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PRE-FABRICATED HOUSING

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When you are buying a pre-fabricated home, you will hear the terms modular home, manufactured home, mobile home, factory-built home, etc. It is important to understand how these structures differ, no matter if you are purchasing an existing home or plan to build on a vacant lot. The different types of pre-fabricated housing can be summarized as follows:

MOBILE HOMES

This is the term used for pre-fabricated housing produced prior to June 15, 1976 when the HUD Code went into effect (see HUD homes below). There are several restrictions contained in the Larimer County Land Use Code for using mobile homes as housing. See section entitled "Pre-Fabricated Homes Outside Mobile Home Parks".

HUD HOMES (MANUFACTURED HOMES)

These are homes (formerly referred to as mobile homes, single-wides, double-wides, or trailers) built entirely in the factory under a federal building code administered by the U.S. Department of Housing and Urban Development (HUD). The Federal Manufactured Home Construction and Safety Standards (commonly known as the HUD Code) went into effect June 15, 1976.

Mobile homes and HUD homes are typically designed for mobile home parks and come with a title like a vehicle, although they can be placed on land on a permanent foundation (which may need to be designed by a Colorado licensed engineer).

Restrictions for the use of mobile homes and HUD homes outside mobile home parks are contained in the Larimer County Land Use Code. See section about "Pre-Fabricated Homes Outside Mobile Home Parks" for more information. ***THESE HOMES HAVE A MAXIMUM DESIGN OF A 30 LB SNOW LOAD AND CANNOT BE PLACED IN AREAS WHERE THE ELEVATION IS 7000 FT OR ABOVE (7000 TO 7999 FT =40 LB SNOW LOAD; 8000 TO 8999 FT=50 LB SNOW LOAD; 70 LB SNOW LOADS REQUIRED FOR ELEVATIONS 9000 FT AND OVER. ALSO THESE HOMES ARE LIMITED TO AREAS WHERE WIND SPEEDS ARE LESS THAN 110 MPH. SEE OUR WIND SPEED MAP.***

**UBC OR IRC
(FACTORY-BUILT HOMES)**

These pre-fabricated homes are built to Uniform Building Code (UBC) or International Residential Code (IRC) requirements. UBC or IRC homes are transported to the site and installed. A UBC or IRC home is not titled like a vehicle.

UBC AND IRC HOMES ARE DESIGNED TO MEET BUILDING CODE REGULATIONS. BE SURE WHEN YOU ORDER OR PURCHASE A UBC/IRC HOME THAT WIND AND SNOW LOADS ARE DESIGNED FOR THE AREA YOU INTEND TO PLACE THE PRE-FABRICATED HOME.

In Colorado, anyone selling a pre-fabricated home must be registered with the Colorado Division of Housing. The only exceptions to this are licensed real estate agents and homes for-sale-by-owner. The telephone number for the Division of Housing is (303) 864-7837, or you can obtain a current list of registered retailers, brokers and developers through the Manufactured Housing Dealer Registration Program on the Colorado.gov website.

Check with the dealer, manufacturer or seller of the pre-fabricated home you intend to purchase to confirm whether the unit is a mobile home, HUD home or UBC/IRC home.

Keep in mind once a home has left the factory, the original engineered design and/or HUD Code does not include provisions for additions and alterations. Such modifications may jeopardize the home warranty. They may also create malfunctions or an unsafe home. Failure to follow the manufacturer's instructions on maintenance and renovations can void the manufacturer's warranty, as well as lessen the value and life of the home. If stairways are to be added to the unit or other changes are made to the structural design of the unit, ***the changes should be made and approved in the factory, not on-site. If these changes are made on-site, a Colorado registered structural engineer must design the changes.***

HELPFUL CONTACTS

Prior to purchasing a pre-fabricated home to be placed on vacant land, consider how much it will cost to hook up to existing utilities, install a septic system, attach electrical lines, etc. Here are some helpful contacts:

- (970) 498-7700** Call the Larimer County Planning and Building Services Division for zoning, site development, information about utility services, permit requirements, County inspection requirements, setbacks and estimated building permit fees. (Refer to Section 18 of the Larimer County Land Use Code re Manufactured Homes).
- (303) 864-7837** Call the State of Colorado Manufactured Home Installation Program (MHIP) for inspection requirements for the installation of the home. (See MHIP section for more information).
- (303) 894-2985** Call the Colorado State Electrical Board for electrical permit requirements.
- (970) 498-6775** Call the Larimer County Health Department for permit requirements for a proper sewage disposal system, or contact the applicable sewer service provider in the area for tap/hook-up fees.
- (970) 352-8712** Call the State of Colorado for well permit requirements, or call the applicable water service provider in the area for tap/hook-up fees.
- (970) 498-7073** Call the Larimer County Assessor's Office at (970) 498-7073 or 498-7063 for information about a move permit (required to confirm the location of the unit);
- (970) 498-5709** Call the Larimer County Engineering Department for information about a special transportation permit (required for transporting heavy loads over county roads).

CHECKLIST

A basic checklist for the installation and inspection of a pre-fabricated home under State of Colorado and Larimer County regulations is summarized below. First, place calls to the agencies identified in the “Helpful Contacts” section of this handout to learn about requirements and fees of those agencies. After you have called the agencies:

1. Obtain the “Manufactured Home Installers’ Authorization Form” from a MHIP certified installer. A homeowner may complete the form if the homeowner installs no more than one home in any twelve (12) month period (see MHIP section).
2. Post the completed MHIP Installation Authorization Form in the window of the unit so it is clearly visible.
3. Obtain necessary move and transportation permits (see “Helpful Contacts” section).
4. Submit a building permit application to the Larimer County Building Department for the home (see section on “Permit Application Requirements”).
 - * Must provide dealer’s name, if new.
 - * Must provide Installer’s name, if new.
5. Upon approval of plans submitted with the permit application to the Building Department, pay all fees associated with the building permit in order to have the permit issued.
6. After the building permit is issued, make sure setback, foundation and underground plumbing inspections are conducted and approved by the Larimer County Building Department prior to placing the unit on the foundation.
7. Installation of the unit must be by the person identified on the Installers’ Authorization Form (certified installer or homeowner).
8. After installation, request an inspection by the certified MHIP inspector you have selected to perform the inspection. The Installation Authorization Form and installation instructions or alternate standards used for the installation must be on site for all inspections.
9. When the certified MHIP Inspector approves the installation, the inspector will provide the State of Colorado with his/her inspection results, and the State will provide the owner/contractor with a Certification Insignia which should be affixed to the unit after inspection approval. (The Manufactured Home installer’s Authorization Form must remain in the pre-fabricated home until the Colorado MHIP Certification Insignia is obtained.)
10. Request remaining inspections from the Larimer County Building Department, Larimer County Health Department and State Electrical Board (see section on “Required Inspections”). All inspection approvals must be obtained prior to using or occupying the home.
11. Upon final inspection approval, a certificate of occupancy (CO) for a pre-fabricated home on a permanent foundation will be issued by the Larimer County Building Department, or a Letter of Completion will be issued for the temporary use of the pre-fabricated home if not on a permanent foundation.

STATE OF COLORADO MANUFACTURED HOME INSTALLATION PROGRAM (MHIP)

The Manufactured Home Installation Program (MHIP) is a program of the Colorado Division of Housing that oversees inspection of pre-fabricated housing installations by certified MHIP inspectors. The program covers the installation of mobile homes (pre-1976 units), manufactured homes (HUD Code homes), and modular homes (UBC code units). MHIP certifies installers as well as inspectors (who inspect installer's work).

The purpose of the program is to provide consumer protection for owners and life-safety protection for occupants of pre-fabricated homes through proper installation. The program took effect on July 1, 2001. Inspections began on home installations after September 1, 2001. The MHIP requires that:

1. The homeowner obtain an Installation Authorization Form (see attached form) from a MHIP certified installer (or the property owner may complete the form if installing the unit himself and the homeowner installs no more than one home in any 12-month period);
2. The pre-fabricated home be installed by the certified installer or the homeowner identified on the Installation Authorization Form;
3. The installation be inspected by an inspector certified with the State MHIP program (this inspection applies to both authorized installer and homeowner installations¹); and
4. A MHIP Certification Insignia be obtained (confirming the MHIP inspection was approved) prior to using or occupying the home.

Installers may issue the Installation Authorization Form, self-inspect the installation, and affix the Certification Insignia if certified to do so through MHIP.

Temporary utilities needed for the home installation may be established in accordance with utility provider requirements. The installation must be completed and the Certification Insignia affixed prior to releasing permanent utilities for home occupancy.

In addition to final inspection approval through MHIP, the homeowner must obtain all required inspection approvals from the Larimer County Building Department, Larimer County Health Department (if applicable), and State Electrical Board prior to using or occupying the structure.

COMPLAINTS: Purchasers of pre-fabricated homes who are experiencing difficulty getting problems resolved regarding installation of their pre-fabricated home may contact the consumer complaint line of the Manufactured Housing Installation Program @ (303) 864-7836 to request assistance.

OTHER MHIP INFORMATION: Call (303) 864-7837 or access the MHIP website at <http://www.colorado.gov>. For updated list of inspectors to see if license is expired or valid website is: http://www.dola.colorado.gov/doh_codes/installers.jsf.

¹ MHIP's primary standard for a home installation is the manufacturers written installation instructions, which is required for all new homes. For used homes, where the installation instructions are no longer available, the alternate standard for temporary foundation sets is the NCSBCS/ANSI A225.1-1994 as amended. Site-built permanent foundations must be engineered or built to conform with the alternate standard for permanent foundation sets is the September, 1996 edition of the HUD Permanent Foundations Guide for Manufactured Housing.

PRE-FABRICATED HOMES INSIDE MOBILE HOME PARKS

All pre-fabricated homes located inside approved mobile home parks do not require a building permit from the Larimer County Building Department except if additions, decks or porches are added to the structure. The State of Colorado Manufactured Home Installation Program inspects the installation of these structures in approved mobile home parks.

PRE-FABRICATED HOMES OUTSIDE MOBILE HOME PARKS

All pre-fabricated homes located outside an approved mobile home park require a building permit pursuant to the Larimer County Land Use Code, Section 18.2.1—Manufactured Homes Outside Manufactured Home Parks.

The Land Use Code requires that a pre-fabricated home that is “transportable over state highways as a single, complete dwelling unit and is located outside a manufactured home park” must have a pitched roof with standard house shingles or other standard roofing materials and must have an addition consisting of additional bedrooms, a recreation room, patio, carport or garage (the minimum size for a patio is 100 sq. ft. and the minimum dimensions of a patio are 10’x10’). **[Note these restrictions do not apply to pre-fabricated homes “transportable over state highways in two or more pieces”.]**

THE LAND USE CODE DOES NOT ALLOW A PRE-FABRICATED HOME TO BE USED FOR STORAGE, NOR DOES IT ALLOW STORAGE OF A PRE-FABRICATED HOME ON VACANT LAND.

IF A PRE-FABRICATED HOME IS SET ON PROPERTY PRIOR TO OBTAINING A BUILDING PERMIT, THE PROPERTY OWNER MUST OBTAIN PRE-APPROVAL FROM THE LARIMER COUNTY PLANNING DEPARTMENT PRIOR TO APPLYING FOR A BUILDING PERMIT.

Pre-fabricated homes must be certified by the Colorado State Division of Housing or HUD. This certification appears in the form of a seal found on each unit. However, the State Division of Housing did not start tagging pre-fabricated dwelling units until 1972, and HUD did not start tagging units until 1976. If the home does not have a certification seal, certification from the State of Colorado must be obtained. A handout describing these requirements in more detail is available from the State of Colorado.

In addition to certification seals for the structures, pre-fabricated homes need to be installed by a registered installer certified by the Colorado Division of Housing (MHIP Program). See the section in this handout explaining the MHIP Program for further information.

Although the MHIP program approves the installation of these homes, the Larimer County Building Department, Larimer County Health Department and State Electrical Board must conduct and approve additional inspections prior to the homes being used or occupied. See the section in this handout summarizing inspections required for pre-fabricated homes.

Pre-fabricated homes must be placed on a permanent foundation² which may need to be engineered, depending on the classification of soils in the owner’s area. See Method 2 attachment for manufactured homes constructed above grade for minimum permanent foundation requirements. Method 2 for manufactured homes does not require engineering.

² A permanent foundation may not be required if the use of the structure is temporary. See Section 4.3.10.G of the Larimer County Land Use Code for Extended-Family Dwellings. In addition, pre-fabricated homes and recreational vehicles are allowed for use as temporary housing for up to 18 months during construction of a principal residential building when a permit is issued at the same time for the principal building.

PRE-FABRICATED HOMES PERMIT APPLICATION REQUIREMENTS

Four plot plans and two sets of the items listed below must be submitted to the Larimer County Building Department to apply for a pre-fabricated home building permit:

1. FOOTING AND FOUNDATION PLAN

a. **IF YOU ARE IN A CLASS "C" BUILDING AREA** (see map attached) **and/or the PRE-FABRICATED HOME IS INSTALLED OVER A BASEMENT:** Engineered foundation plans are required. Class "C" areas require a Colorado registered engineer to determine soil bearing capacity and provide a design. Must be designed for minimum 30 pound roof live load and roof material must meet Class "C" requirements. ***With engineered foundation plans, you must follow all details provided by the design engineer.*** Footing and foundation plans must provide the following information:

- (i) Design loads.
- (ii) Size, location and thickness of all pads and permanent foundation design.
- (iii) Perimeter wall details:
 - (1) All perimeter walls above grade must be insulated to R-19.
 - (2) Perimeter walls of concrete, concrete block or approved wood ***below grade*** need not be insulated if the under floor area is insulated from the factory and the insulation is intact.
- (v) Unit tie-down method from manufacturer or design engineer.

- OR -

b. **IF YOU ARE IN A CLASS "B" BUILDING AREA**, although engineered foundations are recommended throughout Larimer County, you may use County minimum requirements unless you are installing the home over a basement or if the subdivision requires engineered foundations. In these cases, original, wet-stamped engineered plans are required. The home must be designed for minimum 40, 50 or 70 psf design snow load for roof depending on elevation of location. Roof material to meet Class "B" requirements or be fiberglass. Siding must meet wildfire hazard area requirements of Class III siding material. Footing and foundation plans meeting minimum requirements must contain the same information shown in paragraph 1(a), (i) through (v) above.

If using non-engineered poured concrete foundation or masonry block wall, rebar must be run per County minimum requirements. Wood foundation below grade must be designed to resist lateral loads (such as a poured concrete footing with anchor bolts and secure attachment at top of wall to underside of home), and framing members are to be treated. If above grade (not being backfilled against), only the sill plate on ground must be treated or naturally resistant to weather, such as redwood, with approved siding material and R-13 insulation at perimeter wall.

2. **FLOOR LAYOUT PLAN:** Must be specific to home being set and must label rooms and show dimensions of all rooms. See example attached.
3. **ELEVATIONS:** Must show decks, porches, garage, basement, etc., if being installed.
4. **BASEMENT FLOOR LAYOUT PLAN** (if installing over basement): Show basement wall insulation, furnace and water heater location if locating in basement. Rough-in bath location and any rooms being finished are to be labeled. (Factory installed appliances must be sized to accommodate basement as well as additional appliances installed on-site).
5. **DECKS, PORCHES, GARAGES, etc.** Engineered plans must be submitted for any additions or structural changes to pre-fabricated homes. Additions are to be shown on plot plan. Sizes and detailed framing information are to be provided with submittal for building permit.
6. **MHIP INSTALLATION AUTHORIZATION FORM.** A copy of a completed State of Colorado MHIP Installation Authorization Form (see MHIP attachment).
7. **MOVE AND/OR SPECIAL TRANSPORTATION PERMIT.** A copy of a move and/or special transportation permit, as required (see checklist above).

CRAWLSPACE VENTILATION ACCEPTABLE AS A PASSIVE RADON

MITIGATION SYSTEM ON PRE-FABRICATED HOMES

In subdivisions that require a passive radon mitigation system, pre-fabricated homes that have insulated floor joists with a moisture barrier may use their crawlspace ventilation as their passive radon mitigation system. Crawlspace ventilation lowers indoor radon levels both by reducing the home's suction on the soil and by diluting the radon beneath the house. Natural ventilation in a crawlspace is achieved by opening vents, or installing additional vents. Water pipes and heat ducts in the crawlspace need to be insulated against the cold.

An active radon mitigation system uses a fan to blow air through the crawlspace instead of relying on natural air circulation. Another effective method to actively reduce radon levels in crawl-space houses involves covering the earth floor with a heavy plastic sheet. A vent pipe and fan are used to draw the radon from under the sheet and vent it to the outdoors.

REQUIRED INSPECTIONS FOR PRE-FABRICATED HOMES

The crew installing your home must be certified by the Colorado Division of Housing or a homeowner can install his/her own home (see MHIP section). Each installation, whether by an authorized installer or a homeowner, must be inspected by a MHIP certified inspector.

Although the MHIP Program approves the installation of a pre-fabricated structure, the Larimer County Building Department inspects:

- Setbacks
- Foundations
- Underground plumbing
- Gas lines
- Heat and vent (if furnace, water heater or boiler is installed in location other than set by factory)
- Final grading

Other inspections by the State Electrical Board and Larimer County Health Department are required as well.

Below are the required items to be completed for each inspection. Combined inspections may be done provided all work is complete for each of the inspections being requested.

MAKE SURE SETBACK, FOUNDATION AND UNDERGROUND PLUMBING INSPECTIONS ARE CONDUCTED AND APPROVED BY THE LARIMER COUNTY BUILDING DEPARTMENT PRIOR TO SETTING THE HOUSING UNIT ON THE FOUNDATION.

1. **Setback and Footing**: Property pins located. Concrete forms placed on undisturbed soil, installed as shown on approved drawings. Reinforcing steel in place, supported and splices tied. **CONCRETE SHALL NOT BE PLACED BEFORE INSPECTION.**
2. **Foundation**: Concrete forms, leveled and plumb, installed as shown on approved drawings. Reinforcing steel in place, supported and splices tied. If using masonry block, vertical reinforcing steel is to be installed and inspected before grouting block. Wood foundation below grade must be inspected before backfill and before sheathing is completed. If above grade, only sill plate on ground must be inspected before skirting is completed. **CONCRETE SHALL NOT BE PLACED BEFORE INSPECTION.**
3. **Underground Plumbing** (if on basement): Underground plumbing inspection is required after all drain, waste and vent pipe (below and up to grade) is in place, visible and under test. Water supply line is to be stubbed in. Wrap all plumbing where it will penetrate slab. All piping from factory stubs to sewer must be inspected. The drain, waste and vent piping shall be tested with water or air³.

³ Water test shall be applied to the drain, waste and vent system, either in its entirety or in sections. If applied to the entire system, all openings in the piping shall be tightly closed, except the highest opening, and the system filled with water, but no section shall be tested with less than a ten-foot head of water. The water shall be kept in the system, or in the portion under test, for at least 15 minutes before the inspection starts. The system shall not show evidence of leakage. Air tests shall be made by attaching an air compressor testing apparatus to any suitable opening and after closing all other openings to the system, forcing air into the system until there is a uniform gauge pressure of five pounds per square inch

4. **Gas Pipe Exterior:** Provide 18" depth for copper, polyethylene (PE) pipe, (PE requires an 18-gauge tracer wire or metal tape), and machine applied coated, black iron pipe with wrapped joints (field wrapping of black pipe is not permitted except at joints). Test on line from propane tank to house is required.⁴
5. **Heat and Vent:** This inspection is required if furnace, water heater or boiler are installed in the basement, or field installed in any location other than as set by the factory. This inspection is to be done after heating appliances are set per the manufacturer's installation instructions and flues and ductwork are installed.
6. **Set-Up:** *This inspection is conducted and approved by the State of Colorado, Division of Housing Manufactured Home Installation Program (MHIP)—see MHIP section.*
7. **Building Department Final:** To be made after finish grading, the building is completed and ready for occupancy, and final inspection approvals are signed off by the certified MHIP inspector, State Electrical Board and Larimer County Health Department. (Conditioned basements require basement walls to be insulated with R-11 continuous blanket or R-13 cavity insulation. Paper batt insulation may not be left exposed).

Temporary and Full Certificates of Occupancy: A full certificate of occupancy (CO) or letter of completion will be issued upon final inspection approvals. A temporary certificate of occupancy (TCO) may be issued for a 6 month period, but only when all life-safety issues have been addressed and only after receipt of TCO fee. There will be a \$600 fee for temporary certificate of occupancy. A Temporary Certificate of Occupancy shall be valid for six months. If a full Certificate of Occupancy is issued within the first month, all but \$40 will be refunded. If a full Certificate of Occupancy is issued prior to the six month expiration, \$100 shall be refunded for each full month remaining out of the original six month validity period of the Temporary Certificate of Occupancy.

Life-safety issues include: 1) Heating system, furnace and water heater to be installed and working; 2) Electric final to be approved by the State Electric Inspector; 3) Health Department final (if applicable) to be approved; 4) Access and flood finals (if applicable) to be approved; 5) All stairs, handrails, guardrails to be installed per code; 6) Must have at least one exit/entrance compliant for TCO. Other exits must be properly blocked so they cannot be used until they are completed and inspected; 7) Wildfire final (if applicable) to be approved; and 8) Items noted by the building inspector at the final inspection.\

(psi). The pressure shall hold without introduction of additional air for a period of at least 15 minutes before the inspection starts.

⁴ For propane from tank to house pressure regulator, 30 psi pressure test is required if any joints exist in the line, and must hold for at least 15 minutes before inspection. If there are no joints in the line, no pressure test is required.

MANUFACTURED HOME INSTALLER(S)¹ AUTHORIZATION FORM

PERMIT # _____

Certified

Registered

Owner

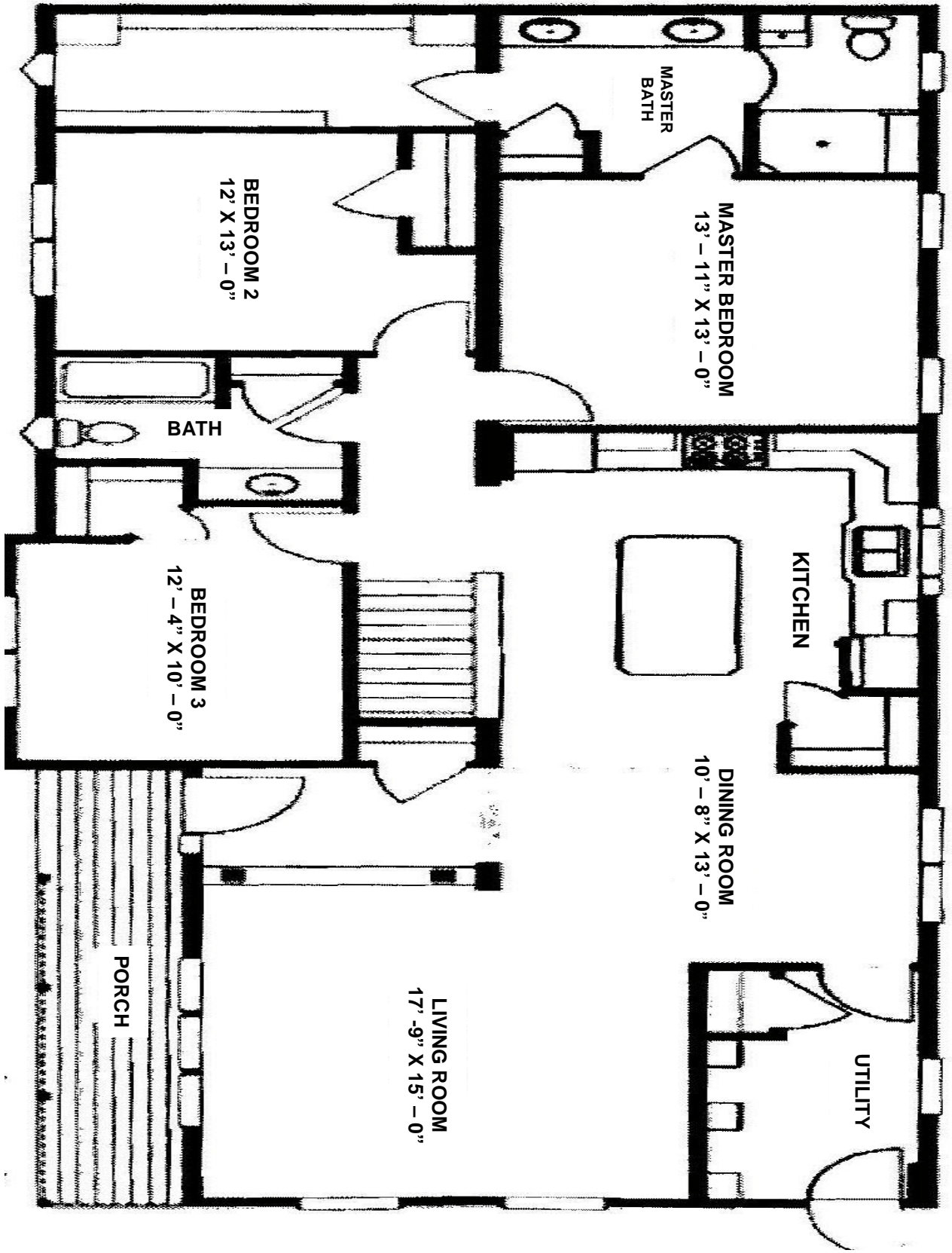
Installer ID# _____

Installer(s) _____

Installer(s)' Telephone # _____

Location _____

Certified Independent Inspection Agency _____

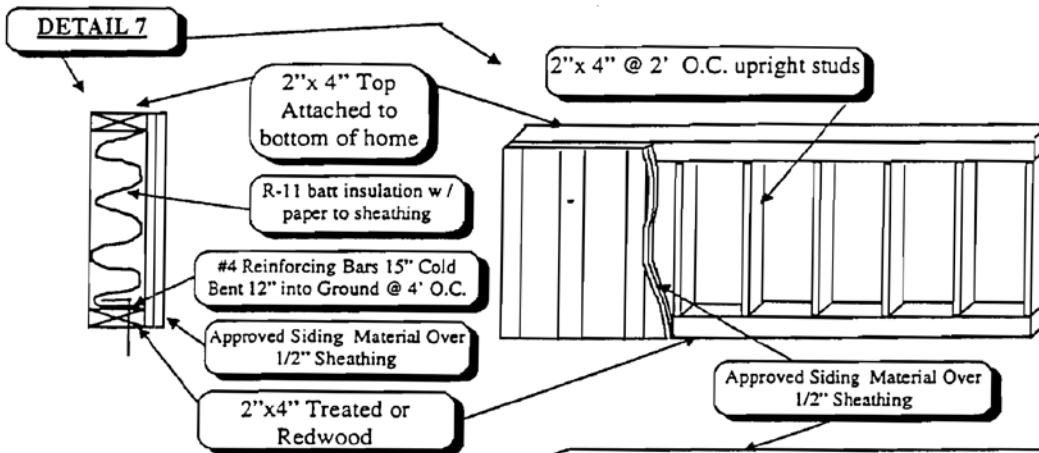
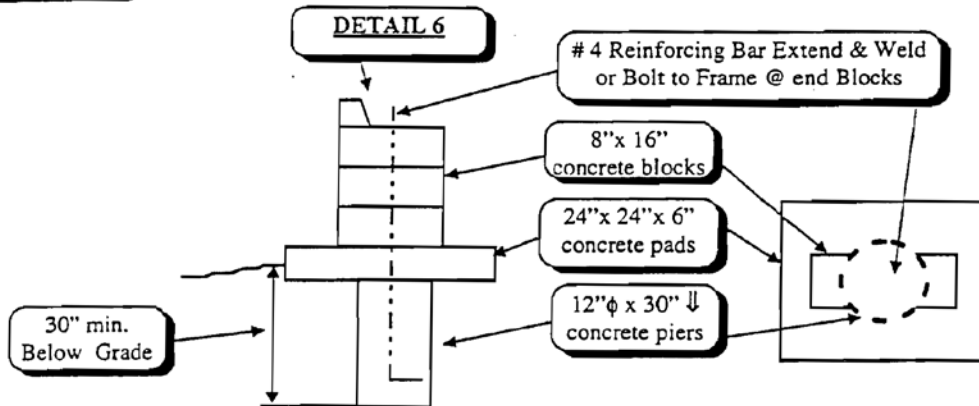
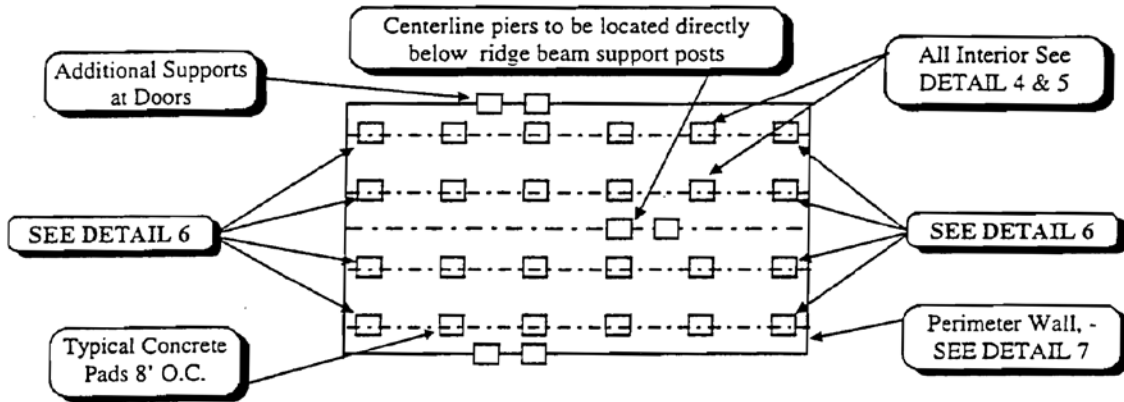


MINIMUM PERMANENT FOUNDATION FOR MANUFACTURED HOMES

METHOD 2

Above Grade - Blocking With 12" Diameter Piers Extended Below Frost Line

FOR ABOVE GRADE FOUNDATIONS ONLY



*** NOTE:**

- Approved siding material:
1. 1/2" sheathing faced with vinyl or steel siding.
 2. Stucco on 1/2" sheathing.
 3. Simulated brick or rock over 1/2" sheathing.
 4. Or other approved siding material.

*** NOTE:**

Need mfg. tie downs in middle if over 54' long

For questions on approved siding, sheathing or stud spacing, please contact the Larimer County Building Department

R 78 W R 77 W R 76 W R 75 W R 74 W R 73 W R 72 W R 71 W R 70 W R 69 W R 68 W

