

— Industrialized Buildings Commission —

BULLETIN

To: All Concerned Parties

From: Industrialized Buildings Commission

Date: November 14, 1995

Subject: Application of Building Systems Documents

The Rules Development Committee's third party and manufacturer advisory committees have jointly developed a document which illustrates how a building system for a typical one and two family dwelling Aranch® subsystem would be used by a manufacturer. This document is being provided to interested inspection and evaluation agencies and manufacturers for informational purposes.

APPLICATION OF BUILDING SYSTEMS DOCUMENTS

Part V: Section 1 of the *Model Rules and Regulations* addresses the minimum documents required for a Building Systems. Part V: Section 1(B) states "Only the minimum documentation necessary to demonstrate each alternative possible within the system shall be required." The intent of this paper is to discuss the application of Building Systems Documents as applied to one and two family housing. A typical Building Systems will contain subsystems such as ranch, cape and two story. For discussion purposes, this paper will address the application of a ranch subsystem within the Building Systems Documents. This application does NOT address all of the options. It is only intended to illustrate the application of options within the approved Building Systems.

PLAN DEVELOPMENT

Specific floor plans are developed by the manufacturer using the minimum documentation that has been approved by an evaluation agency. A typical ranch subsystem may only contain one floor plan. This floor plan would identify basics such as light and vent per room and window and door sizes. This plan would also identify the width and length parameters. Structural and architectural options would be included as part of the Building Systems Documents. Many of the structural options would be specific to the subsystem due to changes in loading due to truss conditions and one story versus two story conditions. Some typical options are identified below:

- A. Window and door schedules;
- B. Header designs to support optional windows and doors and various roof load snow load conditions;
- C. Mate line girder designs addressing optional clear spans and snow loads;
- D. Exterior and mate line column and stud charts based on wall heights;
- E. Optional stair configurations.

The ranch floor plan may be configured as a raised ranch, an AL@ranch, or a AT@ranch as long as the modules remain within the parameters of the approved systems. The specific floor plan may be constructed at a lesser width than identified by the Building Systems. For example, a 27 foot wide ranch may be constructed to the more restrictive 28 foot wide structural designs. The specific floor plan developed by the manufacturer must fall within the limitations of the options approved under the systems. This specific floor plan would not require additional evaluation agency approval.

Location of electrical outlets and smoke detectors would be shown on the floor plan or a separate identical plan. Actual location of these items would change for each floor plan developed by the manufacturer. In all cases, the actual locations must conform to applicable building and electrical codes. The actual location of the electrical devices would not require additional evaluation agency approval.

BATH AND KITCHEN OPTIONS

Optional bath and kitchen configurations for each floor plan are not required but may be part of the subsystem (e.g., ranch, cape, two story) or part of the Building Systems Documents applicable to all subsystems. They may identify clearances as required and also the typical location of electrical outlets including those requiring GFCI protection. Typical configurations might identify the following:

- A. Island kitchen;
- B. AU@kitchen;
- C. AL@kitchen;
- D. Half and full baths.

Specific plumbing schematics for each plan are not required.

MANUFACTURER AND INSPECTION AGENCY RESPONSIBILITIES

The manufacturer's compliance assurance program and the inspection agency provide oversight of the engineering department's ability to develop specific plans from the Building Systems Documents.

The manufacturer's design person responsible for the Building Systems Documents should be identified by title in the Compliance Assurance Program.

SUMMARY

The application of the Building Systems Documents is designed to provide the manufacturer with the flexibility to customize the product without delays in the approval process. In all cases, the manufacturer must stay within the parameters approved within the Building Systems Documents. Currently, any changes to the Building Systems Documents must be approved by the evaluation agency. It should be noted that Part IV, Section 3 of the *Uniform Administrative Procedures* does provide a method for the manufacturer to modify the systems without the prior approval of the evaluation agency.