

Building Safety & Inspection Services

Building Permit Application Drawings for Frame Rail Supported Single-Wide & Double-Wide Manufactured Homes

The City of Merritt requires information about the installation of manufactured housing prior to issuing a building permit. The owner of the land, or their agent, must submit an application for a building permit along with information about the proposed installation. It should be noted that if an agent submits the application, it is the owner who is ultimately responsible for ensuring compliance with the City of Merritt building & zoning bylaws and the BC Building Code.

You may prepare and submit your own plans, providing they contain all the necessary information. Alternatively, you may “fill in the blanks” on the following forms and submit them with your completed building permit application form. Please note that these simplified forms are prepared for single and double-wide units with surface foundations only. The building inspector may require additional information.

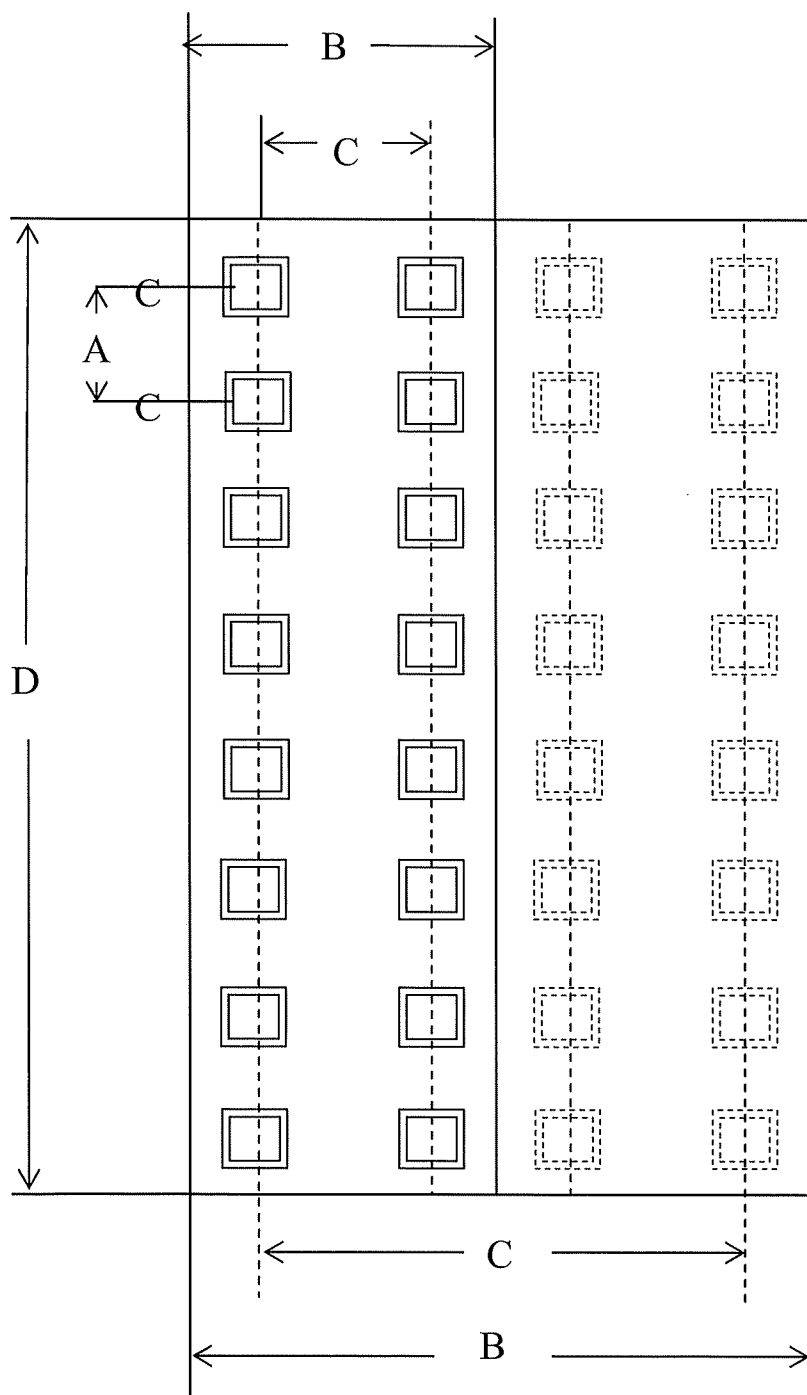
Please complete the attached documents (page 2 – 5), which will form part of the application for a building permit to install a manufactured home. Include any additional information which makes the details of the project clear.

Questions may be directed to
Building Safety & Inspection Services
at 250-378-4224 or 250-375-8622
via email at: building@merritt.ca



Indicate below:

- The locations and spacing of the piers and footing pads;
- The width of the unit;
- The width between the frame rails (centre to centre);
- The length of the unit; and
- The locations of the ground anchors and attachment points (see pages 4 and 5).



- A. _____
- B. _____
- C. _____
- D. _____

- ☐ Single Wide
- ☐ Double Wide

CERTIFICATION:

- ☐ Z-240MH
- ☐ A-277

NOTE:

Show manufacturer's centre wall blocking requirements on double-wide units.

Indicate below:

- a) The footing width;
- b) The footing thickness;
- c) The pier width; and
- d) The pier height (show the height of the tallest pier which is to be installed).

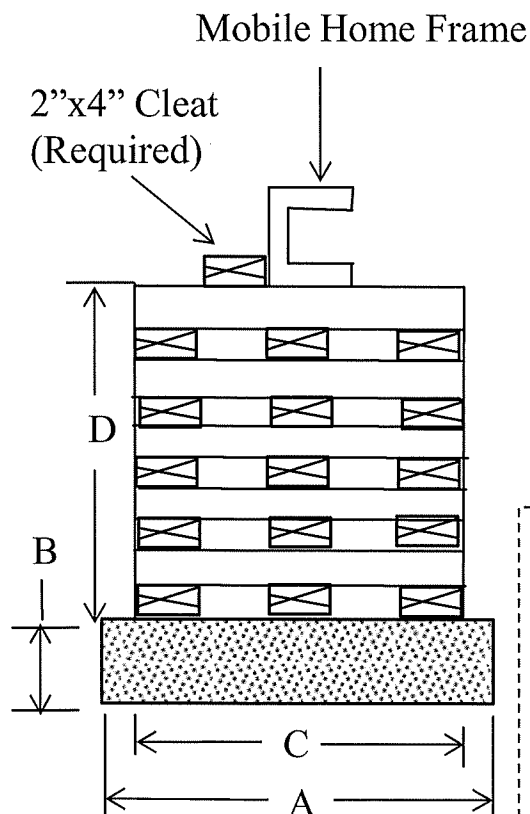
Please note that the underside of the floor joists are to be a minimum of 24" above grade level.

TYPE OF PIER:

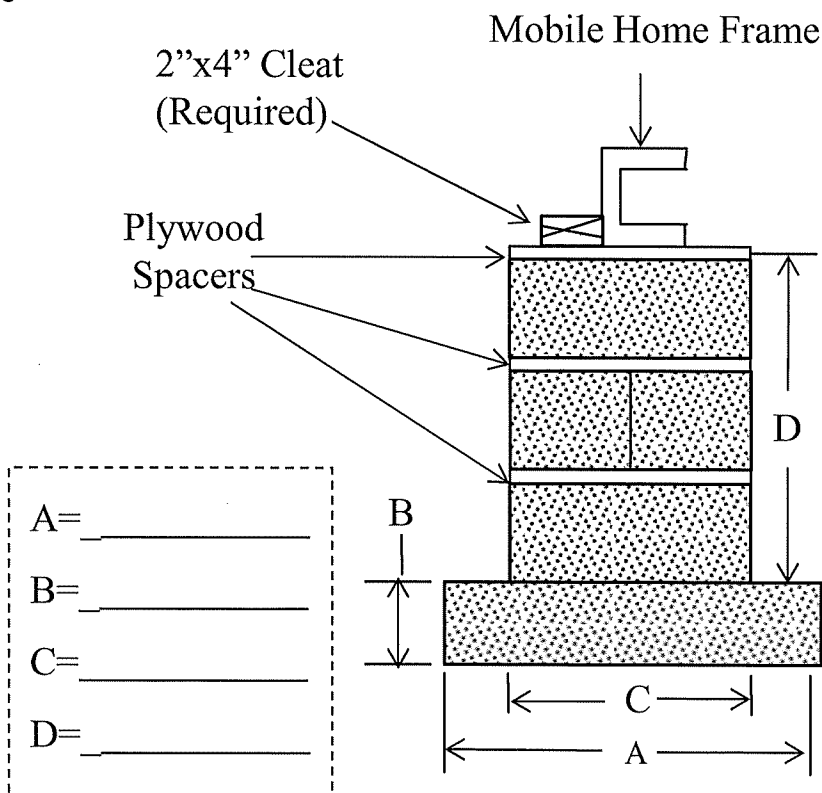
- ☐ Wood
- ☐ Concrete Blocks with Plywood
Spacers
- ☐ Other – Describe: _____

TYPE OF FOOTING:

- ☐ Preserved Wood
- ☐ Pre-Cast Mobile Home Pads
- ☐ Cast in Place Concrete Pads
- ☐ Cast in Place Concrete Strip Footings
- ☐ Other – Describe: _____



WOODEN PIERS



MASONRY PIERS 3 of 5

The BC Building Code states that Mobile homes may be installed in accordance with the CAN/CSA Z-240.10.1 Standard (Foundations and anchorage of Mobile Homes). This standard states that anchorage may not be required if certain criteria are met. The standard sets out the calculations that may be used to determine if a particular installation will resist both pier toppling and unit overturning that could be caused by local wind pressures. The resistance to pier toppling and overturning calculations are shown below. (The installer can provide the Building Inspection Department with the necessary information and we will perform the calculation). If anchorage is required, the anchors must not be located more than 40' apart along the frame rails.

Overturning Calculation:

$$q = [0.005w/(0.69 + 10.4/BS)]C$$

Pier toppling calculation:

$$q = 0.01w/[c(1.2 + 2.4 h/b)]$$

Exposure Conditions:

1.0	Very exposed
0.08	Moderate exposure
0.65	Moderate shelter
0.50	Very sheltered

q = allowable wind pressure, kPa
 C = exposure factor as per Table 2
 W = unit weight of the mobile home, kg/m²
 S = spacing of the longitudinal beams, m
 h = height of piers, m
 b = width of piers, m

Probability 1/50 hourly wind pressures:

Merritt = 0.44 kPa

The weight of mobile homes are usually listed on the certification label inside one of the kitchen cabinets. If no weights are listed, the owner may be able to obtain the information from the manufacturer. Under no circumstances is the weight to be "guessed".

The length and width shown for the unit is to be the true dimension from the outside wall faces, not the overall dimensions, which usually includes the hitch and roof overhang.

UNIT INFORMATION

(required if no anchorage is proposed)

Unit weight: _____

Unit length: _____

Unit width: _____

Frame Rail spacing: _____

Pier width: _____

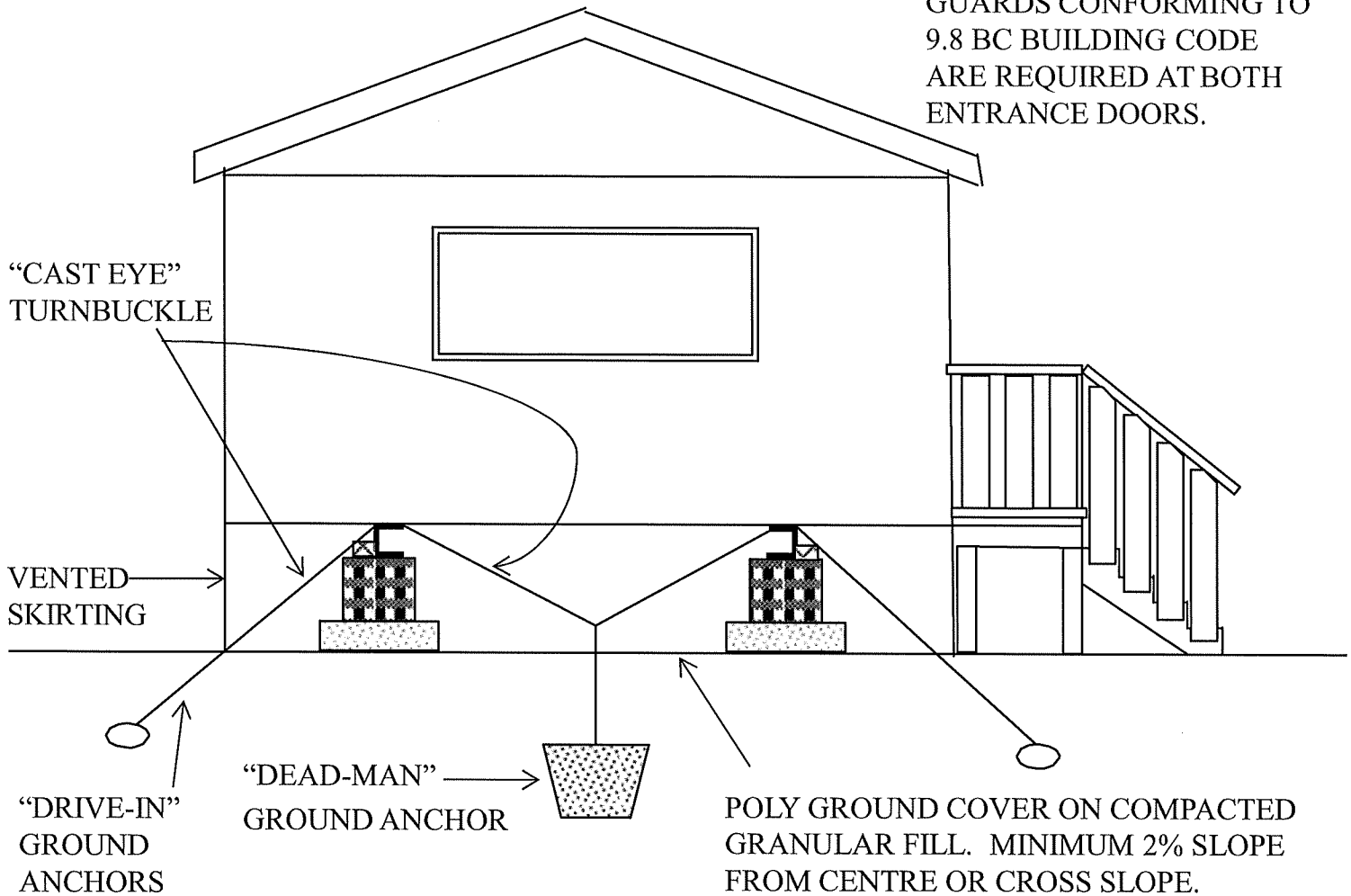
Pier height: _____

To be filled in by the building inspector

ANCHORAGE REQUIRED:

- ☐ YES
☐ NO

STAIRS, LANDINGS AND GUARDS CONFORMING TO 9.8 BC BUILDING CODE ARE REQUIRED AT BOTH ENTRANCE DOORS.



ANCHORS:

Number of anchors: _____

Spacing of anchors: _____

TYPE:

☐ Duck Bill

☐ Auger

☐ Spade

Dead-man: (describe) _____

Other: (describe) _____

TIE-DOWN:

☐ Chain

☐ Cable

Diameter/Size: _____

The BC Building Code states that Mobile homes are to be installed in accordance with the CAN/CSA Z-240.10.1 Standard. One requirement of this standard is that mobile homes must be anchored to the ground if they do not meet the overturning and pier toppling calculations as outlined on page 4 of this handout. If the proposed installation fails to meet these requirements, or if required information is unavailable, ground anchorage is required.

The ground anchors, when installed, must have a pullout resistance of at least 135 pounds for every foot of mobile home length. This pullout resistance shall be determined using recognized engineering practice, or for proprietary systems, from the anchor manufacturer's instructions for the soil type in question.

Acceptable tie-down components may include corrosion resistant wire rope, galvanized chain and "cast eye" turnbuckles, providing they have a strength rating at least equal to the minimum requirements..

NOTES:

-SKIRTING DESIGN IS TO ALLOW FOR GROUND MOVEMENT DUE TO FROST

-VENTS IN SKIRTING TO PROVIDE A MINIMUM OF 1 SQUARE FOOT OF VENT AREA PER 500 SQUARE FEET OF LIVING SPACE. VENTS TO BE DISTRIBUTED EVENLY ALONG BOTH SIDES.

-STAIRS TO HAVE A MINIMUM RISE OF 5" AND A MAXIMUM RISE OF 8". TREADS ARE TO BE A MINIMUM OF 9 1/4" WIDE AND A MAXIMUM WIDTH OF 14". THERE IS TO BE A MAXIMUM VARIATEION OF 1/4" ALLOWED FOR RISER HEIGHTS AND TREAD WIDTHS.