



Manufactured Building

Wayne Goodwin | Commissioner of Insurance
Tim Bradley | Assistant State Fire Marshal

MEMORANDUM

DATE: October 22, 2012

TO: Approved Third Party Certification Agencies

FROM: Alan D. Greene, P.E.
Chief Building Code Consultant - Manufactured Building Division

RE: Modular Buildings on Piling Foundations

In North Carolina a building site, especially in the coastal areas, will often require the use of a piling foundation system. In modular construction this is most often true of residential units, but may apply to commercial applications as well. Often the manufacturer will not know specifically that a piling foundation is required. However, in instances *when it is known* that a particular unit will be placed on a piling foundation, the following guidelines must be adhered to when approving plans:

1. Our modular plans check list requires that a typical foundation design be provided using a minimum allowable soil bearing capacity of 2000 psf. If it is known that the unit is going to be placed on a piling foundation, the typical design obviously will not apply and need not be provided.
2. It must be noted on the plans that the piling foundation is to be designed by others and constructed on site, subject to local inspection.
3. A piling foundation may be indicated on elevation views, but the note as described in Item 2 above must be included.
4. All loads imposed by the structure on the piling system, including shear wall tie downs if applicable, required support locations, etc., must be clearly indicated on the plans for use by the piling foundation engineer.
5. Building to piling connection details should be provided only if the manufacturer is taking responsibility for these designs. Otherwise, the plans must indicate that the connections are to be designed by others, subject to local approval and inspection.
6. The maximum elevation of the lowest floor above grade must be clearly indicated on the plans, such that the maximum mean roof elevation used in the building wind design is not exceeded.

Please implement these guidelines on all future North Carolina modular buildings for which it is known that a piling foundation system will be required.

cc: Joseph H. Sadler, Jr., P.E. -- Deputy Director
C. Patrick Walker, P.E. -- Technical Services Manager.
Michael J. Hamm, P.E. -- Building Code Consultant
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