MISSISSIPPI DEPARTMENT OF INSURANCE
DIVISION OF THE STATE FIRE MARSHAL

REGULATION MH-5, as amended

UNIFORM STANDARDS CODE FOR FACTORY-BUILT HOMES LAW

Table of Contents:

Section I. Promulgation and Purpose
Section II. Administration
Section III. Inspection Procedures
Section IV. Minimum Standards for Blocking, Anchors and Tie-downs
Section V. Installation Standards for New Manufactured Homes
Section VI. Installation Standards for Used Manufactured Homes
Section VII. Official Notices and Bulletins
Section VIII. Severability
Section IX. Repeal of Emergency Regulation MH-2009-2
Section IX. Effective Date

These are the Rules and Regulations for the Uniform Standards Code for Factory-Built Homes Law, Miss. Code Ann. §§ 75-49-1 through 75-49-21, as revised and amended by HB 1552, effective July 1, 2005, to bring the state statutes into compliance with the National Manufactured Home Construction and Safety Standards Act of 1974, (42 U.S.C.S. 5401, et seq.) and as amended by the Manufactured Housing Improvement Act of 2000.

I. PROMULGATION AND PURPOSE

Section 100. General

These Rules and Regulations for Factory-Built Homes are promulgated by the Commissioner of Insurance of the State of Mississippi acting through the Chief Deputy State Fire Marshal and the Factory-Built Home Division in accordance with the Uniform Standards Code for Factory-Built Homes Law and the Mississippi Administrative Procedures Act, Miss. Code Ann. § 25-43-1, et seq., as amended, and shall become effective after adopted and promulgated in accordance with the provisions of the Mississippi Administrative Procedures. This Regulation is being filed as a regulation pursuant to the provisions of House Bill 1435, 2008 Regular Legislative Session as codified in Miss. Code Ann. § 75-49-9(11); Miss. Code Ann. § 75-49-11 (Rev. 2008); and upon agreement between the Mississippi State Fire Marshal's Office, Factory Built Home Division ("Division") and the Department of Housing and Urban Development ("HUD"), which requires the Division to conduct installation inspections of Factory-Built Homes from and after July 1, 2009.

The purpose of these Rules and Regulations is to prevent the loss of life and property from fire and related hazards, and to restrict health hazards in Factory-Built homes by providing standards for construction, heating systems, and by requiring compliance with such standards during

construction, marketing, transportation, installation, anchoring and tie-down for Factory-Built homes in the State of Mississippi.

Section 101. Definitions

(A) "Manufactured home" means a structure defined by, and constructed in accordance with, the National Manufactured Housing Construction and Safety Standards Act of 1974, as amended, (42 U.S.C. Section 5401 et seq.), and manufactured after June 14, 1976.

(B) "Mobile home" means a structure manufactured before June 15, 1976, that is not constructed in accordance with the National Manufacture Housing Construction and Safety Standards Act of 1974, as amended, (42 U.S.C. Section 5401 et seq.). It is a structure that is transportable in one or more sections, that, in traveling mode, is eight (8) body feet or more in width and thirty-two (32) feet or more in length or when erected on site, is two hundred and fifty-six (256) or more square feet and that is built on a chassis and designed to be used as a dwelling unit with or without a permanent foundation when connected to the required utilities, and includes any plumbing, heating, air conditioning and electrical systems. A "mobile home" also includes any structure which meets all the requirements and complies with the standards established under this Regulation.

(C) "Modular home" means a structure which is: (i) transportable in one or more sections; (ii) designed to be used as a dwelling when connected to the required utilities, and includes plumbing, heating, air conditioning and electrical systems with the home; and (iii) certified by its manufacturers as being constructed in accordance with a nationally recognized building code.

(D) "Factory-built home" means a mobile home, manufactured home and a modular home.

(E) "Commissioner" means the Commissioner of Insurance of the State of Mississippi.

(F) "Chief Deputy State Fire Marshal" means the individual appointed by the Commissioner of Insurance, who, along with his employees, is designated by the Commissioner to implement and enforce this chapter and to maintain, among other duties, the Factory-Built Home Division of the Insurance Department.

(G) "Division" means the Factory-Built Home Division of the State Fire Marshal's Office.

(H) "Person" means any individual, firm, corporation, partnership, association or other type of business entity.

(I) "Retailer" means any person engaged in the retail sale of new or used manufactured, mobile or modular homes to the general public. Upon renewal of a license, a retailer must provide documentation to the Department of Insurance that he or she has at least three (3) available manufactured, mobile or modular homes on sales lot. A retailer shall be responsible for installation requirements for manufactured, mobile or modular housing as set forth in this Regulation.

(J) "Developer" means any person who buys factory-built homes and real estate and then offers to sell or lease to the general public land-home "package deals" consisting of a home with real estate. Upon renewal of a license, a developer must provide documentation to the Department of Insurance that he or she has at least five (5) available manufactured or modular home sites. A developer shall be responsible for installation requirements for manufactured or modular housing as set forth in Section IV of this Regulation.

(K) "Manufacturer" means any person engaged in the production (construction) of manufactured homes or modular homes.

(L) "Licensee" means any manufacturer, retailer, developer or installer/transporter who obtains a privilege license from the Factory-Built Home Division of the State Fire Marshal's Office of the Department of Insurance. The licensee shall comply with all laws of the State of Mississippi regarding factory-built homes.

(M) "Mississippi Department of Transportation (MDOT)" means the regulatory agency for transportation in the State of Mississippi. All licensees (manufacturers, retailers, developers or installer/transporters) shall comply with the requirements regarding transportation of factory-built homes under the jurisdiction of MDOT.

(N) "Independent contractor installer or transporter" means any person engaged for hire in the movement of, transportation, or both, or the installation, blocking, anchoring and tie-down of a factory-built home. An "independent contractor installer or transporter" shall not include persons who do not hold themselves out for hire to the general public for the purposes described in this definition. An independent contractor installer or transporter shall be responsible for installation requirements for manufactured, mobile or modular homes as set forth in Section IV of this Regulation.

(O) "Installation Property Locator Form" means a form submitted by any retailer, developer and installer/transporter who is engaged in the set-up (installation, blocking, anchoring and tie-down) of a factory-built home intended for human habitation to the Division within 72 hours (3 days) of the installation of home at the home site.

(P) "Inspection Decal" means the decal issued by the Division that is to be placed on all new and used factory-built homes at the time of a passed installation inspection by the inspector. The label is to be affixed near the HUD seal at the rear of the home.

(Q) "Truck Decal" means a decal to be issued and placed on both the driver and passenger doors of the transporter vehicle (toter) which transports (moves) the factory-built home. Escort vehicles are not required to have truck decals. The truck decal is to be placed near the DOT number on each door of the vehicle.

(R) "Installation" means completion of work done to stabilize, support, anchor, and close up a manufactured home and to join sections of a multi-section manufactured home, when

any such work is governed by the state installation standards that are certified as part of a qualifying installation program.

(S) "Set up" means any assembly or installation of a manufactured home onsite that includes aspects of work that are governed by this chapter.

(T) "General Liability Insurance" means a form of insurance that indemnifies against liability on account of injury to the person or property of another.

(U) "Surety Bond" means a type of bond which protects against loss due to the inability or refusal of an obligor to perform his or her contract.

(V) "New Manufactured Home" means a manufactured home as defined in § 75-49-3, which has never been the subject of a first sale for human habitation.

(W) "Used Manufactured Home" means a manufactured home or mobile home as defined in § 75-49-3 that has been the subject of a first sale for human habitation, whether within this state or elsewhere.

II. ADMINISTRATION

The Commissioner, acting through the Chief Deputy State Fire Marshal and the Factory-Built Home Division of the Insurance Department, is hereby charged with the administration of this Regulation. He may make and amend, alter or repeal, general rules and regulations of procedure for carrying into effect all provisions of this Regulation, for obtaining statistical data respecting manufactured, mobile and modular homes, and to prescribe means, methods and practices to make effective such provisions and he may make such investigations and inspection as in his judgment are necessary to enforce and administer this pursuant to the authority granted to him by Miss. Code Ann. § 75-49-11.

Section 200. Rules and Regulations

(A) Every manufacturer engaged in the production (construction) of manufactured, mobile, or modular homes within the State of Mississippi shall apply for and obtain a license from the Commissioner. The application for license must be accompanied by proof of financial responsibility for cargo loss or damage by providing documentation of the bonding and liability insurance requirements as required by Mississippi Department of Insurance Regulation MH-2008-1, and as same may be revised or amended.

(B) Every independent contractor installer or transporter who transports or installs new or used factory-built homes within the State of Mississippi shall apply for and obtain a license from the Commissioner. The application for license must be accompanied by proof of financial responsibility by providing documentation of the bonding and liability insurance requirements as required by Mississippi Department of Insurance Regulation MH-2008-1, and as same may be revised or amended.

(C) Every retailer or developer who sales, transports or installs new or used factory-built homes within the State of Mississippi shall apply for and obtain a license from the Commissioner. The application for license must be accompanied by proof of financial responsibility by providing documentation of the bonding and liability insurance requirements as required by Mississippi Department of Insurance Regulation MH-2008-1, and as same may be revised or amended.

(D) Any person as defined in Miss. Code Ann. 75-49-3(h) that repossesses and sells twelve (12) or more new or used factory-built homes within the fiscal year (July 1 through June 30) to be **relocated (moved) from the existing home site where the home was sited** immediately prior to repossession, shall apply for and obtain a retailer's or developer's license, unless the sale is contracted through a current licensed retailer or developer to insure that the factory-built home is installed and set-up by a licensed installer/transporter in compliance with the Division's rules and regulations. Upon license renewal, licensees are exempt from having three (3) units available for retailers; five (5) home sites for developers and from annual educational seminars. Other requirements for licensees are listed in Sections 203 and 204.

Any person as defined in Miss. Code Ann. § 75-49-3(h) who repossesses and sells new or used factory-built homes **that are not to be relocated or moved from the existing home-site** prior to repossession within the State of Mississippi, shall be exempt from obtaining a retailer's or developer's license.

(E) The Commissioner, upon application, may issue a temporary license to persons or companies who are non-residents of this state and who are otherwise licensed transporters or installers in other states. Such temporary license shall remain in force for a period not to exceed thirty (30) days, unless extended for an additional period of sixty (60) days by the Commissioner or until a contract to transport or install entered into during the period of the temporary license has been completed. Within five (5) days of any applicant delivery or beginning work as a transporter or installer under this section, the employer or person contracting with such person shall provide a copy of their installer license from out-of-state, proof of insurance and certify to the Commissioner such application without being deemed in violation of this Regulation.

(F) If a factory-built home is new, the applicant shall certify in the application to the Commissioner that the applicant will comply with the Construction Standards set forth under Rules and Regulations provided in Miss. Code Ann. § 75-49-5, and that the applicant has obtained a current and valid tax identification number.

(G) Applications shall be obtained from and submitted to the Commissioner on forms prescribed by the Commissioner.

(H) Pursuant to Miss. Code Ann. § 75-49-9, the original license fee and all annual renewals thereof shall be Two Hundred Fifty Dollars ($250.00) for manufacturing plants located within or without the State of Mississippi manufacturing or delivering homes for sale within the State of Mississippi and One Hundred Fifty Dollars ($150.00) per retailer

location and developer location within the State of Mississippi. The licensing fee for a factory-built home and/or modular independent contractor transporter or installer is One Hundred Dollars ($100.00) for each company. The fee for modular home plan review shall be Four Hundred Dollars ($400.00) per floor plan; however, this fee shall not apply to any modular home plan reviews completed before July 1, 1998. Except as otherwise provided in subsection (M) of this section, the license shall be valid for the current license period (July 1 through June 30) unless suspended or revoked.

(I) Every manufacturer, transporter or installer or retailer and developer who first sells, manufacturers, transports or installs a new or used factory-built home in this state, before such first construction, sale, transportation or installation, shall apply for and obtain a license from the Commissioner. The original license fee, registration fee, annual renewals, and any other required fee shall be paid to the Commissioner in such a manner as provided by the Commissioner. All funds received by the Commissioner shall be deposited in the State Treasury to the credit of the Department of Insurance.

(J) Every manufacturer of factory-built homes in the State shall pay a monitoring inspection fee to the Secretary of Housing and Urban Development, or the Secretary's Agent, for each manufactured home produced in the State by the manufacturer. The fee shall be in an amount established by the Secretary pursuant to the National Manufactured Home Construction and Safety Standards Act of 1974, (42 U.S.C.S. 5401, et seq.) and as amended by the Manufactured Housing Improvement Act of 2000. The portion of the fee which is returned to the State shall be deposited by the Commissioner in the State Treasury to the credit of the Department of Insurance.

(K) The Commissioner shall investigate and examine all applicants for all licenses by holding such hearings as he shall deem necessary or conducting investigations or examinations, or any combination thereof, as to the fitness or expertise of the applicant for the type of license for which the applicant applied. A license shall be granted only to a person who bears a good reputation for honesty, trustworthiness, integrity and competency to transact the business in such a manner as to safeguard the interest of the public and only after satisfactory proof of such qualifications has been presented to the Commissioner.

(L) The Commissioner shall take all applicants under consideration after having examined them through oral or written examinations, or both, before granting any license. If the applicant is an individual, examination may be taken by his personal appearance for examination or by the appearance for examination of one or more of his responsible, full time managing employees; and if a partnership or corporation or any other type of business or organization, by the examination of one or more of the responsible, full time managing officers or members of the executive staff of the applicant's firm. Every application by an individual for a license to manufacture, sell, transport or install factory-built homes, which include mobile homes, new or used manufactured homes and modular homes, shall be verified by the oath or affirmation of the applicant, and every such application by a partnership or corporation shall be verified by the oath or affirmation of a partner or an officer thereof. The applications for licenses shall be in such form and detail as the Commissioner shall prescribe.

(M) Pursuant to Miss. Code Ann. § 75-49-9(8), which states:

> "The commissioner shall take all applicants under consideration after having examined them through oral or written examinations, or both, before granting any license. If the applicant is an individual, examination may be taken by his personal appearance for examination or by the appearance for examination of one or more of his responsible, full-time managing employees…"

every independent contractor installer or transporter who transports or installs new or used factory-built homes within the State of Mississippi shall have passed a written examination (passing score of 70 or above). The examination shall consist of questions determined by the Commissioner to establish an applicant's knowledge related to the rules and regulations and administration relative to factory-built homes in the State of Mississippi and questions specifically related to the practical installation (anchoring, blocking, and tie-down) of factory-built homes in this state. The examination shall be provided by the Commissioner or by a testing service acting on behalf of the Commissioner. The applicant is responsible for registering with the testing service to schedule the examination and is responsible for all fees. The applicant shall follow all procedures established with regard to conduct at the examination. Failure to comply with all procedures established with regard to conduct at the examination may be grounds for denial of application.

Prior to the issuance of a privilege license, the applicant shall verify in writing and/or submit a copy of training certificate, that he has attended an approved eight (8) hour installation and set up training class pursuant to the Manufactured Housing Improvement Act of 2000.

(N) The holder of any valid license issued by the Commissioner at the time Miss. Code Ann. § 75-49-9(8) became effective shall be automatically issued an equivalent license in the same category for which his previous license was issued if the licensee is in compliance with this chapter.

(O) Pursuant to Miss. Code Ann. § 75-49-9(h), every license shall be issued annually and shall expire on June 30 following the date upon which it was issued. License fees shall not be prorated for the remainder of the year in which the application was made but shall be paid for the entire year regardless of the date of the application. The Commissioner shall on or before April 30 of each year, forward a "Notice of Renewal" by regular United States mail to each licensee at his or its last known mailing address.

After depositing the "Notice of Renewal" in the United States mail, the Commissioner shall have no other duty or obligation to notify the licensee of the expiration of his or its annual license. The failure of the licensee to obtain a renewal license on or before June 30 of the ensuing license period shall act as an automatic suspension of the license unless the Commissioner, for good cause shown in writing and the payment of an amount equal to double the renewal fee for said delinquency, lifts the suspension and issues the renewal

license. During the period of suspension, any practice by the licensee under the color of such license shall be deemed a violation.

All applicants and licensees shall comply with the bonding and/or general liability requirements as established by Miss. Code Ann. § 75-49-11 (Rev. 2008), and Mississippi Department of Insurance Regulation MH-2008-1, and as same may be revised and amended.

Annual renewals of a retailer's license shall require, as a condition precedent, that the retailer verify by oath or affirmation that he maintains a retail sales lot in accordance with all rules and regulations promulgated by the Commissioner and that the lot has three (3) or more new or used factory-built homes located thereon for retail sale as a residential dwelling or for any other use at the time of application. Annual renewals of a developer's license shall require, as a condition precedent, that the developer verify and submit a copy of legal documentation indicating that the developer has five (5) or more locations for a factory-built home/land package.

With annual renewal applications, it shall be the responsibility of each retailer, developer and installer/transporter to request in writing the number of truck decals needed for their transporter vehicles (toter). A decal is to be placed on the driver and passengers doors of each transporter vehicle. Escort vehicles are not required to have decals.

(P) Any company/individual who is found to be operating without an appropriate privilege license in the State of Mississippi shall:

(1) Show good cause in writing to the Factory-Built Home Division of the State Fire Marshal's Office why this violation occurred and the approximate number of homes sold prior to obtaining a privilege license.

(2) Request a retailer's and/or developer's privilege license application. This application is to be returned, signed and notarized with a check for $150.00 payable to the Office of the State Fire Marshal.

(3) Set an inspection date with the State Fire Marshal's Office which is required to verify compliance with this chapter prior to issuance of license.

(4) Be subject to penalties as set forth in Miss. Code Ann. §75-49-19.

(Q) All inspectors conducting an inspection pursuant to Regulation MH-2009-1, as amended, shall permanently attach a serial numbered inspection decal near the HUD label on new or used factory-built homes built after June 1976, and opposite the hitch-end of mobile homes built prior to or on June 1976, an inspection decal to each manufactured or mobile home accepted as having been installed in accordance with the manufacturer's specification, the authority having jurisdiction in coded areas or in the absence of an installation manual, the State of Mississippi's rules and regulations.

The State Fire Marshal's Office will supply inspection decals to each inspector.

(R) No retailer, developer, transporter or installer shall deliver or cause to be delivered any factory-built home to any person at any site where such home is to be used for human habitation without anchoring and blocking such home in accordance with rules, regulations and procedures promulgated by the Commissioner of Insurance. A period of thirty (30) days from date of delivery shall be allowed for the anchoring and blocking of homes. This requirement is provided for in Miss. Code Ann. 75-4-9(2).

To ensure compliance with Section 75-4-9(2), it shall be the responsibility of each manufacturer, retailer, developer and installer/transporter to submit a Installation Property Locator form to the Factory-Built Home Division of the State Fire Marshal's Office for all factory-built, manufactured, mobile or modular homes that is scheduled to be delivered or installed within seventy-two (72) hours (3 days) of the installation of home during regular business hours. The Installation Property Locator form is to enable the Factory-Built Home Division to conduct random inspections as required according to the Division. The report must include:

(1) The retailer/developer's name, license number, address, telephone number, and fax number;

(2) The installer/transporter's name, address, telephone number, and fax number;

(3) The homeowner's name, address, telephone number, county where home is located, date and time of installation;

(4) The serial number of home, size of home, HUD number, Wind Zone, year/make/model of home, new or used, and the manufacturer of the home;

(5) Directions to the home; and,

(6) A map showing directions to the home-site from a known starting point.

Nothing contained herein shall restrict or limit the customer's option of independently contracting with a properly licensed transporter or installer for set-up and installation rather than purchasing transportation and installation services from the retailer or developer.

(S) It shall be the responsibility of each installer/transporter that transports or installs a home to submit a report to the Factory-Built Home Division of the State Fire Marshal's Office for all factory-built, manufactured, mobile or modular homes delivered or installed within seventy-two (72) hours of installation. **This report is required for new and used homes that are transported or installed by an installer/transporter for someone other than a licensed retailer or developer**. The report must include:

(1) The retailer/developer's name, license number, address, telephone number, and

fax number;

(2) The installer/transporter's name, address, telephone number, and fax number;

(3) The homeowner's name, address, telephone number, county where home is located, date and time of installation;

(4) The serial number of home, size of home, HUD number, Wind Zone, year/make/model of home, new or used, and the manufacturer of the home;

(5) Directions to the home; and

(6) A map showing directions to the home-site from a known starting point.

The State Fire Marshal's Office will devise an acceptable form for reporting purposes for designated licensees as mentioned above. The report shall be submitted to the State Fire Marshal's Office by fax or mail within seventy-two (72) hours of delivery.

(T) All installers shall comply with the Mississippi Manufactured Home Installation Program as set forth in Mississippi Department of Insurance Regulation MH-2009-1, as same may be revised or amended.

Section 201. License Exceptions

Pursuant to Miss. Code Ann. §75-49-5, the following entities or individuals are not required to have a privilege license:

1. An individual installing the manufactured home is the owner thereof, or the manufactured home is owned by a member of the individual's family, and the home is not intended for sale, exchange, lease or rent;
2. An individual performing maintenance, repairs, or corrections to an installation for the purpose of customer service on behalf of manufacturers, retailers or developers;
3. A transporter that conducts interstate transport through the State of Mississippi for manufacturers, retailers or developers and does not install at home sites intended for human habitation.

Section 202. Manufacturers

(A) All manufacturer applicants shall certify in the application that they will fully comply with 24 CFR 3280 and CFR 3282 of the National Manufactured Home Construction Safety Standards Act of 1974, (42 U.S.C.S. 5401 et seq.) and as amended by the Manufactured Housing Improvement Act of 2000, as same may be revised or amended; and as set forth pursuant to Miss. Code Ann. §§ 75-49-5 and 75-49-11, as amended.

(B) All manufacturers of modular homes shall certify in the application that they will fully

comply with the Regulation Number ME-2 for the Uniform Standards Code for the Factory-Built Homes Law as Related to Modular Homes.

Section 203. Retailers

In order to protect the health, safety and welfare of the public of this state, each applicant for a retailer's license shall:

(A) Demonstrate to the Commissioner that he has a good general working mechanical knowledge of factory-built manufactured home construction and repair;

(B) Demonstrate to the Commissioner that he has a good practical working knowledge of the manner in which factory-built homes are anchored and blocked in accordance with rules, regulations and procedures promulgated by the Commissioner;

(C) Demonstrate to the Commissioner that he shall have or has adequate facilities for the repair and servicing of factory-built homes and storage of parts and accessories and has at least one operable service truck. If, however, the retailer is contracting out all installation, repair and service, then he shall provide a duplicate of the executed contract to the Commissioner and said contract shall contain a clause stating that the Commissioner shall be notified thirty (30) days in advance of its cancellation.

(D) Demonstrate to the Commissioner that he has adequate space to display his factory-built homes at each sales lot and that he has or shall maintain a permanent sales office located at each of those sales lots with running water and sewer facilities for public comfort and convenience and to comply with the county health department regulations and other applicable safety standards for a permanent sales site in the county or municipality in which they are located. Nothing in this Regulation shall prohibit a licensed Mississippi permanent retailer sales center from conducting a temporary promotional activity to retail consumers at a location other than its licensed permanent retailer location center if:

(1) The activity does not exceed seventeen (17) consecutive days in duration and is not repeated at that location within the next six (6) months;

(2) The activity is within the county in which the retailer sales center has a permanent license or within fifty (50) miles radius of the location of the permanent licensed Mississippi sales center location, whichever is greater;

(3) The temporary promotional site has:

(a) running water and sewer facilities for public comfort and convenience and to comply with the health and safety standards as well as other local ordinance requirements for a temporary sales site in the county or municipality in which the site is located;

(b) if running water and sewer facilities are not fully accessible to the public at

the site during the operation of the promotional event, then other arrangements must be made to ensure compliance to Section D (3)(a);

(4) The temporary promotional site has a sign at least four (4) feet by eight (8) feet in size with lettering at least twelve (12) inches high advising the public that this is a temporary location and designating the address of the permanent licensed sales center retailer location, with the sign to be prominently located on the temporary promotional site for viewing by the public. This sign cannot be placed on a public right-of-way, and it must be placed in the display area where the event is held;

(5) There is adequate space to display the factory-built homes at the temporary promotional site; and,

(6) A license must be is granted by the Commissioner for each temporary promotional site where employees or agents of the retailer meet the public regardless of whether or not sales will be made on site;

(7) The licensed Mississippi retailer shall provide a thirty (30) day advance notice to the Factory-Built Home Division of the State Fire Marshal's Office for the purpose of license application, all counties or municipalities, permits and site inspection. The license will only be good for the seventeen (17) day time frame requested.

(8) The licensed Mississippi retailer shall submit its application for a license to the Factory-Built Home Division of the State Fire Marshal's Office at least thirty (30) days prior to the proposed effective date of the temporary promotional event. The failure to submit the license application at least thirty (30) days in advance can serve as a basis for denial of a license. Any license issued will only be valid for the seventeen (17) day time-frame or any shorter period of time requested. Any license issued will only be effective for that period of time [actual days] in which sales are actively solicited or the period of time in which the homes are promoted by the retailer.

(E) Demonstrate to the Commissioner that he has a good general knowledge of and will comply with the requirements of the National Manufactured Home Construction and Safety Standards Act of 1974, (42 U.S.C.S. 5401 et seq.), as amended, and as amended by the Manufactured Housing Improvement Act of 2000, and the rules and regulations promulgated by the Department of Insurance for the State of Mississippi and by the Department of Housing and Urban Development as they pertain to the responsibilities of a retailer to properly safeguard the public interest in that no retailer or developer shall make use of transportation affecting interstate or foreign commerce or the mails to sell, lease, or offer for sale or lease in the State of Mississippi any factory-built home unless the developer or retailer, acting as a reasonable developer or retailer, does not know that the factory-built home does not conform to applicable standards. This prohibition of sale applies to any affected manufactured homes until the completion of the entire sales transaction. A sales transaction with a purchaser is considered completed when all the

goods and service that the retailer has agreed to provide at the time the contract was entered into have been provided. Completion of a retail sale will be at the time the retailer completes setup of the factory-built home if the retailer has agreed to provide setup, if the retailer has not agreed to transport or setup the factory-built home, this prohibition of sale does not apply; and ensure that within one (1) year of employment, all sales staff will attend eight (8) hours training and thereafter, attend eight (8) hours training every three (3) years to be approved and/or provided by the Factory-Built Home Division. (Display current training certificates of all sales staff at the retailer's current business location.) The employer of sales staff is responsible for submitting in writing to the Factory-Built Home Division a list of all sales staff and their date of employment.

With annual renewal applications, all copies of approved certificates of training shall be submitted by the retailer for their sales staff to the Factory-Built Home Division and affirmation in writing, as required by the Division, as having three (3) factory-built homes on retail lot.

With annual renewal applications, it shall be the responsibility of each retailer to request in writing the number of truck decals needed for their transporter (toter) vehicles. A decal is to be placed on the driver and passengers doors of each transporter vehicle. Escort vehicles are not required to have decals.

(F) To ensure compliance with Miss. Code Ann. § 75-4-9(2), it shall be the responsibility of each retailer to submit an Installation Property Locator form to the Factory-Built Home Division of the State Fire Marshal's Office for all factory-built, manufactured, mobile or modular homes that is scheduled to be delivered or installed within seventy-two (72) hours of installation. The Installation Property Locator form is to enable the Factory-Built Home Division to conduct inspections as required according to the Division. The form must include:

(1) The retailer/developer's name, license number, address, telephone number, and fax number;

(2) The installer/transporter's name, address, telephone number, and fax number;

(3) The homeowner's name, address, telephone number, county where home is located, date and time of installation;

(4) The serial number of home, size of home, HUD number, Wind Zone, year/make/model of home, new or used, and the manufacturer of the home;

(5) Directions to the home; and

(6) A map showing directions to the home-site from a known starting point.

The State Fire Marshal's Office will devise an acceptable form for reporting purposes for designated licensees as mentioned above. The report shall be submitted to the State Fire

Marshal's Office by fax or mail within seventy-two (72) hours of delivery.

Section 204. Developers

In order to protect the health, safety and welfare of the public of this state, each applicant for a developer's license shall:

(A) Demonstrate to the Commissioner that he has a good general working mechanical knowledge of factory-built home construction and repair;

(B) Demonstrate to the Commissioner that he has a good practical working knowledge of the manner in which factory-built homes are anchored and blocked in accordance with rules, regulations and procedures promulgated by the Commissioner;

(C) Demonstrate to the Commissioner that he shall have or has adequate facilities for the repair and servicing of factory-built homes and storage of parts and accessories and has at least one operable service truck. If, however, the developer is contracting out all installation, repair and service, then he shall provide a duplicate of the executed contract to the Commissioner and said contract shall contain a clause stating that the Commissioner shall be notified 30 days in advance of its cancellation.

(D) Demonstrate to the Commissioner that he has an adequate space to display his factory-built homes at each development site and that he has or shall maintain a permanent sales/business office within the State of Mississippi with running water and sewer facilities for public comfort and convenience and to comply with the county health department regulations and other applicable safety standards for a permanent structure in the county or municipality in which they are located.

(E) Demonstrate to the Commissioner that he has a good general knowledge of and will comply with the requirements of the National Manufactured Home Construction and Safety Standards Act of 1974, (42 U.S.C.S. 5401 et seq.), as amended, and as amended by the Manufactured Housing Improvement Act of 2000, and the rules and regulations promulgated by the Department of Housing and Urban Development as they pertain to the responsibilities of a developer to properly safeguard the public interest in that no distributor, or developer shall make use of transportation affecting interstate or foreign commerce or the mails to sell, lease, or offer for sale or lease in the State of Mississippi any factory-built home unless the distributor or retailer, acting as a reasonable distributor or developer, does not know that the factory-built home does not conform to applicable standards. This prohibition of sale applies to any affected factory-built homes until the completion of the entire sales transaction. A sales transaction with a purchaser is considered completed when all the goods and service that the developer has agreed to provide at the time the contract was entered into have been provided. Completion of a retail sale will be at the time the developer completes setup of the factory-built home if the developer has agreed to provide setup, if the developer has not agreed to transport or setup the factory-built home, this prohibition of sale does not apply; and ensure that within one (1) year of employment, all sales staff will attend eight (8) hours training, and

thereafter, attend eight (8) hours training every three (3) years to be approved and/or provided by the Factory-Built Home Division. (Display current training certificates of all sales staff at the developer's current business location.)

With annual renewal applications, all copies of approved certificates of training shall be submitted by the developer for their sales staff to the Factory-Built Home Division and affirmation in writing, as required by the Division, as having five (5) factory-built home sites available.

With annual renewal applications, it shall be the responsibility of each developer to request in writing the number of truck decals needed for their transporter (toter) vehicles. A decal is to be placed on the driver and passengers doors of each transporter vehicle. Escort vehicles are not required to have decals.

(F) To ensure compliance with Miss. Code Ann. § 75-49-9(2), it shall be the responsibility of each developer to submit an Installation Property Locator form to the Factory-Built Home Division of the State Fire Marshal's Office for all factory-built, manufactured, mobile or modular homes that is scheduled to be delivered or installed within seventy-two (72) hours of installation. The Installation Property Locator form is to enable the Factory-Built Home Division to conduct random inspections as required according to the Division. The form must include:

(1) The retailer/developer's name, license number, address, telephone number, and fax number;

(2) The installer/transporter's name, address, telephone number, and fax number;

(3) The homeowner's name, address, telephone number, county where home is located, date and time of installation;

(4) The serial number of home, size of home, HUD number, Wind Zone, year/make/model of home, new or used, and the manufacturer of the home;

(5) Directions to the home; and

(6) A map showing directions to the home-site from a known starting point.

The State Fire Marshal's Office will devise an acceptable form for reporting purposes for designated licensees as mentioned above. The report shall be submitted to the State Fire Marshal's Office by fax or mail within seventy-two (72) hours of delivery.

Section 205. Independent Contractor Installer or Transporter

In order to protect the Health, Safety and Welfare of the public of this State, each applicant for an independent contractor installer or transporter license shall:

(A) Demonstrate to the Commissioner that he has a good general working mechanical knowledge of factory-built home construction and repair;

(B) Demonstrate to the Commissioner that he has a good practical working knowledge of the manner in which factory-built homes are anchored and blocked, in accordance with rules, regulations and procedures promulgated by the Commissioner and the National Manufactured Home Construction and Safety Standards Act of 1974, (42 U.S.C.S. 5401 et seq.), as amended and the Manufactured Housing Improvement Act of 2000;

(C) Demonstrate to the Commissioner that he has a good general knowledge of and will comply with the requirements of the National Manufactured Home Construction and Safety Standards Act of 1974, (42 U.S.C.S. 5401 et seq.), as amended, and the Manufactured Housing Improvement Act of 2000, and the rules and regulations promulgated by the Department of Housing and Urban Development as they pertain to the responsibilities of installers or transporters to properly safeguard the public interest;

(D) Demonstrate to the Commissioner that he is in full compliance with the Mississippi Department of Transportation (MDOT) and any local requirements pertaining to the transportation of factory-built homes;

(E) Demonstrate to the Commissioner that he has submitted a copy of his approved eight (8) hour installation and set up training certificate to the Factory-Built Home Division pursuant to the Manufactured Housing Improvement Act of 2000.

(F) Demonstrate to the Commissioner that he has passed a written examination (passing score of 70 or above) provided by the Commissioner or by a testing service acting on behalf of the Commissioner to establish an applicant's knowledge related to the rules and regulations and administration relative to factory-built homes in the State of Mississippi and questions specifically related to the practical installation (anchoring, blocking, and tie-down) of factory-built homes in this state.

(G) Demonstrate to the Commissioner that he and all employees engaged in installation/set-up will attend eight (8) hours of training per licensing year (July 1 to June 30) as provided by, approved by, or recommended by the Factory-Built Home Division of the State Fire Marshal's Office. The Commissioner of Insurance or the State Chief Deputy Fire Marshal may at his discretion consent to reciprocity for training of licensees with other states that has established training programs that meet or exceed the National Manufactured Home Construction and Safety Standards Act or State of Mississippi requirements of this chapter.

(H) Installer/transporters who conduct secondary moves of factory-built homes shall have a written contract with the consumer and the installer/transporter will maintain a copy of the said contract on file for a period of not less than twelve (12) months. These copies shall be available for random inspections by the Factory-Built Home Division pursuant to Miss. Code Ann. § 75-49-5.

(I) All installer/transporters who install new or used factory-built homes or modular homes shall be required to display a license decal on the driver's and passenger's doors of all trucks (toters). The original decals will be issued by the State Fire Marshal's Office/Factory-Built Home Division, based upon the number requested by the licensee at time of renewal. Any additional decals required by the licensee will have to be purchased from the Division at the cost of production of the decals. These decals shall denote the current date of the licensing period. A decal must be placed on the driver's door and the passenger's door of the vehicle in plain view to verify current license.

(J) All independent contract installers retained by homeowners, retailers, developers or manufacturers shall be subject to the fines as set forth in this chapter for the improper installation of mobile, factory-built or modular homes, upon the receipt of verifiable information from any source

(K) To ensure compliance with Miss. Code Ann. §75-4-9(2), it shall be the responsibility of each installer/transporter to submit an Installation Property Locator form to the Factory-Built Home Division of the State Fire Marshal's Office for all factory-built, manufactured, mobile or modular homes that is scheduled to be delivered or installed within seventy-two (72) hours of installation. The Installation Property Locator form is to enable the Factory-Built Home Division to conduct random inspections as required according to the Division. The report must include:

(i) The retailer/developer's name, license number, address, telephone number, and fax number;

(ii) The installer/transporter's name, address, telephone number, and fax number;

(iii) The homeowner's name, address, telephone number, county where home is located, date and time of installation;

(iv) The serial number of home, size of home, HUD number, Wind Zone, year/make/model of home, new or used, and the manufacturer of the home;

(v) Directions to the home; and

(vi) A map showing directions to the home-site from a known starting point.

The State Fire Marshal's Office will devise an acceptable form for reporting purposes for designated licensees as mentioned above. The report shall be submitted to the State Fire Marshal's Office by fax or mail within seventy-two (72) hours of delivery.

(L) With annual renewal application, copies of approved certificates of training and contracts shall be submitted by the installer/transporter to the Factory-Built Home Division. It shall be the responsibility of each installer/transporter to request in writing the number of

truck decals needed for their transporter vehicles (toters). A decal is to be placed on the driver and passenger doors of each transporter vehicle. Escort vehicles are not required to have decals.

III. INSPECTION PROCEDURES

(A) The Factory-Built Home Division of the State Fire Marshal's Office shall periodically inspect each manufacturing location to assist and insure that factory-built homes are being constructed in compliance with the National Manufactured Housing Construction and Safety Standards Act of 1974, as amended, (42 U.S.C.S. 5401 et seq.), the Manufactured Housing Improvement Act of 2000 as amended, as well as the governing federal regulations pertaining to manufactured housing construction.

(B) In the interest of public safety, deputy state fire marshals, who are certified law enforcement officers, are duly authorized to stop and conduct inspections of installer/transporters that are transporting factory-built homes to verify compliance with Miss. Code Ann. §§ 75-49-9 and 75-49-19 and this Regulation.

(C) The Factory-Built Home Division of the State Fire Marshal's Office shall periodically inspect each retailer and developer location to insure that factory-built homes offered for sale comply with the National Manufactured Housing Construction and Safety Standards Act of 1974, as Amended, (42 U.S.C.S. 5401, et seq.), and the Manufactured Housing Improvement Act of 2000, pertinent federal regulations, as well as this Regulation.

(D) Results of the inspection may be made available to manufacturers, retailers or developers upon request. When serious violations are found on HUD certified units, the Factory-Built Home Division of the State Fire Marshal's Office shall immediately attach a non-compliance identification tag to the unit in question.

(E) It shall be a violation of this Regulation for any factory-built home to be sold or offered for sale which has a non-compliance identification tag attached. The wording on such tag shall be as follows:

"This unit, having been found to be in **NON-COMPLIANCE** with the Uniform Standards Code for Factory-Built Homes Law and having been so identified, shall not be sold or offered for sale in the State of Mississippi. Anyone tampering with or removing this Identification Tag from this unit will be prosecuted as set forth in this Act, and shall be subject to revocation of his license."

(F) A non compliance identification tag attached to a unit may be removed only by the Factory-Built Home Division of the State Fire Marshal's Office. Such tag shall be completed as required thereon.

(G) When the State Fire Marshal has reasonable grounds to believe that a unit has been constructed in non-compliance with these standards, he may require, at the manufacturers' expense, that the walls, floors, decking or other panels be removed for the

purpose of inspection.

(H) Units having been identified as being in non-compliance with these Rules and Regulations and having a non-compliance tag attached may be transported and relocated only after notice has been given to the Factory-Built Home Division of the State Fire Marshal's Office. Such notice will set forth the purpose for moving such unit, to whom the unit is to be delivered along with complete mailing address and telephone number, serial number, HUD label number and any other information as may be requested.

(I) When such violation(s) have been corrected, the unit in question shall be re inspected by the Factory-Built Home Division of the State Fire Marshal's Office and if found in compliance with the National Manufactured Home Construction and Safety Standards Act, the Manufactured Housing Improvement Act of 2000 and this Regulation, the inspector shall remove the non-compliance identification tag. The unit can then be sold or offered for sale.

(J) All factory-built homes, which include new or used manufactured homes, mobile or modular homes, delivered by retailers, developers or independent contractor installers or transporters to any site where such home is to be used for human habitation shall be anchored and blocked in accordance with Mississippi Manufactured Home Installation Program, as administered by the Factory-Built Home Division of the State Fire Marshal's Office; this Regulation; and Miss. Code Ann. § 75-49-7.

(K) The Factory-Built Home Division of the State Fire Marshal's Office shall periodically inspect site locations where factory-built homes, which include new and used manufactured homes and modular or mobile homes, have been delivered by retailers, developers or independent contractor installers or transporters when such home is to be used for human habitation to insure that the home is tied down, anchored and blocked in accordance with Mississippi Manufactured Home Installation Program, as administered by the Factory-Built Home Division of the State Fire Marshal's Office; this Regulation; and Miss. Code Ann. § 75-49-7.

(L) In cases of complaints of improper installation and set-up of new or used manufactured, modular or mobile homes lodged against retailers, developers, or installers/transporters, the Factory-Built Home Division of the State Fire Marshal's Office will conduct the necessary inspections and investigations of problems reported during the first twelve (12) months from the date the home is sited at the location intended for human habitation and the date on the installation decal affixed to the factory-built home by the installer/transporter to be in full compliance with Miss. Code Ann. § 75-49-7(2).

(M) Manufactured Home Plants located in the State of Mississippi, Manufactured Home Retail Sales Lots, developers, and Independent Contractor Installers or Transporters business locations and equipment shall be subject to inspection by the State Chief Deputy Fire Marshal, State Deputy Fire Marshals or Duly Authorized Representative as may be required to insure Compliance with Miss. Code Ann. § 75-49-11, as amended, all applicable federal statutes and regulations as well as this Regulation.

(N) The Factory-Built Home Division of the State Fire Marshal's Office when scheduling a site inspection regarding a consumer complaint the manufacturer, retailer, developer, and installer/transporter licensee shall be present for each such inspection. If the licensee is unable to attend the site inspection, his duly authorized representative shall be a person employed by the licensee with authority make decisions regarding corrective action and remedial plans if required.

(O) When any provision of Miss. Code Ann. §§ 75-49-1 through 75-49-21, as amended, is violated, the State Chief Deputy Fire Marshal, State Deputy Fire Marshals or Duly Authorized Representative shall file appropriate action as set forth in Miss. Code Ann. § 75-49-19. The penalties include:

(1) Any person who knowingly and willfully violates any of the provisions of this chapter or any rules and regulations made hereunder shall be liable to the State of Mississippi for a civil penalty of not more than One Thousand Dollars ($1,000.00) for each such violation. Each violation of a provision of this chapter or a rule or regulation made hereunder shall constitute a separate violation with respect to each factory-built home or with respect to each failure or refusal to allow or perform an act required thereby, except that the maximum civil penalty may not exceed one million dollars (1,000,000.00) for any related series of violations occurring within one (1) year from the date of the first violation.

(2) An individual, or a director, officer or agent of a corporation, who knowingly and willfully violates any of the provisions of this chapter or any rules and regulations made hereunder in a manner which threatens the health and safety of any purchaser of a factory-built home is guilty of a misdemeanor and, upon conviction thereof, shall be fined not more than one thousand dollars ($1,000.00) or imprisoned not more than one (1) year, or both.

(3) This shall not apply to any person who establishes that he did not have reason to know in the exercise of due care that such factory-built home is not in conformity with applicable factory-built construction and safety standards, or to any person who, before to such first purchase, holds a certificate issued by the manufacturer or importer of such factory-built home to the effect that such factory-built home conforms to all applicable factory-built home construction and safety standards, unless such person knows that such factory-built home does not so conform.

(4) An individual, or director, officer or agent of a corporation, who knowingly and willfully fails to obtain the applicable license under this chapter and who is required to obtain such a license under this chapter, and who may knowingly and willfully violate any provisions of this chapter or any rules and regulations made hereafter with respect to the manufacture or, selling or distribution of, safe anchoring and blocking of a factory-built home when

intended to be used for human habitation is guilty of a misdemeanor and, upon conviction thereof, shall be fined not more than One Thousand Dollars ($1,000.00) or imprisoned not more than one (1) year, or both.

Whenever the State Chief Deputy Fire Marshal or State Deputy Fire Marshal has probable cause to believe that any person knowingly and willingly violates any of the provisions of this chapter or any rule or regulation made hereunder shall be liable to the State of Mississippi for a civil penalty of not more than $1,000.00 for each such violation. Miss. Code Ann. § 75-49-19(1)

Each violation of a provision of this chapter or a rule or regulation made hereunder shall constitute a separate violation with respect to each factory-built home or with respect to each failure or refusal to allow or perform an act require thereby, except that the maximum civil penalty may not exceed one million dollars ($1,000,000.00) for any related series of violations occurring within one year of the date of the first violation.

The schedule for civil penalties is listed below:

1. First Offense $250.00 per violation;

2. Second Offense within twelve (12) months of the first offense $500.00 per violation;

3. Third Offense within twelve (12) months of the first offense $1000.00 per violation.

4. In lieu of the civil penalty and making the required corrections, the licensee has the option to request an administrative hearing.

(P) An administrative review of all privilege licenses issued pursuant to Miss. Code Ann. § 75-49-9(7), shall be conducted upon receipt of any verifiable complaint(s) of any nature that exceed sixty (60) days in length without resolution, which may lead to a possible licensure hearing (hereafter known as the Dispute Resolution Program) pursuant to Miss. Code Ann. § 75-49-13, as amended. The sixty (60) day period shall not serve as a mandatory waiting period, and in the appropriate case the Commissioner may, at his discretion, schedule a licensure hearing prior to the expiration of sixty (60) days. The procedures set forth in Miss. Code Ann. § 75-49-13 for hearings and appeals shall govern the Dispute Resolution Program.

(Q) The Dispute Resolution Program shall also address the following:

(1) The timely resolution of disputes among manufactures, retailers, or installers regarding responsibility for correction and repair of defects in manufactured homes;
(2) The issuance of appropriate orders for correction and repair of defects in such homes; and,
(3) Any dispute regarding defects in the manufactured home that are reported within

one (1) year after the date of first installation.

(R) Nothing in this Regulation shall prohibit informal disposition by settlement or consent order, i.e., an order based upon an agreement in writing, between the parties in lieu of an administrative hearing.

IV. MINIMUM STANDARDS FOR BLOCKING, ANCHORS, AND TIE DOWNS

Any local government (county or municipality) which has adopted the latest edition and Appendices of the Southern Building Code published by the Southern Building Code Congress International or the International Residential Code for One and Two-Family Dwellings as published by the International Code Council (ICC) or the board of supervisors of any county who has adopted Miss. Code Ann. § 75-49-21, will be regarded by the Factory-Built Home Division of the State Fire Marshal's Office as being in full compliance with these Rules and Regulations of the "Uniform Standards Code for Factory-Built Homes Law", provided said codes meet or exceed federal requirements, and as such will assume responsibility for local code enforcement for the installation, blocking, anchoring and tie-downs, and inspection procedures to ensure compliance with the National Manufactured Home Construction and Safety Standards Act, of factory-built homes, which are defined as manufactured, mobile or modular homes within their respected jurisdictions. Additionally, homes that are installed and set-up in accordance with federal guidelines required to meet the financing criteria of a federal agency are regarded by the Factory-Built Home Division of the State Fire Marshal's Office as being in full compliance. However, the Factory-Built Home Division of the State Fire Marshal's Office is the State Administrative Agency for the Department of Housing and Urban Development and installation and set-up compliance shall be monitored pursuant to the Division's "Mississippi Manufactured Home Installation Program" and Mississippi Department of Insurance Regulation MH-2009-1, as amended.

Minimum standards for blocking, anchors and tie-downs for factory-built, manufactured, mobile or modular homes in non-coded areas of the state, when delivered to a home site location in the State of Mississippi, where they are intended to be used for human habitation shall be installed in accordance with the Mississippi Manufactured Home Installation Program; Mississippi Department of Insurance Regulation MH-2009-1, as amended; and any and all applicable state and federal Rules and Regulations, so as to prevent loss of life and property from wind storms and related hazards. A period of thirty (30) days from the date of delivery is allowed for blocking and anchoring of the home.

"Non-coded area" means any local jurisdiction (county or municipality) who have not adopted the latest edition and Appendices of the International Building Code published by the International Code Council or Southern Building Code published by the Southern Building Code Congress International or the board of supervisors of any county who has not adopted Miss. Code Ann. § 75-49-21, or other recognized building codes or portion thereof.

"Human habitation" shall mean any manufactured, mobile or modular home which is wholly or partly used or intended to be used for living or sleeping by human occupants.

(A) All new and used factory-built homes shall be installed in compliance with the set-up/installation instructions manual, in accordance with Federal Manufactured Home Construction and Safety Standards, 24 CFR Section 3280.306, Windstorm protection support and anchoring systems as follows: (a) Provisions for support and anchoring systems. Each factory-built home shall have provisions for support/anchoring or foundation systems that, when properly designed and installed, will resist overturning and lateral movement (sliding) of the factory-built home as imposed by the respective design loads. For Wind Zone I, the design wind loads to be used for calculating resistance to overturning and lateral movement shall be the simultaneous application of the wind loads indicated in Section 3280.305 (c)(1)(i), increased by a factor of 1.5 [D 7 76]. The 1.5 factor of safety for Wind Zone I is also applied simultaneously to both the vertical building projection, as horizontal wind load, and across the surface of the full roof structure, as uplift loading. For Wind Zones II and III, the resistance shall be determined by the simultaneous application of the horizontal drag and uplift wind loads, in accordance with Section 3280.305 (c)(1)(ii). The basic allowable stresses of materials required to resist overturning and lateral movement shall not be increased in the design and proportioning of these members. No additional shape or location factors need to be applied in the design of the tie down system. The dead load of the structure may be used to resist these wind loading effects in all Wind Zones.

(B) Used factory-built homes not provided with such set-up/installation instruction manuals, and not provided with instructions shall comply with the specifications listed under Section V., Mississippi Manufactured Home Installation Program Standards, below.

(C) Manufactured or mobile homes, both new and used, built after July 13, 1994 that conform to Wind Zone I ratings only, cannot be installed within a designated Wind Zone II area, unless approved by the county or municipality having jurisdiction within the Wind Zone II area. The Wind Zone II area for homes manufactured after July 13, 1994, consists of the following counties: Hancock, Harrison, Jackson, George, Pearl River, and Stone.

(D) For used manufactured or mobile homes that were built prior to July 13, 1994, the following shall apply, If the manufactured home or mobile was built to the HUD Hurricane Zone rating that existed prior to July 13, 1994, it may be installed in one of the post July 13, 1994, counties that are listed in No. 3 above. For reference, HUD designated Hurricane Zone counties that existed prior to July 13, 1994, were as follows: Hancock, Harrison, Jackson, George, Pearl River, Stone, Greene, Perry, Forrest, Lamar, Marion, Walthall, Pike, Amite, and Wilkinson. However, if the county or municipality having jurisdiction within the post-July 13, 1994, Wind Zone II area has adopted more restrictive requirements that would prohibit the installation of a pre July 13, 1994 Hurricane Zone house, then the requirements of such county or municipality shall govern.

V. INSTALLATION STANDARDS FOR NEW MANUFACTURED HOMES

The Mississippi Manufactured Home Installation Inspection Program ("Installation Program") is established in Mississippi Department of Insurance Regulation MH-2009-1, the same as may be

revised and amended, and sets forth the requirements by which manufacturers, retailers, distributors, installers, and installation inspectors will be held accountable for assuring the appropriate installation of new manufactured homes within the State of Mississippi. The Mississippi Manufactured Home Installation Program Standards ("Installation Standards") are the standards and requirements as set forth by the National Manufactured Housing Construction and Safety Standards Act of 1974, as amended (42 USCS 5401 et seq.) and as amended by the Manufactured Housing Improvement Act of 2000, and as same may be revised and amended, and are more fully set forth in Exhibit "A" of this Regulation, which is hereby incorporated by reference.

VI. INSTALLATION STANDARDS FOR USED MANUFACTURED HOMES

The Mississippi Manufactured Home Installation Inspection Program ("Installation Program") is established in Mississippi Department of Insurance Regulation MH-2009-1, the same as may be revised and amended, and sets forth the requirements by which manufacturers, retailers, distributors, installers, and installation inspectors will be held accountable for assuring the appropriate installation of used manufactured homes within the State of Mississippi.

(A) Used Manufactured Home Tie-Down Standards

(1) Site Preparation

(a) Planning and Site Preparation

Retailers, developers and/or installer/transporters are responsible for site preparation, however the manufacturer, retailer or installer may agree in writing to allow the consumer to conduct the site preparation for the manufactured home installation. However, before the installer may begin installation of the manufactured home, the site preparation must meet the requirements set forth in this Regulation. If there is conflict between the retailer, developer or installer and the consumer regarding the site preparation, the State Fire Marshal's Office may be required to mediate. Any fee charged by the State Fire Marshal's Office due to said mediation will be paid by the consumer.

(b) Fire Separation

Separation from adjacent structures and lot lines is based on the fire resistance rating of the home pursuant to **NFPA 501A Standard for Fire Safety Criteria for Manufactured Home Installations, Sites and Communities**, Section 4 2.1, entitled "Fire Safety Separation Requirements," Sub section 4.2.1.1 as follows:

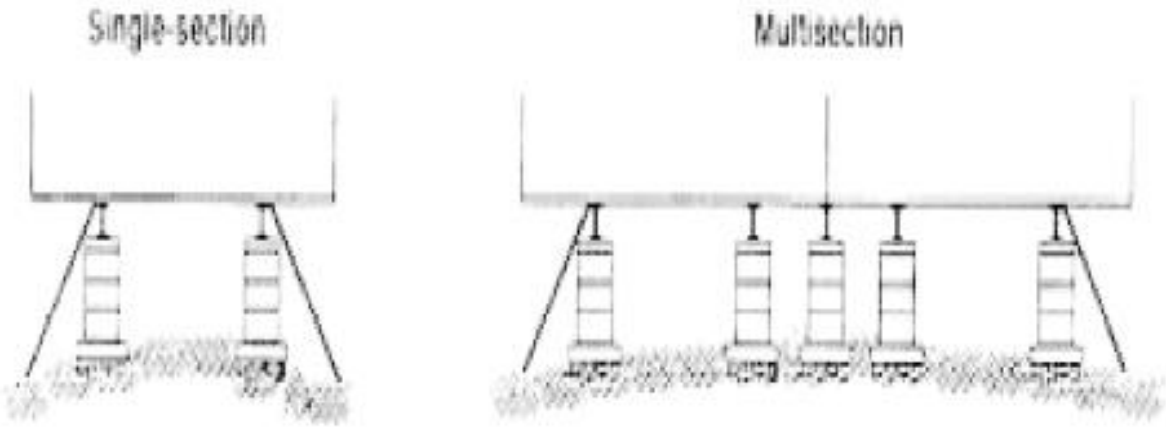
"Any portion of a manufactured home, excluding the tongue, shall not be located closer than 10 ft (3 m) side to side, 8 ft (2.4 m) end to side, or 6 ft (1.8 m) end to end horizontally from any other manufactured home or

community building unless the exposed composite walls and roof of either structure are without openings and constructed of materials that will provide a one hour fire rating or the structures are separated by a one hour fire rated barrier." Most manufactured, factory-built, mobile or modular homes may be classified as "non-rated" construction. However, manufacturers may, in some instances, construct one hour rated walls. Information regarding the fire rating of the unit may be obtained from the manufacturer or third party inspection agency identified on the data plate.

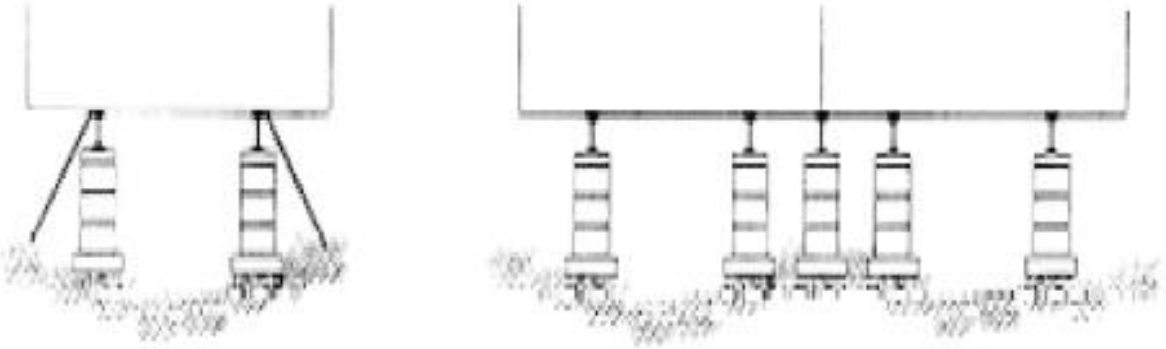
(c) Clearance Under Homes

The site should be graded such that a minimum clearance of 12 inches is maintained beneath the lowest member of the main frame (I beam or channel beam) in the area of utility connections.

FIGURE 1 - SITE GRADING



DO: Crown and grade site to slope away from home, and cover with 6 mil thick polyethylene sheeting or equivalent.



DON'T: Grade site so that water collects beneath home.

(d) Drainage of Site (Figure I)

Site drainage is the responsibility of the retailer, developer and installer/transporter, as contemplated by Mississippi Code Ann., Section 75-49-5, and applicable HUD Regulations. Each site should have a finished grade that will provide for drainage away from the home. Collection of water beneath the home may lead to reduced durability of siding and bottom board, condensation in walls and ceilings, etc. Improper drainage and soil saturation may also cause buckling of walls and floors, problems with the operation of the doors and windows, etc.

(e) Removal of Organic Material

Remove all decayable material, such as grass, roots, twigs, and wood scraps, from beneath the footings of the home to minimize settling and insect damage.

(f) Before attempting to move a home, ensure that the transportation equipment and home can be routed to the installation site. Special transportation permits may be required from federal, state, county, or city officials.

(2) Soil Type/Capacity

(a) Under the Federal Standards, manufacturers are only required to provide one acceptable method for installing the home. However, manufacturers usually provide installation instructions that can be applied to a number of sites. These "generic" instructions commonly specify a minimum acceptable bearing capacity of the soil. Additionally, the manufacturer may offer options for acceptable footing sizes based on the bearing capacity of the soil. Installers and inspection personnel should first determine the bearing capacity of the soil in order to determine the proper size footing or foundation. Different soil types will have different bearing and holding capacities. The bearing capacity of the soil is the load per unit area that can be supported safely by the ground. The performance of the ground anchor is related to the soil's holding capacity. In the absence of borings, test pits, and other soil investigations that provide information on the proposed site, the following description of soil types may be used for homes installed in Mississippi:

TABLE I - SOIL CLASSIFICATION

psf	kg/m2	Soil Type
2000	9765	Loose sand clay soils or medium soft clay
3000	14647	Firm or stiff clay
4000	19530	Loose fine sand or compact inorganic silt soils

6000	29295	Compact sand clay soils
8000	39059	Loose coarse to medium compact fine sand

*Note: The above table may be used if the soil characteristics are known. If the soil type is unknown, the following resources may be consulted to determine the soil type/bearing capacity:

(i) Local authorities having jurisdiction;
(ii) Soil conservation district;
(iii) United Sates Geological Survey;
(iv) The Resource Conservation Agency of the U. S. Department of Agriculture;
(v) Highway Department;
(vi) Qualified Professional Engineer; and/or
(vii) Other methods approved by the Commissioner.

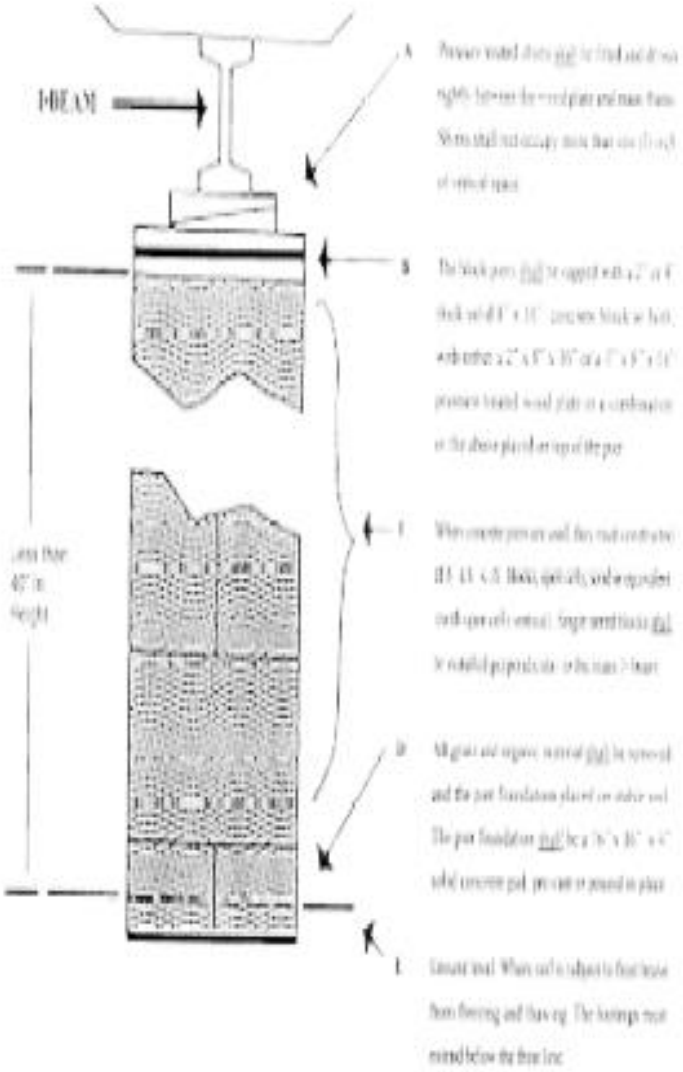
(3) Required Piers and Anchorage (Figure II)

(a) All manufactured or mobile homes require diagonal ties to restrict the unit from being pushed from its piers. These diagonal ties also restrict overturning. Additional over the top tie downs to restrict overturning are required by some manufactured home installation instructions.

(b) Piers or load-bearing supports or devices shall be designed and constructed to evenly distribute the loads. Piers shall be securely attached to the frame of the manufactured home or shall extend at least 6 inches (152 mm) from the centerline of the frame member. Manufactured load-bearing supports or devices shall be listed or approved for the use intended, or piers shall be constructed as follows:

(i) Except for corner piers, piers less than 40 inches (1016 mm) high, shall be constructed of masonry units, placed with cores or cells vertically. Piers shall be installed with their long dimensions perpendicular to the main (I beam) frame member it supports and shall have a minimum cross sectional area of 119 sq in (0.077 m^2). Piers shall be capped with a minimum 2 inch (51 mm) solid masonry unit or concrete cap, or equivalent.

FIGURE II - MINIMUM BLOCKING STANDARDS



(ii) Piers between 40 and 80 inches (1016 and 2032 mm) high and all corner piers over 24 inches (610 mm) shall be at least 16x16 inches (406x406 mm) consisting of interlocking masonry units and shall be fully capped with a minimum 4 inch (102 mm) solid masonry unit or equivalent.

(iii) Piers over 80 inches (2032 mm) high shall be constructed in accordance with the provisions of paragraph 2 above, provided the piers shall be filled solid with grout and reinforced with four continuous No. 5 bars. One bar shall be placed in each corner cell of hollow masonry unit piers, or in each corner of the grouted space of piers constructed of solid masonry units.

(iv) Cast in place concrete piers meeting the same size and height limitations of paragraphs 1, 2 and 3 above may be substituted for piers constructed of masonry units.

(v) All piers shall be constructed on footings of solid concrete not less than 16 x 16 x 4 inches (406 x 406 x 102 mm).

(c) Piers shall be located in accordance with the manufactured home installation instructions. If the manufactured home installation instructions are not available for a used home, piers for single section homes are to be placed under each longitudinal main frame member not to exceed 8 ft (2438 mm) on center spacing for homes that are 14 ft (4267 mm) wide or less and 6 ft (1829 mm) on center for homes that are over 14 ft (4267 mm) wide. Piers for multi section homes are to be placed under each longitudinal main frame member not to exceed 6 ft (1829 mm) on center spacing. For used multi section homes, piers are to be placed under the center marriage line within one foot at each end, under ridge beam support columns, and under both sides of openings at the marriage line greater than 12 ft (3657 mm). For all homes, exterior doors shall have piers directly under both sides of the door openings. Where practical for all homes, end piers shall be placed within 1 ft (305 mm) of the ends of the main frame. When the location and spacing of wheels and axles, or other structural members of home frames, or undercarriages prevent spacing of piers on 8 or 6 ft (2438 or 1829 mm) centers, the spacing shall be as near 8 or 6 ft (2438 or 1829 mm) maximum spacing as practicable in the area of the obstruction. Piers shall be placed under other concentrated loads such as porch posts, bay window overhangs, and masonry faced fireplaces on floor overhangs. Units that exceed 16 ft (4877 mm) in width shall have perimeter piers under the sidewalls every 6 ft (1829 mm) and at each corner. Perimeter piers shall be under the intersection of a perimeter joist and a transverse joist or shall be under a 4x4 inch (102x102 mm) brace that supports at least two floor joists.

TABLE II - MAXIMUM PIER LOAD IN POUNDS

Number of Concrete Blocks	Soil Bearing Value	Maximum Allowable Load
1	1,000 lbs/square foot	4,800 lbs.
2	2,000 lbs/square foot & greater	9,600 lbs.

* ABS Pad types include the following:

13 1/4" x 26 1/4" Pad 2.395 square feet ID#4148 4 or
20" x 20" Pad 2.777 square feet ID#1055 7

TABLE III - MAXIMUM PIER LOAD

Type	Pad Configuration	Pad Area (in square inches)	Soil Bearing Capacity PSF (in pounds)					
			1000	1500	2000	2500	3000	Remarks
1	1-16 x 16 w/1 or w/2 CMUs	256	1780	2670	3560	4450	5340	Max: 5340 #
2	1-18.5 x 18.5 w/1 CMU	342	2375	3563	4750	5598	5598	Max: 5600 #
3	1-18.5 x 18.5 w/2 CMUs	342	2375	3563	4750	5938	7125	Max: 7125 #
4	2-13.13 x 26.13 w/1 CMU	342	2375	3563	4750	5938	6400	Max: 6400 #
5	1-18.5 x 18.5 w/1 CMU ID# SPA 264-1-1	342	2375	6563	4750	5938	7125	Max: 7125 #
6	1-20 x 20 w/1 CMU	400	2775	4167	5556	5600	5600	Max: 5600 #
7	1-20 x 20 w/2 CMUs	400	2775	4167	5556	6944	8333	Max: 8333 #

All pad sizes shown are nominal dimensions and may vary up to 1/8 inch.

(4) Installation Instructions for ABS Pads

(a) The purpose of this section is to emphasize that the ground under the ABS pads must be leveled, evenly compacted, and cleared of all vegetation and debris before the placement of the pads. For ABS Pads having model numbers different from those specified in this regulation, installation instructions shall be approved by the Commissioner.

(b) Note that if pad deflects more than 5/8 of an inch when installed, pier spacing is incorrect for soil conditions. The maximum deflection in a single pad is 5/8 of an inch measured from the highest point to the lowest point of the top.

(c) Installation Instructions for ABS Pads B 26x26 Inch Pad Configuration

(i) All pads are to be installed flat side down, ribbed side up.

(ii) The ground under the pads should be leveled as smooth as possible with all vegetation removed. Pads are to be placed on natural grade unless otherwise permitted by the local building authority.

(iii) Pier and pad spacing will be determined by the manufactured home manufacturer's written set up instructions. In the absences of manufacturer's written set up instructions and written set up instructions from the manufacturer of the pads, pier and pad spacing shall be no greater than 6 ft apart for Zone I and no greater than 4 ft for Zone II.

(iv) The open cells between the ribbings on the upper side of the pads may be filled with soil or sand after installation to prevent any accumulation of stagnant water in the pads.

(v) A pocket penetrometer may be used to determine the actual soil bearing value. If soil testing equipment is not available, use an assumed soil value of 1000 lbs/square foot.

(vi) All pad sizes shown are nominal dimensions and may vary to 1/8 of an inch.

(vii) The maximum deflection in a single pad is 5/8 of an inch measured from the highest point to the lowest point of the top face. (Please review Table IV and Figures III and IV).

TABLE IV – SIZE AND LOAD

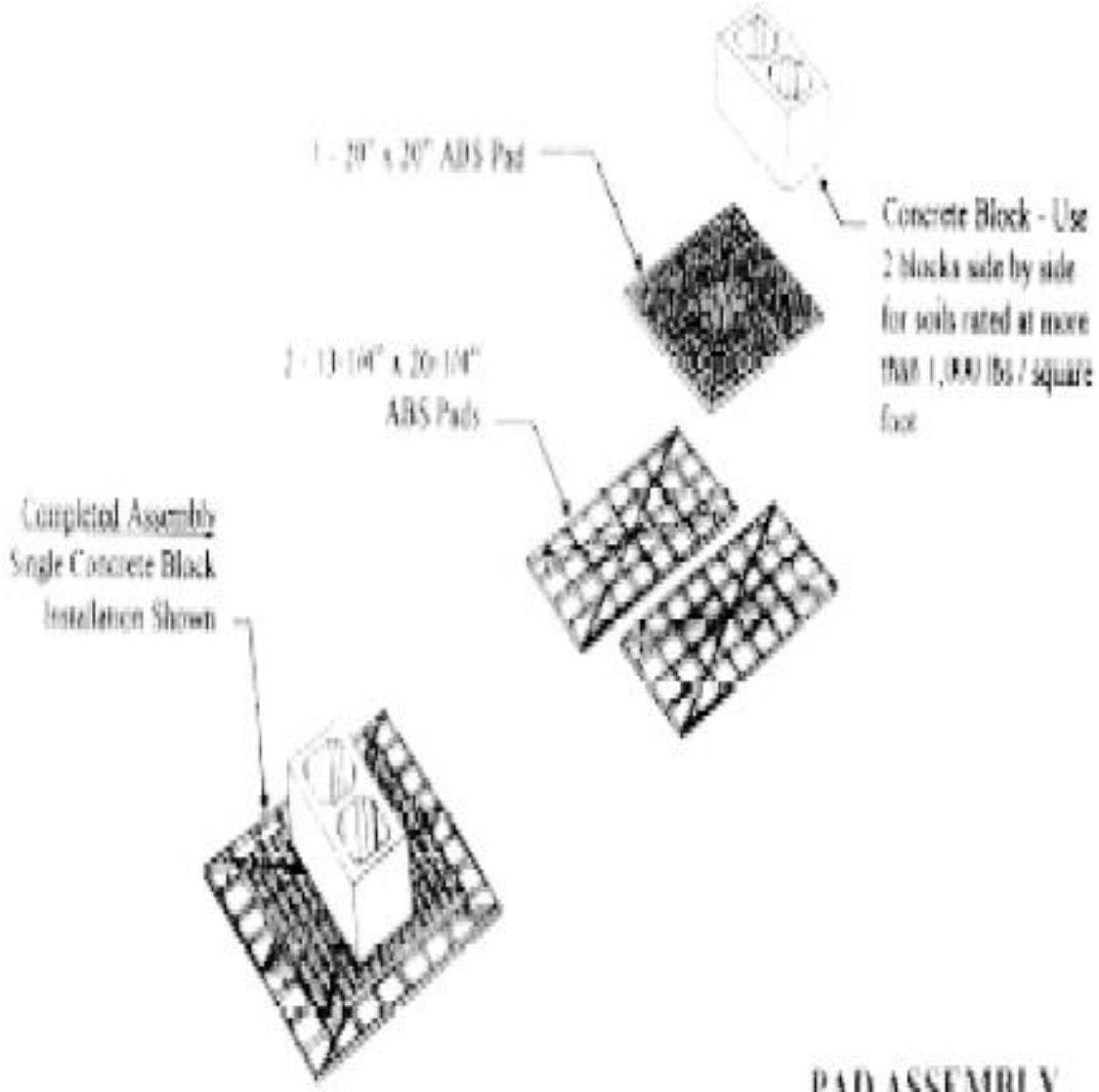
PAD SIZE	PAD AREA	1000 LB.SOIL	2000 LB.SOIL	3000 LB.SOIL
16" X 16"	256 sq. in.	1,780 lbs.	3,560 lbs.	5,333 lbs.
18.5" X 18.5"	342 sq. in.	2,375 lbs.	4,750 lbs.	7,125 lbs.
20" X 20"	400 sq. in.	2,750 lbs.	5,500 lbs.	8,250 lbs.

1. Any configuration above may be used to replace a home manufacturer's recommended concrete or wood base pad.
2. The maximum load at any intermediate solid value may be determined as the average of the next lower and next higher soil values given in the above table.
3. Pad sizes shown are nominal dimensions and may vary up to 1/8 inch.
4. Pad loads are the same when using single stack or double stack blocks.

FIGURE III - ABS PAD ASSEMBLY

Installation Instructions for ABS Pads

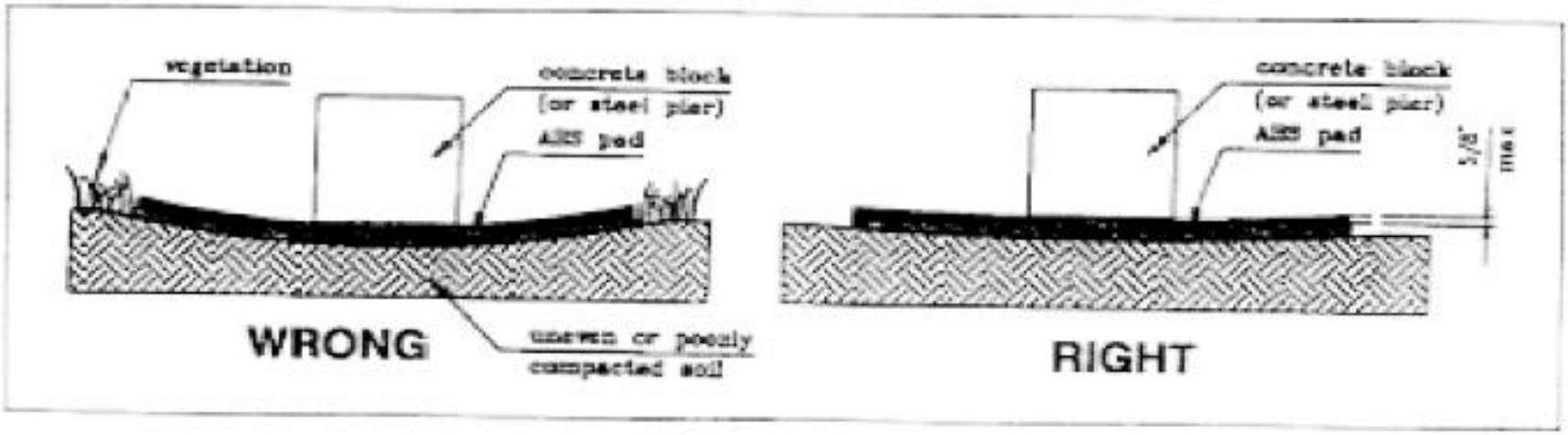
26" x 26" Pad Configuration



PAD ASSEMBLY

FIGURE IV - ABS PAD INSTALLATION INSTRUCTIONS
Addendum (9 October 1995, Revised 27 September 1996)

The purpose of this addendum is to emphasize that the ground under the ABS pads must be leveled, evenly compacted, and cleared of all vegetation and debris before the placement of the pads.



The maximum deflection in a single pad is 5/8" measured from the highest point to the lowest point of the top.

(5) Definitions

(a) DIAGONAL TIE - any tie-down designed to resist horizontal or shear forces and which deviates not less 30° (0.52 rad) from a vertical direction.

(b) GROUND ANCHOR - any device at the manufactured home stand designed for the purpose of securing a manufactured home to the ground.

(c) WIND (HURRICANE) ZONE II - Hancock, Harrison, Jackson, George, Stone and Pearl River Counties are all Wind Zone II areas for the State of Mississippi.

(d) TIEDOWN - any device designed for the purpose of anchoring a manufactured home or mobile home to the ground anchors.

(6) Tie-downs

(a) Manufactured or mobile homes with provisions for installation of anchor systems, including instructions, in accordance with Federal Manufactured Home Construction & Safety Standards, Section 24 CFR 3280.306 shall be installed in accordance with the manufacturer's instructions. Manufactured homes or mobile homes not provided with such installation instructions, or manufactured homes or mobile homes not provided with instructions for the zone (wind or non-wind) in which they are being installed shall comply with the following:

(i) The number of tie-downs for single wide (10 ft, 12 ft, or 14 ft) manufactured homes or mobile homes shall comply with Tables V and Table VI.

(ii) Manufactured homes or mobile homes shall be tied down in accordance with these tables unless the anchoring system is designed and approved by a registered professional Mississippi engineer (as per manufacturer's installation instructions).

(iii) Single section manufactured homes or mobile homes shall have diagonal and vertical ties and anchors in accordance with the tables below unless manufacturer's installation instructions are utilized.

TABLE V - MINIMUM NUMBER OF TIEDOWNS FOR WIND ZONE II

Length of manufactured home, excluding draw bar (ft.)	Number of vertical ties	Number of diagonal ties, each side	Total required anchors per home
0-40	2	4	8
41-60	3	6	12
61-84	4	8	16
** 85 +			

TABLE VI MINIMUM NUMBER OF TIEDOWNS FOR WIND ZONE I

Length of manufactured home, excluding draw bar (ft.)	Number of vertical ties	Number of diagonal ties, each side	Total required anchors per home
0-40	2	3	6
41-60	3	5	10
61-84	3	6	12
** 85 +			

* These tables are based on a minimum working load per tie of 3,150 lbs with a 50 % overload (4,725 lbs total).

** The number of vertical ties, diagonal ties, and total required anchors of homes that exceed 85+ feet is subject to the approval of the Commissioner.

(iv) Multiple wide manufactured or mobile homes shall have diagonal ties and anchors as required above for single wide manufactured or mobile homes as listed in Tables V and VI above.

(v) Alternate systems. These specifications are minimum standards. Other anchor systems shall be approved by the Division or local building official(s) provided that such designs are prepared by a registered professional Mississippi engineer or architect based on the criteria set forth in Federal Manufactured Home Construction & Safety Standards, Section 3280.306.

(vi) Tie-down Spacing and Sizes

(1) Over the top tie-downs shall be positioned at stud and rafter locations near each end of the manufactured or mobile home. Others, if needed, may be positioned between them.

(2) Wherever feasible, over the top tie-downs and frame ties directly beneath them may use the same anchors.

(3) Cable or strapping or other approved methods or materials shall be used for ties. All ties shall be fastened to ground anchors and drawn tight with turnbuckles, yoke type fasteners or other such tensioning devices listed with the ground anchor.

(4) Cable shall be either 7/32 inch (5.6 mm) diameter or greater (7x7) steel cable or 1/4 inch (6.4 mm) diameter or greater (7x19) aircraft cable. All cable ends shall be secured with at least two U bolt type cable clamps or other fastening device as approved by the building official.

(5) Tie materials shall be capable of resisting an allowable working load of 3,150 lbs (14.0 kN) with no more than 2% elongation and shall withstand a 50% overload [4,725 lbs (21.0 kN) total]. Tie-downs exposed to weathering shall be resistant to weathering deterioration at least equivalent to that provided by a coating of zinc on steel of not less than 0.30 oz per square foot (92 g/m^2) of surface coated. Type I, Class B, Grade I, steel strapping 1 1/4 inches (32 mm) wide and 0.035 inch (0.89 mm) thick, conforming to Federal Specifications QQ S 781 F, is judged to conform to this section.

(6) Materials used for ties must terminate with D-rings bolts, or other fastening devices, which will not cause distortion of the band or reduce its breaking strength of 4,725 lb (21.0 kN). Please note that ties should be double wrapped (double looped) at top of beam, not at the bottom.

(7) Connection of the cable frame tie to the I-beam (or other shape) main structural frame member should be by a 5/8 inch (15.9 mm) drop forged closed eye bolted through a hole drilled in the center of the I-beam web. A washer, or equivalent, shall be used so that the beam is sufficiently reinforced around the hole. If steel strap ties are used, care should be exercised to insure that minimum bending radius is adhered to so that the breaking strength of the strap is not reduced.

(8) Frame ties shall connect the anchor and the steel I-beam (or other shape) main structural frame member which runs lengthwise under the manufactured home or mobile home. Frame ties shall never be connected to any of the steel outrigger beams which fasten to and intersect the main I beam at right angles.

(9) Ground anchors should be aligned with center of piers. Also, they should be situated immediately below the outer wall to accommodate over the top ties as well as frame ties.

(7) Anchors

(a) Devices used to anchor manufactured or mobile homes shall meet the following requirements:

(i) Ground anchors shall be aligned close to the end of the piers, but not in exact center that will interfere with frame ties.

(ii) Auger-type (or other C-4 rated) anchors shall be at least 4 ft in length, have a minimum diameter of 6 inches (arrowheads 8 inches) and be sunk their full depth when sandy soils are present. When the condition of the soil (including ground density, composition and compaction) will not allow the Auger-type or other C-4 rated anchors to be sunk to their full depth, the Auger-type or other C-4 rated anchor attempted to be sunk shall be left in place and C-2 rated anchors may be used. Steel rods shall be at least 5/8 of an inch in diameter, have a forged or welded eye at top, or have a yoke type fastening and tensioning device or a threaded connector and tensioning device. C-4 anchors shall be capable of withstanding 4,750 lbs of pull (in a vertical or diagonal direction) without failure.

(iii) Anchors to reinforced concrete slabs must be strength comparable to that presented above.

(iv) Other anchors which are capable of withstanding 4,750 lbs of pull without failure may be approved by the Factory-Built Home Division of the State Fire Marshal's Office as equivalent to above specifications.

(v) All ground anchors having frame tie connections only shall have approved stabilizing plates installed on the inside (direction of pull) with the top of the stabilizing plate driven flush with the soil. Exception: Stabilizer plates are not required with coral anchors or at centerline or marriage wall locations.

(vi) The "Standard Method of Test for Manufactured Home Anchors, Parts A and B" is described in the Federal Manufactured Home Construction and Safety Standards, 24 CFR Section 3280.401.

(B) General

(1) All new manufactured, mobile or modular homes shall be installed in accordance with the home installation instructions. These instructions may include the following details.

(a) Skirting must have vents and an opening for access to the crawl space and heat tape outlet.

(b) The dryer exhaust vent must terminate outside the home.

(c) Combustion air vents may be needed for sealed combustion units and fireplaces.

(d) A vapor barrier may be required on the soil.

(e) A clearance must be maintained between the soil and wood floor joists.

(f) Water supply lines may be required to be insulated.

(g) The lot should be graded to avoid standing water under the home.

(h) The air conditioning condensate drain may be specified to have a termination outside the home.

(i) Specifications for utility connections must be followed.

(2) If the installation instructions for used manufactured or mobile homes are not available, the anchoring and support requirements of this standard shall be followed and other aspects of the home installation shall conform to the minimum standards for occupancy established by the Rules and Regulations of the Factory-Built Home Division.

(3) Used Manufactured or mobile homes, built after July 13, 1994, that conform to Wind Zone I ratings only, cannot be installed within a designated Wind Zone II area, unless approved by the county or municipality having jurisdiction within the Wind Zone II area. The Wind Zone II area for homes manufactured after July 13, 1994, consists of the following counties: Hancock, Harrison, Jackson, George, Pearl River, and Stone.

(4) For used manufactured or mobile homes that were built prior to July 13, 1994, the following shall apply, If the manufactured home or mobile was built to the HUD Hurricane Zone rating that existed prior to July 13, 1994, it may be installed in one of the post-July 13, 1994, counties that are listed in No. 3 above. For reference, HUD designated Hurricane Zone counties that existed prior to July 13, 1994, were as follows: Hancock, Harrison, Jackson, George, Pearl River, Stone, Greene, Perry, Forrest, Lamar, Marion, Walthall, Pike, Amite, and Wilkinson.

However, if the county or municipality having jurisdiction within the post-July 13, 1994, Wind Zone II area has adopted more restrictive requirements that would prohibit the installation of a pre-July 13, 1994, Hurricane Zone house, then the requirements of such county or municipality shall govern.

(5) For the sales and installation of all manufactured housing, the retailer or developer shall determine whether the house is constructed to the properly rated Wind/Hurricane zone for its intended use and installation by referring to the HUD data plate.

(6) The support and anchoring systems of all mobile homes that bear the HUD label shall be designated by a Registered Professional engineer or architect and meet the requirements of 24 CFR Section 3280.306, pursuant to the National Manufactured Housing Construction and Safety Standards Act of 1974, as amended (42 U.S.C. Section 5401, et seq.) and the Manufactured Housing Improvement Act of 2000 as amended. The manufacturer shall provide complete tie-down instructions with each manufactured or mobile home.

(7) From and after July 1, 2005, no retailer, developer, transporter or installer shall deliver or cause to be delivered any factory-built home to any person at any site where such home is to used for human habitation without anchoring and blocking such home in accordance with rules, regulations and procedures promulgated by the Commissioner pursuant to Section 75-49-5; provided, however, that a period of thirty (30) days from date of delivery shall be allowed for the anchoring and blocking of such homes.

VII. OFFICIAL NOTICES AND BULLETINS

All manufacturers, retailers, developers and installer/transporters shall maintain any and all official notes and/or bulletins issued by the Factory-Built Home Division for five (5) years from the date of issuance. If so required by this Factory-Built Home Division, all manufacturers, retailers, developers and installer/transporters shall display official notices and bulletins in plain view for the public. Exception: Any official notices and bulletins marked as permanent records or **DO NOT DESTROY**.

VIII. SEVERABILITY

If any section or portion of a section of this Regulation or the application thereof is held by a court to be invalid, such invalidity shall not affect any other provision of that section or application of the Regulation which can be given effect without the invalid provision or application, and to this end the provisions of the Regulation are declared to be severable.

IX. REPEAL OF EMERGENCY REGULATION MH-2009-2

Emergency Regulation MH-2009-2 is repealed upon adoption of Regulation MH-5, as amended.

X. EFFECTIVE DATE

This amended Regulation shall become effective on November 5, 2009.

MIKE CHANEY
COMMISSIONER OF INSURANCE

EXHIBIT "A"
MISSISSIPPI MANUFACTURED HOME INSTALLATION PROGRAM STANDARDS

24 CFR PART 3285—Model Manufactured Home Installation Standards

Subpart A—General

Sec.
3285.1 Administration.
3285.2 Manufacturer installation instructions.
3285.3 Alterations during initial installation.
3285.4 Incorporation by reference (IBR).
3285.5 Definitions.
3285.6 Final leveling of manufactured home.

Subpart B—Pre-Installation Considerations

3285.101 Fire separation.
3285.102 Installation of manufactured homes in flood hazard areas.
3285.103 Site suitability with design zone maps.

3285.104 Moving manufactured home to location.
3285.105 Permits, other alterations, and on-site structures.

Subpart C—Site Preparation

3285.201 Soil conditions.
3285.202 Soil classifications and bearing capacity.
3285.203 Site drainage.
3285.204 Ground moisture control.

Subpart D—Foundations

3285.301 General.
3285.302 Flood hazard areas.
3285.303 Piers.
3285.304 Pier configuration.
3285.305 Clearance under homes.
3285.306 Design procedures for concrete block piers.
3285.307 Perimeter support piers.
3285.308 Manufactured piers.
3285.309 [Reserved]
3285.310 Pier location and spacing.
3285.311 Required perimeter supports.
3285.312 Footings.
3285.313 Combination systems.
3285.314 [Reserved]
3285.315 Special snow load conditions.

Subpart E—Anchorage Against Wind

3285.401 Anchoring instructions.
3285.402 Ground anchor installations.
3285.403 Sidewall, over-the-roof, mate-line, and shear wall straps.
3285.404 Severe climatic conditions.
3285.405 Severe wind zones.
3285.406 Flood hazard areas.

Subpart F—Optional Features

3285.501 Home installation manual supplements.
3285.502 Expanding rooms.
3285.503 Optional appliances.
3285.504 Skirting.
3285.505 Crawlspace ventilation.

Subpart G—Ductwork and Plumbing and Fuel Supply Systems

3285.601 Field assembly.
3285.602 Utility connections.
3285.603 Water supply.
3285.604 Drainage system.
3285.605 Fuel supply system.
3285.606 Ductwork connections.

Subpart H—Electrical Systems and Equipment

3285.701 Electrical crossovers.
3285.702 Miscellaneous lights and fixtures.
3285.703 Smoke alarms.
3285.704 Telephone and cable TV.

Subpart I—Exterior and Interior Close-Up

3285.801 Exterior close-up.
3285.802 Structural interconnection of multi-section homes.
3285.803 Interior close-up.
3285.804 Bottom board repair.

Subpart J—Optional Information for Manufacturer's Installation Instructions

3285.901 General.
3285.902 Moving manufactured home to location.
3285.903 Permits, alterations, and on-site structures.
3285.904 Utility systems connection.

3285.905 Heating oil systems.
3285.906 Telephone and cable TV.
3285.907 Manufacturer additions to installation instructions.

Subpart A—General

§ 3285.1 Administration.

(a) Scope. These Model Installation Standards provide minimum requirements for the initial installation of new manufactured homes, in accordance with section 605 of the Act (42 U.S.C. 5404) and § 75-49-7 (2) of the Mississippi Code, 1972, Annotated, as amended. The manufacturer's installation instructions, including specific methods for performing a specific operation or assembly, will be deemed to comply with these Model Installation Standards, provided they meet or exceed the minimum requirements of these Model Installation Standards and do not take the home out of compliance with the Manufactured Home Construction and Safety Standards (24 CFR part 3280). Work necessary to join all sections of a multi-section home specifically identified in Subparts G, H, and I of this part, or work associated with connecting exterior lights, chain-hung light fixtures, or ceiling-suspended fans, as specifically identified in Subpart I, is not considered assembly or construction of the home, although the design of those elements of a manufactured home must comply with the Manufactured Home Construction and Safety Standards (MHCSS). However, work associated with the completion of hinged roofs and eaves in § 3285.801 and other work done on-site and not specifically identified in this part as close-up is considered construction and assembly and is subject to the requirements of the Manufactured Home Construction and Safety Standards (24 CFR part 3280) and the Manufactured Home Procedural and Enforcement Regulations (24 CFR part 3282).

(b) Applicability. The standards set forth herein have been established to accomplish certain basic objectives and are not to be construed as relieving manufacturers, retailers, installers, or other parties of responsibility for compliance with other applicable ordinances, codes, regulations, and laws. The manufactured homes covered by this standard must comply with requirements of the U.S. Department of Housing and Urban Development's (HUD) MHCSS Program, as set forth in 24 CFR part 3280, Manufactured Home Construction and Safety Standards, and 24 CFR part 3282, Manufactured Home Procedural and Enforcement Regulations, as well as with, upon effect, the Manufactured Home Installation Program, 24 CFR part 3286, and the Dispute Resolution Program, 24 CFR part 3288. The requirements of this part do not apply to homes installed on site-built permanent foundations when the manufacturer certifies the home modular homes.

§ 3285.2 Manufacturer installation instructions

(a) Instructions required. A manufacturer must provide with each new manufactured home, installation designs and instructions that have been approved by the Secretary or DAPIA. The approved installation instructions must include all topics covered in the Model Installation Standards for the installation of manufactured homes. These installation instructions and any variations thereto that are prepared to comply with paragraph (c) of this section must provide protection to residents of the manufactured homes that equals or exceeds the protection provided by these Model Installation Standards and must not take the manufactured home out of compliance with the MHCSS. These instructions must insure that each home will be supported and anchored in a manner that is capable of meeting or exceeding the design loads required by the MHCSS.

(b) Professional engineer or registered architect certification. A professional engineer or registered architect must prepare and certify that the manufacturer's installation instructions meet or exceed the Model Installation Standards for foundation support and anchoring whenever:

(1) The manufacturer's installation instructions do not conform in their entirety to the minimum requirements or tables or their conditions for foundation support and anchoring of this Standard; or

(2) An alternative foundation system or anchoring system is employed, including designs for basements and perimeter support foundation systems, whether or not it is included in the installation instructions; or

(3) Materials such as metal piers or alternatives to concrete footing materials are required by the installation instructions; or

(4) Foundation support and anchoring systems are designed for use in areas subject to freezing or for use in areas subject to flood damage or high seismic risk; or

(5) Foundations support and anchoring systems are designed to be used in special snow load conditions or in severe wind design areas; or

(6) Site conditions do not allow the use of the manufacturer's installation instructions; or

(7) There are any other circumstances in which the manufacturer's installation instructions would not permit the home to be installed in conformance with the Installation Standards or the MHCSS.

(c) Variations to installation instructions.

(1) Before an installer provides support or anchorage that are different than those methods specified in the manufacturer's installation instructions, or when the installer encounters site or other conditions (such as areas that are subject to flood damage or high seismic risk) that prevent the use of the instructions, the installer must:

(i) First attempt to obtain DAPIA-approved designs and instructions prepared by the manufacturer; or

(ii) If designs and instructions are not available from the manufacturer, obtain an alternate design prepared and certified by a registered professional engineer or registered architect for the support and anchorage of the manufactured home that is consistent with the manufactured home design, conforms to the requirements of the MHCSS, and has been approved by the manufacturer and the DAPIA.

(2) The manufacturer's installation instructions must include an explanation of the requirement in paragraph (c)(1) of this section.

§ 3285.3 Alterations during initial installation.

Additions, modifications, or replacement or removal of any equipment that affects the installation of the home made by the manufacturer, retailer, or installer prior to completion of the installation by an installer must equal or exceed the protections and requirements of these Model Installation Standards, the MHCSS (24 CFR part 3280) and the Manufactured Home Procedural and Enforcement Regulations (24 CFR part 3282). An alteration, must not affect the ability of the basic manufactured home to comply with the MHCSS, and the alteration must not impose additional loads to the manufactured home or its foundation, unless the alteration is included in the manufacturer's DAPIA-approved designs and installation instructions, or is designed by a registered

professional engineer or architect consistent with the manufacturer's design and that conforms to the requirements of the MHCSS.

§ 3285.4 Incorporation by reference (IBR).

The materials listed in these Model Installation Standards are hereby incorporated by reference.

§ 3285.5 Definitions.

The definitions contained in this section apply to the terms used in these Model Installation Standards. Where terms are not included, common usage of the terms applies. The definitions are as follows:

Act. The National Manufactured Housing Construction and Safety Standards Act of 1974, 42 U.S.C. 5401– 5426.

Anchor assembly. Any device or other means designed to transfer home anchoring loads to the ground.

Anchoring equipment. Ties, straps, cables, turnbuckles, chains, and other approved components, including tensioning devices that are used to secure a manufactured home to anchor assemblies.

Anchoring system. A combination of anchoring equipment and anchor assemblies that will, when properly designed and installed, resist the uplift, overturning, and lateral forces on the manufactured home and on its support and foundation system.

Approved. When used in connection with any material, appliance or construction, means complying with the requirements of the Department of Housing and Urban Development.

Arid region. An area subject to 15 inches or less of annual rainfall.

Base flood. The flood having a one percent chance of being equaled or exceeded in any given year.

Base flood elevation (BFE). The elevation of the base flood, including wave height, relative to the datum specified on a LAHJ's flood hazard map.

Comfort cooling certificate. A certificate permanently affixed to an interior surface of the home specifying the factory design and preparations for air conditioning the manufactured home.

Crossovers. Utility interconnections in multi-section homes that are located where the sections are joined. Crossover connections include heating and cooling ducts, electrical circuits, water pipes, drain plumbing, and gas lines.

Design Approval Primary Inspection Agency (DAPIA). A state or private organization that has been accepted by the Secretary in accordance with the requirements of Part 3282, Subpart H of this chapter, which evaluates and approves or disapproves manufactured home designs and quality control procedures.

Diagonal tie. A tie intended to resist horizontal or shear forces, but which may resist vertical, uplift, and overturning forces.

Flood hazard area. The greater of either: The special flood hazard area shown on the flood insurance rate map; or the area subject to flooding during the design flood and shown on a LAHJ's flood hazard map, or otherwise legally designated.

Flood hazard map. A map delineating the flood hazard area and adopted by a LAHJ.

Footing. That portion of the support system that transmits loads directly to the soil.

Foundation system. A system of support that is capable of transferring all design loads to the ground, including elements of the support system, as defined in this section, or a site-built permanent foundation that meets the requirements of 24 CFR 3282.12.

Ground anchor. A specific anchoring assembly device designed to transfer home anchoring loads to the ground.

Installation instructions. DAPIA- approved instructions provided by the home manufacturer that accompany each new manufactured home and detail the home manufacturer requirements for support and anchoring systems, and other work completed at the installation site to comply with these Model Installation Standards and the Manufactured Home Construction and Safety Standards in 24 CFR Part 3280.

Installation standards. Reasonable specifications for the installation of a new manufactured home, at the place of occupancy, to ensure proper siting; the joining of all sections of the home; and the installation of stabilization, support, or anchoring systems.

Labeled. A label, symbol, or other identifying mark of a nationally recognized testing laboratory, inspection agency, or other organization concerned with product evaluation that maintains periodic inspection of production of labeled equipment or materials, and by whose labeling is indicated compliance with nationally recognized standards or tests to determine suitable usage in a specified manner.

Listed or certified. Included in a list published by a nationally recognized testing laboratory, inspection agency, or other organization concerned with product evaluation that maintains periodic inspection of production of listed equipment or materials, and whose listing states either that the equipment or material meets nationally recognized standards or has been tested and found suitable for use in a specified manner.

Local authority having jurisdiction (LAHJ). The state, city, county, city and county, municipality, utility, or organization that has local responsibilities and requirements that must be complied with during the installation of a manufactured home.

Lowest floor. The floor of the lowest enclosed area of a manufactured home. An unfinished or flood-resistant enclosure, used solely for vehicle parking, home access, or limited storage, must not be considered the lowest floor, provided the enclosed area is not constructed so as to render the home in violation of the flood-related provisions of this standard.

Manufactured home. A structure, transportable in one or more sections, which in the traveling mode is 8 body feet or more in width or 40 body feet or more in length, or which when erected on site is 320 or more square feet, and which is built on a permanent chassis and designed to be used as a dwelling with or without a permanent foundation when connected to the required utilities, and includes the plumbing, heating, air-conditioning, and electrical systems contained in the structure.

Manufactured Home Construction and Safety Standards or MHCSS. The Manufactured Home Construction and Safety Standards established in part 3280 of this chapter, pursuant to section 604 of the Act, 42 U.S.C. 5403.

Manufactured home gas supply connector. A listed connector designed for connecting the manufactured home to the gas supply source.

Manufactured home site. A designated parcel of land designed for the installation of one manufactured home for the exclusive use of the occupants of the home.

Model Installation Standards. The installation standards established in part 3285 of this chapter, pursuant to section 605 of the Act, 42 U.S.C. 5404.

Pier. That portion of the support system between the footing and the manufactured home, exclusive of shims. Types of piers include, but are not limited to: Manufactured steel stands; pressure-treated wood; manufactured concrete stands; concrete blocks; and portions of foundation walls.

Ramada. Any freestanding roof or shade structure, installed or erected above a manufactured home or any portion thereof.

Secretary. The Secretary of Housing and Urban Development, or an official of HUD delegated the authority of the Secretary with respect to the Act.

Skirting. A weather-resistant material used to enclose the perimeter, under the living area of the home, from the bottom of the manufactured home to grade.

Stabilizing devices. All components of the anchoring and support systems, such as piers, footings, ties, anchoring equipment, anchoring assemblies, or any other equipment, materials, and methods of construction, that support and secure the manufactured home to the ground.

Support system. Pilings, columns, footings, piers, foundation walls, shims, and any combination thereof that, when properly installed, support the manufactured home.

Tie. Straps, cable, or securing devices used to connect the manufactured home to anchoring assemblies.

Ultimate load. The absolute maximum magnitude of load that a component or system can sustain, limited only by failure.

Utility connection. The connection of the manufactured home to utilities that include, but are not limited to, electricity, water, sewer, gas, or fuel oil.

Vertical tie. A tie intended to resist uplifting and overturning forces.

Wind zone. The areas designated on the Basic Wind Zone Map, as further defined in § 3280.305(c) of the Manufactured Home Construction and Safety Standards in this chapter, which delineate the wind design load requirements.

Working load. The maximum recommended load that may be exerted on a component or system determined by dividing the ultimate load of a component or system by an appropriate factor of safety.

§ 3285.6 Final leveling of manufactured home.

The manufactured home must be adequately leveled prior to completion of the installation, so that the home's performance will not be adversely affected. The home will be considered adequately leveled if there is no more than 1/4 inch difference between adjacent pier supports (frame or perimeter) and the exterior doors and windows of the home do not bind and can be properly operated.

Subpart B—Pre-Installation Considerations

§ 3285.101 Fire separation.

Fire separation distances must be in accordance with the requirements of Chapter 6 of NFPA 501A, 2003 edition (incorporated by reference, see § 3285.4) or the requirements of the LAHJ. The installation instructions must clearly indicate this requirement in a separate section and must caution installers to take into account any local requirements on fire separation.

§ 3285.102 Installation of manufactured homes in flood hazard areas.

(a) Definitions. Except to the extent otherwise defined in Subpart A, the terms used in this subpart are as defined in 44 CFR 59.1 of the National Flood Insurance Program (NFIP) regulations.

(b) Applicability. The provisions of this section apply to the initial installation of new manufactured homes located wholly or partly within a flood hazard area.

(c) Pre-installation considerations. Prior to the initial installation of a new manufactured home, the installer is responsible for determining whether the manufactured home site lies wholly or partly within a special flood hazard area as shown on the LAHJ's Flood Insurance Rate Map, Flood Boundary and Floodway Map, or Flood Hazard Boundary Map, or if no LAHJ, in accordance with NFIP regulations. If so located, and before an installation method is agreed upon, the map and supporting studies adopted by the LAHJ must be used to determine the flood hazard zone and base flood elevation at the site.

(d) General elevation and foundation requirements.

(1) Methods and practices. Manufactured homes located wholly or partly within special flood hazard areas must be installed on foundations engineered to incorporate methods and practices that

minimize flood damage during the base flood, in accordance with the requirements of the LAHJ, 44 CFR 60.3(a) through (e), and other provisions of 44 CFR referenced by those paragraphs.

(2) Outside appliances.

(i) Appliances installed on the manufactured home site in flood hazard areas must be anchored and elevated to or above the same elevation as the lowest elevation of the lowest floor of the home.

(ii) Appliance air inlets and exhausts in flood hazard areas must be located at or above the same elevation as the lowest elevation of the lowest floor of the home.

(3) Related guidance. Refer to FEMA 85/September 1985, Manufactured Home Installation in Flood Hazard Areas, 1985 (incorporated by reference, see § 3285.4).

§ 3285.103 Site suitability with design zone maps.

Prior to the initial installation of a new manufactured home and as part of making the certification of the installation required under part 3286, upon effect, the installer is to verify that the design and construction of the manufactured home, as indicated on the design zone maps provided with the home, are suitable for the site location where the home is to be installed. The design zone maps are those identified in part 3280 of this chapter.

(a) Wind zone. Manufactured homes must not be installed in a wind zone that exceeds the design wind loads for which the home has been designed, as evidenced by the wind zone indicated on the home's data plate and as further defined by counties or local governments within affected states, as applicable, in § 3280.305(c)(2) of the Manufactured Home Construction and Safety Standards in this chapter.

(b) Roof load zone. Manufactured homes must not be located in a roof load zone that exceeds the design roof load for which the home has been designed, as evidenced by the roof load zone indicated on the home's data plate and as further defined by counties or local governments within affected states, as applicable, in § 3280.305(c)(3) of the Manufactured Home Construction and Safety Standards in this chapter. Refer to § 3285.315 for Special Snow Load Conditions.

(c) Thermal zone. Manufactured homes must not be installed in a thermal zone that exceeds the thermal zone for which the home has been designed, as evidenced by the thermal zone indicated on the heating/cooling certificate and insulation zone map and as further defined by counties or local governments within affected states, as applicable, in § 3280.504(b)(5) of the Manufactured Home Construction and Safety Standards in this chapter. The manufacturer may provide the heating/cooling information and insulation zone map on the home's data plate.

§ 3285.104 Moving manufactured home to location.

Refer to § 3285.902 for considerations related to moving the manufactured home to the site of installation.

§ 3285.105 Permits, other alterations, and on-site structures.

Refer to § 3285.903 for considerations related to permitting, other alterations, and on-site structures.

Subpart C—Site Preparation

§ 3285.201 Soil conditions.

To help prevent settling or sagging, the foundation must be constructed on firm, undisturbed soil or fill compacted to at least 90 percent of its maximum relative density. All organic material such as grass, roots, twigs, and wood scraps must be removed in areas where footings are to be placed. After removal of organic material, the home site must be graded or otherwise prepared to ensure adequate drainage, in accordance with § 3285.203.

§ 3285.202 Soil classifications and bearing capacity.

The soil classification and bearing capacity of the soil must be determined before the foundation is constructed and anchored. The soil classification and bearing capacity must be determined by one or more of the following methods, unless the soil bearing capacity is established as permitted in paragraph (f) of this section:

(a) Soil tests. Soil tests that are in accordance with generally accepted engineering practice; or

(b) Soil records. Soil records of the applicable LAHJ; or

(c) Soil classifications and bearing capacities. If the soil class or bearing capacity cannot be determined by test or soil records, but its type can be identified, the soil classification, allowable pressures, and torque values shown in Table to § 3285.202 may be used.

(d) A pocket penetrometer; or

(e) In lieu of determining the soil bearing capacity by use of the methods shown in the table, an allowable pressure of 1,500 psf may be used, unless the site-specific information requires the use of lower values based on soil classification and type.

(f) If the soil appears to be composed of peat, organic clays, or uncompacted fill, or appears to have unusual conditions, a registered professional geologist, registered professional engineer, or registered architect must determine the soil classification and maximum allowable soil bearing capacity.

TABLE TO § 3285.202

Soil classification		Soil description	Allowable soil bearing pressure (psf) 1	Blow count ASTM D 1586–99	Torque probe 3 value 4 (inch-pounds)-
Classification number	ASTM D 2487–00 or D 2488–00 (incorporated by reference, see § 3285.4)				
1.....	.....	Rock or hard pan...	4000+.....		
2.....	GW, GP, SW, SP, GM, SM	Sandy gravel and gravel; very than dense and/or	2000.....	40+.....	More than 550

		cemented sands; course gravel/cobbles; preloaded silts, clays and coral.			
3……	GC, SC, ML, CL…	Sand; silty sand; clayey sand; silty gravel; medium dense course sands; sandy gravel; and very stiff silt, sand clays.	1500……..	24–39…	351–550
4A……..	CG, MH 2….	Loose to medium dense sands; firm to stiff clays and silts; alluvial fills.	1000……..	18–23	276–350.
4B……..	CH, MH 2……	Loose sands; firm clays; alluvial fills	1000……..	12–17	175–275.
5……	OL, OH, PT …	Un-compacted fill; peat; organic clays	Refer to 3285.202(e)	0–11	Less than 175.

Notes:

1 The values provided in this table have not been adjusted for overburden pressure, embedment depth, water table height, or settlement problems.

2 For soils classified as CH or MH, without either torque probe values or blow count test results, selected anchors must be rated for a 4B soil.

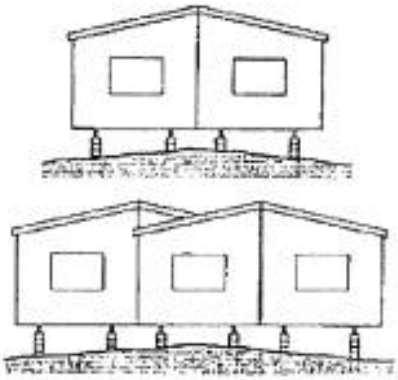
3 The torque test probe is a device for measuring the torque value of soils to assist in evaluating the holding capacity of the soil in which the ground anchor is placed. The shaft must be of suitable length for the full depth of the ground anchor.

4 The torque value is a measure of the load resistance provided by the soil when subject to the turning or twisting force of the probe.

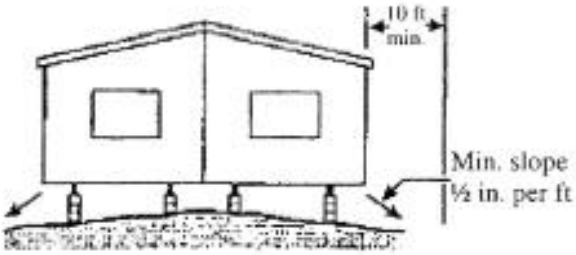
§ 3285.203 Site Drainage.

(a) Purpose. Drainage must be provided to direct surface water away from the home to protect against erosion of foundation supports and to prevent water build-up under the home, as shown in Figure to § 3285.203.

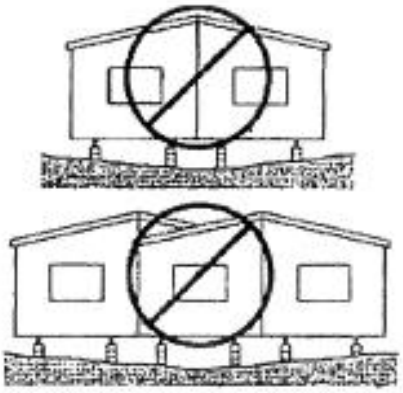
Figure to § 3285.203 - Grading and drainage.



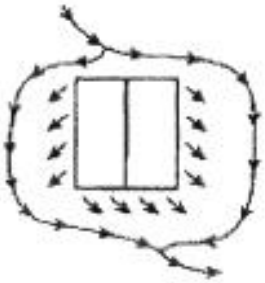
Crown and grade site to slope away from the home



Home sites must be prepared so that there will be no depressions in which surface water may accumulate beneath the home. The area of the site covered by the manufactured home must be graded, sloped, or designed to provide drainage from beneath the home or to the property line.



Do not grade site or set the home so that water collects beneath the home.



Natural drainage must be diverted around and away from the home.

(b) The home site must be graded as shown in Figure to § 3285.203, or other methods, such as a drain tile and automatic sump pump system, must be provided to remove any water that may collect under the home.

(c) All drainage must be diverted away from the home and must slope a minimum of one-half inch per foot away from the foundation for the first ten feet. Where property lines, walls, slopes, or other physical conditions prohibit this slope, the site must be provided with drains or swales or otherwise graded to drain water away from the structure, as shown in Figure to § 3285.203.

(d) Sloped site considerations. The home, where sited, must be protected from surface runoff from the surrounding area.

(e) Refer to § 3285.902 regarding the use of drainage structures to drain surface runoff.

(f) Gutters and downspouts. Manufacturers must specify in their installation instructions whether the home is suitable for the installation of gutters and downspouts. If suitable, the installation instructions must indicate that when gutters and downspouts are installed, the runoff must be directed away from the home.

§ 3285.204 Ground moisture control.

(a) Vapor retarder. If the space under the home is to be enclosed with skirting or other materials, a vapor retarder must be installed to cover the ground under the home, unless the home is installed in an arid region with dry soil conditions.

(b) Vapor retarder material. A minimum of six mil polyethylene sheeting or its equivalent must be used.

(c) Proper installation.

(1) The entire area under the home must be covered with the vapor retarder, as noted in § 3285.204(a), except for areas under open porches, decks, and recessed entries. Joints in the vapor retarder must be overlapped at least 12 inches.

(2) The vapor retarder may be placed directly beneath footings, or otherwise installed around or over footings placed at grade, and around anchors or other obstructions.

(3) Any voids or tears in the vapor retarder must be repaired. At least one repair method must be provided in the manufacturer's installation instructions.

Subpart D—Foundations

§ 3285.301 General.

(a) Foundations for manufactured home installations must be designed and constructed in accordance with this subpart and must be based on site conditions, home design features, and the loads the home was designed to withstand, as shown on the home's data plate.

(b) Foundation systems that are not pier and footing type configurations may be used when verified by engineering data and designed in accordance with § 3285.301(d), consistent with the design loads of the MHCSS. Pier and footing specifications that are different than those provided in this subpart, such as block size, metal piers, section width, loads, and spacing, may be used when verified by engineering data that comply with §§ 3285.301(c) and (d) and are capable of resisting all design loads of the MHCSS.

(c) All foundation details, plans, and test data must be designed and certified by a registered professional engineer or registered architect, and must not take the home out of compliance with the MHCSS. (See 3285.2)

(d) Alternative foundation systems or designs are permitted in accordance with either of the following:

(1) Systems or designs must be manufactured and installed in accordance with their listings by a nationally recognized testing agency, based on a nationally recognized testing protocol; or

(2) System designs must be prepared by a professional engineer or a registered architect or tested and certified by a professional engineer or registered architect in accordance with acceptable engineering practice and must be manufactured and installed so as not to take the home out of compliance with the Manufactured Home Construction and Safety Standards (part 3280 of this chapter).

§ 3285.302 Flood hazard areas.

In flood hazard areas, foundations, anchorings, and support systems must be capable of resisting loads associated with design flood and wind events or combined wind and flood events, and homes must be installed on foundation supports that are designed and anchored to prevent floatation, collapse, or lateral movement of the structure. Manufacturer's installation instructions must indicate whether:

(a) The foundation specifications have been designed for flood-resistant considerations, and, if so, the conditions of applicability for velocities, depths, or wave action; or

(b) The foundation specifications are not designed to address flood loads.

§ 3285.303 Piers.

(a) General. The piers used must be capable of transmitting the vertical live and dead loads to the footings or foundation.

(b) Acceptable piers—materials specification.

(1) Piers are permitted to be concrete blocks; pressure-treated wood with a water borne preservative, in accordance with AWPA Standard U1–04 (incorporated by reference, see § 3285.4) for Use Category 4B ground contact applications; or adjustable metal or concrete piers.

(2) Manufactured piers must be listed or labeled for the required vertical load capacity, and, where required by design, for the appropriate horizontal load capacity.

(c) Design requirements.

(1) Load-bearing capacity. The load bearing capacity for each pier must be designed to include consideration for the dimensions of the home, the design dead and live loads, the spacing of the piers, and the way the piers are used to support the home.

(2) Center beam/mating wall support must be required for multi-section homes and designs must be consistent with Tables 2 and 3 to § 3285.303 and Figures A, B, and C to § 3285.310.

(d) Pier loads.

(1) Design support configurations for the pier loads, pier spacing, and roof live loads must be in accordance with Tables 1, 2, and 3 to § 3285.303 and the MHCSS. Other pier designs are permitted in accordance with the provisions of this subpart.

(2) Manufactured piers must be rated at least to the loads required to safely support the dead and live loads, as required by § 3285.301, and the installation instructions for those piers must be consistent with Tables 1, 2, and 3 to this section.

TABLE 1 TO § 3285.303—FRAME BLOCKING ONLY/PERIMETER SUPPORT NOT REQUIRED EXCEPT AT OPENINGS

Pier spacing	Roof live load (psf)	Location	Load (lbs.)
4 ft. 0 in.	20	Frame.....	2,900
	30	Frame.....	3,300
	40	Frame.....	3,600
6 ft. 0 in.	20	Frame.....	4,200
	30	Frame.....	4,700
	40	Frame.....	5,200
8 ft. 0 in.	20	Frame.....	5,500
	30	Frame.....	6,200
	40	Frame.....	6,900
10 ft. 0 in.	20	Frame.....	6,800
	30	Frame.....	7,600
	40	Frame.....	8,500

Notes:

1. See Table to § 3285.312 for cast-in-place footing design by using the noted loads.

2. Table 1 is based on the following design assumptions: maximum 16 ft. nominal section width (15 ft. actual width), 12" eave, 10" I-beam size, 300 lbs. pier dead load, 10 psf roof dead load, 6 psf floor dead load, 35 plf wall dead load, and 10 plf chassis dead load.

3. Interpolation for other pier spacing is permitted.

4. The pier spacing and loads shown in the above table do not consider flood or seismic loads and are not intended for use in flood or seismic hazard areas. In those areas, the foundation support system is to be designed by a professional engineer or architect.

5. See Table to § 3285.312 for sizing of footings.

TABLE 2 TO § 3285.303—FRAME PLUS PERIMETER BLOCKING/PERIMETER BLOCKING REQUIRED

Maximum pier spacing	Roof live load (psf)	Location	Load (lbs.)
4 ft. 0 in	20	Frame	1,400
		Perimeter	1,900
		Mating	3,200
4 ft. 0 in	30	Frame	1,400
		Perimeter	2,300
		Mating	3,800
4 ft. 0 in	40	Frame	1,400
		Perimeter	2,600
		Mating	4,400
6 ft. 0 in	20	Frame	1,900
		Perimeter	2,700
		Mating	4,700
6 ft. 0 in	30	Frame	1,900
		Perimeter	3,200
		Mating	5,600
6 ft. 0 in	40	Frame	1,900
		Perimeter	3,700
		Mating	6,500
8 ft. 0 in	20	Frame	2,400
		Perimeter	3,500
		Mating	6,100
8 ft. 0 in	30	Frame	2,400
		Perimeter	4,200
		Mating	7,300
8 ft. 0 in	40	Frame	2,400
		Perimeter	4,800
		Mating	8,500
10 ft. 0 in	20	Frame	2,900
		Perimeter	4,300
		Mating	7,600
10 ft. 0 in	30	Frame	2,900
		Perimeter	5,100
		Mating	9,100
10 ft. 0 in	40	Frame	2,900
		Perimeter	6,000
		Mating	10,600

Notes:

1. See Table to § 3285.312 for cast-in-place footing design by using the noted loads.
2. Mating wall perimeter piers and footings only required under full height mating walls supporting roof loads. Refer to Figures A and B to § 3285.310.
3. Table 2 is based on the following design assumptions: maximum 16 ft. nominal section width (15 ft. actual width), 12" eave, 10" I-beam size, 300 lbs. pier dead load, 10 psf roof dead load, 6 psf floor dead load, 35 plf wall dead load, and 10 plf chassis dead load
4. Interpolation for other pier spacing is permitted.
5. The pier spacing and loads shown in the above table do not consider flood or seismic loads and are not intended for use in flood or seismic hazard areas. In those areas, the foundation support system is to be designed by a professional engineer or architect.
6. See Table to § 3285.312 for sizing of footings.

TABLE 3 TO § 3285.303—RIDGE BEAM SPAN FOOTING CAPACITY

Mating wall opening (ft)	Roof live load (psf)	Pier and footing load (lbs.)
5.....	20 30 40	1,200 1,600 1,900
10.....	20 30 40	2,300 3,100 3,800
15.....	20 30 40	3,500 4,700 5,800
20.....	20 30 40	4,700 6,200 7,500
25.....	20 30 40	5,800 7,800 9,700
30.....	20 30 40	7,000 9,300 11,600
35.....	20 30 40	8,100 10,900 13,600

Notes:

1. See Table to § 3285.312 for cast-in-place footing design by using the noted loads.
2. Table 3 is based on the following design assumptions: maximum 16 ft. nominal section width (15 ft. actual width), 10. I-beam size, 300 lbs. pier dead load, 10 psf roof dead load, 6 psf floor dead load, 35 plf wall dead load, and 10 plf chassis dead load.
3. Loads listed are maximum column loads for each section of the manufactured home.
4. Interpolation for maximum allowable pier and column loads is permitted for mateline openings between those shown in the table.
5. The pier spacing and loads shown in the above table do not consider flood or seismic loads and are not intended for use in flood or seismic hazard areas. In those areas, the foundation support system must be designed by a professional engineer or registered architect.
6. See Table to § 3285.312 for sizing of footings.

§ 3285.304 Pier configuration.

(a) Concrete blocks. Installation instructions for concrete block piers must be developed in accordance with the following provisions and must be consistent with Figures A and B to § 3285.306.

(1) Load-bearing (not decorative) concrete blocks must have nominal dimensions of at least 8 inches × 8 inches × 16 inches;

(2) The concrete blocks must be stacked with their hollow cells aligned vertically; and

(3) When piers are constructed of blocks stacked side-by-side, each layer must be at right angles to the preceding one, as shown in Figure B to § 3285.306.

(b) Caps.

(1) Structural loads must be evenly distributed across capped-hollow block piers, as shown in Figures A and B to § 3285.306.

(2) Caps must be solid concrete or masonry at least 4 inches in nominal thickness, or hardboard lumber at least 2 inches nominal in thickness; or be corrosion-protected minimum one-half inch thick steel; or be of other listed materials.

(3) All caps must be of the same length and width as the piers on which they rest.

(4) When split caps are used on double-stacked blocks, the caps must be installed with the long dimension across the joint in the blocks below.

(c) Gaps. Any gaps that occur during installation between the bottom of the main chassis beam and foundation support system must be filled by:

(1) Nominal 4 inch × 6 inch × 1 inch shims to level the home and fill any gaps between the base of the main chassis beam and the top of the pier cap;

(2) Shims must be used in pairs, as shown in Figures A and B to § 3285.306, and must be driven in tightly so that they do not occupy more than one inch of vertical height; and

(3) Hardwood plates no thicker than 2 inches nominal in thickness or 2 inch or 4 inch nominal concrete block must be used to fill in any remaining vertical gaps.

(d) Manufactured pier heights. Manufactured pier heights must be selected so that the adjustable risers do not extend more than 2 inches when finally positioned.

§ 3285.305 Clearance under homes.

A minimum clearance of 12 inches must be maintained between the lowest member of the main frame (I-beam or channel beam) and the grade under all areas of the home.

§ 3285.306 Design procedures for concrete block piers.

(a) Frame piers less than 36 inches high.

(1) Frame piers less than 36 inches high are permitted to be constructed of single, open, or closed-cell concrete blocks, 8 inches " 8 inches " 16 inches, when the design capacity of the block is not exceeded.

(2) The frame piers must be installed so that the long sides are at right angles to the supported I-beam, as shown in Figure A to this section.

(3) The concrete blocks must be stacked with their hollow cells aligned vertically and must be positioned at right angles to the footings.

(4) Horizontal offsets from the top to the bottom of the pier must not exceed one-half inch.

(5) Mortar is not required, unless specified in the installation instructions or required by a registered professional engineer or registered architect.

(b) Frame piers 36 inches to 67 inches high and corner piers.

(1) All frame piers between 36 inches and 67 inches high and all corner piers over three blocks high must be constructed out of double, interlocked concrete blocks, as shown in Figure B to this section, when the design capacity of the block is not exceeded. Mortar is not required for concrete block piers, unless otherwise specified in the installation instructions or required by a professional engineer or registered architect.

(2) Horizontal offsets from the top to the bottom of the pier must not exceed one inch.

(c) All piers over 67 inches high. Piers over 67 inches high must be designed by a registered professional engineer or registered architect, in accordance with acceptable engineering practice. Mortar is not required for concrete block piers, unless otherwise specified in the manufacturer installation instructions or by the design.

Figure A to § 3285.306 Typical Footing and Pier Design, Single Concrete Block.

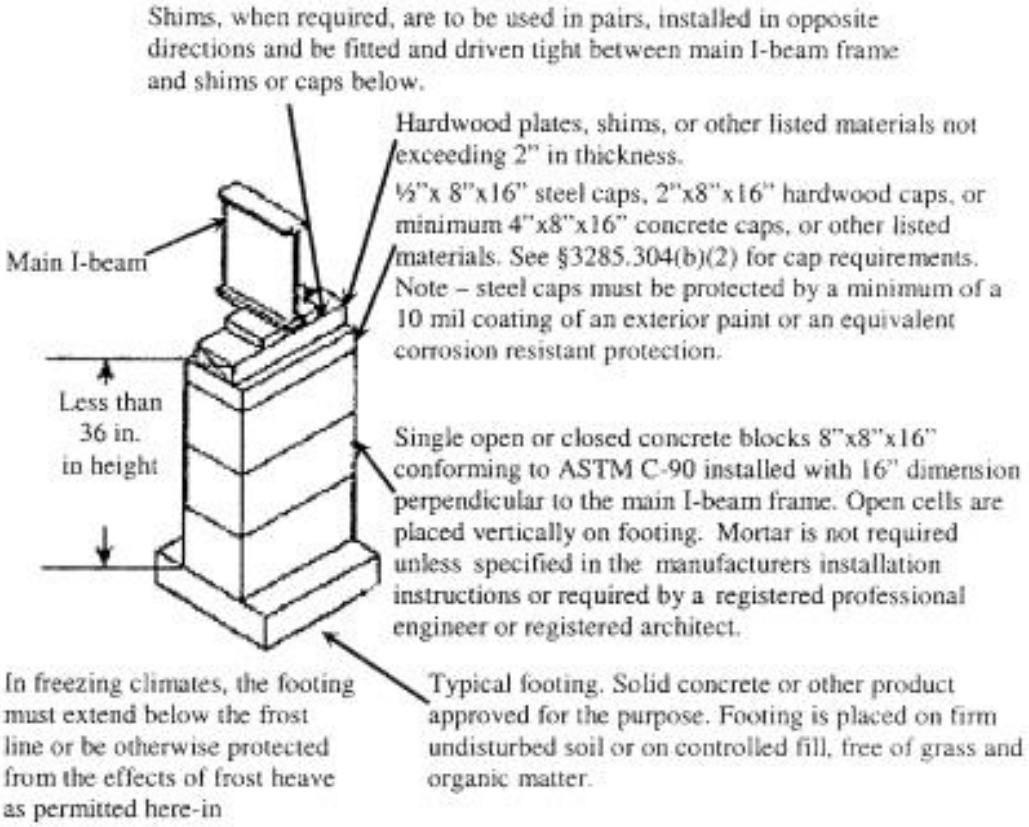
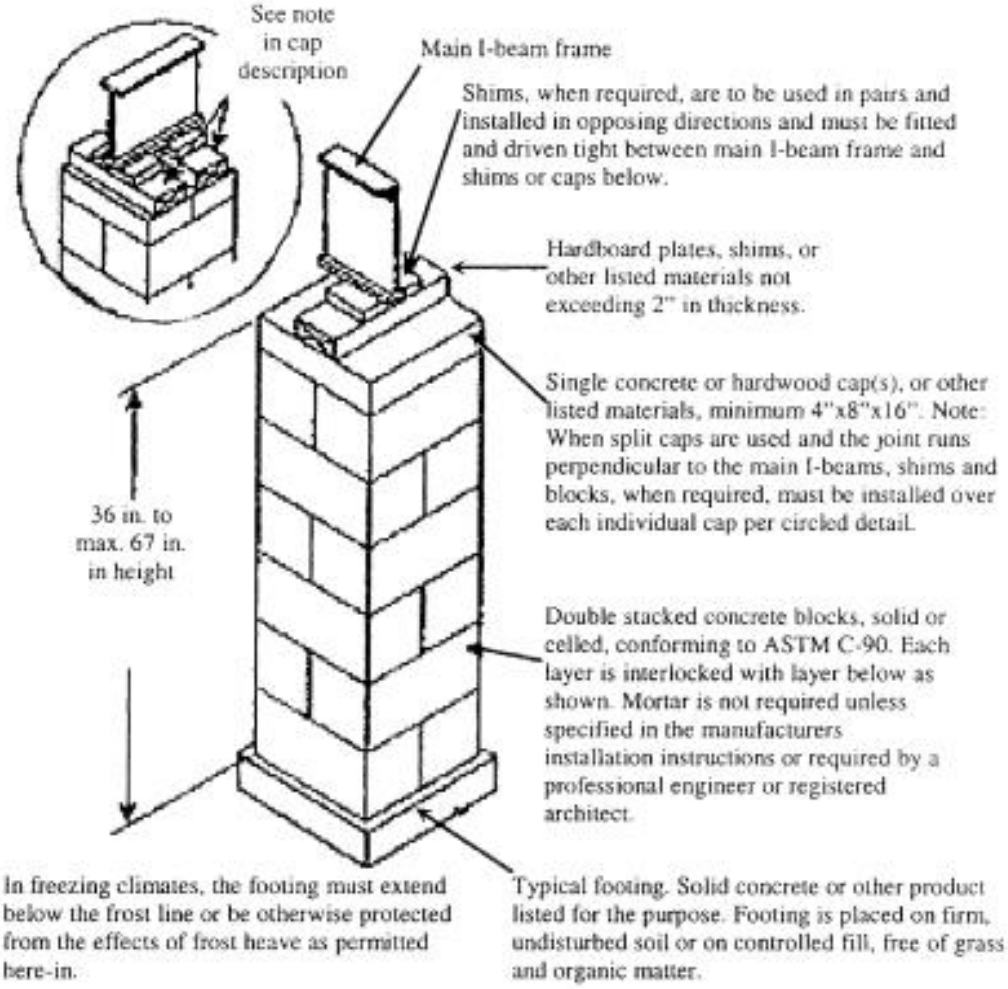


Figure B to 3285.306(b) Typical Footing and Pier Installation, Double Concrete Block.



§ 3285.307 Perimeter support piers.

(a) Piers required at mate-line supports, perimeter piers, and piers at exterior wall openings are permitted to be constructed of single open-cell or closed-cell concrete blocks, with nominal dimensions of 8 inches × 8 inches × 16 inches, to a maximum height of 54 inches, as shown in Figure A to this section, when the design capacity of the block is not exceeded.

(b) Piers used for perimeter support must be installed with the long dimension parallel to the perimeter rail.

§ 3285.308 Manufactured piers.

(a) Manufactured piers must be listed and labeled and installed to the pier manufacturer's installation instructions. See § 3285.303(d)(2) for additional requirements.

(b) Metal or other manufactured piers must be provided with protection against weather deterioration and corrosion at least equivalent to that provided by a coating of zinc on steel of .30 oz./ft.2 of surface coated.

§ 3285.309 [Reserved]

§ 3285.310 Pier location and spacing.

(a) The location and spacing of piers depends upon the dimensions of the home, the live and dead loads, the type of construction (single-or multi-section), I-beam size, soil bearing capacity, footing size, and such other factors as the location of doors or other openings.

§ 3285.309 [Reserved]

§ 3285.310 Pier location and spacing.

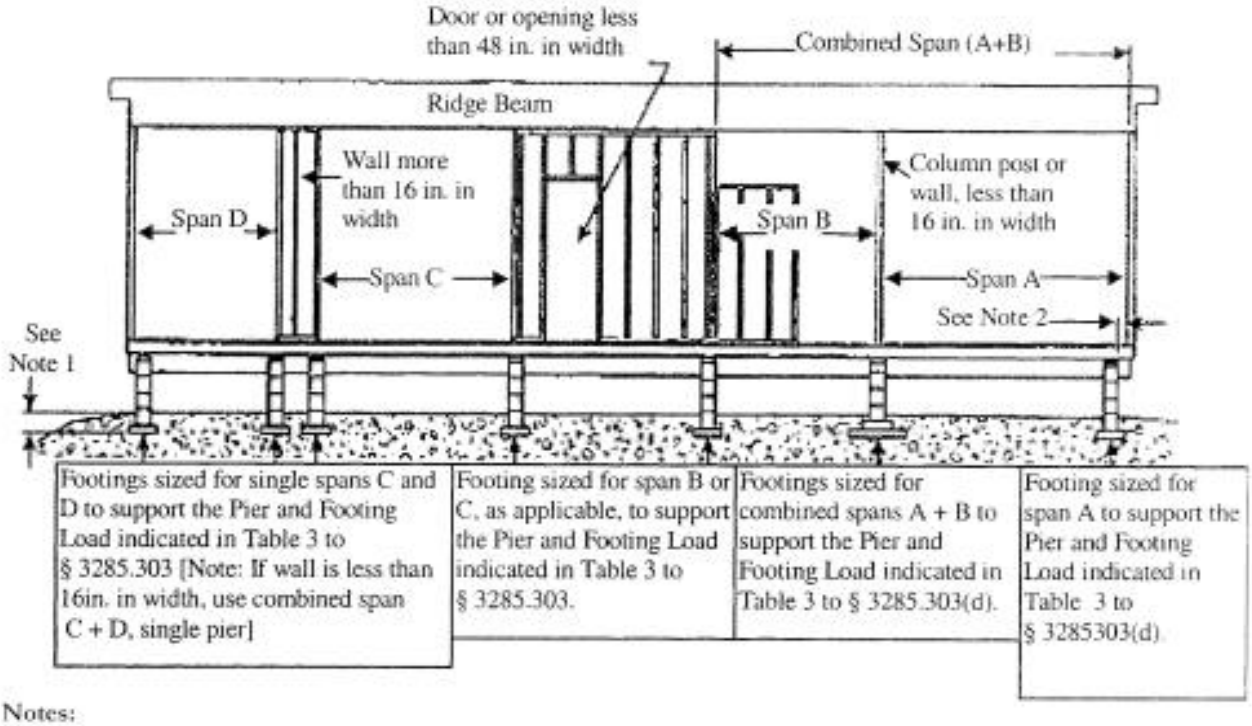
(a) The location and spacing of piers depends upon the dimensions of the home, the live and dead loads, the type of construction (single-or multi-section),I-beam size, soil bearing capacity, footing size, and such other factors as the location of doors or other openings.

(b) Mate-line and column pier supports must be in accordance with this subpart and consistent with Figures A through C to this section, unless the pier support and footing configuration is designed by a registered professional engineer or registered architect.

(c) Piers supporting the frame must be no more than 24 inches from both ends and not more than 120 inches center to center under the main rails.

(d) Pier support locations. Pier support locations and spacing must be presented to be consistent with Figures A and B to § 3285.312, as applicable, unless alternative designs are provided by a professional engineer or registered architect in accordance with acceptable engineering practice.

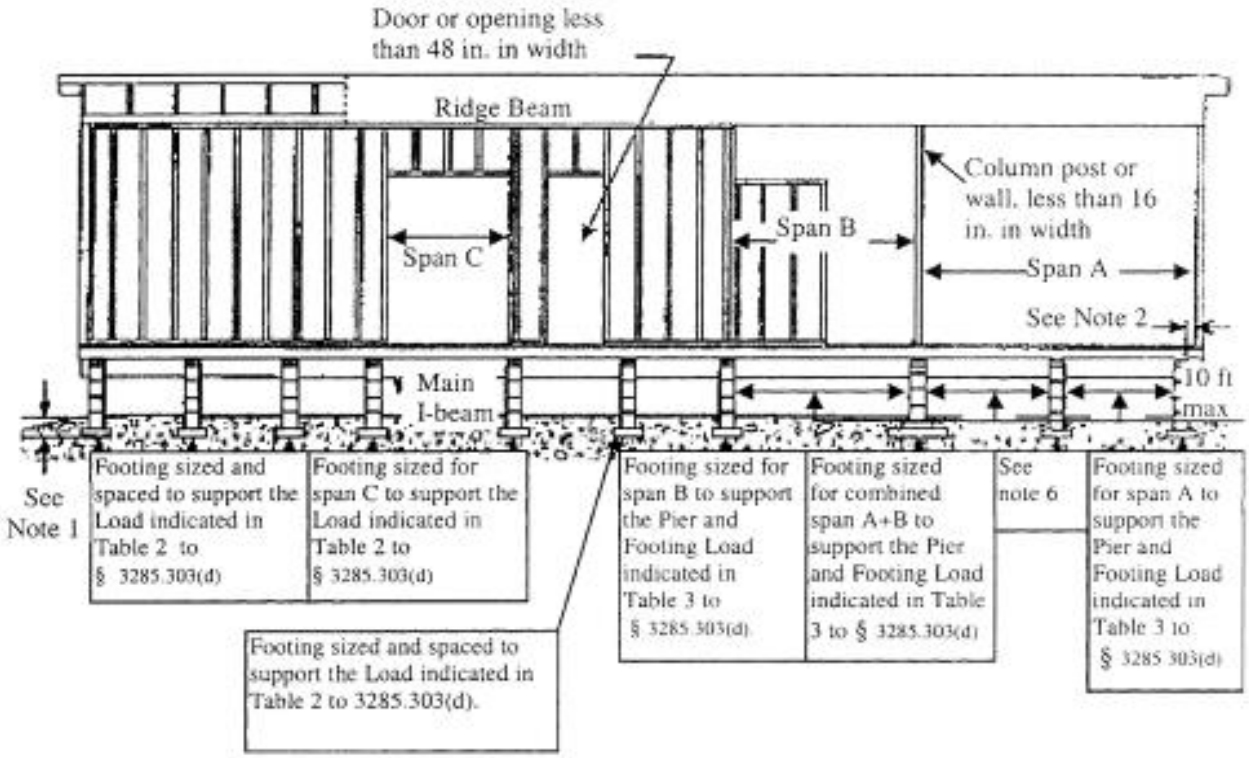
Figure A to § 3285.310 Typical Mate-Line Column Pier and Mating Wall Support when Frame Only Blocking is Required.



Notes:

1. Bottom of footings must extend below frost line depth, unless designed for placement above the frost line. (See § 3285.312(b)).
2. Piers may be offset up to 6 in. in either direction along the supported members to allow for plumbing, electrical, mechanical, equipment, crawlspaces, or other devices.
3. Single-stack concrete block pier loads must not exceed 8,000 lbs.
4. Prefabricated piers must not exceed their approved or listed maximum vertical or horizontal design loads.
5. When a full-height mating wall does not support the ridge beam, this area is considered an unsupported span—Span B.
6. Piers are not required at openings in the mating wall that are less than 48 inches in width. Place piers on both sides of mating wall openings that are 48 inches or greater in width. For roof loads of 40 psf or greater, a professional engineer or registered architect must determine the maximum mating wall opening permitted without pier or other supports.

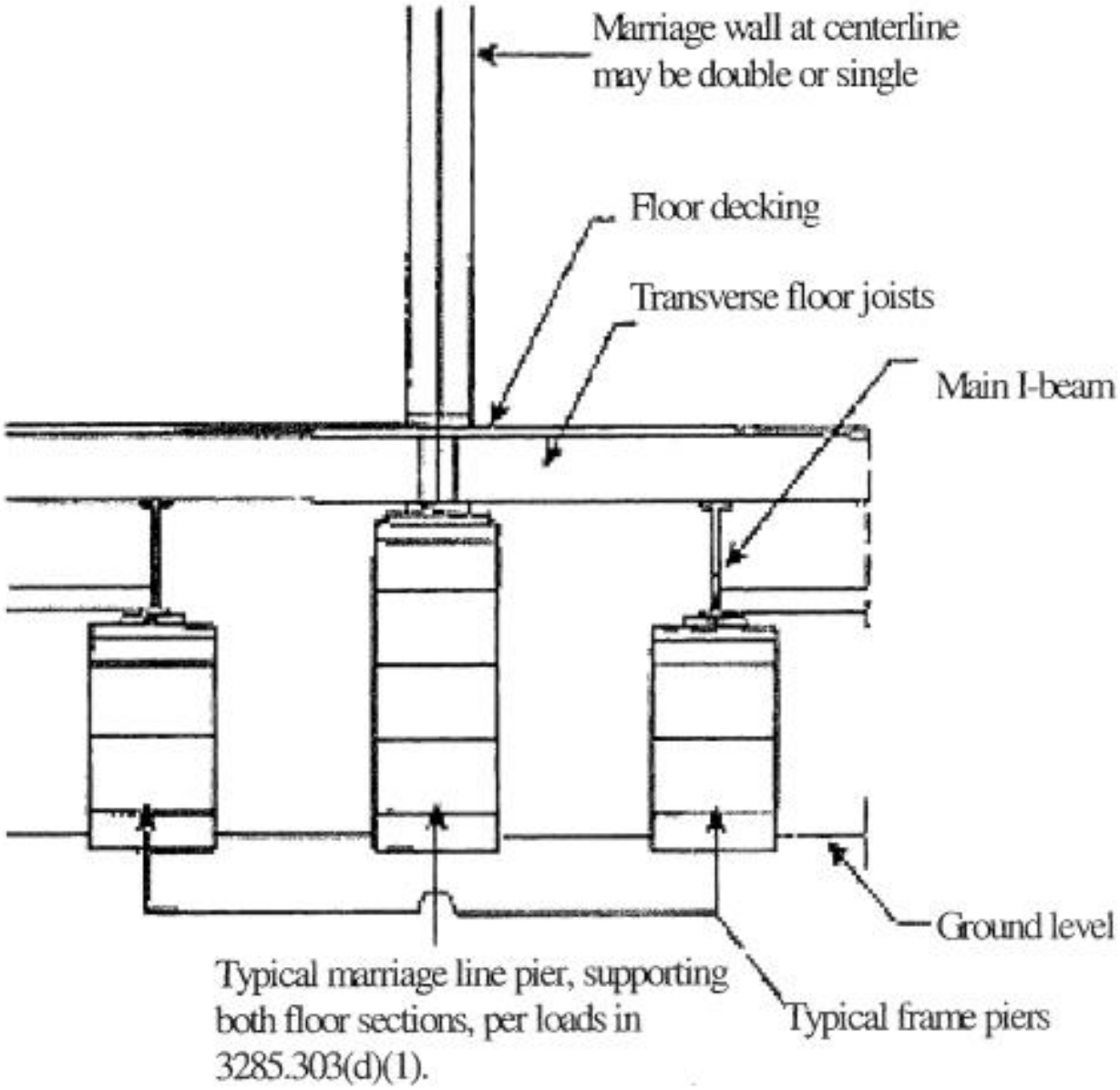
Figure B to § 3285.310(b) Typical Mate-Line Column Pier and Mating Wall Support When Perimeter Blocking is Required.



Notes:

1. Bottom of footings must be below the frost line depth, unless designed for placement above the frost line. (See § 3285.312(b)).
2. Piers may be offset 6 in. in either direction along supported members to allow for plumbing electrical, mechanical equipment, crawlspaces, or other devices.
3. Single stack concrete block pier loads must not exceed 8,000 lbs.
4. Piers are not required at openings in the mating wall that are less than 48 inches in width. Place piers on both sides of mating wall openings that are 48 inches or greater in width. For roof loads of 40 psf or greater, a professional engineer or registered architect must determine the maximum mating wall opening permitted without pier or other supports.
5. When a full-height mating wall does not support the ridge beam, this area is considered an unsupported span—Span B.
6. In areas where the open span is greater than 10 ft., intermediate piers and footings must be placed at maximum 10 ft. on center.
7. Prefabricated piers must not exceed their approved or listed maximum horizontal or vertical design loads.
8. Column piers are in addition to piers required under full-height mating walls.

Figure C to § 3285.310 Typical Mate-Line Column and Piers.



Notes:

1. Mate-line column support piers are installed with the long dimension of the concrete block perpendicular to the rim joists.
2. Pier and footing designed to support both floor sections. Loads as listed in Table 3 to § 3285.303 are total column loads for both sections.

§ 3285.311 Required perimeter supports.

(a) Perimeter pier or other supports must be located as follows:

(1) On both sides of side wall exterior doors (such as entry, patio, and sliding glass doors) and any other side wall openings of 48 inches or greater in width, and under load-bearing porch posts, factory installed fireplaces, and fireplace stoves).

(2) Other perimeter supports must be:

(i) Located in accordance with Table 2 to § 3285.303; or

(ii) Provided by other means such as additional outriggers or floor joists. When this alternative is used, the designs required by § 3285.301 must consider the additional loads in sizing the pier and footing supports under the main chassis beam.

(b) For roof live loads of 40 psf or greater, a professional engineer or architect must determine the maximum sidewall opening permitted without perimeter pier or other supports.

(c) The location and installation of any perimeter pier support must not take the home out of compliance with the Manufactured Home Construction and Safety Standards (part 3280 of this chapter).

§ 3285.312 Footings.

(a) Materials approved for footings must provide equal load-bearing capacity and resistance to decay, as required by this section. Footings must be placed on undisturbed soil or fill compacted to 90 percent of maximum relative density. A footing must support every pier. Footings are to be either:

(1) Concrete.

(i) Four inch nominal precast concrete pads meeting or exceeding ASTM C 90– 02a, Standard Specification for Loadbearing Concrete Masonry Units (incorporated by reference, see § 3285.4), without reinforcement, with at least a 28-day compressive strength of 1,200 pounds per square inch (psi); or

(ii) Six inch minimum poured-in-place concrete pads, slabs, or ribbons with at least a 28-day compressive strength of 3,000 pounds per square inch (psi). Site-specific soil conditions or design load requirements may also require the use of reinforcing steel in cast-in-place concrete footings.

(2) Pressure-treated wood.

(i) Pressure-treated wood footings must consist of a minimum of two layers of nominal 2-inch thick pressure-treated wood, a single layer of nominal 3/4-inch thick, pressure-treated plywood with a maximum size of 16 inches by 16 inches, or at least two layers of 3/4-inch thick, pressure-treated plywood for sizes greater than 16 inches by 16 inches. Plywood used for this purpose is to be rated exposure 1 or exterior sheathing, in accordance with PS1–95, Construction and Industrial Plywood (incorporated by reference, see § 3285.4).

(ii) Pressure treated lumber is to be treated with a water-borne adhesive, in accordance with AWPA Standard U1– 04 (incorporated by reference, see § 3285.4) for Use Category 4B ground contact applications.

(iii) Cut ends of pressure treated lumber must be field-treated, in accordance with AWPA Standard M4– 02 (incorporated by reference, see § 3285.4).

(3) ABS footing pads.

(i) ABS footing pads are permitted, provided they are installed in accordance with the pad manufacturer installation instructions and certified for use in the soil classification at the site.

(ii) ABS footing pads must be listed or labeled for the required load capacity.

(4) Other Materials. Footings may be of other materials than those identified in this section, provided they are listed for such use and meet all other applicable requirements of this subpart.

(b) Placement in freezing climates. Footings placed in freezing climates must be designed using methods and practices that prevent the effects of frost heave by one of the following methods:

(1) Conventional footings. Conventional footings must be placed below the frost line depth for the site unless an insulated foundation or monolithic slab is used (refer to §§ 3285.312(b)(2) and 3285.312(b)(3)). When the frost line depth is not available from the LAHJ, a registered professional engineer, registered architect, or registered geologist must be consulted to determine the required frost line depth for the manufactured home site. This is not subject to the provisions in § 3285.2(c) that also require review by the manufacturer and approval by its DAPIA for any variations to the manufacturer's installation instructions for support and anchoring.

(2) Monolithic slab systems. A monolithic slab is permitted above the frost line when all relevant site-specific conditions, including soil characteristics, site preparation, ventilation, and insulative properties of the under floor enclosure, are considered and anchorage requirements are accommodated as set out in § 3285.401. The monolithic slab system must be designed by a registered professional engineer or registered architect:

(i) In accordance with acceptable engineering practice to prevent the effects of frost heave; or

(ii) In accordance with SEI/ASCE 32– 01 (incorporated by reference, see § 3285.4).

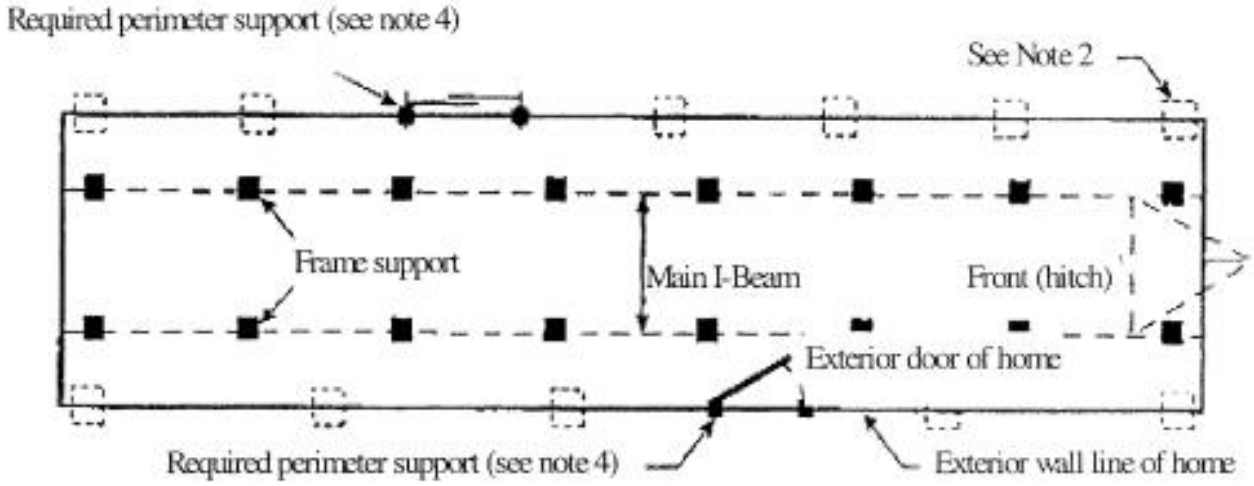
(3) Insulated foundations. An insulated foundation is permitted above the frost line, when all relevant site-specific conditions, including soil characteristics, site preparation, ventilation, and insulative properties of the under floor enclosure, are considered, and the foundation is designed by a registered professional engineer or registered architect:

(i) In accordance with acceptable engineering practice to prevent the effects of frost heave; or

(ii) In accordance with SEI/ASCE 32– 01 (incorporated by reference, see § 3285.4).

(c) Sizing of footings. The sizing and layout of footings depends on the load-bearing capacity of the soil, footings, and the piers. See §§ 3285.202 and 3285.303, and Table to 3285.312.

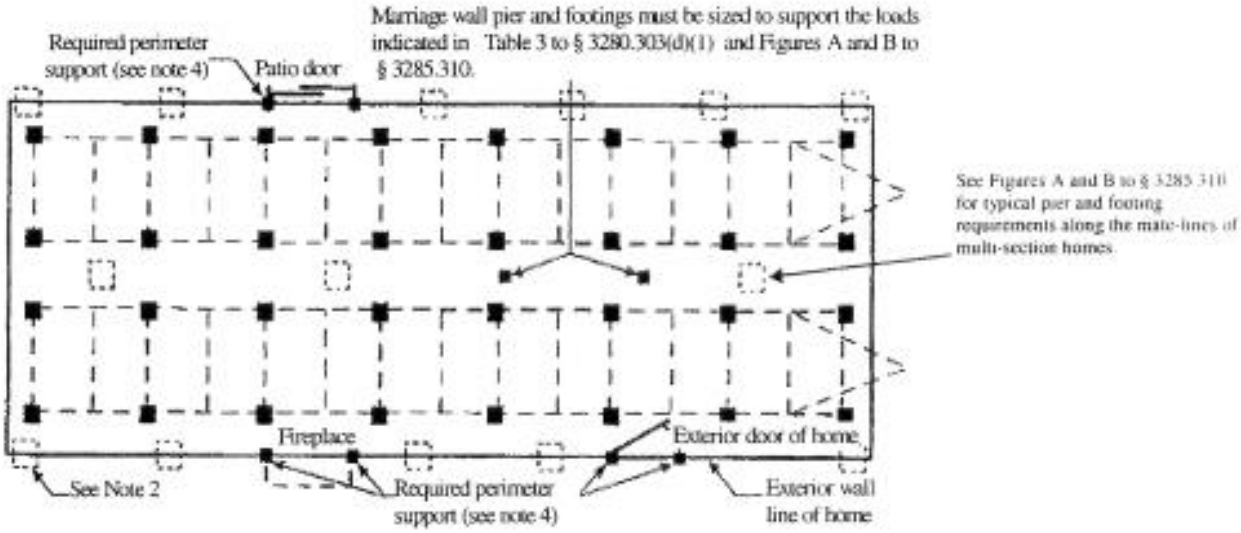
Figure A to § 3285.312 Typical Blocking Diagram for Single Section Homes



Notes:

1. Refer to Table 1 of § 3285.303 for pier and footing requirements when frame blocking only is used.
2. In addition to blocking required by § 3285.311, see Table 2 to § 3285.303 for maximum perimeter blocking loads.
3. End piers under main I-beams may be exterior doors, patio doors, and sliding glass set back a maximum of 24 inches, as measured from the outside edge of the floor to the center of the pier.
4. Place piers on both sides of sidewall exterior doors, patio doors, and sliding glass doors; under porch posts, factory-installed fireplaces, and fireplace stoves; under jamb studs at multiple window openings; and at any other sidewall openings 48 inches or greater in width. For roof loads of 40 psf or greater, a professional engineer or registered architect must determine the maximum sidewall opening permitted without perimeter supports. See §§ 3285.307 and 3285.311 for additional requirements and for locating perimeter supports.

Figure B to § 3285.312 Typical Blocking Diagram for Multi-section Home.



Notes:

1. Refer to Table 1 to § 3285.303 for pier and footing requirements when frame blocking only is used.

2. In addition to blocking required by § 3285.311, see Tables 2 and 3 to § 3285.303 for maximum perimeter blocking loads.

3. End piers under main I-beams may be set back a maximum of 24 inches, as measured from the outside edge of the floor to the center of the pier.

4. Place piers on both sides of sidewall exterior doors, patio doors, and sliding glass doors; under porch posts, factory-installed fireplaces, and fireplace stoves; under jamb studs at multiple window openings; and at any other sidewall openings of 48 inches or greater in width. For roof loads of 40 psf or greater, a professional engineer or registered architect must determine the maximum side wall opening permitted without perimeter supports or mating wall opening permitted without pier or other supports. See §§ 3285.307 and 3285.311 for additional information on requirements and for locating perimeter supports.

5. When an end pier under the mate-line also serves as a column pier, it may be set back a maximum of 6 in., as measured from the inside edge of the exterior wall to the center of the pier.

TABLE TO § 3285.312.—THE SIZE AND CAPACITY FOR UNREINFORCED CAST-IN-PLACE FOOTINGS

Soil capacity (psf)	Minimum footing size (in.)	8 in. x 16 in. pier		16 in. x 16 in. pier	
		Maximum footing capacity (lbs.)	Unreinforced cast-in-place minimum thickness (in.)	Maximum footing capacity (lbs.)	Unreinforced cast-in-place minimum thickness (in.)
1,000	16 x 16	1,600	6	1,600	6
	20 x 20	2,600	6	2,600	6
	24 x 24	3,700	6	3,700	6
	30 x 30	5,600	8	5,800	6
	36 x 36	7,900	10	8,100	8
	42 x 42	[4] 10,700	10	10,700	10
	48 x 48	[4] 13,100	12	13,600	10
1,500	16 x 16	2,500	6	2,500	6
	20 x 20	4,000	6	4,000	6
	24 x 24	5,600	8	5,700	6
	30 x 30	[4] 8,500	10	8,900	8
	36 x 36	[4] 12,400	10	12,600	8
	42 x 42	[4] 16,500	12	[4] 16,800	10
	48 x 48	[4] 21,200	14	[4] 21,600	12
2,000	16 x 16	3,400	6	3,400	6
	20 x 20	5,300	6	5,300	6
	24 x 24	7,600	8	7,700	6
	30 x 30	[4] 11,700	10	11,900	8
	36 x 36	[4] 16,700	15	[4] 16,900	10
	42 x 42	[4] 21,700	18	[4] 22,700	12
2,500	16 x 16	4,300	6	4,300	6
	20 x 20	6,700	6	6,700	6
	24 x 24	[4] 9,600	8	9,700	6
	30 x 30	[4] 14,800	10	15,000	8
	36 x 36	[4] 20,700	12	[4] 21,400	10
3,000	16 x 16	5,200	6	5,200	6
	20 x 20	8,100	8	8,100	6
	24 x 24	[4] 11,500	10	11,700	6
	30 x 30	[4] 17,800	12	[4] 18,100	8

4,000.....	36 x 36	[4] 25,400	14	[4] 25,900	10
	16 x 16	7,000	6	7,000	6
	20 x 20	[4] 10,800	8	10,900	6
	24 x 24	[4] 15,500	10	15,600	8
	30 x 30	[4] 23,300	12	[4] 24,200	10

Notes:

1. The footing sizes shown are for square pads and are based on the area (in.2), shear and bending required for the loads shown. Other configurations, such as rectangular or circular configurations, can be used, provided the area and depth is equal to or greater than the area and depth of the square footing shown in the table, and the distance from the edge of the pier to the edge of the footing is not less than the thickness of the footing.

2. The 6 in. cast-in-place values can be used for 4 in. unreinforced precast concrete footings.

3. The capacity values listed have been reduced by the dead load of the concrete footing.

4. Concrete block piers must not exceed their design capacity of 8,000 lbs. for 8. x 16. single stack block and 16,000 lbs. for 16. x 16. double stack block.

5. A registered professional engineer or registered architect must prepare the design, if the design loads exceed the capacity for single or double stack concrete block piers shown in footnote 4.

§ 3285.313 Combination systems.

Support systems that combine both load-bearing capacity and uplift resistance must also be sized and designed for all applicable design loads.

§ 3285.314 [Reserved]

§ 3285.315 Special snow load conditions.

(a) General. Foundations for homes designed for and located in areas with roof live loads greater than 40 psf must be designed by the manufacturer for the special snow load conditions, in accordance with acceptable engineering practice. Where site or other conditions prohibit the use of the manufacturer's instructions, a registered professional engineer or registered architect must design the foundation for the special snow load conditions.

(b) Ramadas. Ramadas may be used in areas with roof live loads greater than 40 psf. Ramadas are to be self-supporting, except that any connection to the home must be for weatherproofing only.

Subpart E—Anchorage Against Wind

§ 3285.401 Anchoring instructions.

(a) After blocking and leveling, the manufactured home must be secured against the wind by use of anchor assembly type installations or by connecting the home to an alternative foundation system. See § 3285.301.

(b) For anchor assembly type installations, the installation instructions must require the home to be

secured against the wind, as described in this section. The installation instructions and design for anchor type assemblies must be prepared by a registered professional engineer or registered architect, in accordance with acceptable engineering practice, the design loads of the MHCSS, and § 3285.301(d).

(c) All anchoring and foundation systems must be capable of meeting the loads that the home was designed to withstand required by part 3280, subpart D of this chapter, as shown on the home's data plate. Exception: Manufactured homes that are installed in less restrictive roof load zone and wind zone areas may have foundation or anchorage systems that are capable of meeting the lower design load provisions of the Standards, if the design for the lower requirements is either provided in the installation instructions or the foundation and anchorage system is designed by a professional engineer or registered architect.

(d) The installation instructions are to include at least the following information and details for anchor assembly-type installations:

(1) The maximum spacing for installing diagonal ties and any required vertical ties or straps to ground anchors;

(2) The minimum and maximum angles or dimensions for installing diagonal ties or straps to ground anchors and the main chassis members of the manufactured home;

(3) Requirements for connecting the diagonal ties to the main chassis members of the manufactured home. If the diagonal ties are attached to the bottom flange of the main chassis beam, the frame must be designed to prevent rotation of the beam;

(4) Requirements for longitudinal and mating wall tie-downs and anchorage;

(5) The method of strap attachment to the main chassis member and ground anchor, including provisions for swivel-type connections;

(6) The methods for protecting vertical and diagonal strapping at sharp corners by use of radius clips or other means; and

(7) As applicable, the requirements for sizing and installation of stabilizer plates.

§ 3285.402 Ground anchor installations.

(a) Ground anchor certification and testing. Each ground anchor must be manufactured and provided with installation instructions, in accordance with its listing or certification. A nationally recognized testing agency must list, or a registered professional engineer or registered architect must certify, the ground anchor for use in a classified soil (refer to § 3285.202), based on a nationally recognized testing protocol, or a professional engineer or registered architect must certify that the ground anchor is capable of resisting all loads in paragraph (b) of this section for the soil type or classification.

(b) Specifications for tie-down straps and ground anchors.

(1) Ground anchors. Ground anchors must be installed in accordance with their listing or certification, be installed to their full depth, be provided with protection against weather deterioration and corrosion at least equivalent to that provided by a coating of zinc on steel of not less than 0.30 oz./ft.2 of surface coated, and be capable of resisting a minimum ultimate load of 4,725 lbs. and a working load of 3,150 lbs., as installed, unless reduced capacities are noted in accordance with note 11 of Table 1 to this section or note 12 of Tables 2 and 3 to this section. The ultimate load and working load of ground anchors and anchoring equipment must be determined by

a registered professional engineer, registered architect, or tested by a nationally recognized third-party testing agency in accordance with a nationally recognized testing protocol.

(2) Tie-down straps. A 11/4 inch x 0.035 inch or larger steel strapping conforming to ASTM D 3953—97, Standard Specification for Strapping, Flat Steel and Seals (incorporated by reference, see § 3285.4), Type 1, Grade 1, Finish B, with a minimum total capacity of 4,725 pounds (lbs.) and a working capacity of 3,150 pounds (lbs.) must be used. The tie-down straps must be provided with protection against weather deterioration and corrosion at least equivalent to that provided by a coating of zinc on steel of not less than 0.30 oz./ft.2 of surface coated. Slit or cut edges of coated strapping need not be zinc coated.

(c) Number and location of ground anchors.

(1) Ground anchor and anchor strap spacing must be:

(i) No greater than the spacing shown in Tables 1 through 3 to this section and Figures A and B to this section; or

(ii) Designed by a registered engineer or architect, in accordance with acceptable engineering practice and the requirements of the MHCSS for any conditions that are outside the parameters and applicability of the Tables 1 through 3 to this section.

(2) The requirements in paragraph (c) of this section must be used to determine the maximum spacing of ground anchors and their accompanying anchor straps, based on the soil classification determined in accordance with § 3285.202:

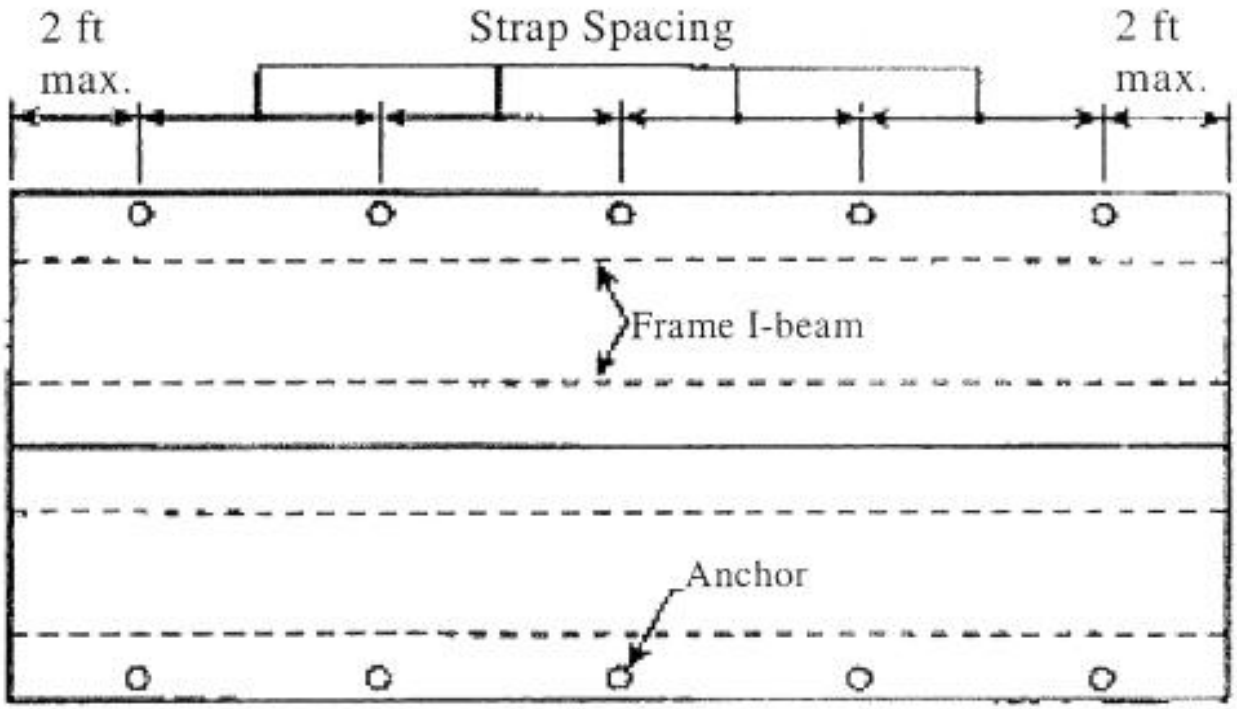
(i) The installed ground anchor type and size (length) must be listed for use in the soil class at the site and for the minimum and maximum angle permitted between the diagonal strap and the ground; and

(ii) All ground anchors must be installed in accordance with their listing or certification and the ground anchor manufacturer installation instructions; and

(iii) If required by the ground anchor listing or certification, the correct size and type of stabilizer plate is installed. If metal stabilizer plates are used, they must be provided with protection against weather deterioration and corrosion at least equivalent to that provided by a coating of zinc on steel of not less than 0.30 oz./ft.2 of surface coated. Alternatively, ABS stabilizer plates may be used when listed and certified for such use.

(3) Longitudinal anchoring. Manufactured homes must also be stabilized against wind in the longitudinal direction in all Wind ones. Manufactured homes located in Wind Zones II and III must have longitudinal ground anchors installed on the ends of the manufactured home transportable section(s) or be provided with alternative systems that are capable of resisting wind forces in the longitudinal direction. See Figure C to § 3285.402 for an example of one method that may be used to provide longitudinal anchoring. A professional engineer or registered architect must certify the longitudinal anchoring method or any alternative system used as adequate to provide the required stabilization, in accordance with acceptable engineering practice.

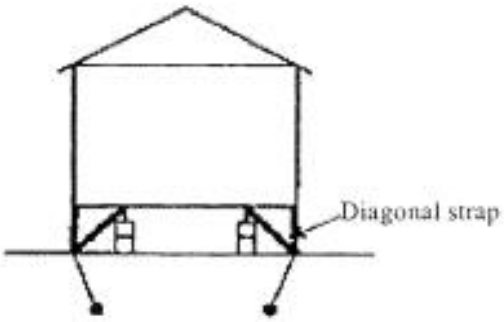
Figure A to § 3285.402 Ground Anchor Locations and Spacing – Plan View.



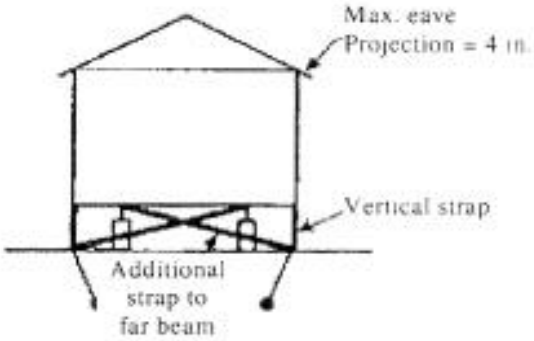
Notes:

1. Refer to Tables 1, 2, and 3 to this section for maximum ground anchor spacing.
2. Longitudinal anchors not shown for clarity; refer to 3285.402(b)(2) for longitudinal anchoring requirements.

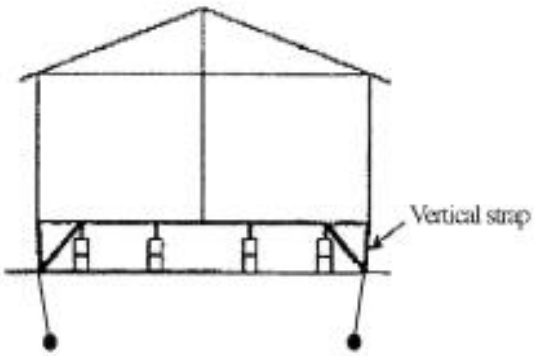
Figure B to § 3285.402 Anchor Strap and Pier Relationship.



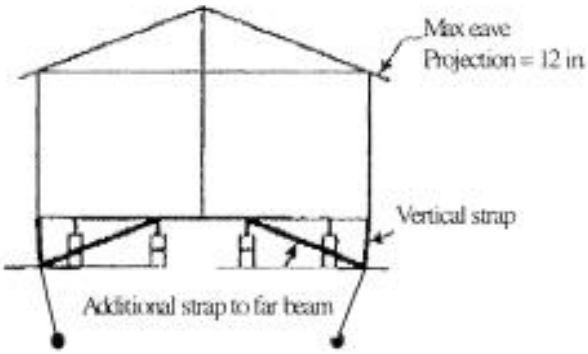
Near Beam Method



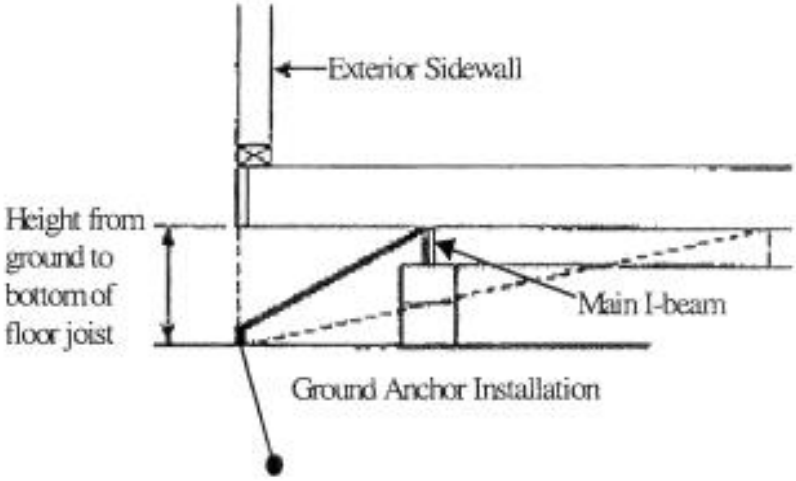
Second Beam Method
(Vertical tie down straps required)



Near Beam Method
(Mate-line piers and anchors omitted for clarity)



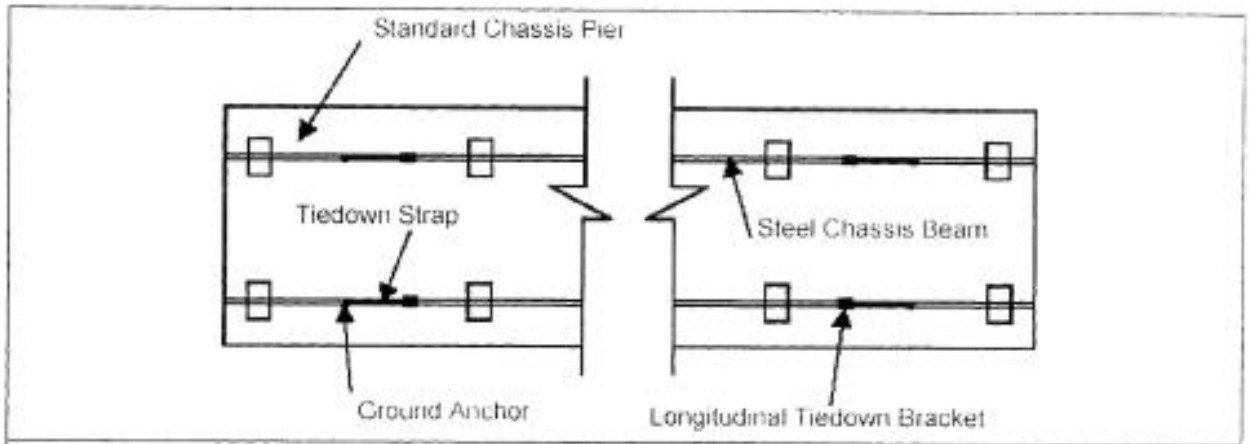
Second Beam Method
(Mate-line piers and anchors omitted for clarity)



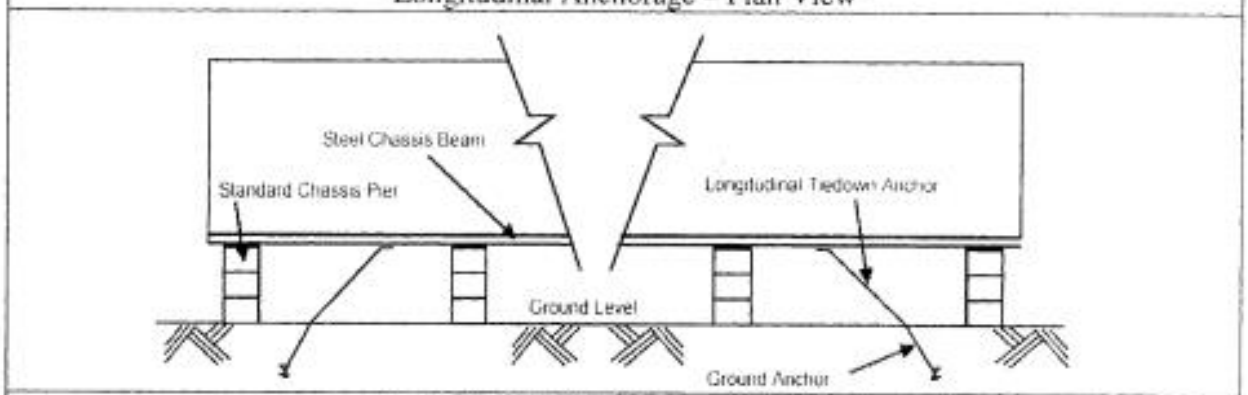
Notes:

1. Vertical Straps are not required in Wind Zone I.
2. The frame must be designed to prevent rotation of the main chassis beam, when the diagonal ties are not attached to the top flange of the beam. See § 3285.401(d)(3).

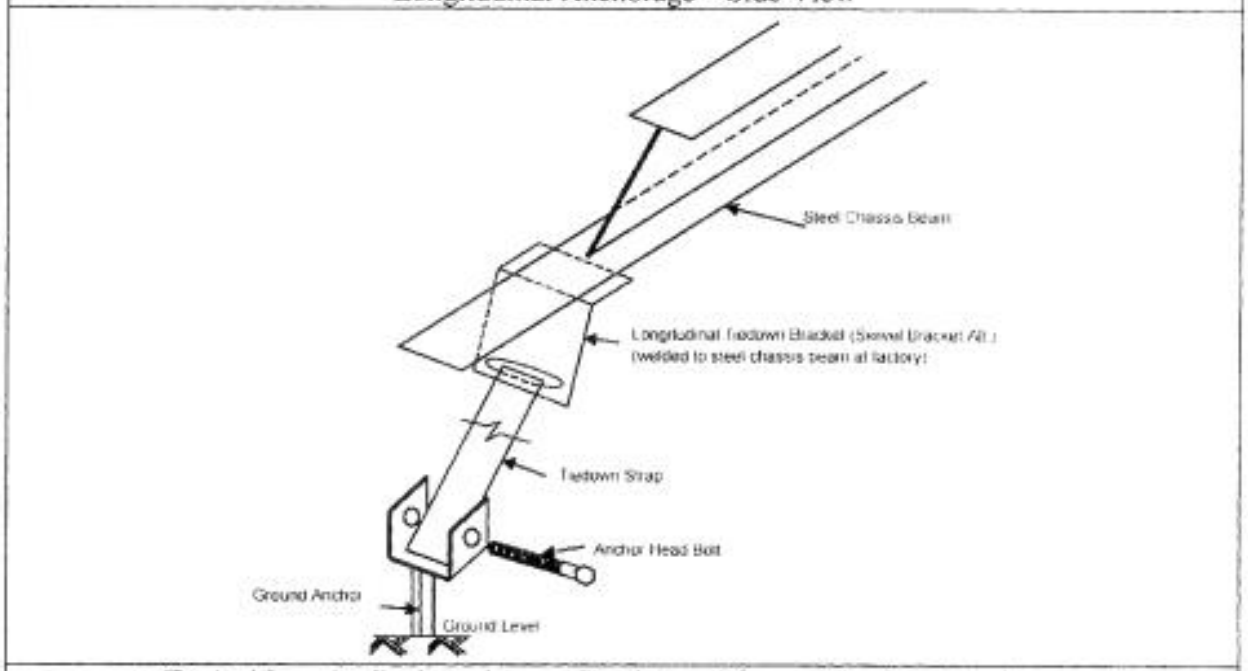
Figure C to § 3285.402 Longitudinal Anchoring



Longitudinal Anchorage – Plan View



Longitudinal Anchorage – Side View



Typical Longitudinal Anchorage Bracket and Ground Anchor Attachment

TABLE 1 TO § 3285.402.—MAXIMUM DIAGONAL TIE-DOWN STRAP SPACING, WIND ZONE I

Nominal floor width, single section/multi-section	Max. height from ground to diagonal strap attachment	I-beam spacing 82.5 in.	I-beam spacing 99.5 in.
12/24 ft. 144 in. nominal section(s).....	25 in.....	14 ft. 2 in.....	N/A.
	33 in.....	11 ft. 9 in.....	N/A.
	46 in.....	9 ft. 1 in.....	N/A.
	67 in.....	N/A.....	N/A
14/28 ft. 168 in. nominal section(s).....	25 in.....	18 ft. 2 in.....	15 ft. 11 in.
	33 in.....	16 ft. 1 in.....	13 ft. 6 in.
	46 in.....	13 ft. 3 in.....	10 ft. 8 in.
	67 in.....	10 ft. 0 in.....	N/A
16/32 ft. 180 in. to 192 in. nominal section.....	25 in.....	N/A.....	19 ft. 5 in.
	33 in.....	19 ft. 0 in.....	17 ft. 5 in.
	46 in.....	16 ft. 5 in.....	14 ft. 7 in.
	67 in.....	13 ft. 1 in.....	11 ft. 3 in.

Notes:

1. Table is based on maximum 90 in. sidewall height.

2. Table is based on maximum 4 in. inset for ground anchor head from edge of floor or wall.

3. Table is based on main rail (I-beam) spacing per given column.

4. Table is based on maximum 4 in. eave width for single-section homes and maximum 12 in. for multi-section homes.

5. Table is based on maximum 20-degree roof pitch (4.3/12).

6. Table is based upon the minimum height between the ground and the bottom of the floor joist being 18 inches. Interpolation may be required for other heights from ground to strap attachment.

7. Additional tie-downs may be required per the home manufacturer instructions.

8. Ground anchors must be certified for these conditions by a professional engineer, architect, or listed by a nationally recognized testing laboratory.

9. Ground anchors must be installed to their full depth, and stabilizer plates, if required by the ground anchor listing or certification, must also be installed in accordance with the listing or certification and in accordance with the ground anchor and home manufacturer instructions.

10. Strapping and anchoring equipment must be certified by a registered professional engineer or registered architect, or listed by a nationally recognized testing agency to resist these specified forces, in accordance with testing procedures in ASTM D 3953–97, Standard Specification for Strapping, Flat Steel and Seals (incorporated by reference, see § 3285.4).

11. A reduced ground anchor or strap working load capacity will require reduced tie-down strap and anchor spacing.

12. Ground anchors must not be spaced closer than the minimum spacing permitted by the listing or certification.

13. Table is based on a 3,150 lbs. working load capacity, and straps must be placed within 2 ft. of the ends of the home.

14. Table is based on a minimum angle of 30 degrees and a maximum angle of 60 degrees between the diagonal strap and the ground.

15. Table does not consider flood or seismic loads and is not intended for use in flood or seismic hazard areas. In those areas, the anchorage system is to be designed by a professional engineer or architect.

TABLE 2 TO § 3285.402—MAXIMUM DIAGONAL TIE-DOWN STRAP SPACING, WIND ZONE II.

Nominal floor width, single section/multi-section	Max. height from ground to diagonal strap attachment	Near beam method I-beam spacing		Second beam method I-beam spacing	
		82.5 in.	99.5 in.	82.5 in.	99.5 in.
12 ft/24 ft. 144 in. nominal section(s).	25 in..... 33 in..... 46 in..... 67 in.....	6 ft. 2 in... 5 ft. 2 in... 4 ft. 0 in N/A	4 ft. 3 in... N/A..... N/A..... N/A.....	N/A..... N/A..... N/A..... 6 ft 1 in...	N/A N/A N/A 6 ft 3 in
14 ft/28 ft. 168 in. nominal section(s).	25 in..... 33 in..... 46 in..... 67 in.....	7 ft. 7 in 6 ft. 10 in 5 ft. 7 in 4 ft. 3 in	6 ft. 9 in... 5 ft. 9 in 4 ft. 6 in N/A	N/A N/A N/A N/A	N/A N/A N/A N/A
16 ft/32 ft. 180 in. to 192 in. nominal section(s).	25 in..... 33 in..... 46 in..... 67 in.....	N/A 7 ft. 6 in 6 ft. 9 in 5 ft. 4 in	7 ft. 10 in 7 ft. 2 in 6 ft. 0 in 4 ft. 7 in	N/A N/A N/A N/A	N/A N/A N/A N/A

Notes:

1. Table is based on maximum 90 in. sidewall height.
2. Table is based on maximum 4 in. inset for ground anchor head from edge of floor or wall.
3. Tables are based on main rail (I-beam) spacing per given column.
4. Table is based on maximum 4 in. eave width for single-section homes and maximum 12 in. for multi-section homes.
5. Table is based on maximum 20-degree roof pitch (4.3/12).
6. All manufactured homes designed to be located in Wind Zone II must have a vertical tie installed at each diagonal tie location.
7. Table is based upon the minimum height between the ground and the bottom of the floor joist being 18 inches. Interpolation may be required for other heights from ground to strap attachment.
8. Additional tie downs may be required per the home manufacturer instructions.
9. Ground anchors must be certified by a professional engineer, or registered architect, or listed by a nationally recognized testing laboratory.
10. Ground anchors must be installed to their full depth, and stabilizer plates, if required by the ground anchor listing or certification, must also be installed in accordance with the listing or certification and in accordance with the ground anchor and home manufacturer instructions.
11. Strapping and anchoring equipment must be certified by a registered professional engineer or registered architect or must be listed by a nationally recognized testing agency to resist these specified forces, in accordance with testing procedures in ASTM D 3953—97, Standard Specification for Strapping, Flat Steel and Seals (incorporated by reference, see § 3285.4).
12. A reduced ground anchor or strap working load capacity will require reduced tie-down strap and anchor spacing.
13. Ground anchors must not be spaced closer than the minimum spacing permitted by the listing or certification.

14. Table is based on a 3,150 lbs. working load capacity, and straps must be placed within 2 ft. of the ends of the home.
15. Table is based on a minimum angle of 30 degrees and a maximum of 60 degrees between the diagonal strap and the ground.
16. Table does not consider flood or seismic loads and is not intended for use in flood or seismic hazard areas. In those areas, the anchorage system is to be designed by a professional engineer or architect.

TABLE 3 TO § 3285.402.—MAXIMUM DIAGONAL TIE-DOWN STRAP SPACING, WIND ZONE III.

Nominal floor width, single section/multi-section	Max. height from ground to diagonal strap attachment	Near beam method I-beam spacing		Second beam method I-beam spacing	
		82.5 in	99.5 in.	82.5 in	99.5 in
12 ft./24 ft. 144 in. nominal section(s).	25 in.....	5 ft. 1 in	N/A.....	N/A.....	N/A
	33 in.....	4 ft. 3 in	N/A.....	N/A.....	N/A
	46 in.....	N/A	N/A.....	N/A.....	N/A
	67 in.....	N/A.	N/A.....	N/A.....	N/A
14 ft./28 ft. 168 in. nominal section(s).	25 in.....	6 ft. 2 in.	5 ft. 7 in	N/A.....	N/A
	33 in.....	5 ft. 8 in	4 ft. 9 in	N/A.....	N/A
	46 in.....	4 ft. 8.....	N/A	N/A.....	N/A
	67 in.....	N/A	N/A	N/A.....	N/A
16 ft./32 ft. 180 in. to 192 in. nominal sections.	25 in.....	N/A	6 ft. 3 in	N/A.....	N/A
	33 in.....	6 ft. 1 in	5 ft. 11 in	N/A.....	N/A
	46 in.....	5 ft. 7 in	5 ft. 0 in	N/A.....	N/A
	67 in.....	4 ft. 5 in	N/A.....	N/A.....	N/A

Notes:
1. Table is based on maximum 90 in. sidewall height.
2. Table is based on maximum 4 in. inset for ground anchor head from edge of floor or wall.
3. Table is based on main rail (I-beam) spacing per given column.
4. Table is based on maximum 4 in. eave width for single-section homes and maximum 12 in. for multi-section homes. 5. Table is based on maximum 20-degree roof pitch (4.3/12).
6. All manufactured homes designed to be located in Wind Zone III must have a vertical tie installed at each diagonal tie location.
7. Table is based upon the minimum height between the ground and the bottom of the floor joist being 18 inches. Interpolation may be required for other heights from ground to strap attachment.
8. Additional tie downs may be required per the home manufacturer instructions.
9. Ground anchors must be certified by a professional engineer, or registered architect, or listed by a nationally recognized testing laboratory.
10. Ground anchors must be installed to their full depth, and stabilizer plates, if required by the ground anchor listing or certification, must also be installed in accordance with the listing or certification and per the ground anchor and home manufacturer instructions.
11. Strapping and anchoring equipment must be certified by a registered professional engineer or registered architect or must be listed by a nationally recognized testing agency to resist these specified forces, in

accordance with testing procedures in ASTM D 3953–97, Standard Specification for Strapping, Flat Steel and Seals (incorporated by reference, see § 3285.4).
12. A reduced ground anchor or strap working load capacity will require reduced tie-down strap and anchor spacing. 13. Ground anchors must not be spaced closer than the minimum spacing permitted by the listing or certification.
14. Table is based on a 3,150 lbs. working load capacity, and straps must be placed within 2 ft. of the ends of the home.
15. Table is based on a minimum angle of 30 degrees and a maximum angle of 60 degrees between the diagonal strap and the ground.
16. Table does not consider flood or seismic loads and is not intended for use in flood or seismic hazard areas. In those areas, the anchorage system is to be designed by a professional engineer or architect.

§ 3285.403 Sidewall, over-the-roof, mate-line, and shear wall straps.

If sidewall, over-the-roof, mate-line, or shear wall straps are installed on the home, they must be connected to an anchoring assembly.

§ 3285.404 Severe climatic conditions.

In frost-susceptible soil locations, ground anchor augers must be installed below the frost line, unless the foundation system is frost-protected to prevent the effects of frost heave, in accordance with acceptable engineering practice and § 3280.306 of this chapter and § 3285.312.

§ 3285.405 Severe wind zones.

When any part of a home is installed within 1,500 feet of a coastline in Wind Zones II or III, the manufactured home must be designed for the increased requirements, as specified on the home's data plate (refer to § 3280.5(f)) in accordance with acceptable engineering practice. Where site or other conditions prohibit the use of the manufacturer's instructions, a registered professional engineer or registered architect, in accordance with acceptable engineering practice, must design anchorage for the special wind conditions.

§ 3285.406 Flood hazard areas.

Refer to § 3285.302 for anchoring requirements in flood hazard areas.

Subpart F—Optional Features

§ 3285.501 Home installation manual supplements.

Supplemental instructions for optional equipment or features must be approved by the DAPIA as not taking the home out of conformance with the requirements of this part, or part 3280 of this chapter, and included with the manufacturer installation instructions.

§ 3285.502 Expanding rooms.

The support and anchoring systems for expanding rooms must be installed in accordance with designs provided by the home manufacturer or prepared by a registered professional engineer or registered architect, in accordance with acceptable engineering practice.

§ 3285.503 Optional appliances.

(a) Comfort cooling systems. When not provided and installed by the home manufacturer, any comfort cooling systems that are installed must be installed according to the appliance manufacturer's installation instructions.

(1) Air conditioners. Air conditioning equipment must be listed or certified by a nationally recognized testing agency for the application for which the unit is intended and installed in accordance with the terms of its listing or certification (see § 3280.714).

(i) Energy efficiency.

(A) Site-installed central air conditioning equipment must be sized to meet the home's heat gain requirement, in accordance with Chapter 28 of the 1997 ASHRAE Handbook of Fundamentals (incorporated by reference, see § 3285.4) or ACCA Manual J, Residential Cooling Load, 8th Edition (incorporated by reference, see § 3285.4). Information necessary to calculate the home's heat gain can be found on the home's comfort cooling certificate.

(B) The BTU/hr. rated capacity of the site-installed air conditioning equipment must not exceed the air distribution system's rated BTU/hr. capacity as shown on the home's compliance certificate.

(ii) Circuit rating. If a manufactured home is factory-provided with an exterior outlet to energize heating and/ or air conditioning equipment, the branch circuit rating on the tag adjacent to this outlet must be equal to or greater than the minimum circuit amperage identified on the equipment rating plate.

(iii) A-coil units.

(A) A-coil air conditioning units must be compatible and listed for use with the furnace in the home and installed in accordance with the appliance manufacturer's instructions.

(B) The air conditioner manufacturer instructions must be followed.

(C) All condensation must be directed beyond the perimeter of the home by means specified by the equipment manufacturer.

(2) Heat pumps. Heat pumps must be listed or certified by a nationally recognized testing agency for the application for which the unit is intended and installed in accordance with the terms of its listing or certification. (See § 3280.714 of this chapter).

(3) Evaporative coolers.

(i) A roof-mounted cooler must be listed or certified by a nationally recognized testing agency for the application for which the unit is intended and installed in accordance with the terms of its listing (see § 3280.714 of this chapter).

(A) Any discharge grill must not be closer than three feet from a smoke alarm.

(B) Before installing a roof-mounted evaporative cooler on-site, the installer must ensure that the roof will support the weight of the cooler.

(C) A rigid base must be provided to distribute the cooler weight over multiple roof trusses to adequately support the weight of the evaporative cooler.

(ii) An evaporative cooler that is not roof-mounted is to be installed in accordance with the requirements of its listing or the equipment manufacturer's instructions, whichever is the more restrictive.

(b) Fireplaces and wood-stoves. When not provided by the home manufacturer, fireplaces and wood-stoves including chimneys and air inlets for fireplaces and wood stoves must be listed for use with manufactured homes and must be installed in accordance with their listings.

(c) Appliance venting.

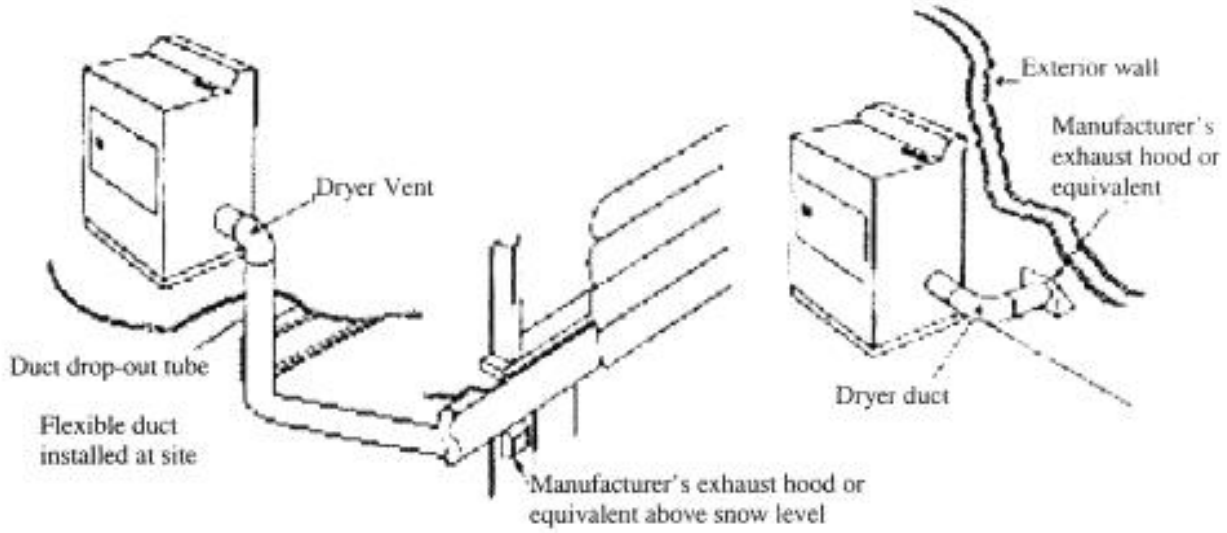
(1) All fuel burning heat producing appliances of the vented type except ranges and ovens must be vented to the exterior of the home.

(2) Upon completion, the venting system must comply with all requirements of §§ 3280.707(b) and 3280.710 of the Manufactured Home Construction and Safety Standards in this chapter.

(3) When the vent exhausts through the floor, the vent must not terminate under the home and must extend to the home's exterior and through any skirting that may be installed.

(d) Clothes dryer exhaust duct system. A clothes dryer exhaust duct system must conform with and be completed in accordance with the appliance manufacturer instructions and § 3280.708 of this chapter. The vents must exhaust to the exterior of the home, beyond any perimeter skirting installed around it, as shown in Figure to § 3285.503.

Figure A to § 3285.503 Dryer Exhaust System.



Notes:

1. Installation of the exhaust system must be in accordance with the dryer manufacturer instructions.

2. Dryer exhaust system must not contain reverse slope or terminate under the home.

§ 3285.504 Skirting.

(a) Skirting, if used, must be of weather-resistant materials or provided with protection against weather deterioration at least equivalent to that provided by a coating of zinc on steel of not less than 0.30 oz./ft.2 of surface coated.

(b) Skirting must not be attached in a manner that can cause water to be trapped between the siding and trim or forced up into the wall cavities trim to which it is attached.

(c) All wood skirting within 6 inches of the ground must be pressure-treated in accordance with AWPA Standard U1 (incorporated by reference, see § 3285.4) for Use Category 4A, Ground Anchor Contact Applications, or be naturally resistant to decay and termite infestations.

(d) Skirting must not be attached in a manner that impedes the contraction and expansion characteristics of the home's exterior covering.

§ 3285.505 Crawlspace ventilation.

(a) A crawlspace with skirting must be provided with ventilation openings. The minimum net area of ventilation openings must not be less than one square foot (ft.2) for every 150 square feet (ft.2) of the home's floor area. The total area of ventilation openings may be reduced to one square foot (ft.2) for every 1,500 square feet (ft.2) of the home's floor area, where a uniform 6– mil polyethylene sheet material or other acceptable vapor retarder is installed, according to § 3285.204, on the ground surface beneath the entire floor area of the home.

(b) Ventilation openings must be placed as high as practicable above the ground.

(c) Ventilation openings must be located on at least two opposite sides to provide cross-ventilation.

(d) Ventilation openings must be covered for their full height and width with a perforated corrosion and weather-resistant covering that is designed to prevent the entry of rodents. In areas subject to freezing, the coverings for the ventilation openings must also be of the adjustable type, permitting them to be in the open or closed position, depending on the climatic conditions.

(e) Access opening(s) not less than 18 inches in width and 24 inches in height and not less than three square feet (ft.2) in area must be provided and must be located so that any utility connectionslocated under the home are accessible.

(f) Dryer vents and combustion air inlets must pass through the skirting to the outside. Any surface water runoff from the furnace, air conditioning, or water heater drains must be directed away from under the home or collected by other methods identified in § 3285.203.

Subpart G—Ductwork and Plumbing and Fuel Supply Systems

§ 3285.601 Field assembly.

Home manufacturers must provide specific installation instructions for the proper field assembly of manufacturer-supplied and shipped loose ducts, plumbing, and fuel supply system parts that are necessary to join all sections of the home and are designed to be located underneath the home. The installation instructions must be designed in accordance with applicable requirements of part 3280, subparts G and H, of this chapter, as specified in this subpart.

§ 3285.602 Utility connections.

Refer to § 3285.904 for considerations for utility system connections.

§ 3285.603 Water supply.

(a) Crossover. Multi-section homes with plumbing in both sections require water-line crossover connections to join all sections of the home. The crossover design requirements are located in, and must be designed in accordance with, § 3280.609 of this chapter.

(b) Maximum supply pressure and reduction. When the local water supply pressure exceeds 80 psi to the manufactured home, a pressure-reducing valve must be installed.

(c) Mandatory shutoff valve.

(1) An identified and accessible shutoff valve must be installed between the water supply and the inlet.

(2) The water riser for the shutoff valve connection must be located underneath or adjacent to the home.

(3) The shutoff valve must be a full-flow gate or ball valve, or equivalent valve.

(d) Freezing protection. Water line crossovers completed during installation must be protected from freezing. The freeze protection design requirements are located in, and must be designed in accordance with, § 3280.603 of this chapter.

(1) If subject to freezing temperatures, the water connection must be wrapped with insulation or otherwise protected to prevent freezing.

(2) In areas subject to freezing or subfreezing temperatures, exposed sections of water supply piping, shutoff valves, pressure reducers, and pipes in water heater compartments must be insulated or otherwise protected from freezing.

(3) Use of pipe heating cable. Only pipe heating cable listed for manufactured home use is permitted to be used, and it must be installed in accordance with the cable manufacturer installation instructions.

(e) Testing procedures.

(1) The water system must be inspected and tested for leaks after completion at the site. The installation instructions must provide testing requirements that are consistent with § 3280.612 of this chapter.

(2) The water heater must be disconnected when using an air-only test.

§ 3285.604 Drainage system.

(a) Crossovers. Multi-section homes with plumbing in more than one section require drainage system crossover connections to join all sections of the home. The crossover design requirements are located in, and must be designed in accordance with, § 3280.610 of this chapter.

(b) Assembly and support. If portions of the drainage system were shipped loose because they were necessary to join all sections of the home and designed to be located underneath the home, they must be installed and supported in accordance with § 3280.608 of this chapter.

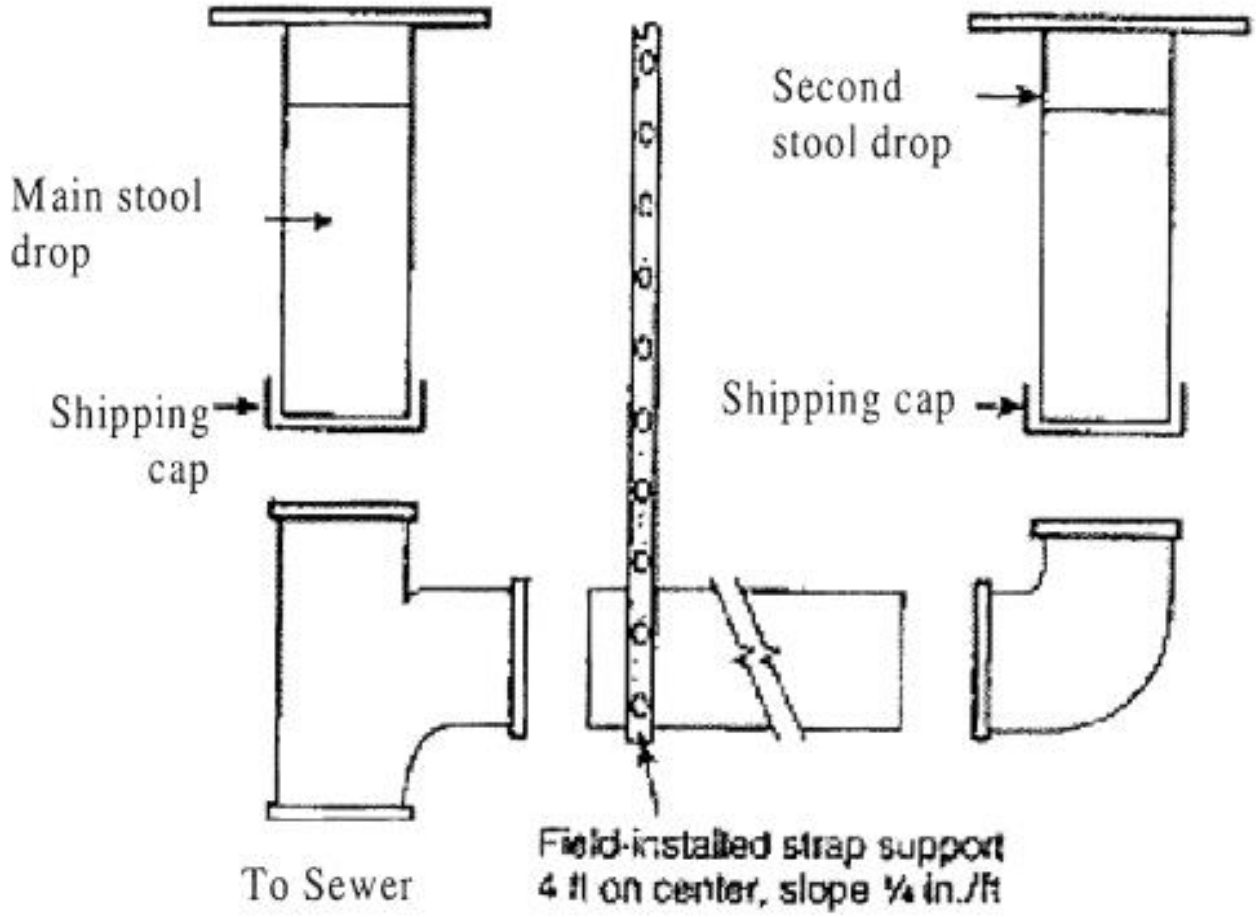
(c) Proper slopes. Drains must be completed in accordance with § 3280.610 of this chapter.

(1) Drain lines must not slope less than one-quarter inch per foot, unless otherwise noted on the schematic diagram, as shown in Figure to § 3285.604.

(2) A slope of one-eight inch per foot may be permitted when a clean-out is installed at the upper end of the run.

(d) Testing procedures. The drainage system must be inspected and tested for leaks after completion at the site. The installation instructions must provide testing requirements that are consistent with § 3280.612 of this chapter.

Figure A to § 3285.604 Drain Pipe Slope and Connections.



§ 3285.605 Fuel supply system.

(a) Proper supply pressure. The gas piping system in the home is designed for a pressure that is at least 7 inches of water column [4oz./in.2 or 0.25 psi] and not more than 14 inches of water column [8 oz./in.2 or 0.5 psi]. If gas from any supply source exceeds, or could exceed this pressure, a regulator must be installed if required by the LAHJ.

(b) Crossovers.

(1) Multi-section homes with fuel supply piping in both sections require crossover connections to join all sections of the home. The crossover design requirements are located in, and must be designed in accordance with, § 3280.705 of this chapter.

(2) Tools must not be required to connect or remove the flexible connector quick-disconnect.

(c) Testing procedures. The gas system must be inspected and tested for leaks after completion at the site. The installation instructions must provide testing requirements that are consistent with § 3280.705 of this chapter.

§ 3285.606 Ductwork connections.

(a) Multi-section homes with ductwork in more than one section require crossover connections to complete the duct system of the home. All ductwork connections, including duct collars, must be sealed to prevent air leakage. Galvanized metal straps or tape and mastics listed to UL 181A (incorporated by reference, see § 3285.4), for closure systems with rigid air ducts and connectors, or UL 181B (incorporated by reference, see § 3285.4), for closure systems with flexible air ducts and connectors, must be used around the duct collar and secured tightly to make all connections.

(b) If metal straps are used, they must be secured with galvanized sheet metal screws.

(c) Metal ducts must be fastened to the collar with a minimum of three galvanized sheet metal screws equally spaced around the collar.

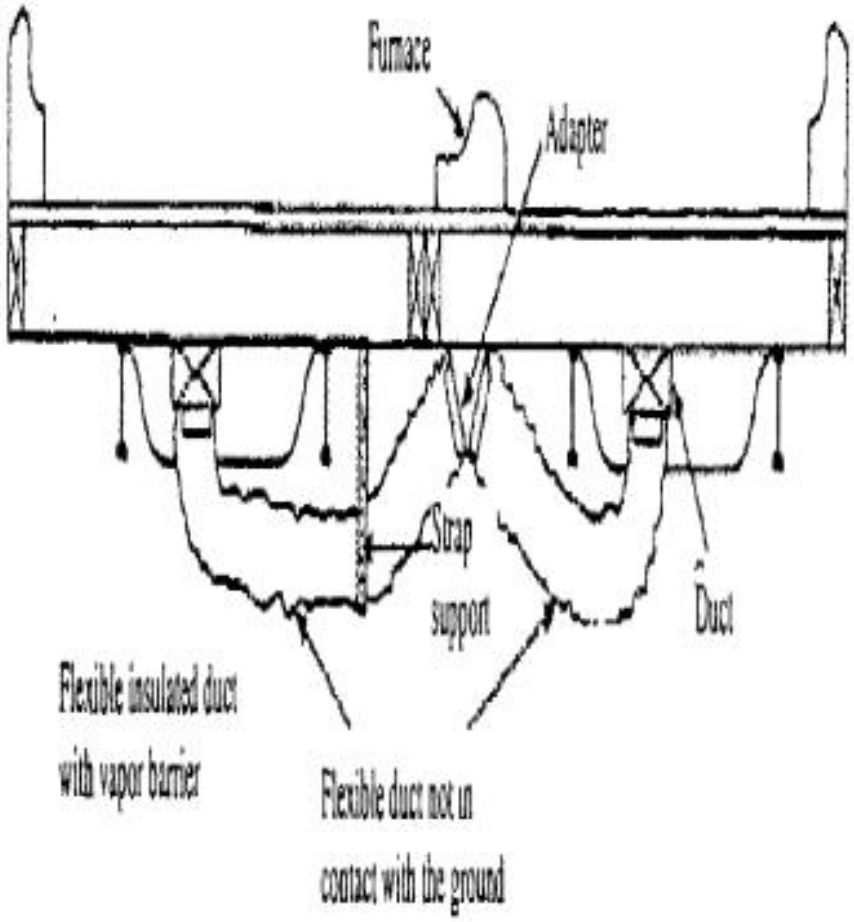
(d) Air conditioning or heating ducts must be installed in accordance with applicable requirements of the duct manufacturer installation instructions.

(e) The duct must be suspended or supported above the ground by straps or other means that are spaced at a maximum distance not to exceed 4'–0" or as otherwise permitted by the installation instructions. When straps are used to support a flexible type duct, the straps must be at least ½" wider than the spacing of the metal spirals encasing the duct. The ducts must be installed such that the straps cannot slip between any two spirals and arranged under the floor to prevent compression or kinking in any location, as shown in Figures A and B to this section. In-floor crossover ducts are permitted, in accordance with § 3285.606(g).

(f) Crossover ducts outside the thermal envelope must be insulated with materials that conform to designs consistent with part 3280, subpart F of this chapter.

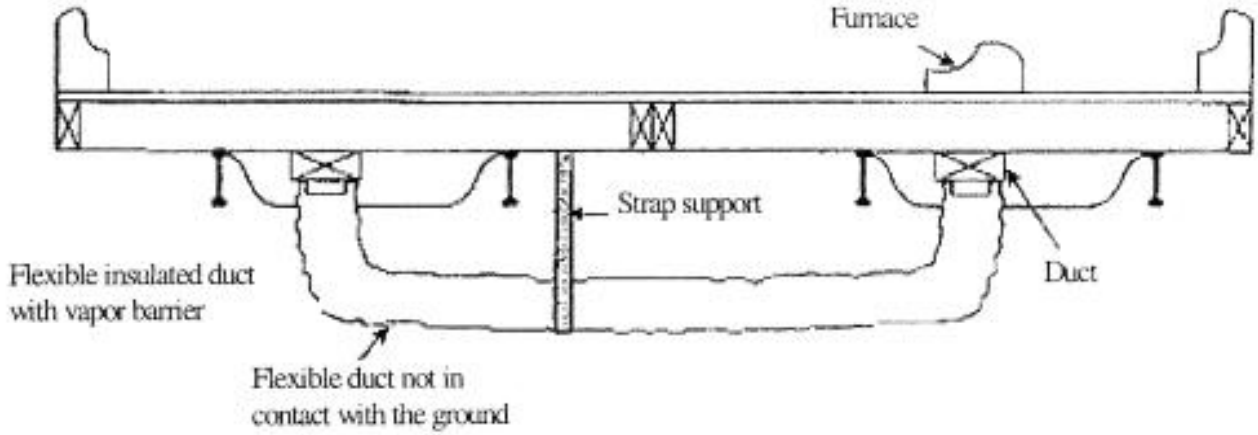
(g) In-floor or ceiling crossover duct connections must be installed and sealed to prevent air leakage.

Figure A to §3285.606 - Crossover Duct Installation with Two Connecting Ducts.



Notes:
1. This system is typically used when a crossover duct has not been built into the floor and the furnace is outside the I–Beam. With this type of installation, it is necessary for two flexible ducts to be installed.
2. The crossover duct must be listed for exterior use.

Figure B to §3285.606 Crossover Duct Installation with One Connecting Duct.



Notes:
1. This system is typically used when a crossover duct has not been built into the floor and the furnace is situated directly over the main duct in one section of the home. A single flexible duct is then used to connect the two sections to each other.
2. The crossover duct must be listed for exterior use.

Subpart H—Electrical Systems and Equipment

§ 3285.701 Electrical crossovers.

Multi-section homes with electrical wiring in more than one section require crossover connections to join all sections of the home. The crossover must be designed in accordance with part 3280, subpart I of this chapter, and completed in accordance with the directions provided in the installation instructions.

§ 3285.702 Miscellaneous lights and fixtures.

(a) When the home is installed, exterior lighting fixtures, ceiling-suspended (paddle) fans, and chain-hung lighting fixtures are permitted to be installed in accordance with their listings and part 3280, subpart I of this chapter.

(b) Grounding.

(1) All the exterior lighting fixtures and ceiling fans installed per § 3285.702(a) must be grounded by a fixture-grounding device or by a fixture-grounding wire.

(2) For chain-hung lighting fixtures, as shown in Figure A to this section, both a fixture-grounding device and a fixture-grounding wire must be used. The identified conductor must be the neutral conductor.

(c) Where lighting fixtures are mounted on combustible surfaces such as hardboard, a limited combustible or noncombustible ring, as shown in Figures A and B to this section, must be installed to completely cover the combustible surface exposed between the fixture canopy and the wiring outlet box.

(d) Exterior lights.

(1) The junction box covers must be removed and wire-to-wire connections must be made using listed wire connectors.

(2) Wires must be connected black-to-black, white-to-white, and equipment ground-to-equipment ground.

(3) The wires must be pushed into the box, and the lighting fixture must be secured to the junction box.

(4) The lighting fixture must be caulked around its base to ensure a watertight seal to the sidewall.

(5) The light bulb must be installed and the globe must be attached.

(e) Ceiling fans.

(1) Ceiling-suspended (paddle) fans must be connected to junction box listed and marked for ceiling fan application, in accordance with Article 314.27(b) of the National Electrical Code, NFPA No. 70–2005 (incorporated by reference, see § 3285.4); and

(2) The ceiling fan must be installed with the trailing edges of the blades at least 6 feet 4 inches above the finished floor; and

(3) The wiring must be connected in accordance with the product manufacturer installation instructions.

(f) Testing.

(1) After completion of all electrical wiring and connections, including crossovers, electrical lights, and ceiling fans, the electrical system must be inspected and tested at the site, in accordance with the testing requirements of § 3280.810(b) of this chapter.

(2) The installation instructions must indicate that each manufactured home must be subjected to the following tests:

(i) An electrical continuity test to ensure that metallic parts are effectively bonded;

(ii) Operational tests of all devices and utilization equipment, except water heaters, electric ranges, electric furnaces, dishwashers, clothes washers/ dryers, and portable appliances, to demonstrate that they are connected and in working order; and

(iii) For electrical equipment installed or completed during installation, electrical polarity checks must be completed to determine that connections have been made properly. Visual verification is an acceptable electrical polarity check.

Figure A to § 3285.702 Typical Installation of Chain-Hung Lighting Fixture.

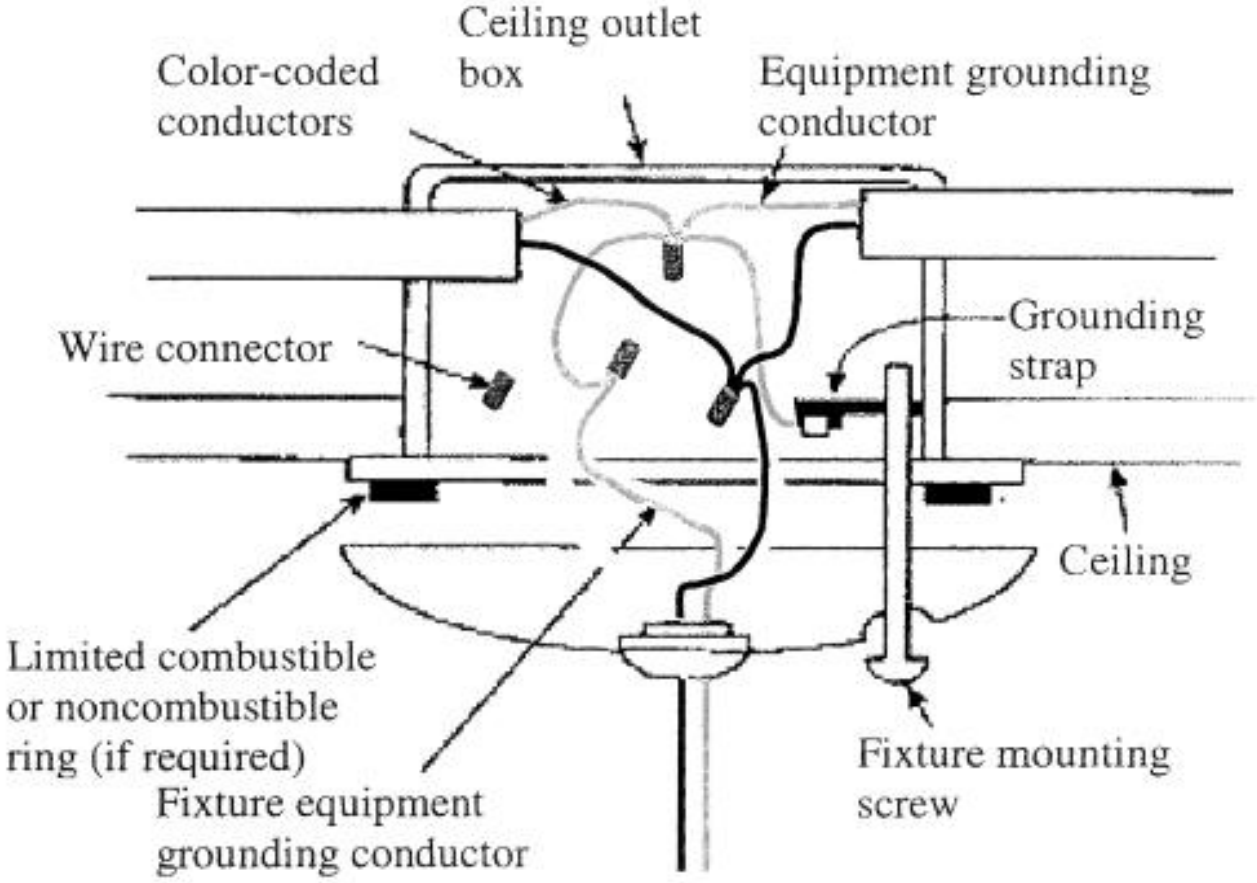
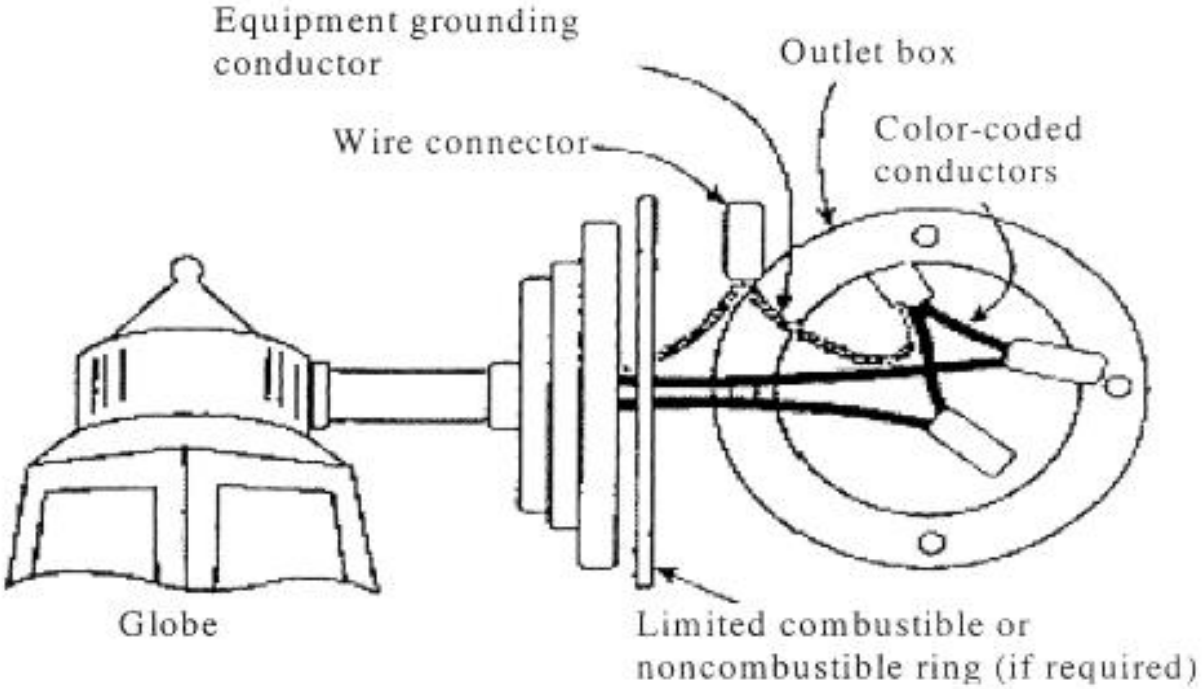


Figure B to § 3285.702 Typical Installation of Surface-Mounted Exterior Lighting Fixture.



§ 3285.703 Smoke alarms.

Smoke alarms must be functionally tested in accordance with applicable requirements of the smoke alarm manufacturer instructions and must be consistent with § 3280.208 of this chapter.

§ 3285.704 Telephone and cable TV.

Refer to § 3285.906 for considerations pertinent to installation of telephone and cable TV.

Subpart I—Exterior and Interior Close-Up

§ 3285.801 Exterior close-up.

(a) Exterior siding and roofing necessary to join all sections of the home must be installed according to the product manufacturer installation instructions and must be fastened in accordance with designs and manufacturer's instructions, consistent with §§ 3280.305 and 3280.307 of this chapter. Exterior close-up strips/trim must be fastened securely and sealed with exterior sealant (see figure A to this section).

(b) Joints and seams. All joints and seams in exterior wall coverings that were disturbed during location of the home must be made weatherproof.

(c) Prior to installing the siding, the polyethylene sheeting covering exterior walls for transit must be completely removed.

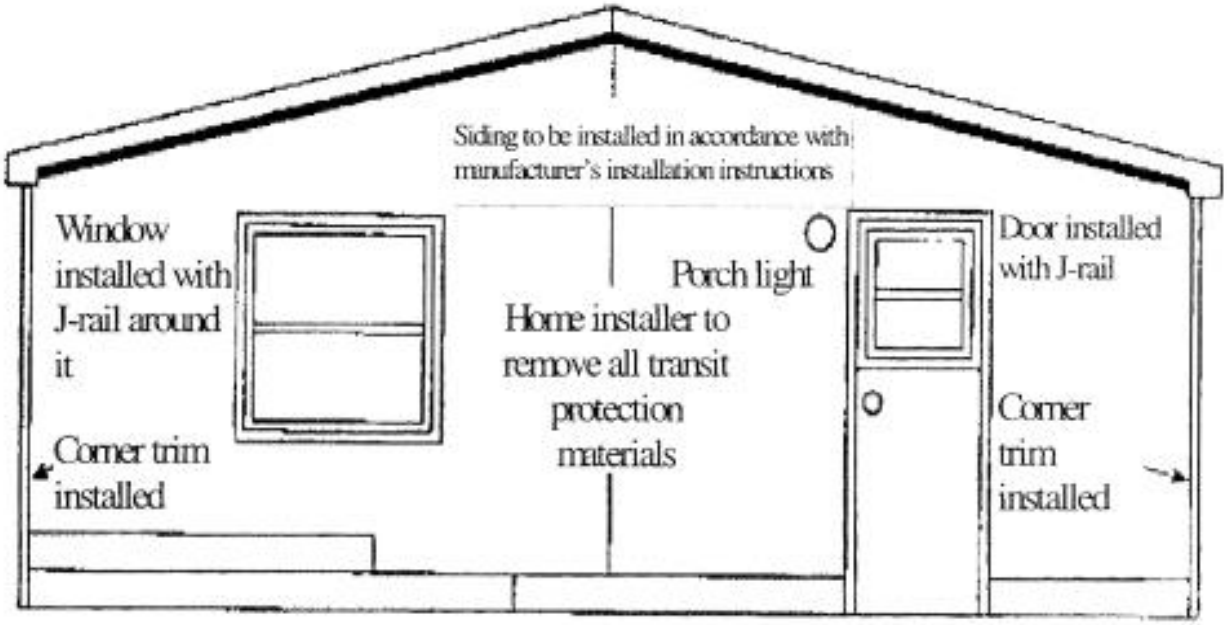
(d) Prior to completing the exterior close-up, any holes in the roofing must be made weatherproof and sealed with a sealant or other material that is suitable for use with the roofing in which the hole is made.

(e) Mate-line gasket. The home manufacturer must provide materials and designs for mate-line gaskets or other methods designed to resist the entry of air, water, water vapor, insects, and rodents at all mate-line locations exposed to the exterior (see Figure B to this section).

(f) Hinged roofs and eaves. Hinged roofs and eaves must be completed during installation in compliance with all requirements of the Manufactured Home Construction and Safety Standards (24 CFR part 3280) and the Manufactured Home Procedural and Enforcement Regulations (24 CFR part 3282). Unless exempted by the following provisions, hinged roofs are also subject to a final inspection for compliance with the Manufactured Home Construction and Safety Standards (24 CFR part 3280) by the IPIA or a qualified independent inspector acceptable to the IPIA. Homes with hinged roofs that are exempted from IPIA inspection are instead to be completed and inspected in accordance with the Manufactured Home Installation Program (24 CFR part 3286).
This includes homes:

(1) That are designed to be located in Wind Zone I;
(2) In which the pitch of the hinged roof is less than 7:12; and
(3) In which fuel burning appliance flue penetrations are not above the hinge.

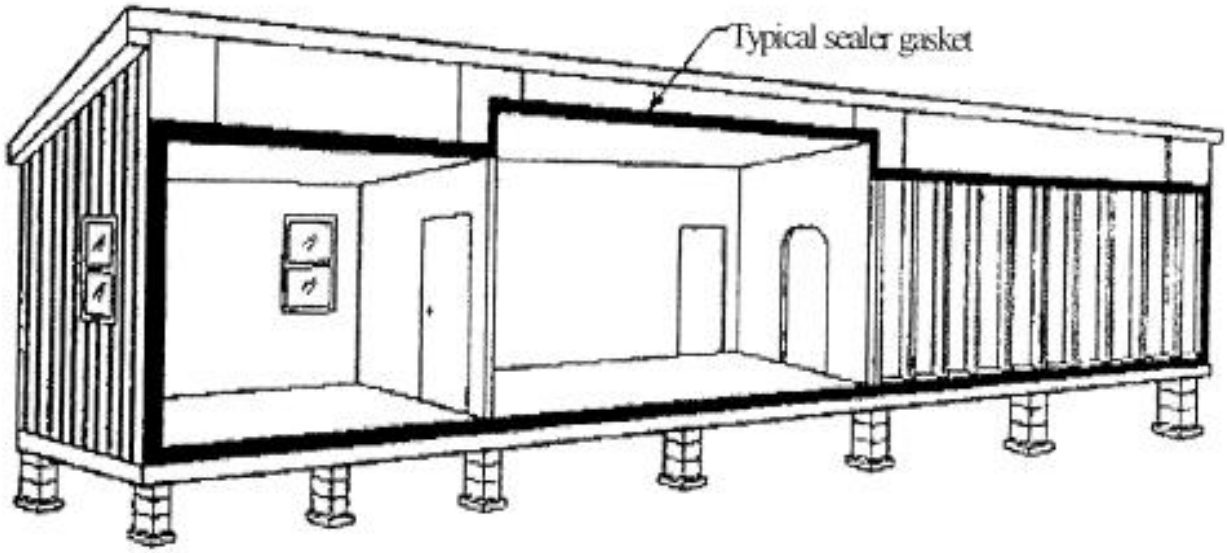
FIGURE A to §3285.801 Installation of Field-Applied Horizontal Lap Siding



Notes:

1. Multi-section homes with horizontal-lap siding can be shipped with no siding on the front and rear end walls.
2. The manufacturer must install doors/windows trimmed with J-rail or the equivalent and protect all exposed materials not designed for exposure to the weather with plastic sheeting for transport. Siding, starter trim, and vents may be shipped loose in the home for installation on set-up.
3. All home installers must ensure that all field installed trim, windows, doors, and other openings are properly sealed according to the siding manufacturer installation instructions.

Figure B to § 3285.801 Mate-Line Gasket.



Note:
On multi-section manufactured homes, install the sealer gasket on the ceiling, end walls, and floor mate-line prior to joining the sections together.

§ 3285.802 Structural interconnection of multi-section homes.

(a) For multi-section homes, structural interconnections along the interior and exterior at the mate-line are necessary to join all sections of the home.

(b) Structural interconnection must be designed in accordance with the requirements located in § 3280.305 of this chapter to ensure a completely integrated structure.

(c) Upon completion of the exterior close-up, no gaps are permitted between the structural elements being interconnected along the mate-line of multi-section homes. However, prior to completion of the exterior close-up, gaps that do not exceed one inch are permitted between structural elements provided:

(1) The gaps are closed before completion of close-up;

(2) The home sections are in contact with each other; and

(3) The mating gasket is providing a proper seal. All such gaps must be shimmed with dimensional lumber, and fastener lengths used to make connections between the structural elements must be increased to provide adequate penetration into the receiving member.

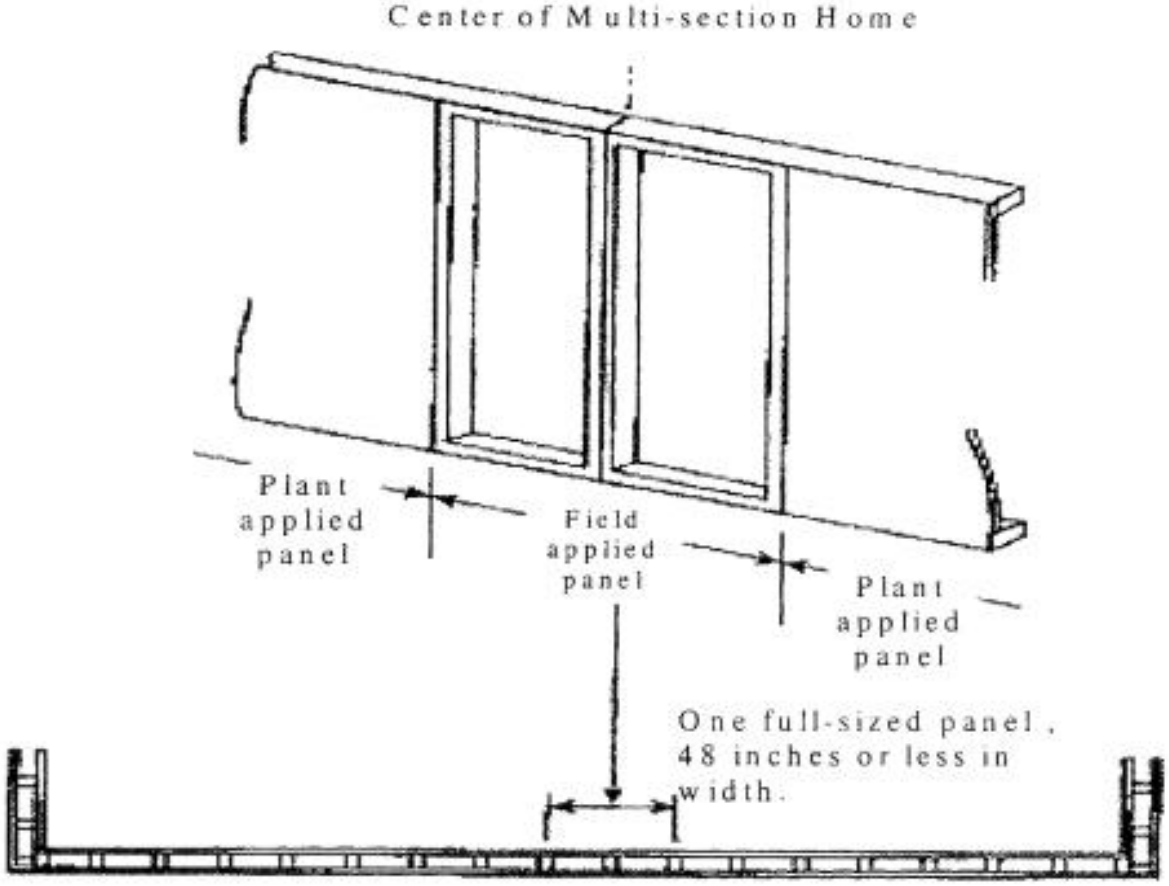
§ 3285.803 Interior close-up.

(a) All shipping blocking, strapping, or bracing must be removed from appliances, windows, and doors.

(b) Interior close up items necessary to join all sections of the home or items subject to transportation damage may be packaged or shipped with the home for site installation.

(c) Shipped-loose wall paneling necessary for the joining of all sections of the home must be installed by using polyvinyl acetate (PVA) adhesive on all framing members and fastened with minimum 11/2 inch long staples or nails at 6 inches on center panel edges and 12 inches on center in the field, unless alternative fastening methods are permitted in the installation instructions (see Figure A to § 3285.803).

FIGURE A to §3285.803 - Installation of Interior Field-Applied Panels.



Note: Specific designs must be approved by a DAPIA and included in the home manufacturer installation instructions.

§ 3285.804 Bottom board repair.

(a) The bottom board covering must be inspected for any loosening or areas that might have been damaged or torn during installation or transportation. Any missing insulation is to be replaced prior to closure and repair of the bottom board.

(b) Any splits or tears in the bottom board must be resealed with tape or patches in accordance with methods provided in the manufacturers installation instructions.

(c) Plumbing P-traps must be checked to be sure they are well-insulated and covered.

(d) All edges of repaired areas must be taped or otherwise sealed.

Subpart J—Optional Information for Manufacturer's Installation Instructions

§ 3285.901 General.

The planning and permitting processes, as well as utility connection, access, and other requirements, are outside of the State of Mississippi's authority and may be governed by LAHJs. These Model Installation Standards do not attempt to comprehensively address such requirements. However, the State of Mississippi_recommends that the manufacturer's installation instructions include the information and advisories in this Subpart J, in order to protect the manufactured home, as constructed in accordance with the MHCSS.

§ 3285.902 Moving manufactured home to location.

It is recommended that the installation instructions indicate that the LAHJ be informed before moving the manufactured home to the site. It is also recommended that the installation instructions indicate that the manufactured home is not to be moved to the site until the site is prepared in accordance with subpart C of this part and when the utilities are available as required by the LAHJ. Examples of related areas that might be addressed in the installation instructions for meeting this recommendation include:

(a) Access for the transporter. Before attempting to move a home, ensure that the transportation equipment and home can be routed to the installation site and that all special transportation permits required by the LAHJ have been obtained.

(b) Drainage structures. Ditches and culverts used to drain surface runoff meet the requirements of the LAHJ and are considered in the overall site preparation.

§ 3285.903 Permits, alterations, and on-site structures.

It is recommended that the installation instructions include the following information related to permits, alterations, and on-site structures:

(a) Issuance of permits. All necessary LAHJ fees should be paid and permits should be obtained, which may include verification that LAHJ requirements regarding encroachments in streets, yards, and courts are obeyed and that permissible setback and fire separation distances from property lines and public roads are met.

(b) Alterations. Prior to making any alteration to a home or its installation, contact the LAHJ to determine if plan approval and permits are required.

(c) Installation of on-site structures. Each accessory building and structure is designed to support all of its own live and dead loads, unless the structure, including any attached garage, carport, deck, and

porch, is to be attached to the manufactured home and is otherwise included in the installation instructions or designed by a registered professional engineer or registered architect.

§ 3285.904 Utility system connections.

(a) It is recommended that the manufacturer's installation instructions indicate the following procedures be used prior to making any utility system connection:

(1) Where an LAHJ and utility services are available, that the LAHJ and all utility services each be consulted before connecting the manufactured home to any utilities, or

(2) Where no LAHJ exists and utility services are available, that the utilities be consulted before connecting the manufactured home to any utility service; or

(3) In rural areas where no LAHJ or utility services are available, that a professional be consulted prior to making any system connections.

(b) Qualified personnel. Only qualified personnel familiar with local requirements are permitted to make utility site connections and conduct tests.

(c) Drainage system. The main drain line must be connected to the site's sewer hookup, using an elastomeric coupler or by other methods acceptable to the LAHJ, as shown in Figure A to this section.

(d) Fuel supply system.

(1) Conversion of gas appliances. A service person acceptable to the LAHJ must convert the appliance from one type of gas to another, following instructions by the manufacturer of each appliance.

(2) Orifices and regulators. Before making any connections to the site supply, the inlet orifices of all gas-burning appliances must be checked to ensure they are correctly set up for the type of gas to be supplied.

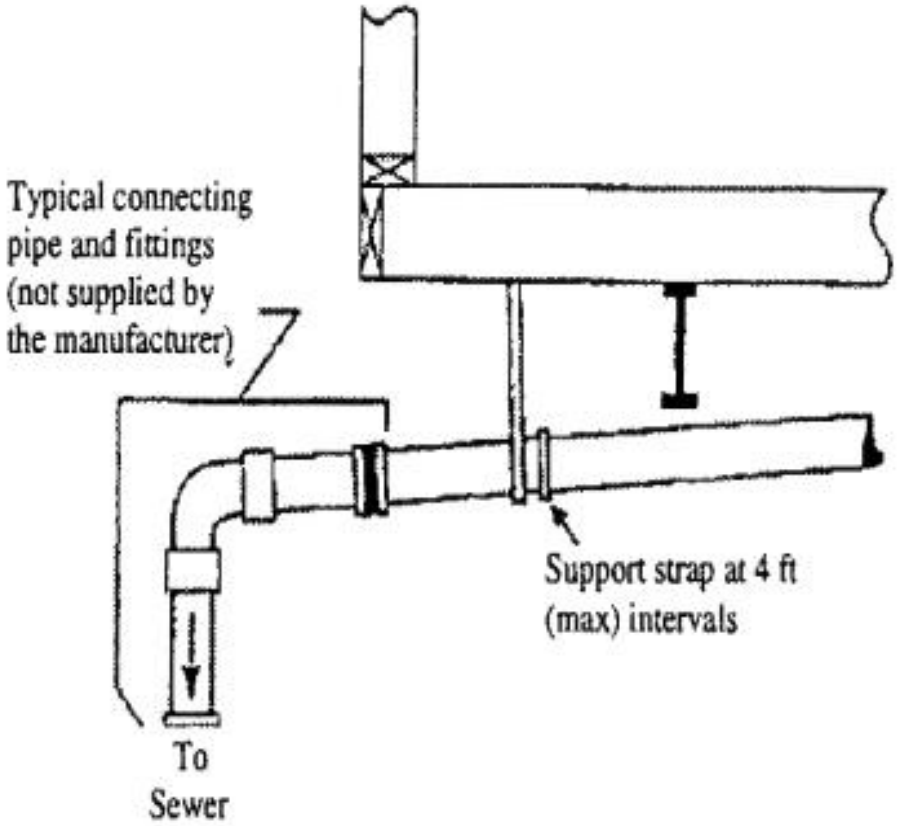
(3) Connection procedures. Gas-burning appliance vents must be inspected to ensure that they are connected to the appliance and that roof jacks are properly installed and have not come loose during transit.

(4) Gas appliance start-up procedures. The LAHJ should be consulted concerning the following gas appliance startup procedures:

(i) One at a time, opening equipment shutoff valves, lighting pilot lights when provided, and adjusting burners and spark igniters for automatic ignition systems, in accordance with each appliance manufacturer instructions.

(ii) Checking the operation of the furnace and water heater thermostats.

Figure A to § 3285.904 – Connection to Site Sewer.



Note:
Fittings in the drainage system that are subject to freezing, such as P-traps in the floor, are protected with insulation by the manufacturer. Insulation must be replaced if it is removed for access to the P-trap.

§ 3285.905 Heating oil systems.

It is recommended that the installation instructions include the following information related to heating oil systems, when applicable:

(a) Homes equipped with oil burning furnaces should have their oil supply tank and piping installed and tested on-site, in accordance with NFPA 31, Standard for the Installation of Oil Burning Equipment, 2001 (incorporated by reference, see § 3285.4) or the LAHJ, whichever is more stringent.

(b) The oil burning furnace manufacturer's instructions should be consulted for pipe size and installation procedures.

(c) Oil storage tanks and pipe installations should meet all applicable local regulations.

(d) Tank installation requirements.

(1) The tank should be located where it is accessible to service and supply and where it is safe from fire and other hazards.

(2) In flood hazard areas, the oil storage tank should be anchored and elevated to or above the design flood elevation, or anchored and designed to prevent flotation, collapse, or permanent lateral movement during the design flood.

(3) Leak test procedure. Before the system is operated, it should be checked for leaks in the tank and supply piping, in accordance with NFPA 31, Standard for the Installation of Oil Burning Equipment, 2001 (incorporated by reference, see § 3285.4) or the requirements of the LAHJ, whichever is more stringent.

§ 3285.906 Telephone and cable TV.

It is recommended that the installation instructions explain that telephone and cable TV wiring should be installed in accordance with requirements of the LAHJ and the National Electrical Code, NFPA No. 70– 2005 (incorporated by reference, see § 3285.4).

§ 3285.907 Manufacturer additions to installation instructions.

A manufacturer may include in its installation instructions items that are not required by this chapter as long as the items included by the manufacturer are consistent with the Model Installation Standards in this part and do not take the manufactured home out of compliance with the MHCSS.