevent migration of moisture into the space beneath the home Where unique soil conditions such as expansive clay exist, which may contribute to water pooling beneath surface foundation footings, alternate means of preventing water vapour from entering the home through the floor system may be used.

Ground Clearance

Under typical conditions, vertical clearance of at least 24" must be maintained between the finished grade under the home and the bottom of the floor joists Where a home has a lowered section such as a sunken kitchen or living room, or the home is placed on a sloping site, the vertical clearance between the top of the finished grade and the and the bottom of the floor joists of the lowest point must be at least 12". In all cases vertical clearance sufficient to provide ready access to service and replace heating, plumbing and other equipment must be provided.

Ground Preparation for Surface Foundations

CSA Z240.10.1 surface foundations are designed to provide excellent performance and durability, but that outcome is contingent upon proper site preparation Top soil and all organic material must be removed from the home site below the footprint of the home The base of the excavated site must be graded from the centre to the outside with a minimum slope of 2% to prevent water accumulation under the home, and then filled with gravel or other granular material to a level that is above to surrounding grade. If backfill is used where footing pads will be placed, it must be compacted and graded to a minimum 2% slope Where soils under the home are free draining and the water table is such that water will not accumulate under the home, the base of the excavated site can be below the level of the finished grade of the site.

Types of Footings Permitted

Un-reinforced Concrete

Footing pads must be a minimum of 4" thick and cannot extend more than their thickness beyond the supported pile member Reinforced, cast in place, or pre-cast concrete. Must provide equivalent strength and meet the same conditions applicable to un-reinforced concrete

Wood

Wood footings must be at least 3.5" thick pressure treated with a wood preservative

Other

Plastic waffle pads and other materials can only be used if it can be demonstrated on a case-by-case basis that strength and durability is at least equivalent to concrete alternatives above

NOTE: Use of the above footing pad options is limited to pile type foundations that most commonly consist of wood cribbing or concrete block. Detailed guidance pertaining to soil conditions, footing footprint dimensions, and footing spacing is contained in the CSA Z240.10.1 Standard

Anchorage Requirements (to foundation and anchorage below frost line)

When are they required?

Some lenders and/or municipalities may require more specific anchorage options. See the CSA Z24.10.1 Standard.

Anchorage Options

Z240.10.1 suggests a number of anchorage alternatives that have been proven effective.

Caution

When using anchorage of any kind in expansive clay soils (common in Northern Alberta, much of Manitoba), the anchors can cause major damage to the structure of a home in the event of severe differential soil movement caused by frost heaving. To reduce the prospects of damage occurring, anchorage cables should be easily adjustable by the home owner and written instructions given to the homeowner to loosen the anchor cables to allow 3" – 4" of differential movement between the home and the anchors over the winter months. Working with the local building officials is extremely helpful.

Skirting and Crawl Space Ventilation

Skirting

Skirting should be designed to accommodate a minimum of 2" of vertical movement. Components of skirting in contact with the ground should be corrosion resistant or made to be corrosion resistant by way of a preservative coating Skirting exterior surfaces should be painted or otherwise made weather resistant.

Pardging used for Skirting

Types of Skirting

Vinyl Skirting

Crawl Space Ventilation

Ventilation of crawl space should be provided by installing screened grills in the skirting of at least 1 square foot of unobstructed venting for each 500 square feet of floor area of the home. The grills should be uniformly spaced on opposite sides of the home and positioned to minimize the prospects of obstruction by snow, leaves, etc.

Crawl Space Access

In order to facilitate inspections and maintenance at least one access panel of not less than 20" x 28" should be provided to the crawl space in an area that is close to water and sewer connections.

Caution: Appliances or clothes dryers should never be vented into the crawl space.

CSA Z240.10.1 & Local Building Inspectors

In spite of *CSA Z240.10.1* being a National Standard referenced in both the *NBCC* and the *Alberta Building Code*, local building inspectors have the authority to reject its use or add additional requirements to its use in their jurisdiction.

Please contact the Modular Housing Association Prairie Provinces' office should you have any questions or concerns.

MODULAR HOUSING ASSOCIATION PRAIRIE PROVINCES

For more information about today`s housing go to the MHAPP`s website at www.mhaprairies.ca
Locate the *Evolution to Modern Day Homes General Guide* online, go to:
http://mhaprairies.ca/resources/evolution-to-modern-day-modular-homes-informatio.aspx

SCHEDULE 1 Model Assignment of Lease Consent Agreement

This agreement is endorsed by the Canadian Manufactured Housing Institute and the Canadian Bankers' Association.

MODEL ASSIGNMENT OF LEASE CONSENT AGREEMENT FOR MANUFACTURED HOMES

ENDORSED DECEMBER 2002

This Agreement is subject to all the rights and obligations of the tenant and landlord in the Site Lease Agreement.

TO:_____ **(the "Lender")**[1]
ADDRESS _____.
TELEPHONE: _____.FAX: _____. E-MAIL:_____.
Re: _____.[2] **("Tenant")**
Lease of Land _____.[3] **(the "Site")**
Manufactured Home Site No. LOT BLK _____.[4] **("Site Lease")**
from _____.[5] **("Landlord")**
located at _____.[6] **("Community")**
& Security Interest /Mortgage of Lender over Tenant's Rights in manufactured homes ("Home")/Site Lease.
By signing below, the Landlord agrees with the Lender and with each other person who has signed this consent as follows:

1. The Landlord confirms that:
a) The Tenant is about to or has entered into the Site Lease with the Landlord for a _____[7] term, commencing on _____[8] at a current rental of $ _____.[9]
payable **1ST OF EACH MONTH**.[10]
b) The Site Lease, once executed, and / or the rules and regulations of the Community, if any, are attached as Schedule "A" to this Consent.
c) The Site Lease constitutes a valid and binding obligation of the Landlord and Tenant and neither the Landlord nor the Tenant is in default under the Site Lease as of the date of this Agreement.

2. The Home, including all attachments to it, is now and will at all times remain the property of the Tenant. The Home is not and will not become a fixture of the Community or the Site. The Landlord shall have no interest in the Home.

3. The Landlord acknowledges and consents to the Lender's security interest over the Tenant's personal property, including the Home, and to the mortgage of or assignment to the Lender of the Tenant's interest in the Site Lease and in any renewals, extensions, replacements or amendments of the Site Lease.

4. If the Tenant defaults under the Site Lease, before terminating the Site Lease or commencing eviction proceedings, the Landlord will advise the Lender in writing at the above address of the Tenant's default, within a reasonable time frame (within 90 days) and allow the Lender a reasonable amount of time (within 45 days after receipt of the notice) to cure the default, including payment of all arrears. The Lender will not be liable for any of the Tenant's covenants including payment of rent, prior to such notice, or until the Lender takes possession of the Home, whichever occurs first.

5. So long as all arrears are paid and obligations under the Site Lease are upheld, and ongoing rental payments are made when due then, upon default of the Tenant under the Lender's security, the Lender (including its employees and agents, but subject to the terms of the mortgage and/or other security agreed between the Lender and the Tenant) may enter the Community and take possession of or sell the Home (other than by on-site auction) while it is in the Community, or the Lender may remove the Home from the Community, on condition that the Lender promptly repairs any damage to the Community caused by such removal. Upon such removal or sale of the Home, the Lender will have no further obligations to the Landlord.

6. If the Lender sells the Home to a purchaser approved by the Landlord (which approval shall not be unreasonably withheld) and if the purchaser wishes the Home to remain in the Community, then the Lender may assign to the purchaser the Site Lease (for the remaining term, if any) or the Landlord will enter into a new lease with the purchaser on substantially the same terms and conditions as the Site Lease, whichever the Landlord chooses. [11]

7. The Consent is binding upon the parties hereto and their respective successors, assigns, executors and administrators. The Landlord warrants that the persons signing below are duly authorized to sign this consent. The Lender signs this agreement to acknowledge receipt of a copy of this agreement and this agreement shall not impose any additional obligations on the Lender other than those stipulated in this agreement.

DATED THE _____. DAY OF _____., 200 _____.[12].

_____ _____ _____
Signature of Landlord Signature of Tenant Signature of Lender

_____ _____ _____
Print Name of Landlord Print Name of Tenant Print Name of Lender

[1] Insert branch address [2] Insert name of borrower(s) [3] Insert description of site on which the Home is located and boundaries measured from fixed point of reference [4] Insert site # [5] Insert name of Landlord [6] Insert name and description of Community [7] Insert term of Site Lease (e.g. month to month, one year) [8] Insert date Site Lease commences [9] Insert rental [10] Insert frequency of rental payments (e.g. monthly) [11] Providing the physical condition of the home meets community standards [12] Insert day, month and year.

SCHEDULE 2 ALBERTA BUILDING CODE

Building Codes & Standards

This section links you to information on where the following Codes and Standards are available. Most Codes and Standards are published by external organizations and are not available on-line.

Alberta Building Code 2006 (Printed) *(to purchase)*
Alberta Building Code 2006 (CD-ROM or On-line Subscription) (to purchase)
Alberta Building Code Amendment Regulation (High Intensity Residential Fires)
Replacement pages for the Alberta Building Code 2006*

Building STANDATA

Safety Services and the Safety Codes Council develop Alberta Building Code STANDATA jointly. Some are issued under the authority of the Code or the Safety Codes Act as province-wide variances or interpretations. Others are information bulletins that provide general advice on related matters. Below is an index page linked to all current Director's Interpretations. New STANDATA are added on a regular basis.

If you would like to subscribe to STANDATA, please go to the List Subscription Service. You will be automatically notified when new STANDATA or other information is posted on the Safety Services site.

Alberta Building Code 2006 STANDATA

Building Code Variances
Building Code Interpretations
Building Code Bulletins
Building Code Errata

Building STANDATA

Previous Codes

* In the fall of 2013, the 2010 National Building Code Canada (NBCC) based Alberta Building Code will be adopted.

SCHEDULE 3 Alberta Municipal Affairs Label

INFORMATION BULLETIN STANDATA

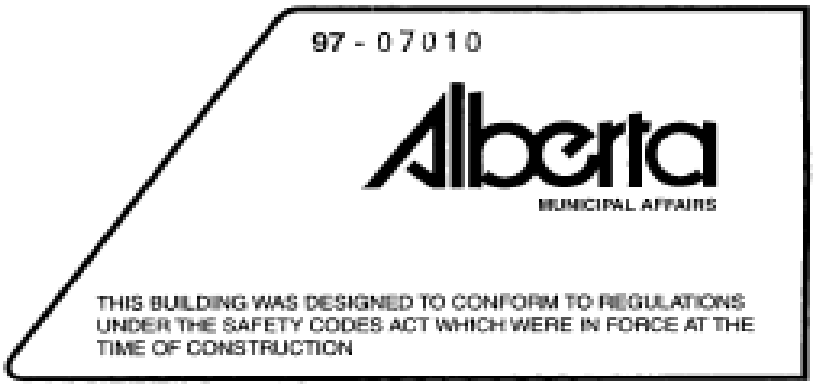
June 2005 97-IB-003R3
Page 1 of 4

MANUFACTURED HOMES
AND
RELOCATABLE INDUSTRIAL ACCOMMODATION

Alberta Municipal Affairs issues three labels for two types of manufactured structures; manufactured homes (mobile homes, off-site manufactured homes and ready-to-move (RTM) homes) and relocatable industrial accommodation. The labelling program is used to show compliance with the Alberta Building Code 1997 (ABC 1997) and associated regulations. Label facsimiles together with comments on their use are given below.

1. New Manufactured Homes

Alberta Municipal Affairs labels are only applied to manufactured housing units that have been fully completed in the factory. Typically, these units are manufactured to the CSA-Z240 MH series of standards and must also comply with the ABC 1997. Units will then be eligible for both CSA and Alberta Municipal Affairs labels. A sample of the Alberta Municipal Affairs label for factory completed units follows:



ISSUE OF THIS INFORMATION BULLETIN IS AUTHORIZED BY THE DIRECTOR/ADMINISTRATOR

C.M. TYE

SAFETY CODES COUNCIL

Alberta
MUNICIPAL AFFAIRS

Alberta Municipal Affairs, 16th Floor, Commerce Place, 10155-102 Street, Edmonton, Alberta, Canada, T5J 4L4
Safety Codes Council, Suite 800, 10707 – 100 Avenue, Edmonton, Alberta, Canada, T5J 3M1

Many off-site manufactured homes are sold as incomplete units where owners opt for competing them in-situ. These units are manufactured using the CSA-A277 standard (see also STANDATA 97-13-037). As with fully completed homes, the ABC 1997 is the construction standard. Because these units leave the plant at varying degrees of completion the owner must obtain all necessary permits for the remaining work to be completed.

Manufactured housing units in this category will not receive an Alberta Municipal Affairs label; however will be provided with a CSA-A277 label signifying that construction completed in the factory meets the A3C 1997. This work is earned out under an agreement between Alberta Municipal Affairs and the Canadian Standards Association (CSA) whereby CSA reviews the construction plans, distribute labels, and conducts periodic plant inspections.

For each unit the manufacturer will also provide the purchaser with written confirmation of the work competed in the factory. This is then provided to the local Safety Codes Officer (SCO) to support the release or permits for the on-site construction necessary to complete the home. (See Article 1.2.1.1)

Existing Manufactured Homes

Homes with Alberta Municipal Affairs Labels

When an existing manufactured home s to be relocated, it may have an AMA label attached giving the local SCO assurance it was constructed in. conformance with the Alberta Building Code in force at the time of manufacture. The first two numbers on the label will designate the Alberta Building Code edition. For example. "85" confirms it was constructed or has been upgraded to comply with the Alberta Building Code 1985. The unit may also have a CSA-A277 or CSA-Z240 label.

The local SCO may wish to perform an inspection of a home before relocation to determine if any changes have been made to the unit since construction. If this is the case, the SCO may require the owner to obtain permits and perform upgrades should deficiencies be identified
Whether or not the unit requires upgrading, a permit will normally be required to site the home at the new location. This permit will cover items such as limiting distance (spatial separation), the foundation/anchorage system, entrance stairs, deck additions and site grading (see Article 1.2.1.1).

Homes without Alberta Municipal Affairs Labels (with CSA Label)

When an existing manufactured home is to be relocated and does not have an AMA label, but has a CSA label, the unit should be inspected by an SCO. In this case, the SCO will issue a report to the owner or any safety deficiencies to be addressed before the unit is moved. Items may include bedroom window sizing, smoke alarms, exit doors, solid fuel fired appliances, and protection of wall surfaces around kitchen ranges. The permit will also cover the siting issues dealt with above.
2 / 97-IB-003R3

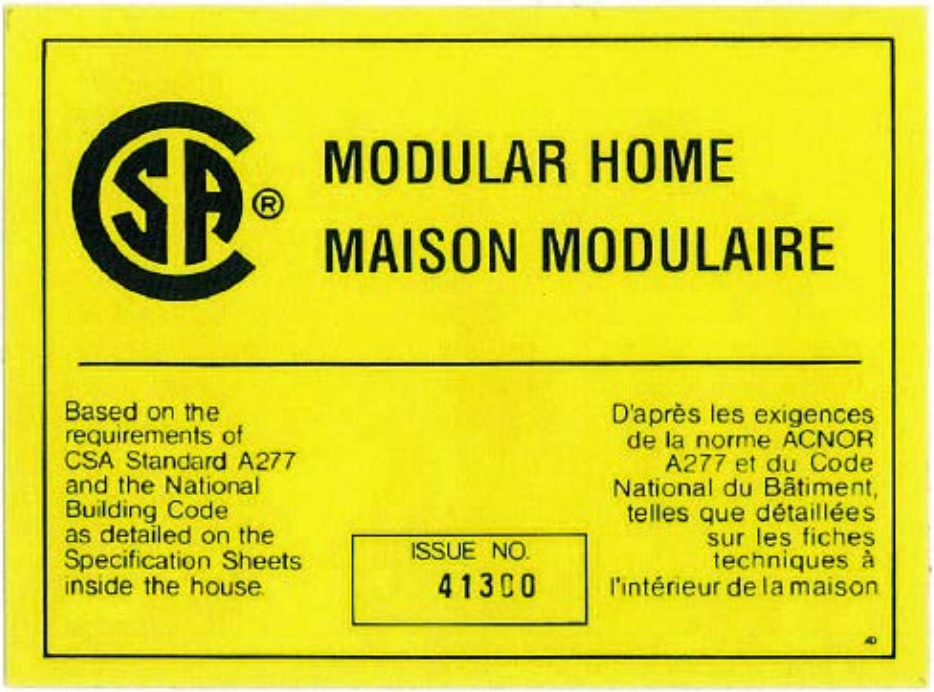
Schedule 4 Certification Inspection Procedures

The manufacturing facility that modular homes and/or manufactured are certified by a certification body (CSA Intertek or Quality Auditing Institute) that certifies the homes comply with Canadian Standards. This procedure enables each manufacturing facility to build fully finished homes, place a certification label on each manufactured (mobile) home certifying compliance to the CSA Z240MH National Mobile Home Standard, and place a certification label certifying compliance to the NBCC, or Provincial Building Code. For Homes sited in Alberta, it further enables the factory to apply an Alberta Municipal Affairs Label certifying Alberta Building Code (ABC) compliance.

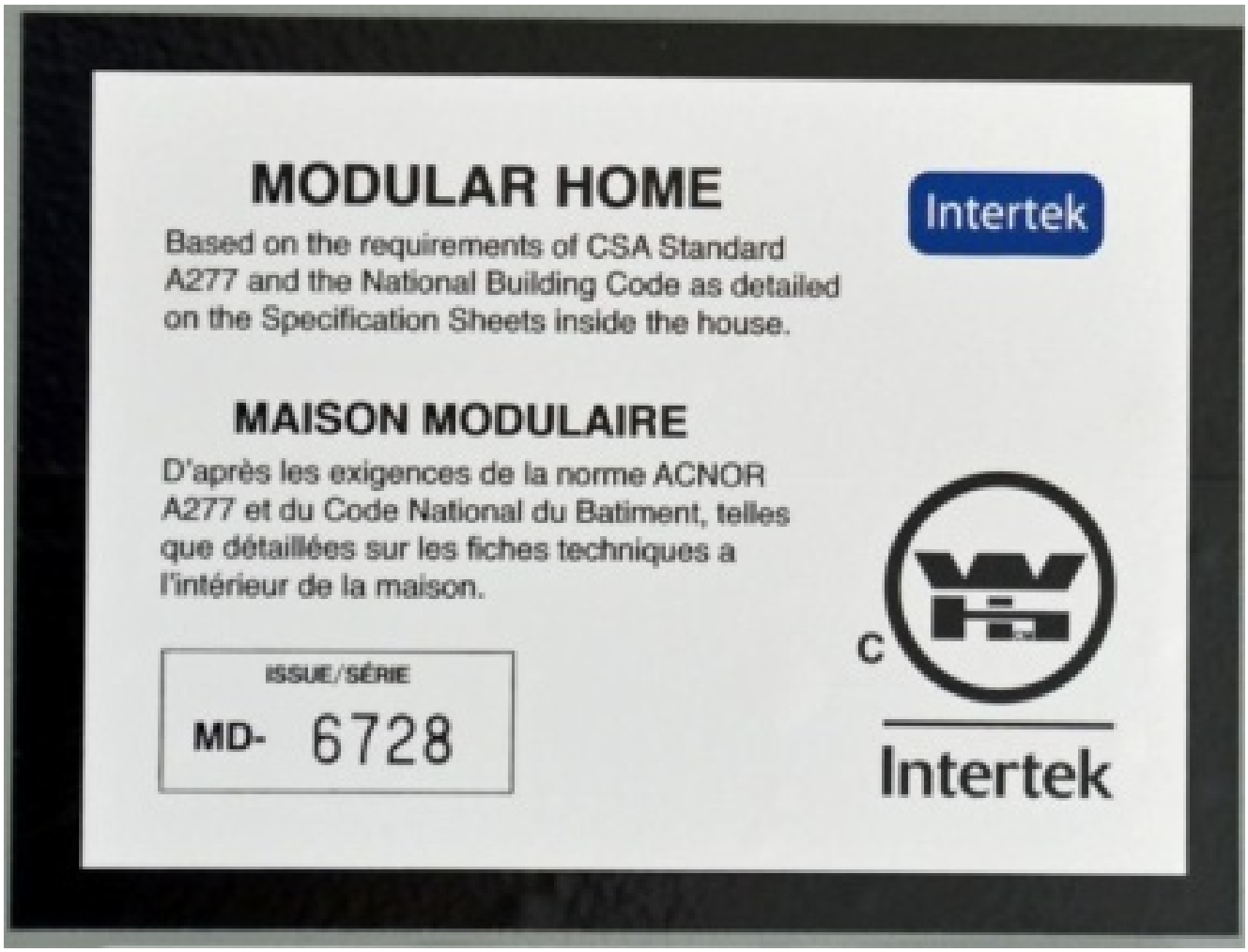
CSA certification ensures each manufacturing facility maintains strict quality control and inspection programs and utilized well trained labour, a design staff with thorough building code knowledge, and skilled inspectors that monitor and inspect each home at each stage of production process. In addition, Certification personnel conduct periodic inspection of the homes being produced in the factory. The Certification Label placed on each home is numbered and a serial number is assigned to each home. A permanent record of the Certification Label number, the serial number and the specifications of each home produced is maintained by the manufacturer.

Labels to look for:

Schedule 5 CSA Label



Schedule 6 Intertek Label



SCHEDULE 7 Quality Auditing Institute Label

SCHEDULE 8 MODULAR-BUILT HOMES SPECIFICATION NAMEPLATE

Home description on this document includes:

- Date of Manufacture
- Manufacturer (and address)
- Model and Serial Number
- Roof Design Snow Load
- Ground Snow Load
- Thermal Resistance of Insulation
- Window Ratings
- Outside Design Temperature
- List of Factory Installed Appliances
- Electrical System
- Plumbing System
- Warnings related to Natural Gas or Propane system

DO NOT REMOVE / NE PAS ENLEVER

MANUFACTURED HOME INTERTEK SPECIFICATION NAMEPLATE PLAQUE SIGNALETIQUE TECHNIQUE ACNOR POUR MAISON FABRIQEE

MANUFACTURER/FABRICANT _____ YEAR OF MANUFACTURE / ANNEE DE FABRICATON _____

FACTORY ADDRESS/ADRESSE DE L'USINE _____

MODEL NO./NO DE MODELE _____ SERIAL NO./NO DE SERIE _____ LABEL NO./ETIQUETTE NO _____

PROVINCE OF DESTINATION/PROVINCE DE DESTINATION _____

STRUCTURAL SYSTEM/SYSTEME DE CHARPENTE

DWG.NOS/DESSINS NOS _____

GROUND SNOW LOAD / CHARGE DE NEIGE AU SOL _____ kPa
DESIGN SNOW LOAD / CHARGE DE NEIGE CALCULEE _____ kPa
ATTIC LOAD / CHARGE DES COMBLES _____ kPa

PLUMBING SYSTEM/SYSTEME DE PLOMBERIE

DWG. NOS./DESSINS NOS _____

TYPE OF DWV SYSTEM / TYPE DU SYSTEME DWV _____
POTABLE WATER TESTED AT 700kPa FOR _____ HOURS

TYPE OF POTABLE WATER SYSTEM / TYPE DU SYSTEME D'EAU POTABLE _____
SYSTEME D'EAU POTABLE EPROUVE A 700kPa _____ HEURES

ELECTRICAL SYSTEM/SYSTEME ELECTRIQUE

DWG. NOS./DESSINS NOS _____

120/240 VOLTS 60 Hz _____ AMPERES

NO.OF ENERGIZED CIRCUITS / N.DE CIRCUITS SOUS TENSION _____

HEATING SYSTEM/SYSTEME DE CHAUFFAGE

DWG. NOS./DESSINS NOS _____

FIELD INSTALLED/INSTALLE SUR LE SITE _____

TYPE OF HEATING: OIL _____ GAS _____
TYPE DE CHAUFFAGE: HUILE _____ GAZ _____

ELECTRICAL _____ FACTORY INSTALLED _____
ELECTRICITE _____ INSTALLE EN USINE _____

THIS HOUSE IS DESIGNED TO MEET HEAT LOSS REQUIREMENTS WITH AN AVERAGE INDOOR TEMPERATURE OF 22C AT THE FOLLOWING OUTDOOR DESIGN TEMPERATURES:
_____C

CETTE MAISON EST CONCUE POUR SATISFAIRE AUX PRESCRIPTIONS DE PERTE DE CHALEUR A LA TEMPERATURE INTERIEURE MOYENNE DE 22C ET A LA TEMPERATURE EXTERIEURE DE CALCUL SUIVANTE:
_____C

DESIGN HEAT LOSS OF HOUSE _____ N/A / N/A Kw/MBTUH
FURNACE OUTPUT _____ N/A / N/A Kw/BTUH
THERMAL INSULATION Ceiling: R 40 (insulation only), R 41.5 (total)
Floor: N/A (insulation only), N/A (total).
ISOLATION THERMIQUE Plafond: R 40 (insulation seulement), R 41.5 (total)
Plancher: N/A (insulation seulement), N/A (total).

PERTE DE CHALEUR CALCULEE DE LA MAISON _____ N/A / N/A Kw/BTUH
DEBIT CALORIFIQUE DE LA FOURNAISE _____ N/A / N/A Kw/BTUH
(total); Walls: R20.0 (insulation only), R21.5 (total);
(total); Murs: R20.0 (insulation seulement), R21.5 (total);

NOTES:
1. THIS HOUSE IS NOT CERTIFIED FOR AREAS WHERE THE GROUND SNOW LOAD (AS SPECIFIED IN THE SUPPLEMENT TO THE NATIONAL BUILDING CODE) EXCEEDS THE GROUND SNOW LOAD SPECIFIED ABOVE.
2. THIS SPECIFICATON PLATE AND THE INTERTEK LABEL PROVIDES THE ONLY EVIDENCE OF INTERTEK CERTIFICATION
3. THIS CERTIFICATION DOES NOT COVER THE FOLLOWING: PREPARATION OF THE SITE; FOOTINGS OR FOUNDATIONS; INTERCONNECTION OF MODULES OR COMPONENTS ON SITE; COMPLETION OF THE STRUCTURAL, PLUMBING, ELECTRICAL AND HEATING SYSTEMS ON SITE; CONNECTION TO SERVICES AS SPECIFIED IN THE ELECTRICAL AND BUILDING PERMITS. ALL OF THE ABOVE ARE SUBJECT TO INSPECTION BY THE LOCAL AUTHORITY HAVING JURISDICTION.
4. INTERTEK CERTIFICATION IS AS NOTED ABOVE AND COVERS THE APPLIANCES DESCRIBED BELOW ONLY WHEN INSTALLED IN THE FACTORY

THE DESIGN OF THIS HOME HAS BEEN TESTED AND EVALUATED IN ACCORDANCE WITH THE DEFORMATION RESISTANCE TEST SET FORTH IN CSA STANDARD CAN/CSA-Z240.2.1., AND IS IN FULL COMPLIANCE.

NOTES:
1. CETTE MAISON N'EST PAS CERTIFIEE POUR DES REGIONS OU LA CHARGE DE NEIGE AU SOL (TEL QUE SPECIFIE AU SUPPLEMENT DU CODE NATIONAL DU BATIMENT) EXCEDE LA CHARGE SPECIFIEE CI-DESSUS
2. LA PLAQUE DE CERTIFICATION ET L'ETIQUETTE ACNOR PLACEE A L'EXTERIEUR SONT LES SEULES PREUVES DE CERTIFICATION ACNOR.
3. CETTE CERTIFICATION NE COUVRE PAS CE QUI SUIT : PREPARATION DU SITE; DES FONDATIONS OU EMPATTEMENT; MONTAGE DES MODULES OU ELEMENTS SUR LE SITE; ACHEVEMENT DES SYSTEMS DE CHARPENTE, DE PLOMBERIE, DE CHAUFFAGE ET D'ELECTRICITE SUR LE SITE; RACCORDEMENT AUX SERVICES PUBLICS. TEL QUE SPECIFIE AUX PERMIS D'ELECTRICITE ET DE CONSTRUCTION. TOUT CE QUI PRECEDE DOIT FAIRE L'OBJET D'INSPECTION PAR LES AUTORITES COMPETENTES LOCALES.
4. LA CERTIFICATION ACNOR EST TELLE QUE SPECIFIEE CI-DESSOUS ET COUVRE LES APPAREILS DECRITS CI-DESSOUS ET INSTALLES SEULEMENT EN USINE.

LA CONCEPTION DE CETTE MAISON A ETE EPROUVEE ET EVALUEE CONFORMEMENT AUX EXIGENCES DE L'ESSAI DE RESISTANCE AUX ETATS LIMITES (7.5.2) DE LA NORME CSA-Z240.2.1. AVEC SUCCES

FACTORY INSTALLED APPLIANCES/APPAREILS INSTALLES EN USINE

NOTE: "N/A" MUST BE MARKED IF APPLIANCE NOT INSTALLED.
NOTE: "N/F" DOIT ETRE INSCRIT SI L'APPAREIL N'EST PAS INSTALLES.

	MAKE / MARQUE	MODEL / MODELE	FUEL (NATURAL GAS, PROPANE, OIL OR ELECTRIC) / COMBUSTIBLE (GAZ NATUREL, PROPANE, HUILE OU ELECTRICITE)	
1. FURNACE	N/A	N/A	N/A	FOURNAISE
2. WATER HEATER	N/A	N/A	N/A	CHAUFFE-EAU
3. RANGE	N/A	N/A	N/A	CUISINIERE
4. COOKTOP	N/A	N/A	N/A	CUISINIERE
5. DRYER	N/A	N/A	N/A	SECHEUSE
6. WASHER	N/A	N/A	N/A	LAVEUSE
7. DISHWASHER	N/A	N/A	N/A	
8. MICROWAVE	N/A	N/A	N/A	
9. FRIDGE	N/A	N/A	N/A	
10. FREEZER	N/A	N/A	N/A	

FORM 93.9.1 (REVISED MAR) ISSUE NO.
Design wind Pressure (1/30) Not Requiring Ground Anchorage - 0.86 KPa

For more information about today`s housing go to the MHAPP`s website at www.mhaprairies.ca
Locate the *Evolution to Modern Day Homes General Guide* online, go to:
http://mhaprairies.ca/resources/evolution-to-modern-day-modular-homes-informatio.aspx

Schedule 9 Calculating Life Span on a Home

MHI Canada

Trade Association to the Manufactured Housing Industry

99 Bank Street, Suite #409, Ottawa, Ontario K1P 6B9
Ph: (613) 747-7083 Fax: (613) 747-6264 E-mail: mhicanada@cwc.ca

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Re: Serviceable life expectancy of mobile homes

While there are no formal Canadian statistics addressing the serviceable life of mobile homes, from the late 1950's to the mid 1970's more than 225,000 mobile homes were sold in Canada and the vast majority of those homes are still occupied. Much like traditional site-built homes, mobile homes require routine maintenance and this is the single most important factor in their longevity. From a practical perspective most mobile homes produced prior to 1972 used lighter framing materials than those used in traditional site built homes, so theoretically the ultimate serviceable life could be less.

In 1972 the Canadian Standards Association developed a National Construction Standard for Mobile Homes (CSA Z240 MH) and in all important areas related to health, safety and durability the structure of mobile homes built in compliance to this Standard were fully comparable to site built homes of that period. By 1976 all 10 Provinces made that CSA Standard mandatory, and the modern day mobile home was formally born. Since 1976 each time the National Building Code of Canada is revised, CSA examines those revisions and those related to basic health and safety are adopted in a new edition of the Z240 MH Standard.

Unrelated to the code comment above, when mobile homes do suffer a shortened serviceable life expectancy it is generally related to foundation related problems resulting from poor installation and/or poor maintenance. The very same problems shorten the serviceable life of site built homes.

In summary, there is much evidence to suggest that since 1976, mobile homes set on properly installed foundations that are properly maintained will last as long as site built homes constructed during the same period. Reinforcing the latter is the fact that when CMHC now underwrites mortgages on resale mobile homes, rather than using the year of manufacture as the determinant of condition as they did in the past, condition now is determined by an appraisal in the same manner it is for resale site built homes.

Sincerely,

Hank Starno,
President

SCHEDULE 10 CSA Z240.10.1 Site Preparation, Foundation, and Anchorage of Manufactured Homes

Preface

This is the third edition of CSA Z240.10.1, Site preparation, foundation, and anchorage of manufactured homes. It supersedes the previous editions, published in 1994 and 1986 under the title Site Preparation, Foundation, and Anchorage of Mobile Homes.

1. Scope

1.1 This Standard applies to manufactured and modular-built homes designed to be supported on longitudinal floor beams. Note: For simplicity, the term "manufactured home" is used in this Standard to refer to both manufactured homes and modular-built homes.

1.2 This Standard includes requirements for the following aspects of manufactured home installation: (a) site preparation; (b) foundations for single- and multiple-section single-storey units; (c) anchorage; (d) connection of multiple-section units; and (e) skirting.

1.3 This Standard is intended to be used by installers, inspectors, and owners of manufactured homes.

1.4 Foundation systems designed and constructed in accordance with this Standard are permanent installations.

1.5 In CSA Standards, "shall" is used to express a requirement, i.e., a provision that the user is obliged to satisfy in order to comply with the standard; "should" is used to express a recommendation or that which is advised but not required; "may" is used to express an option or that which is permissible within the limits of the standard; and "can" is used to express possibility or capability. Notes accompanying clauses do not include requirements or alternative requirements; the purpose of a note accompanying a clause is to separate from the text explanatory or informative material. Notes to tables and figures are considered part of the table or figure and may be written as requirements. Annexes are designated normative (mandatory) or informative (non-mandatory) to define their application.

1.6 The values given in SI (metric) units are the standard. The values given in parentheses are for information only.

Link: http://shop.csa.ca/en/canada/factory-built-buildings-including-mobile-homes/z240101-08/invt/27000952008/

Foundations for Deformation Resistant Buildings
STANDATA – 97-IB-037R1

The STANDATA Bulletin covering the use of CSA Z240.10.1 foundations up until the revised STANDATA Bulletin was issued in September, 2005, read as follows:

9.15.1.4. Foundations for Deformation Resistant Buildings

1) Where the superstructure of a detached building conforms to the requirements of the deformation resistance test in CAN/CSA-Z240.2.1., "Structural Requirements for Mobile Homes," the foundation is permitted to be constructed in conformance with CSA Z240.10.1 "Site Preparation, Foundation and Anchorage of Mobile Homes". Therefore modular-built or manufactured homes

built under the CAN/CSA-A277 standard would not be included under Sentence 9.15.1.4.(1) of the Alberta Building Code 1997 as an exception".

The revised STANDATA that solved the problem reads as follows:

9.15.1.4. Foundations for Deformation Resistant Buildings

1) Where the superstructure of a detached building conforms to the requirements of the deformation resistance test in CAN/CSA-Z240.2.1., "Structural Requirements for Mobile Homes", the foundation is permitted to be constructed in conformance with CSA Z240.10.1, "Site Preparation, Foundation and Anchorage of Mobile Homes". Foundations constructed in conformance with CAN/CSA-Z240.10.1 can be used for modular-built or manufactured homes. (CAN/CSA-A277 and CAN/CSA-Z240 MH) provided that the superstructure of the homes satisfy the criteria of deformation resistance test in conformance with CAN/CSA-Z240.2.1.

As noted previously, the revised STANDATA Bulletin fully solved the problem with A277 modular-built Homes using CSA Z240.10.1 Standard foundations, but it did not change the Standard in any way.

Modular-built and manufactured homes (single & multi section) that are supported on longitudinal floor beams The design of each model intended for Z240.10.1 foundation application which must be tested in the manufacturing facility and found to conform to the requirements of the deformation resistance test in CAN/CSA-Z240.2.1. In order to substantiate conformance the CSA Specification Sheet on each home must be permanently marked to read as follows: The design of this home has been tested and evaluated in accordance with the Deformation Resistance Test set forth in CSA Standard CAN/CSA Z240.2.1., and is in full compliance.

The above marking is what local building inspectors must see in order to be sure a home is deformation resistant, and therefore can utilize a CSA Z240.10.1 surface foundation. The marking can be found on the CSA Specification Sheet located on the electrical panel door of all homes produced by MHA member housing manufacturers.

SCHEDULE 11 NATIONAL BUILDING CODE of CANADA

Quick Links

Supplement to the NBC 2010: Intent Statements

Information on the 2010 Codes

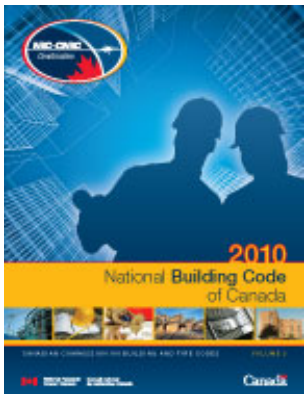
User's Guide – NBC 2005, Application and Intent Statements

The 2010 National Building Code of Canada (NBC) addresses the design and construction of new buildings and the substantial renovation of existing buildings.

It is available for purchase through National Research Council Canada (NRC's) Virtual Store (printed and online formats).

The 2010 NBC is in an objective-based code format in which all requirements are linked to one or more of the following objectives:

Safety
Health
Accessibility
Fire and Structural Protection of Buildings



Printed Format

The printed version of the 2010 NBC is available in two practical formats:

8.5 x 11 inch binder
8.5 x 11 inch soft cover.

Each format includes two volumes:

Volume 1 - Divisions A and C
Volume 2 - Division B.

Online Formats

The electronic version of the 2010 NBC, complete with the objectives and functional statements, is available as a downloadable PDF file. It can also be purchased through a Web-based subscription service (10 days, 1 year or 5 years).

SCHEDULE 12 BUILDING CODES, REGULATIONS AND RELATED STANDARDS

If you are in the construction or contracting business, or if you are fixing buildings that you own, you need to understand the building codes and standards in your province or territory.

National Building Code of Canada
Find out about the national building code on which provincial and territorial building codes are based.

Alberta Building Code
Applies only to: Alberta
Are you in the construction or contracting business, or will you be altering buildings you own? Find out about Alberta's building codes and standards.

2012 BC Building Code, BC Plumbing Code, and BC Fire Code
Applies only to: British Columbia
Learn about the regulations for home and building construction in British Columbia.

Manitoba's Building Code and related regulations
Applies only to: Manitoba
Learn about the law and regulations related to the construction and renovation of houses and buildings in Manitoba.

Building and Plumbing Code (Nova Scotia)
Applies only to: Nova Scotia
Find out about the regulations for building homes and buildings in Nova Scotia.

Ontario Building Code
Applies only to: Ontario
Find online publications about the regulations for building homes and buildings in Ontario.

Smoke-Free Ontario
Applies only to: Ontario
Learn about your legal responsibilities as a business owner and employer.

Building safety
Applies only to: Yukon
Learn about the standards, regulations, inspections and permits for building homes and buildings in the Yukon.

Building Code (Prince Edward Island)
Applies only to: Prince Edward Island
Learn about the regulations for building homes and buildings in Prince Edward Island as well as its Barrier Free Design regulations.

Construction Code and Safety Code
Applies only to: Québec
Find out about the regulations for constructing homes and buildings in Quebec.

Building standards (Saskatchewan)
Applies only to: Saskatchewan
Learn about the standards and regulations for constructing or renovating homes and buildings in Saskatchewan.

Accessible design for the built environment
Learn how to make your buildings accessible to persons with various kinds of disabilities.

Building and design
Get ideas and tips from the Canada Mortgage and Housing Corporation to help you build healthier and more environmentally friendly homes and buildings.

Accessibility standards for the built environment
Applies only to: Ontario
Find out about accessibility rules for buildings and public spaces and how to make your business accessible to persons with disabilities.

Technical Inspection Services, Safety Codes and Standards
Applies only to: New Brunswick
Find out about standards and inspection services for electrical, plumbing, propane, natural and medical gas installations, boilers, pressure vessels, elevating devices and amusement rides operations.

Buildings accessibility (Newfoundland and Labrador)
Applies only to: Newfoundland and Labrador
Learn about your business requirements for parking, signage, building accessibility and fire safety plans for persons with a disability.