Handout R.10

Mobile (Manufactured) Home Set-Up and Permit Requirements

A. Applications for mobile homes to be placed in mobile home parks shall include year, make, and model of the mobile home, its dimensions, and the name of the mobile home park and space number. The application shall be accompanied by a hand-drawn plot plan showing the proposed location of the mobile home, the distance from the front space line, and the distance from adjacent mobile home additions, which require approval of the mobile home park manager.

Applications for mobile homes to be placed on private lots shall include year, make, and model of the mobile home, its dimensions, and legal description of the property. The application shall be accompanied by a site plan drawn to scale, showing the location of the mobile home on the property, setbacks from at least two adjoining lot lines, any existing or proposed structures, and sufficient area for required parking. Mobile homes placed on permanent foundations require plot plans sealed by an Alaska registered land surveyor. See Handout R.01 for minimum permit submittal requirements.

B. THIS PARAGRAPH APPLIES TO PRE-1973 MODELS ONLY

Before a movement and setup permit can be issued, an applicant must obtain a certificate of Code Compliance if the manufacture date is prior to 1973. A required partial Code Compliance inspection must be requested at 4700 Elmore Road, Building Safety Division, phone 343-8211. The mobile home owner will have to sign giving permission to inspect for life-safety problems. When the inspection is done, a copy of what items need to be corrected will be left with the owner. These items must be corrected before the utilities are hooked up again. (SEE FORM AT BACK OF HANDOUT.)

The following is a list of items that are generally found during Code Compliance inspections. These items must be corrected once the mobile home is relocated. This list does not cover all items that may be found.

- Wiring which has been abandoned, left with bare ends and is or may become energized.
- Wiring such as Romex that is exposed to physical damage and without the required physical protection.
- A main circuit breaker or fused disconnect switch not installed at panel inside mobile home.
- Missing or broken light fixtures, outlets, switches, cover plates.
- Outlets located at kitchen and bathroom counter tops and exterior outlets that are not GFCI (ground fault circuit interrupter) protected.
- Required alarm devices not installed. An operating smoke detector is to be located in each bedroom and any hallway that serves bedrooms. A carbon monoxide detector is required in any hallway that serves a bedroom. These may be battery powered.
- A fire extinguisher is to be mounted in kitchen area and is to be visible.
- Any structural problems that may prove to be unsafe to the occupants will need to be corrected. This would include sagging roof systems and rotting floors.
- The mobile home is to have two exit doors that are located a reasonable distance apart and are to be operable for escape in the event of fire or panic.
- The overall cleanliness and housekeeping is to be a standard that would not prevent a person from escaping should fire occur.
- The skirting when installed at new location is to be insulated with R-19 minimum and tie-downs are to be installed according to handout.
- In some cases the heating system needs to be serviced by a contractor to ensure that it is operating correctly and maintaining a comfortable temperature and not a danger to tenants.
- The mobile home is wired with aluminum wiring and the corrective measures haven't been made.
- The existing mobile home gas piping is undersized for new location.
C. PERMITS

A Mobile Home Set-up permit ($250.00) is also required once the mobile home is at the new location. This enables the other inspectors to come out and check the water, sewage, natural gas and electrical hook-ups. If all items are done correctly, the services will be green-tagged allowing the utility companies to energize the power and turn on the gas. One of the inspectors will also check the items listed on the Code Compliance inspection report to ensure corrections have been made. These procedures are required for mobile homes relocated within Anchorage. Different code requirements may apply if home is relocated outside of Anchorage.

1. Required partial Code Compliance Inspection (PRE 1973) $150
2. Optional full Code Compliance Inspection $450
3. Mobile Home Set-up Permit $250

*A full code compliance inspection done prior to the moving of a mobile home is also offered. This inspection includes structural, plumbing/mechanical, and electrical. It gives a more in-depth assessment of what items may require replacement or repair found during the process of reconnecting the utilities.

D. WHO CAN PERFORM THE WORK?

A company licensed as a Municipal G-17 (Mobile Home Set-up Contractor) is required to perform the mobile home set-up and they may install the natural gas, water and sewer connects from the lot connections to the mobile home providing that the G-17 contractor has in his employment a municipal licensed journeyman plumber or gas fitter. This journeyman must be an employee of the G-17 contractor and not a sub-contractor. If the G-17 contractor does not have a journeyman plumber or gas fitter as an employee he must sub-contract this work to a municipal licensed plumbing or gas contractor.

The G-17 contractor cannot perform any of the electrical work. It must be subcontracted to a municipal licensed electrical contractor.

A mobile home owner can perform any plumbing/gas, mechanical or electrical work on his own mobile home; only if the following requirements are met:

1. The person is the legal owner of the mobile home.
2. The legal owner resides in the mobile home.
3. The legal owner personally performs the plumbing/gas or mechanical work.

E. TIE DOWN REQUIREMENTS

Tie down requirements on the next page must be completed prior to a "gas tag" being issued.

Note: When frozen ground exists, tie down waivers must be signed by the owner of the mobile home. (See Handout R.09)

TIE DOWN REQUIREMENTS

1. Tie-downs are required on all mobile homes set up in the Municipality of Anchorage.
2. All single wide mobile homes are required to have tie-downs anchored to the frame. Some single wide mobile homes are required to have over the top-tie-downs as described below.
3. Double wide mobile homes are required to be tied only to the frame.
4. Tie-downs must be pre-manufactured.

NOTE: For homes manufactured after 1976, please have the mobile home installation instruction booklet available for inspection at time of tie-down inspection.

**REQUIRED NUMBER OF TIE-DOWNS ON EACH SIDE OF MOBILE HOME**

<table>
<thead>
<tr>
<th>LENGTH OF MOBILE HOME</th>
<th>NO. OF FRAME TIES PER SIDE</th>
<th>*NO. OF OVER THE TOP TIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>UP to 49'</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>49' to 58'</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>58' to 70'</td>
<td>6</td>
<td>3</td>
</tr>
</tbody>
</table>

*Over the top ties are required on single wide homes manufactured prior to 1977. Exception: Homes manufactured after 1976, over the top tie-downs are only required if stated in the manufacturer's installation booklet supplied with the home.
**Required number of tie-downs in table above is to be used as a guide on mobile homes manufactured prior to 1976. For homes manufactured after 1976, consult the manufacturer's installation booklet supplied with the home for required number of tie-downs and methods of installation.**

F. MOBILE HOME EGRESS REQUIREMENTS

1. HUD requires two exterior doors.
2. Any exterior stairway or ramp that provides egress, must meet code.
3. If the door swings into the mobile home, only stairs are required. Handrails between 30 inches and 38 inches in height must be provided on at least one side of stairways of four or more risers.
4. Stairs of two or more risers are to be constructed with an eight-inch maximum rise and nine-inch minimum run.
5. A landing must be provided for doors that swing out. The landing must be a minimum three foot by three foot, and shall not be more than 1 1/2 inches lower than the top of the threshold. Additionally, if the landing is more than 30" above grade, guardrails of not less than 36 inches in height must be provided.
6. The required handrails are to have intermediate rails or ornamental closures that will not allow passage of an object of more than four inches in diameter.
Over the Top Tiedown: with "Cable or Strap" Frame Ties.

CABLE

FRAME TIE

OVER THE TOP TIEDOWN

WRAPPED STEEL STRAP

FRAME TIE

STRAP

GROUND ANCHOR

Tensioner should be tightened until wire rope becomes tight.

OVER THE TOP TIEDOWN

1 1/8" x 0.059" cold rolled heat treated, galvanized strap conforming to Federal spec. QQ-S-781 G Type 1, Class B, Grade 1 can be used.

4 FEET MINIMUM DEPTH

GROUND ANCHOR

4 FEET MINIMUM DEPTH

END VIEW

EITHER CABLE OR STAP CAN BE USED.
Types of Tiedowns

Type 1

Type 2

Type 3

Over the top Tiedown

These sketches illustrate various methods for connecting frames ties to the mobile home frame. Type 2 system can resist greater horizontal forces than Type 1. Type 3 system involves placement of mobile home on concrete slab. Anchors embedded in concrete slab are connected to ties.

Additions or canopies also need to be secured with over the top tiedowns.

Double wide do not require over the top tiedowns but are subject to the same frame tie requirements.
G. MOBILE HOME ELECTRICAL REQUIREMENTS

1. All receptacles outdoors and in bathrooms shall have ground-fault circuit interrupter protection for personnel. Receptacles within 6' of a sink or lavatory shall have ground-fault circuit interrupter protection for personnel.

2. A dedicated 20-amp circuit supplying a GFCI receptacle shall be installed adjacent to the vehicle parking area and be provided with a waterproof "while in use" cover.

3. Mobile homes using aluminum wiring have had serious problems that must be corrected as follows:
   - All wiring splices that have aluminum wire connected to copper wire will have to be redone with a special wire connector approved for connecting aluminum wire to copper. The wire connector will be marked with the letters AL/CU (dry locations).
   - Switches and receptacles with aluminum wiring under the screw terminals will have to be redone by either:
     1. **splicing a copper wire using an approved wire nut and then connecting the copper wire to the device** or
     2. **replacing the device with one marked as follows:** (a) Switches and receptacles rated at 15 and 20 amperes must be marked CO/ALR, (b) Devices rated 30 amps and over must be marked AL-CU.

   A "push in" or "stab in" type of connection is not approved for aluminum wire.

4. The equipment-grounding bar in the house panel shall be connected to the water pipe by a #6 copper wire installed to a water pipe clamp ahead of the shut-off valve. The ground bar is also connected (by the manufacturer) to the frame; verify that the connection is intact and tight. The gas piping must also be bonded with a #6 copper wire. It may be connected to the gas piping with a pipe clamp with the same wire that goes to the water pipe.

5. Some parks provide three wires from the meter/disconnect instead of the four shown in the example. In that case, the neutral bar (where the white wires are connected) in the mobile home panel is to be connected to the ground bar by a #6 copper or by other approved means.

6. Physical protection for service wires under the mobile home is provided by installing them in utility grade Corflo or other approved conduit. Corflo sized one size larger than the panel conduit will allow room for the water pipe ground wire and the head bolt cable to pass between the conduit and the Corflo as shown in the diagram. Corflo may be secured by duct tape to the panel conduit. If a conduit method other than Corflo is used, a junction box with appropriate conduit and cable connectors will be needed.

7. When the underground service feeders provided by the park for a future or relocated mobile home are not long enough, they may be made longer by splicing on more wire. The splices may be made inside the Corflo if they are staggered, made with an underground wire splice kit and the added wire is underground rated. For all other wiring methods splices must be made in a junction box using appropriate wire connectors.

8. The electrical system inside the mobile home and any attached structures must be in good repair and safe to connect to power before a green tag can be issued. If during the inspection, the electrical inspector observes life safety hazards the inspector will not be able to authorize energizing the system until the hazard has been removed or corrected. Examples of this type of hazard include conductors with oversize circuit breakers, broken circuit breakers, missing panel covers, etc. Please make repairs before calling for an electrical inspection.
Mobile Home Park Infrastructure Upgrade and Tie-in of Electrical Bases to Existing Units

Electrical contractors, owners of mobile homes, and owners of mobile home parks have asked for guidelines concerning connection of existing mobile homes (not being relocated from present position) to new meter bases. This situation may occur in the process of upgrading meter bases as part of a general infrastructure upgrade being conducted by the park’s owner or when an individual mobile home service is being replaced.

The extent of inspection of existing structures not being moved is generally limited to the area in which the new work is installed. In this case, since the new work concerns only the utility service equipment and the conductors (feeders) supplying the mobile home the inspection would extend only to where the feeders terminate. However, if during the inspection of the feeder terminations, the electrical inspector observes life safety hazards the inspector will not be able to authorize energizing the system until the hazard has been removed or corrected. Examples of this type of hazard include conductors with oversize circuit breakers, broken circuit breakers, missing panel covers, etc.

1. If new supply conductors are being spliced to existing wiring:
   Existing underground conductors, in good condition and of appropriate construction, can be used if they have a minimum depth of 18" and are spliced by approved means and methods. Any new underground wiring must meet current requirement of 24" deep. Existing 3 wire feeders can be reconnected provided the neutral conductor is bonded to the equipment-grounding bar at the panel in the mobile home. The conductor size must be the same on both sides of the splice and the feeder overcurrent must match the conductor size.

2. If the existing feeder proves unsuitable for use:
   The feeder into the mobile home panel shall be replaced with a new 4-wire system meeting all applicable code requirements, including a disconnect means within 30 feet of the mobile home. The inspector will inspect up to the point the feeders terminate in the house panel.

3. If an owner has concerns about their mobile home wiring they may either arrange for a code compliance inspection through the Code Abatement section at 343-8328, or if they have a specific question they may contact an electrical inspector at 343-8316.

H. GAS PIPE REQUIREMENTS

Anytime a mobile home is moved from one location to another, regardless of distance, a gas test will be required. All piping from the meter to the appliance within the mobile home must be tested at 10# per square inch on a retard gauge which reads in ounces. If the service from meter to mobile home is 2# medium pressure gas, the line from meter to mobile home should be installed with a copper line without any underground joints or approved High Density Poly-Ethylene (HDPE) pipe, of the appropriate size. The test must remain on until after inspection. Gauge assemblies may be borrowed from Enstar Natural Gas at no cost, although, a deposit may be required.

Gas Piping Procedures

1. Borrow a retard gauge assembly, reading in ounces, from Enstar Natural Gas Co. (in lieu of a retard gauge, a 15# gauge graduated in 1/10# increments will be accepted).
2. Place a 10# test on mobile home piping.
3. Make sure the test holds for a minimum of fifteen (15) minutes.
4. The test must remain on the piping and piping must remain exposed until the piping system has been inspected.
5. It is the owner’s responsibility to obtain a mobile home gas kit from Enstar, for medium pressure systems. The kit consists of a pressure reducing regulator that is designed to be mounted on the home. (Check with the park manager to determine what type of system is in place.)
6. When soft copper is installed underground between the gas meter and the home, there must be a loop in the copper at each end where it exits the ground that is able to provide displacement caused by movement.
7. Call the Building Safety Division for inspection (343-8300).
8. When test has been approved and a green tag placed on the pipe next to the meter, call Enstar Natural Gas to have gas service implemented (277-5551).
I. PLUMBING AND MECHANICAL REQUIREMENTS

A mobile home set-up permit only allows the natural gas, water, and sewer connects to be done. If additional plumbing/gas or mechanical work is done, an additional permit must be obtained for the additional work. As example, if the furnace or water heater is replaced a separate permit would be required. If any plumbing within the home is altered such as new plumbing fixtures or plumbing piping replaced a separate permit would also be required.

The plumbing/gas and mechanical inspector will inspect the following items:

1. Minimum ¾" water pipe from the park or lot connection to the mobile home.
2. The sewer piping from the park or lot connection to the mobile home, which requires all piping to be in compliance with the current edition of the Uniform Plumbing Code including ¾" per foot grade, proper pipe support, and a ridged connection to the park or lot connection by use of an approved joining method.
3. The gas piping can hold an air test and that it is properly sized, supported, and is done so with approved materials.
4. That the tie-downs are properly installed.
5. The mobile home has approved blocking methods and materials to properly support the home.
6. The inspector will inspect all new or existing gas appliances and also electric water heaters at the new location. Furnaces must be "listed" for installation in a mobile home. Gas water heaters that are replaced must be "listed" for installation in a mobile home even if the water heater is located in a lean-to. Furnace and water heater replacements require an additional permit besides a mobile home set-up permit. Replaced water heaters also require earthquake strapping. Approved manufactured strapping kits are required. The strapping shall be installed per the strapping kit manufacturer’s instructions. Homemade strapping is not approved. If a furnace or water heater has evidence of being recently replaced, the owner will be asked to show proof of a permit being purchased and that an inspection has been performed for that appliance. Combustion air is required from the outside or under the mobile home for all natural draft water heaters. No additional combustion air openings are required for direct vent water heaters installed in accordance with the manufacturer’s instructions.

The above stated information and requirements are not a complete list of all requirements. This information was assembled to cover the basic things plumbing/mechanical inspectors check during a mobile home inspection. Older mobile homes that are moved from one location to another location pose many unforeseen problems due to their age and sometimes poor condition. It is recommended that a pre-move code compliance inspection be done. In some instances the cost of correcting code violations can exceed the value of the mobile home.

Before the above mentioned "green tag" will be issued, it is necessary to have your waste and water pipe connected to the sewer and water mains. The waste pipe must be rigidly connected to the sewer lateral by use of approved couplings. Simply inserting the mobile home pipe will not be accepted. The water line from the main service provided to the mobile home must be a minimum of 3/4" I.D. pipe.

[Signature]
Sharen A. Walsh, P. E.
Building Official & Deputy Director
Date: April 10, 2013
(Ref. 96-01, 97-11, 98-11, 00-03, 00-05, 00-08, 00-11, 00-12, 01-05, 02-01, 02-06, 05-05, 05-02, 08-08, 01-09)
MOBILE HOME INSPECTION AUTHORIZATION

I have reviewed Handout R.10, Mobile Home Requirements, and request the following inspection.

___ The required **partial** Code Compliance inspection for mobile homes with a manufacture date of 1972 or older.

___ The optional **full** Code Compliance inspection. This covers structural, electrical, and plumbing/mechanical.

I understand that if I choose the **partial** code compliance inspection, other life safety issues may be discovered and require correction after the mobile home has been set up.

I also understand that a mobile home set-up permit is required for all mobile homes that are relocated, regardless of their manufacture date.

________________________________________  __________________________
Signature of Owner                           Date