

CHEROKEE COUNTY

MANUFACTURED HOUSING PERMITTING AND INSTALLATION GUIDE



Cherokee County
110 Railroad Ave.
Gaffney, SC 29340
(864) 487-2561
Fax (864)902-1100

MANUFACTURED HOUSING PERMITTING AND INSTALLATION GUIDE

ATTENTION:

PLEASE DO NOT CALL FOR AN INSPECTION UNTIL THE FOLLOWING IS COMPLETED:

Health Department Requirements are met
Porches and Steps are installed
Guardrails and/or handrails are installed if required
Electrical, Plumbing and Mechanical connections are made
Tie Downs and Anchors are completed (NOTE: call for a tie-down inspection before underpinning home)
Set-back Requirements are met
Address posted (min. 4" numbers on home)
Vapor barrier is in place (see details within guide)

GENERAL INFORMATION

Before a manufactured home may be located in Cherokee County, a permit must be purchased from the Cherokee County Department of Building Safety.

The State Law requires that the Health Department (DHEC) approve the method or sewage disposal before a permit is issued.

All mobile homes must be installed in accordance with all the applicable codes and ordinances of Cherokee County and the State of South Carolina and approved by County Inspectors.

After obtaining a permit and a tax sticker decal, attach the decal to the mobile home window where it will be visible from the outside and display the blue inspection card on the front door of the mobile home (between the storm door and the main door) where it can be seen from the street. It is very important that the inspector be able to see the permit card from the road.

FAILURE TO DISPLAY THE BLUE INSPECTION CARD IS A CODE VIOLATION AND MAY RESULT IN A RE-INSPECTION FEE OF \$20.00

NOTICE:

IN ORDER TO BETTER SERVE OUR CUSTOMERS AND SPEED UP THE PROCESS OF ISSUING PERMITS, YOU SHOULD BE ABLE TO FURNISH THE FOLLOWING INFORMATION BEFORE APPLYING FOR YOUR PERMITS:

1. A complete address including house number and zip code
2. The property owner's name and phone number.
3. Accurate directions to the mobile home site.
4. Bill of Sale or Form 400 (if mobile home is from dealer)
5. Septic Approval (blue copy) (if a new system)
6. Copy of Moving Permit (when applicable)

Your 911 address must be assigned before any building or mobile home permits are issued. You must contact the addressing office in person or by telephone. They will ask your name, phone number, current address and directions to your new home. They will also ask if you have marked off the home or driveway. If this is not done there will be a delay in getting your address until the site is clearly marked. There is usually a 24 hour waiting period for new addresses. If you have any questions or need your 911 address, please call (864) 487-2718. The address is 110 Railroad Ave., Gaffney SC 29340

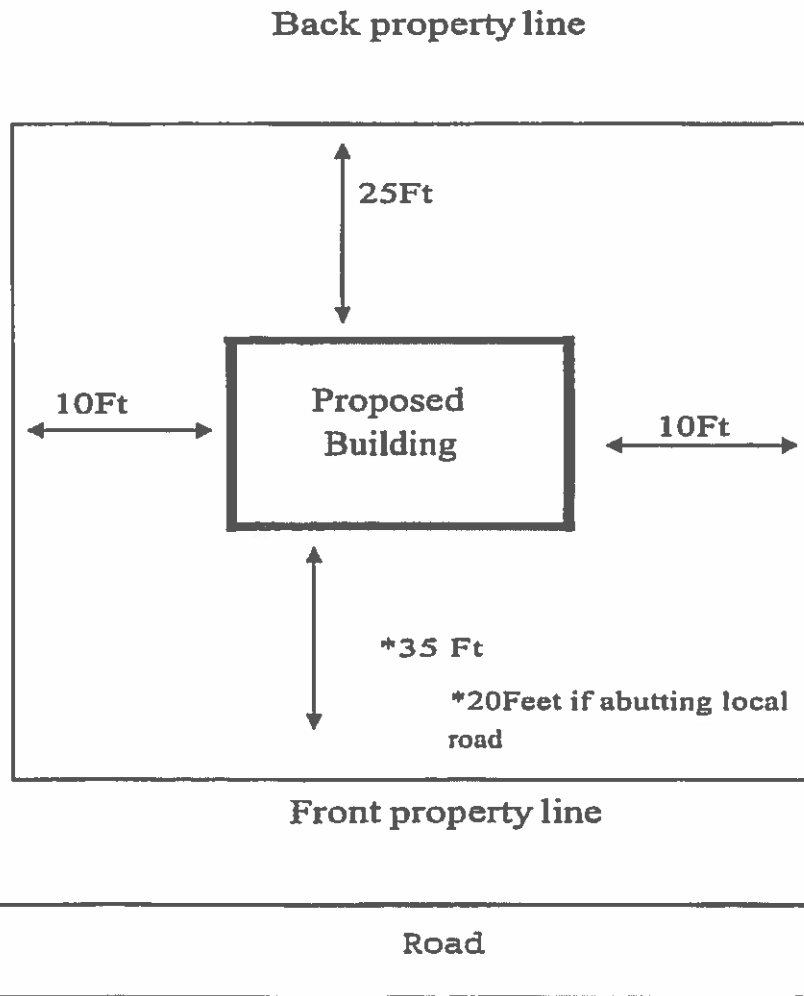
To receive the fastest possible service from the inspections department and Power Company, the following steps should be completed:

1. Call or visit the Power Company and set up a meter order.
2. After the home is tied down and anchored. (as outlined) Call for an inspection
3. When calling for an inspection, have the following information available:
 - a. Permit Number
 - b. Type of Inspection required
 - c. Location (address)
4. Have the blue inspection card posted on front door of the mobile home so that the inspectors can see it and sign the appropriate spaces when the inspections are completed.
5. 911 Address (min. 4 inch numbers) must be placed on the front of your home. (IT IS THE LAW)

For new homes, have set-up guide from factory available for inspectors review. (Place between front and storm door)

**CHEROKEE COUNTY
LAND DEVELOPMENT REGULATIONS
"MINIMUM BUILDING SETBACKS"**

- A. The minimum building setback line for a primary structure shall be at least twenty (20) feet from the front property lines on lots abutting local roads, and thirty five (35) feet from the front property lines of lots abutting collector, arterial, or primary roads. Corner lot setbacks shall be at least ten (10) feet from the side road. Provisions shall be made for a side yard setback of ten (10) feet from each side property line, and a rear yard setback of twenty five (25) feet from the rear property line on each lot
- B. No lot less than one-half (1/2) acre in size.
- C. Minimum of fifty (50) feet of road frontage on a public or private road.
- D. Please call the building codes department if you are unsure of your road classifications.



Excerpts from Act 576 (1978)

The owner, rental agent or person in possession of a mobile home, used for dwelling purposes, shall obtain a license from the government body of the county in which such mobile home is located.

Such license shall be in the form of a decal, which shall be displayed on the mobile home as to be clearly and readily visible from the outside.

Such license shall be valid until title to such mobile home is transferred to a new owner.

Before any mobile home is relocated, the owner must obtain a moving permit from the licensing agent. Such moving permit shall be displayed on the mobile home during the moving process.

It shall be the responsibility of the mobile home transporter that the required moving permit is properly displayed and accompanies the mobile home when it is moved.

If the relocation is from one county to another, the mobile home owner shall submit the moving permit to the licensing agent of the county wherein such mobile home is relocated and obtain a new license (decal).

Any person violating any of the provisions of this article shall be deemed guilty of a misdemeanor and upon conviction shall be fined not more than two hundred dollars (\$200.00).

MOBILE HOME ELECTRICAL POWER SUPPLY

It is recommended that installation be by a licensed electrician.

The mobile home service equipment shall be located adjacent to the mobile home and not mounted in or on the mobile home unless the home meets the requirements of the currently adopted National Electrical Code. The power supply to the mobile home shall be a feeder assembly consisting of not more than one approved mobile home power supply cord, marked "For Use with Mobile Homes" with four conductors, one of which shall be identified by a continuous green color or a continuous green color with one or more yellow stripes for use as the grounding conductor, with attachment plug cap to be plugged into the electrical service equipment or the power supply shall be a permanently installed feeder circuit.

A permanently installed feeder circuit shall be installed in accordance with the currently adopted National Electrical Code (NEC).

The meter box and service equipment shall be mounted on a treated pole or other permanent frame near the mobile home as dictated by the power company. The service equipment is provided for safety so that the electricity can be turned off from the outside of the mobile home. The maximum distance from the home is 30 feet.

In some cases the service entrance riser is furnished and installed by the power company. Check with your power company before installing these conductors.

A rain tight connector is used to connect the cable to the meter box. The main service equipment enclosed shall be bonded to the neutral busbar. Grounding of the main service equipment shall be made by means of a #6 copper wire to two (2) approved ground rods of 8 feet in length driven in the ground near the service pole at least six feet apart.

The power feeder from the main service equipment to the inside panel shall consist of 4 insulated conductors. The two largest conductors shall be connected to the hot terminals on the load side of the main service equipment breaker and to line side of the main breaker in the panel box inside of the mobile home. Installation shall be per the currently adopted National Electrical Code.

In the panel box inside the mobile home, the grounded conductor is connected to the isolated neutral busbar and the grounding equipment conductor is connected to the separate equipment grounding busbar that is bonded to the panel box enclosure.

FOUR WIRE SYSTEM

Use 4 separate insulated conductors approved for the ampacity of the disconnect.

CONDUCTOR TYPES AND SIZES

<u>AMPS</u>	<u>COPPER</u>			<u>ALUMINUM</u>		
	<u>2-HOT</u>	<u>NEUT.</u>	<u>GND.</u>	<u>2-HOT</u>	<u>NEUT.</u>	<u>GND.</u>
200	2/0	#1	#6	4/0	2/0	#4
175	1/0	#2	#6	3/0	1/0	#4
150	#1	#3	#6	2/0	#1	#4
125	#2	#4	#8	1/0	#2	#6
100	#4	#8	#8	#2	#4	#6

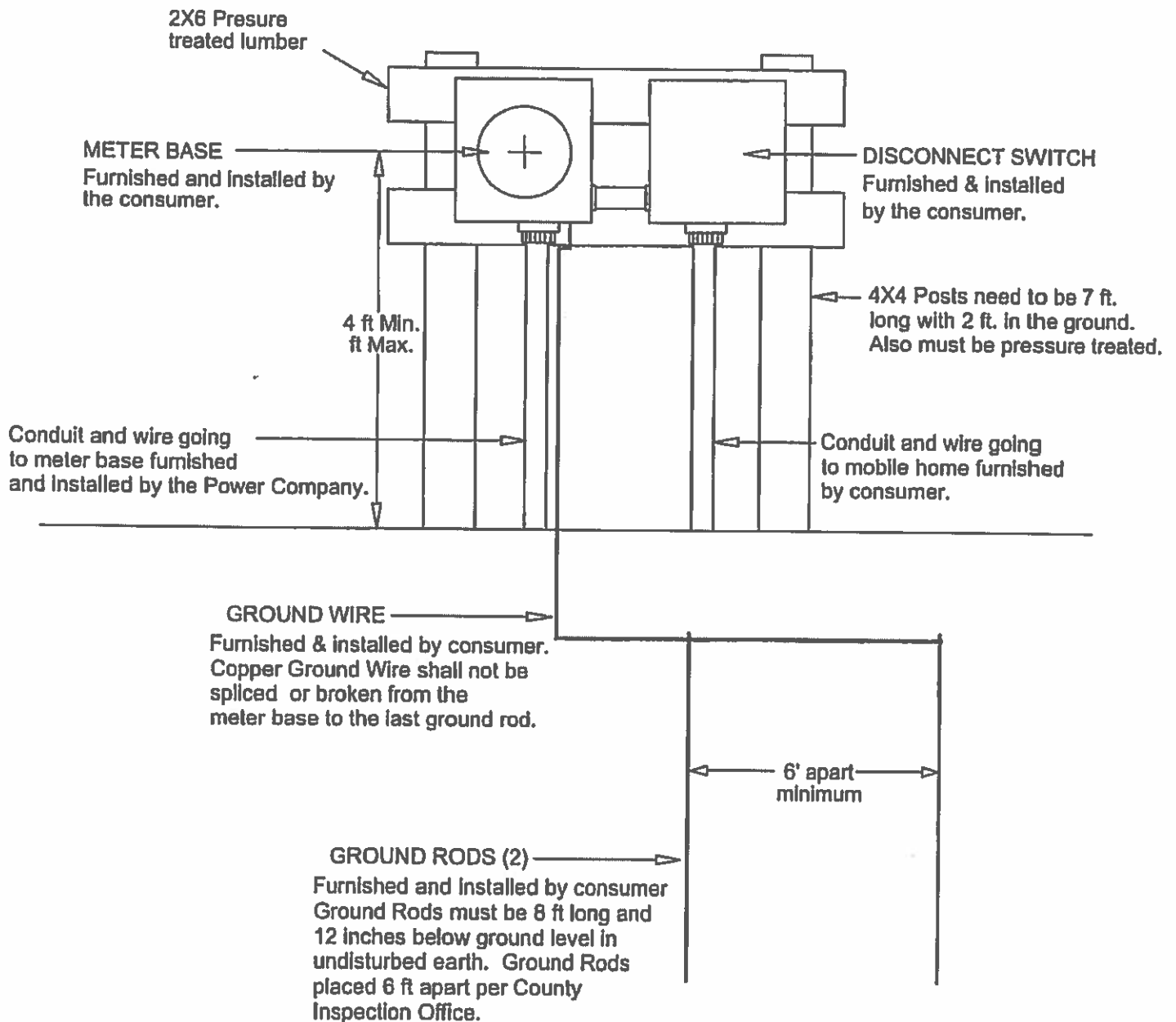
All cooper or aluminum wires must be used. NO wire type mixing is allowed on the hot or neutral bar. Grounding wires may be mixed if there is no physical contact between the wires.

This is a typical power pole set up. Contact your power company for specifics.

Underground meter base installation for mobile home.

The Power Company reserves the right to refuse service on the grounds of workmanship and materials.

Please be aware of the time it takes to have the electric service installed. In order to have your job(s) proceed in a timely manner, this meter base must be installed before the Power Company staking personnel can begin to plan for this job.

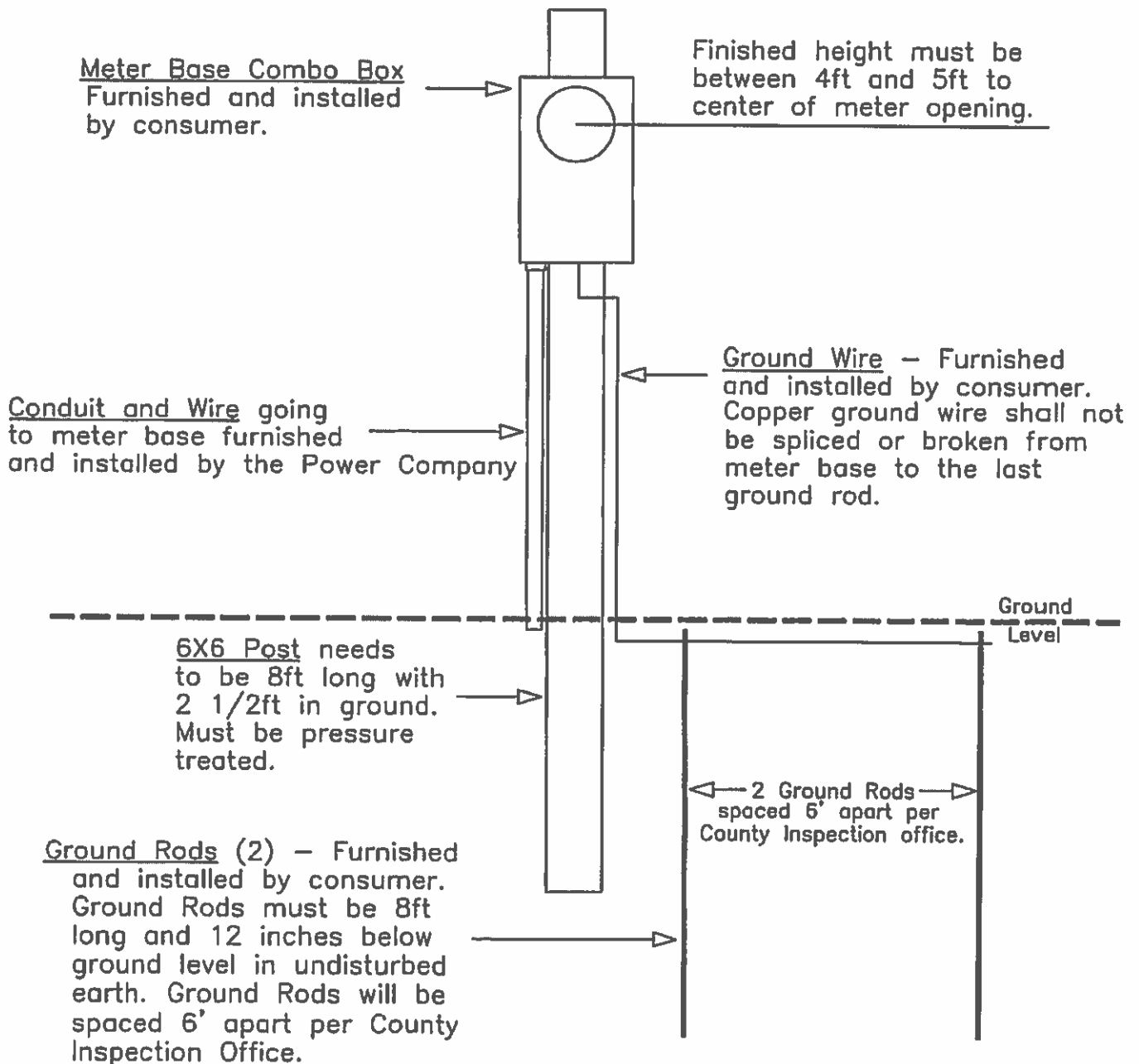


This is a typical power pole set up. Contact your power company for specifics.

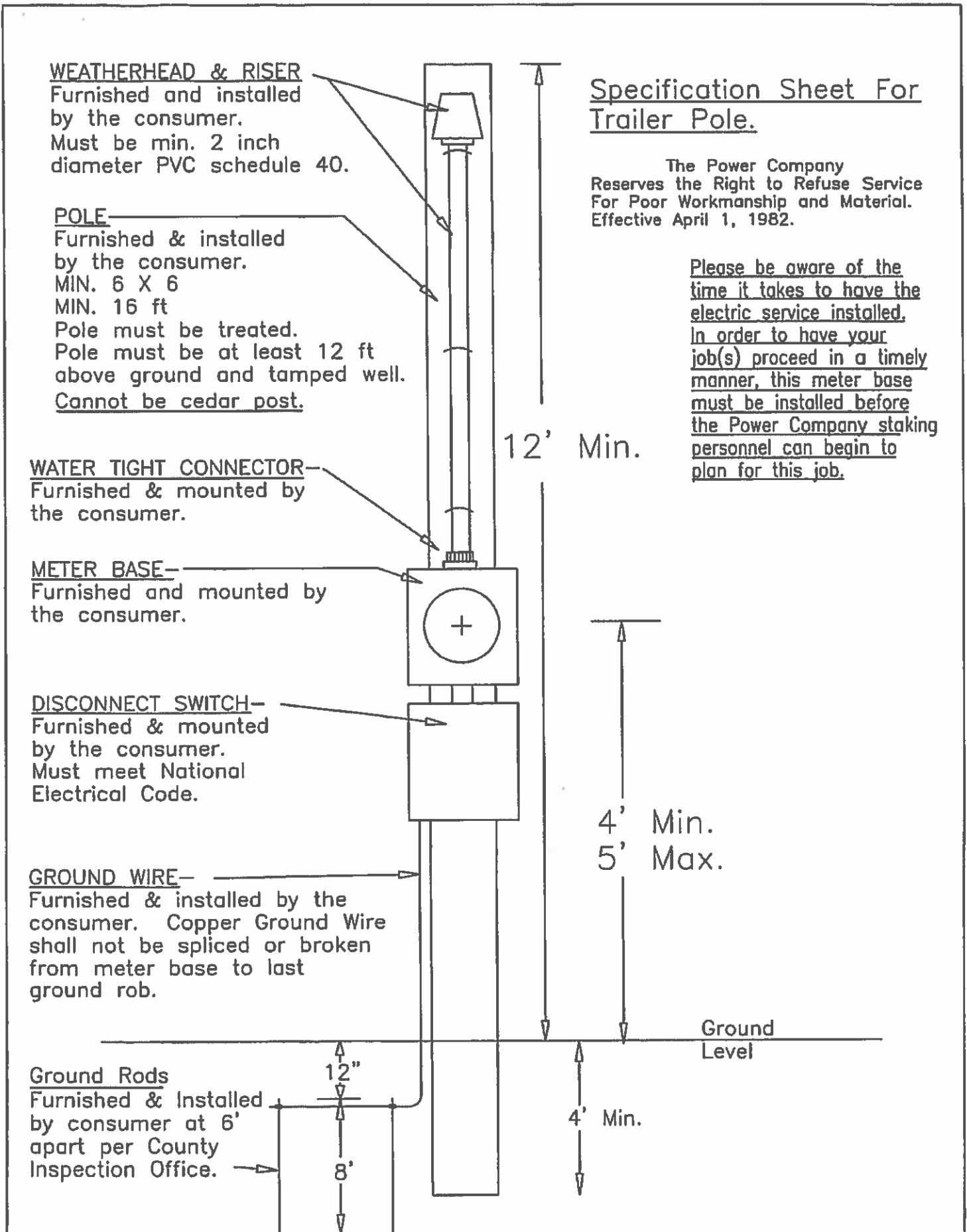
Underground meter base breaker box combo installation for mobile home.

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This is a typical power pole set up. Contact your power company for specifics.



UNDER-FLOOR CLEARANCES

VENTILATION AND ACCESS

A minimum clearance of 12 inches shall be maintained beneath the lowest member of the floor support framing system. Clearance from the bottom of wood floor joists or perimeter joists shall be a minimum of 18 inches.

Under-floor spaces shall be ventilated with openings. The minimum net area of ventilation opening shall be not less than 1 square foot for each 150 square feet of crawl space. The access must not be located under a door.

Under-floor access openings shall be provided. Such openings shall be not less than 16 inches by 24 inches. If equipment is located inside under-floor areas, access must be large enough to remove the largest piece of equipment. You must be able to operate the door without the use of special tools.

All vegetation shall be removed from the area under the home and grade under the home shall be sufficient as to not allow any area of standing water.

The underfloor area shall be covered with a vapor barrier of black 6 mil poly (plastic), or its equivalent, staked into position.

TIE DOWNS AND ANCHORS

Manufactured Homes must be tied down and anchored in accordance with the manufacturers' instructions. Should manufacturer instructions not be available, please refer to page 14 of this pamphlet. Anchors shall be driven in the ground per installation instructions.

HEATING AND AIR DUCT CONNECTIONS

Tape all duct joints with duct tape to insure proper seal, preventing air leaks. Strap crossover ducts to the underside of the home to prevent it from coming in contact with the ground. Arrange duct as straight, smooth and as short as possible. Do Not compress or kink ducts.

Wire may not be used to support ducts. Support must be AT LEAST a 1 ½ inch strap.

For homes with a gas furnace or fireplace, make sure chimney is in place and completely installed.

Outside HVAC electrical disconnecting means shall be located within sight of and readily accessible from the equipment.

Condensation shall drain to the outside of the home.

PLUMBING

It is recommended that the plumbing installation be performed by a qualified plumber in accordance with acceptable plumbing codes and practices.

WATER SUPPLY:

- *Use only code approved materials
- *The water supply system is designed for a maximum inlet water pressure of 80 psi. If the water pressure is greater than 80 psi, a pressure reducing valve must be installed to limit supply pressure.
- *Insulate the supply and install a cut-off valve at the point of connection with the house installed water supply line.
- *Minimum service line size is 3/4".
- *Do not turn on the electricity until the hot water tank is full.

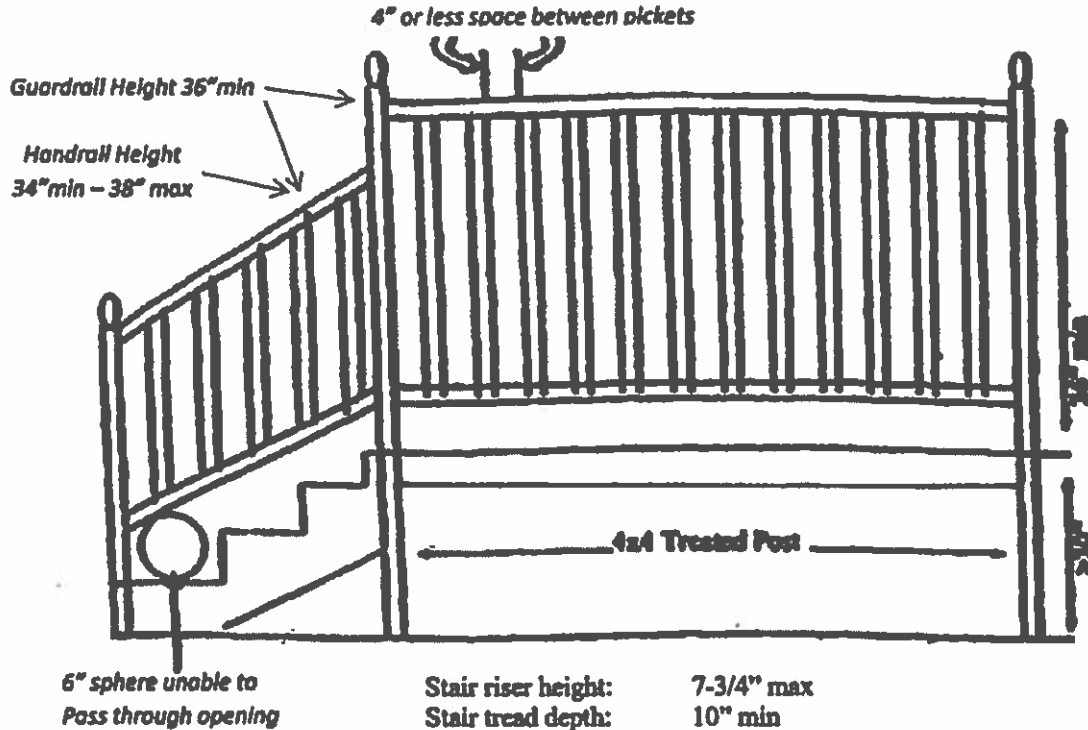
DRAINS:

- *All pipe must be supported under the home at intervals of 4'-0" on center with plumbers strap or plastic hangers.
- *A clean-out is required at each change of direction greater than 45degrees.
- *A clean-out (min.3") is required within three (3) feet outside the underpinning.
- *Connections between dissimilar materials must be by an approved connector (Ex: a Fernco coupling; no-hub band or similar material).

No glued connections between ABS and PVC pipe shall be permitted.

- *The size of drain piping shall not be reduced in the direction of flow.
- *Minimum drain slope is 1/8" per foot
- *All drain fitting must be by combinations, wyes, 45, 22, or long radius 90 degree fittings. No tees or short 90's shall be used. Do not use clean-outs as a connection point.

Construction of stairs and landings shall conform to standards as found in the recently adopted edition of the residential construction code.



- Stair riser height: 7-3/4" max
- Stair tread depth: 10" min
- Stair treads or risers may not vary by more than 3/8" in a flight of stairs
- Steps and landing must not be supported by the home
- Maximum distance between pickets: 4"
- Handrails are required for 4 or more risers

All manufactured homes shall provide a stair and landing at all entrances to the home. Stairs shall be at least 36" wide. If the landing or deck is 30" or more above grade, then guardrails shall be installed with vertical pickets spaced no more than 4" apart (lattice is not acceptable). Guardrails shall be a minimum of 36" in height measured from the top of the deck. Stairs with 4 or more risers shall have handrails in addition to any required guardrails. Handrail height shall be 34" min. to 38" max. Stairs that are 30" or more above grade shall have guardrails as well as handrails.

Landings or decks shall be a minimum of 3 feet by 3 feet. If the exterior door swings outward, the landing shall be no lower than 1-1/2" below the threshold of the door. If the door swings inward, the landing or deck is allowed to be up to 7-3/4" below the threshold of the door.

Floor joist for all decks or landings shall comply with the adopted residential code. All floor joists shall be supported by a minimum 1-1/2" ledger strip or approved joist hangers.

A solid masonry or vinyl type skirting shall be installed within 90 days of permit issue date. FAILURE TO COMPLY IS A MISDEMEANOR PUNISHABLE BY A \$200.00 FINE AND/OR 30 DAYS IN JAIL.

PIER GUIDE

SITE PREPARATION:

Ground shall be clear and sloped away from site to provide drainage. All vegetation under the home, which when dead and dry poses a fire hazard or could harbor rodents, shall be removed.

DRAINAGE

Water must not accumulate under the home. Water affects the humidity in the home as well as the foundation.

The FOUNDATION

The foundation must support the weight of the home regardless of the weather or the soil conditions for the life of the home.

The PIER

The pier transmits the weight of the home to the footings.

BLOCKS: Solid or Hollow ASTM Standards

ASTM - C90 - Hollow load bearing Grade N

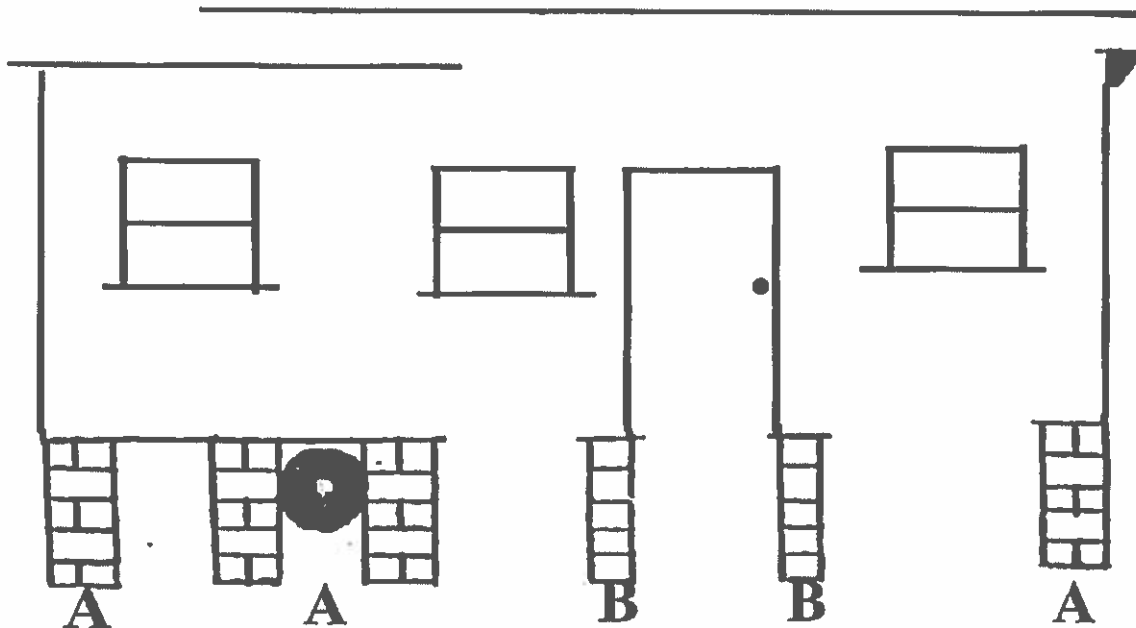
AS1M-C145-Solid load bearing Grade N

Blocks with open cells must have their cells vertical to the footing. Minimum thickness for solid blocks is two inches.

WOOD, WEDGES and SPACER REQUIREMENTS

Any wood in contact with the ground must be pressure treated. The maximum thickness of a wood plate is two inches. Wedges must be at least four inches wide, six inches long and not thicker than one inch. Wedges shall be used on all piers. The steel frame of the home cannot be in contact with any concrete cap.

**Pier Construction (for Used Mobile Homes)
New Mobile Homes use Manufacturer's
Instructions (leave book on site)**



Type "A" Piers

1. All "A" piers shall be 16"x16" blocks or two (2) 8"x16" blocks with cells placed in a vertical position.
2. One (1) "A" pier shall be placed on each side of each end unit
3. One (1) "A" Pier shall be placed on each side directly in front and behind the wheels.

Type "B" Piers

1. All "B" piers shall be 8"x16" blocks with cells placed in a vertical position.

All piers shall be placed on solid concrete blocks or poured footings.

Required piers shall be within 2 ft. from either end, and a maximum of 8ft on center thereafter. Piers shall be located under the main I-Beams. In addition to these piers, double wides shall have additional piers under the marriage wall at openings greater than 4ft and at support columns. Both double and single wide homes shall have piers at all exterior door openings. Door openings greater than 4ft shall have a pier on each side of the opening. Piers are also required at recessed entries, patio or chateau doors and bay window openings.

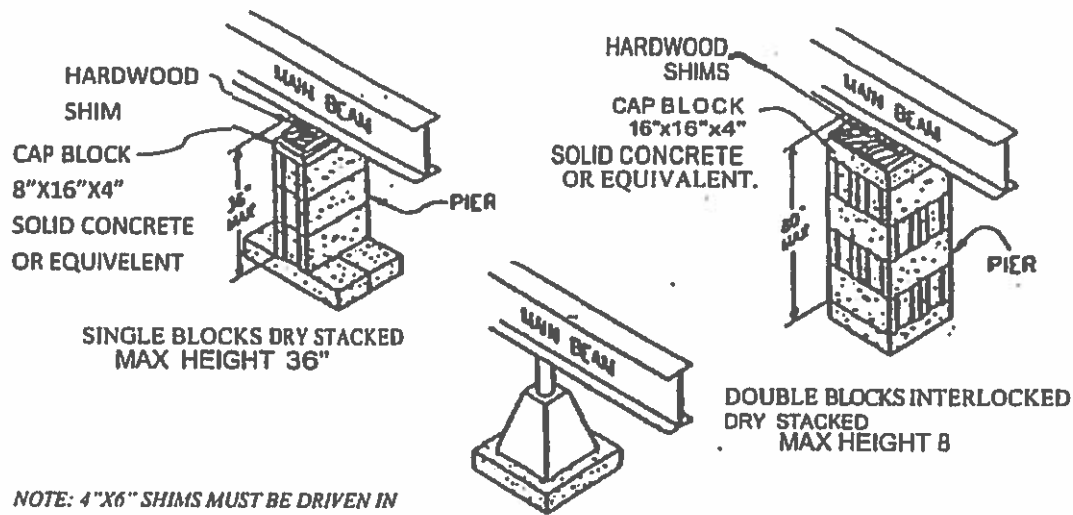
PIER CONSTRUCTION DETAILS

(always refer to manufacturer's instructions)

RULES FOR PIER PLACEMENT ARE AS FOLLOWS:

1. Blocking is required on each side of all wall openings (doors) greater than 48 inches.
2. Blocking is required in the center of all wall openings (doors) less than 48 inches.
3. Single 8 inch block piers greater than 36 inches high (four 8 inch blocks and one 4 inch cap) shall be filled with reinforcement.
4. Double blocks, interlocked greater than 80 inches high shall be filled and reinforced, and must first be approved by the building inspector.
5. Pier spacing shall not exceed 8 feet.
6. No grass or organic matter may be underneath pier pads or footings.
7. All shims (Treated wood or ABS) shall be driven in tightly and be no greater than one (1) inch in height.
8. All piers shall have caps. Use solid concrete blocks or treated 2"x8" or 2"x10" treated boards.

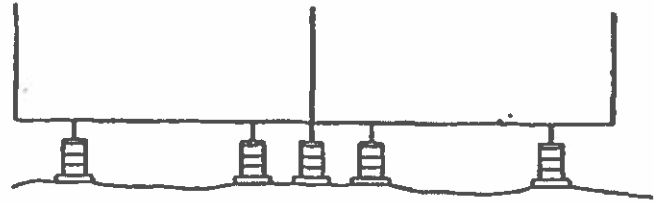
PIER CONFIGURATIONS



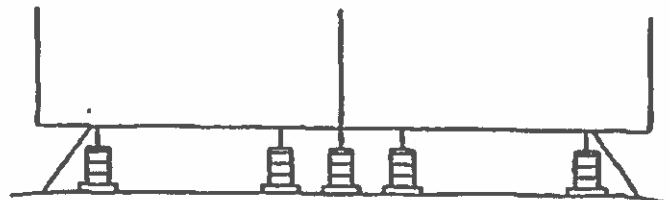
NOTE: 4"x6" SHIMS MUST BE DRIVEN IN TIGHTLY AND MUST NOT OCCUPY MORE THAN 1" OF VERTICLE SPACE

STEEL OR CONCRETE PIERS LISTED OR LABELED FOR THE REQUIRED LOAD CAPACITY AND MAXIMUM HEIGHT

PIER HEIGHTS OVER 80" IN HEIGHT SHALL BE DESIGNED AND CONSTRUCTED PER DRAWINGS AND SPECIFICATIONS OF A REGISTERED ENGINEER.



Don't grade the site so that water collects beneath the home



Do Crown and grade the site to slope away from the home and cover the ground with 6-mil thick polyethylene sheeting or the equivalent

Figure 3 -Recommended Grade Underneath Home

Ground Moisture Control – A layer of 6 mil polyethylene plastic, or similar material, must be used to fully cover the ground under the home to form a vapor retarder and reduce water infiltration into your home

AVOIDING MOISTURE PROBLEMS - THE INSTALLER'S AND HVAC CONTRACTOR'S CHECKLIST

- **Make sure the site is properly graded to shed water**

If this is the homeowner's responsibility, inspect it before the home is delivered. Water draining under a home can destabilize the foundation as well as increase the chances of moisture migrating into the house.

- **Install a groundcover**

This is one of the most overlooked and underestimated set-up tasks. Moisture from the ground is often the largest source of moisture load on a house.

- **Seal the marriage wall completely with a non-porous foam seal.**

Foam seal must be placed along the inside edge of the ceiling line, along the floor and end walls to form a continuous "ring". Using a fiberglass or incomplete gasket will not prevent air and moisture infiltrating into the home and wall cavities.

- **Be sure that any tears in the bottomboard material are durably sealed**

Moisture from the ground will find its way into the floor cavity through tears in the bottom board, adding to the house moisture load and condensing on cold surfaces such as air conditioning ducts. Seal any holes made in the bottom board and insulate the refrigerant lines and seal both at the bottom board and at the equipment closet floor. Easy to use latex foams may be used for this task.

- **Leave no metal surfaces exposed when installing the crossover duct**

When the air conditioner is operating, exposed metal duct will become cold and condense moisture from the air that will then drip into the crossover duct insulation layer. Be sure ducts and splitter boxes are off the ground, well-sealed and insulated.

- **Make sure the dryer exhaust duct is supported and installed correctly**

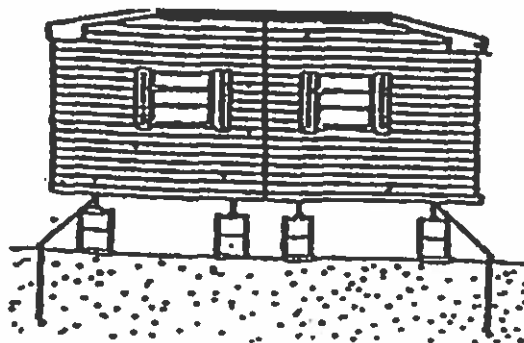
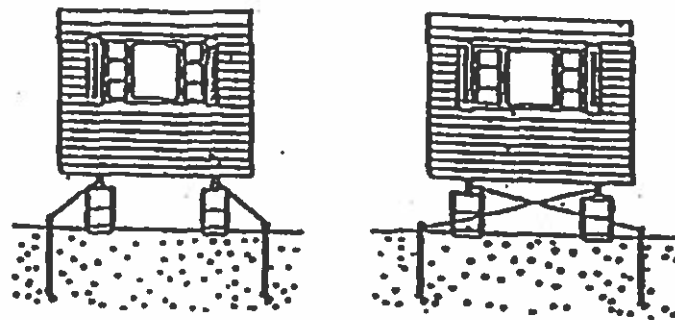
Like a drainpipe, the dryer exhaust duct needs to slope downhill and be supported. Water can easily condense inside this duct, trapping lint and blocking airflow (a fire hazard). The exhaust duct should be constructed of smooth metal at least 4 inches in diameter and no longer than 35 feet long (minus any reductions taken for fittings). This measurement does not include the flexible transition duct at the dryer.

SPECIFICATION TABLE

LENGTH OF HOME (FT)	NO. OF DIAGONAL TIES PER SIDE	MIN. NUMBER OF ANCHORS
Up To 40	4	8
40 to 46	4	8
46 to 49	5	10
49 to 54	5	10
54 to 58	5	10
58 to 64	6	12
64 to 70	6	12
70 to 73	7	14
73 to 84	7	14

1. Double-section manufactured homes require only the vertical ties specified in Column B.
2. Length of manufactured home (as used in the above table) means length excluding draw bar.
3. Double sections will be bolted together by manufacturer requirements.
4. Ties should be no more than ten (10) feet apart.
5. If a used home and manufactured installation instructions are available they must be followed. Manufactured installation instructions must always be followed on new homes.

VARIOUS METHODS OF TIE DOWNS



COMMON MOBILE HOME VIOLATIONS

1. ALL DECK FLOOR JOISTS SHALL HAVE LEDGER STRIPS OR JOIST HANGERS INSTALLED.
2. THE 4 INCH ADDRESS (9-1-1) SHALL BE POSTED ON THE HOME. ALSO AT THE STREET IF THE HOME IS MORE THAN 50 FEET FROM THE ROAD.
3. ALL GRASS AND VEGETATION SHALL BE REMOVED FROM UNDERNEATH THE HOME.
4. GUARDRAILS ARE REQUIRED ON ANY WALKING SURFACE OVER 30 INCHES AT GRADE AND SHALL BE A MINIMUM OF 36 INCHES HIGH MEASURED FROM THE TOP OF THE RAILS TO THE TOP OF THE DECK.
5. ALL STEPS WITH 4 OR MORE RISERS SHALL HAVE HANDRAILS IN ADDITION TO ANY REQUIRED GAURDRAILS.
6. GRASPABLE HANDRAILS (AS DEFINED BY THE INTERNATIONAL RESIDENTAIL CODE) FOR THE STEPS SHALL BE 34" TO 38" HIGH AND MEASURED VERTICALLY FROM THE TOP LEADING EDGE OF THE STEP TO THE TOP OF THE HANDRAILS. THE HANDRAIL IS ONLY REQUIRED ON ONE SIDE OF THE STEPS
7. THE SEWAGE DRAIN LINE SHALL HAVE A CLEANOUT INSTALLED WITHIN 3 FEET OUTSIDE THE SKIRTING OF THE HOME.
8. THE FINAL GRADE AROUND THE HOME SHALL HAVE A FALL OF 6 INCHES IN 10 FEET TO ALLOW THE WATER TO DRAIN AWAY FROM THE HOME.
9. ALL HOMES SHALL HAVE A DISSCONNECT INSTALLED AT THE METERBASE.
10. ALL HOMES SET-UP SHALL HAVE 6-MIL POLY (OR EQUEVAENT) INSTALLED UNDER THE HOME.
11. ALL ALUMINUM WIRES SHALL HAVE ANTI-OXIDANT ON STRIPPED ENDS UNDERNEATH THE LUGS.
12. ALL EXTERIOR OPENINGS (DOORS) SHALL HAVE BLOCKING INSTALLED UNDER THE OPENINGS. (ALL OPENINGS GREATER THAN 48" INCHES SHALL HAVE BLOCKING UNDER BOTH SIDES OF THE OPENING.)
13. ALL PIERS SHALL HAVE EITHER WOOD OR ABS SHIMS BETWEEN THE PIER AND THE METAL FRAME OF THE HOME.
14. ALL ANCHORS FOR THE HOME SHALL BE FLUSH WITH GROUND per manufacturers instructions.
15. THE PICKETS FOR THE GUARDRAILS SHALL HAVE NO MORE THAN 4 INCHES BETWEEN THEM.
16. ALL HOMES SHALL HAVE ACCESS TO INSPECT UNDERNEATH THE HOME.
17. EXTERIOR HOSE-BIBBS SHALL BE EQUIPPED WITH AN APPROVED VACUUM RELIEF DEVICE.