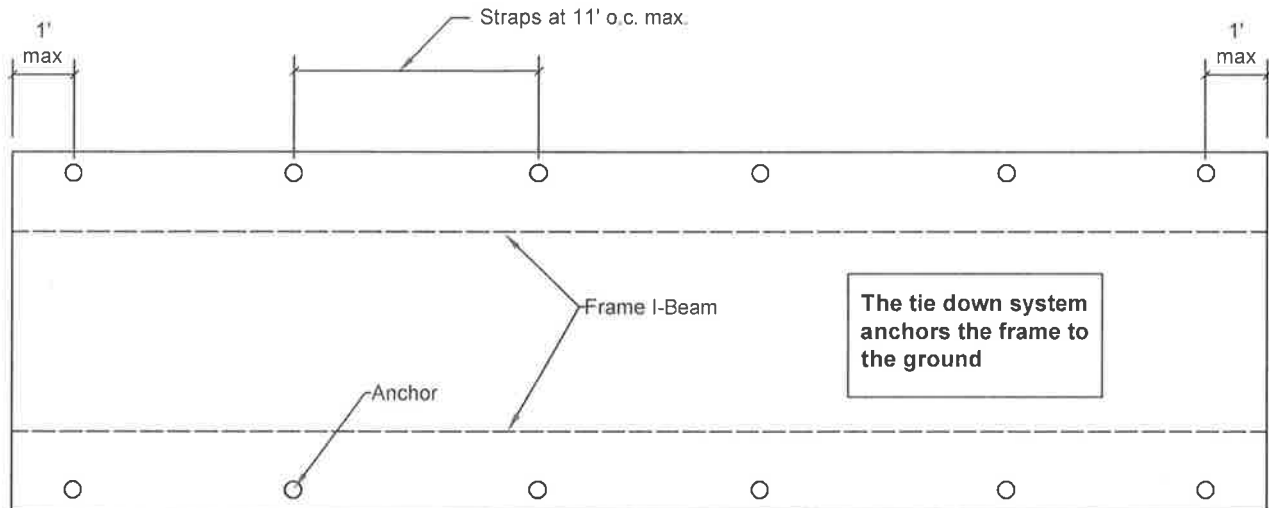


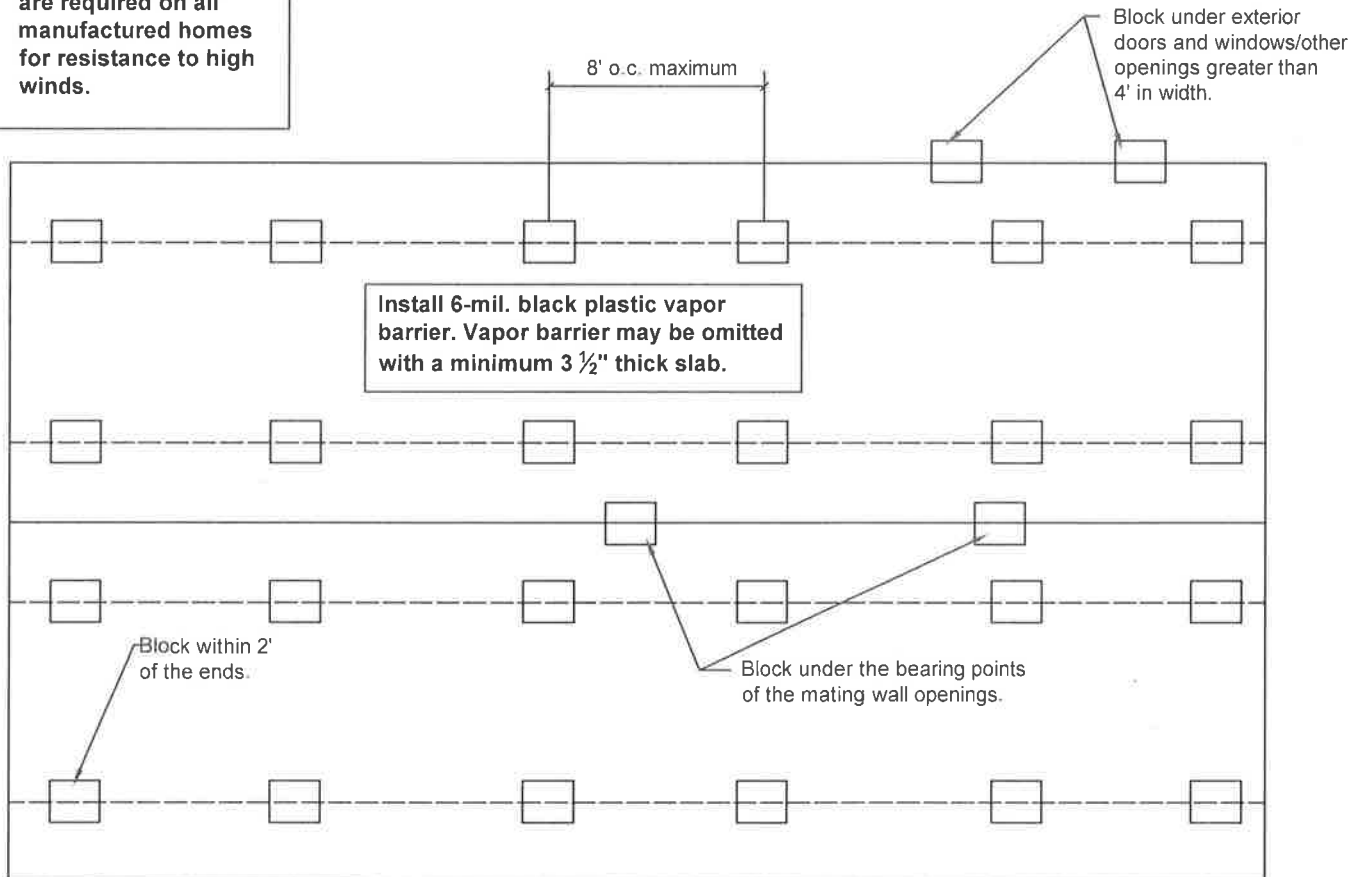
# VISUAL AID TO ANSI A225.1

This **example** packet is provided as an aid to understanding the requirements of ANSI A225.1 for Manufactured Home Installations for used or relocated manufactured homes when the owner's installation manual is not available. Please refer to ANSI A225.1 - 1994 Edition for specific requirements and additional information. ***New homes shall be installed per manufacturer's installation instructions. Klickitat County does not prescribe any installation requirements or govern any rules for snow loads or how a manufactured home is built in the factory.***



**Anchor Strap Locations**

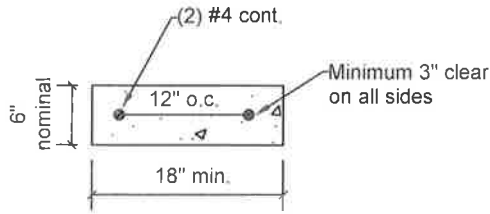
**Tie down assemblies are required on all manufactured homes for resistance to high winds.**



**Blocking Locations**

# VISUAL AID TO ANSI A225.1 - CONTINUED

When installing concrete "ribbons" or runners, make sure the location and width of the ribbons will not interfere with the anchoring method you are planning on using.



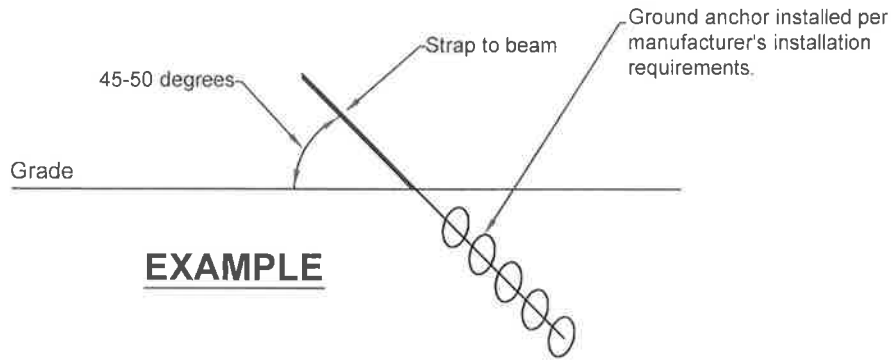
## EXAMPLE

Sites with fill shall be compacted and tested by an approved agency and certified prior to placement of home

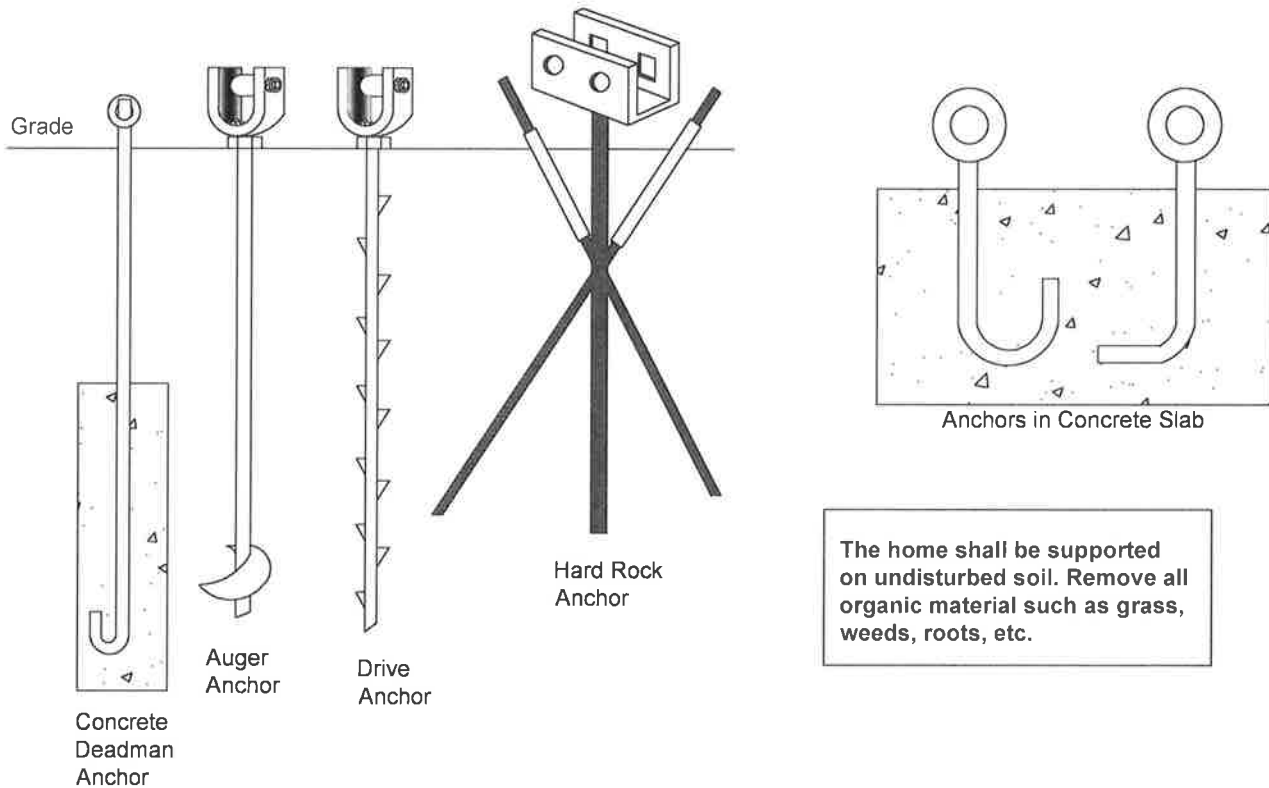
The site shall be level. Slopes or step-downs shall be engineered.

Approved ties and anchors are required on all installations.

When planning to re-use an existing slab for a new installation, the slab shall be certified by an engineer licensed in the State of Washington.



## EXAMPLE

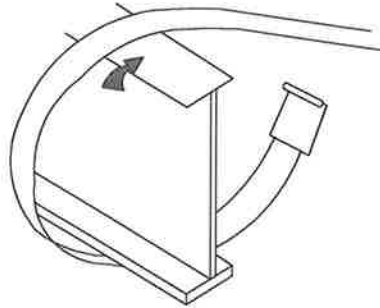


The home shall be supported on undisturbed soil. Remove all organic material such as grass, weeds, roots, etc.

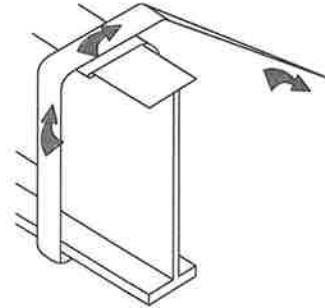
# VISUAL AID TO ANSI A225.1 - CONTINUED

EXAMPLE OF TYPICAL MAIN BEAM TIEDOWN STRAP INSTALLATION INSTRUCTIONS  
OTHER METHODS CONNECTING STRAP TO TOP OF MAIN BEAM MAY BE USED.

**CAUTION: DO NOT TENSION TIEDOWN STRAPS ON ONE SIDE OF HOME ONLY. IF TENSIONING IS NOT PERFORMED EQUALLY ON ALTERNATE SIDES, THE HOME MAY BE PULLED OFF ITS SUPPORTS.**

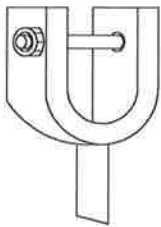


1. Wrap band around main beam

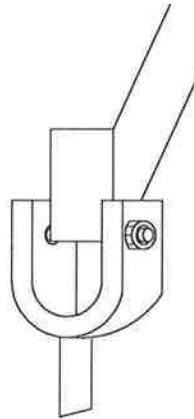


2. Connect hook to top of main beam and connect other end of strap to anchor head

**Note:** Regardless of supplier's recommendations, the strap shall be connected to the top of the main beam to prevent damage to the structure.



3. Insert the tension belt into the anchor head and loosely attach the hex nut



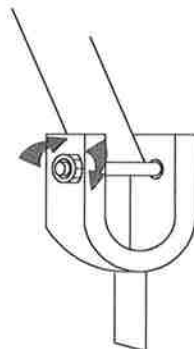
4. Place the strap through the slotted shank of the tension bolt and band up to 90 degrees



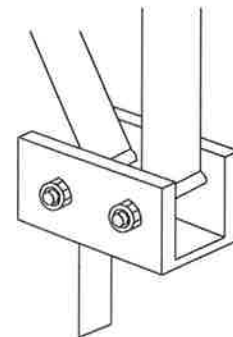
5. With the use of a  $\frac{1}{8}$ " socket or open end wrench, rotate in a clockwise manner wrapping the strap around the tension bolt



6. Once tensioned to the point that counter-clockwise resistance appears, a  $\frac{5}{16}$ " open end wrench should be used to hold the adequate neck while repositioning the  $\frac{1}{8}$ " wrench which will enable continued and final tensioning. Repeat as required

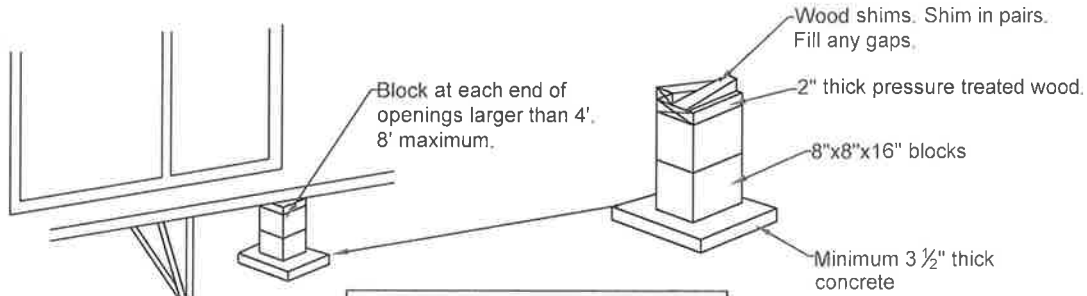


7. Once fully tensioned, align the square neck of the bolt with the square recess in the anchor head and tighten the hex nut. This will draw the two together and lock the system into the final position

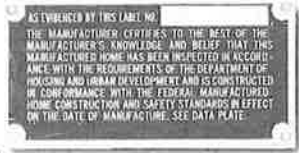


8. If approved by the manufacturer, double head anchors may be used for both diagonal and vertical tiedown strap tensioning. It is recommended that the diagonal tiedown strap be tensioned first. Follow steps 4 through 8 to install straps to anchor head.

# VISUAL AID TO ANSI A225.1 - CONTINUED



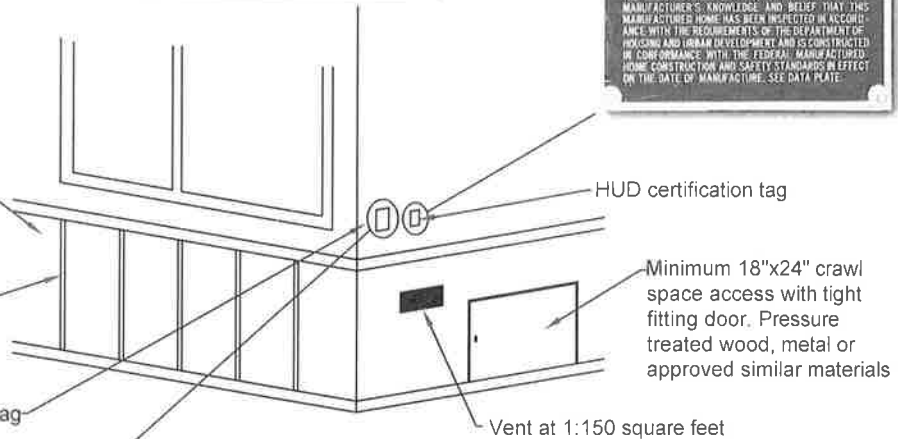
Where more than  $\frac{1}{4}$  of the home exceeds 3' above ground level, engineering shall be required.



Skirting shall be pressure treated, suitable for ground contact, or other approved skirting materials. Skirting shall not be attached in a manner that will cause water to be trapped between the skirting and the siding or trim.

Minimum crawl space height between I-beams and grade is 18" for atleast 75% of the area.

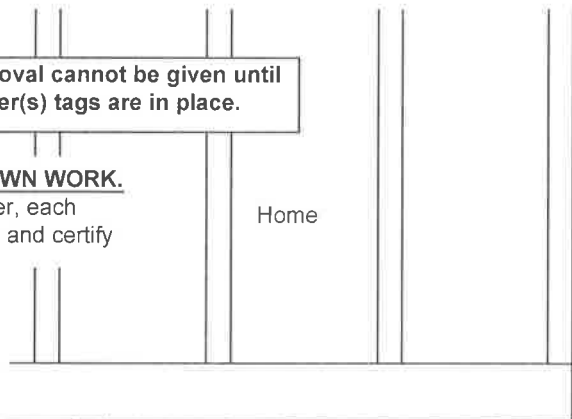
Installer(s) tag  
One tag for each installer



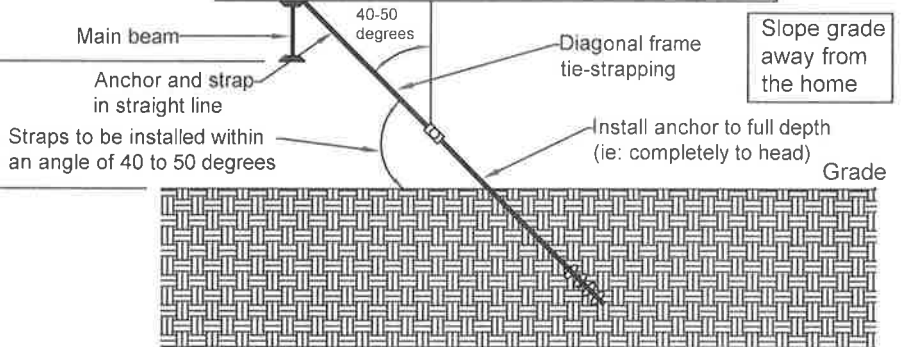
Final approval cannot be given until the installer(s) tags are in place.

**ONLY MARK YOUR OWN WORK.**

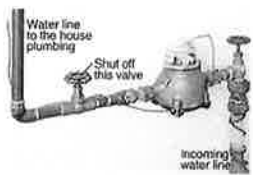
If more than one installer, each installer shall affix a tag and certify their portion of work.



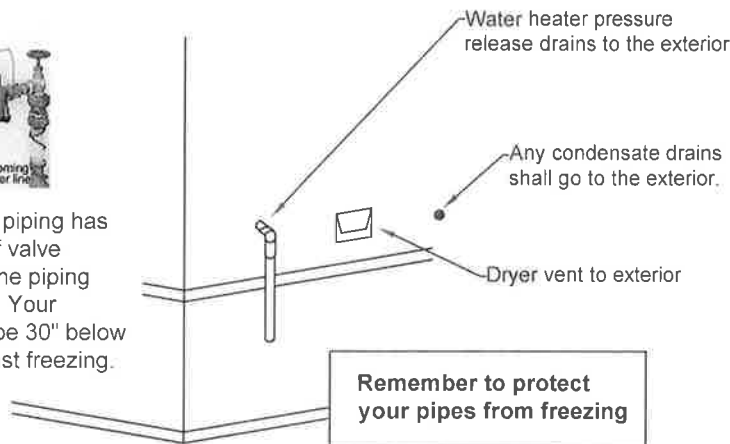
Minimum clearance 12" between lowest member in the area of utility connections. No more than 25% of the lowest member mainframe shall be less than 12" above grade.



## VISUAL AID TO ANSI A225.1 - CONTINUED



Make sure the supply piping has an accessible shut-off valve where it connects to the piping installed in the home. Your supply piping should be 30" below grade to protect against freezing.



Propane and natural gas piping, and any tanks to supply your home are permitted separately and will need to be inspected.

**NOTE: Decks, patios, carports, garages, and any other accessory structures require separate plans and permits.**



Strap 4' o.c. with straps at least 1/2" wider than the spacing of the metal spirals encasing the crossover duct.

Heat duct crossovers shall be supported by strapping or blocking. (No buckets). Heat ducts shall not be compressed or have sharp bends.

### **Installation work requiring a certified manufactured home installer:**

- \* Construction of the foundation system, including building forms and concrete.
- \* Setup and assembly.
- \* Installing the support piers.
- \* Installing earthquake resistant bracing systems.
- \* Connection to the foundation system and support piers.
- \* Re-leveling of the home.
- \* Installing skirting of any kind, decorative or load-bearing.
- \* Connections to the on-site water and sewer systems for normal operation of the home.
- \* Installing ground anchors.
- \* Service work to the home that falls under the definition of manufactured home installation.
- \* Extension of the water heater pressure relief valve.

### **Installation work not requiring a certified manufactured home installer:**

- \* Site preparation such as grading and excavation.
- \* Sewer and water connections outside of the building site.
- \* Pouring concrete into forms.
- \* Painting and drywall finishing.
- \* Carpet installation.
- \* Specialty trades responsible for constructing accessory structures such as garages, carports and decks. (Requires separate Building permits)
- \* Specialty work performed by a licensed plumber or electrician that falls within the scope of their license.
- \* Heat pump or air conditioner installation or replacement. (Requires L&I permit)