

SINGLE FAMILY RESIDENCE BUILDING DESIGN:

5/2/2005

1. Statement that Building designed as enclosed or partially enclosed
2. Enclosed buildings require wind borne debris protection. FBC Sec. 1606.1.4
3. All information, drawings, specifications and accompanying data shall bear the name and signature of the person responsible for the design

All structural plans shall be signed and sealed by a design professional. Structural design criteria shall be clearly indicated (i.e., wind loading, floor and roof live and dead loads).

The following information related to wind loads shall be shown on the plans, FBC Sec. 1606.1.7:

4. Basic Wind Speed, mph.
5. Wind Importance Factor (I)
6. Building Category
7. Wind Exposure(s), and applicable wind direction(s)
8. Applicable internal pressure coefficient
9. Components and Cladding. The design wind pressures in terms of psf to be used for the design of exterior components and cladding materials not specifically designed by the design professional.

Check for compliance with FBC Table 500 and 600 requirements

Check townhouse separation FBC Sec. 704.4

Check duplex tenant separation FBC Sec. 704.3

Plans shall show the following as applicable:

1. Details to illustrate anchoring for all exterior windows and doors to comply with FBC 1707.4.4

Foundation and slab details to include:

1. Slab thickness, reinforcing, concrete strength, vapor barrier, and termite treatment.
2. Size and location of all footings and pads (The bottom of all footings must be 12 inches below grade)
3. Quantity, size, and location of all reinforcing

Soils investigations are required for all waterfront property that borders the Indian River Lagoon, the Sebastian River, and their associated canals. A soils investigation is also required for the following subdivisions: Vero Isles, Cache Cay, The Moorings #5 (The Anchor), Riverboat Club, and Kingswood Estates

Wall Section to show:

1. Foundation
2. Type of wall construction
3. Reinforcing or framing details
4. Interior and exterior wall covering
5. Wall and roof insulation
6. Roof sheathing and covering details
7. Eave overhang 6" minimum

Plans shall show a continuous tie from the foundation to roof.

For masonry walls show:

1. Location and size of vertical and horizontal reinforcing.
2. Reinforcing connection to footing and tie beam
3. Tie beam size and reinforcing details.

For frame walls show:

1. Stud size and spacing.
2. Bottom plate anchor to foundation.
3. Bottom plate to stud connection.
4. Stud to top plate connection.
5. Wall sheathing thickness and nailing details
6. Show headers and beams size
7. For two story buildings show strapping from first to second floor

Truss Layout

1. Truss design wind speed and exposure category
2. Truss anchors verified against uplift forces
3. Gable end construction details (full height masonry wall, balloon framing or bracing details)

For any hand framed roofs or floors

1. Show size, grade, species, and span of joists or rafters
2. Show size of ridge board, hip and valley rafters, collar tie details, fastening and strapping details

Misc.

1. Show 32" clear opening, side swing egress door FBC Table 1004
2. Landings at exterior doors (max. 8" below interior floor level) FBC Sec. 1012.1.3
3. Any hall or stair width 36" minimum FBC Table 1004
4. Emergency egress from all sleeping rooms FBC Sec. 1005.4.1
5. Room dimensions and use designations FBC Sec. 1203.2
6. Room lighting and ventilation provided FBC Sec. 1203.1
7. Stairs in accordance with FBC Sec. 1007
8. Guardrails in accordance with FBC Sec. 1015 and 1026.5
9. Attic access is provided FBC Sec. 2309.6
10. One 1st floor bathroom is located on a 29" clear path of travel FBC Sec. 11-11(1)
11. Hazardous glass locations comply with FBC Sec. 2405
12. Verify plan details comply with energy code information
Area, insulation levels, SEER ratings, etc

Electric

1. Panel location
2. Smoke detector location
3. Location and spacing of receptacle outlets
4. Switchable lights or receptacles

Mechanical

1. Show location of hvac equipment
2. Dryer vent FBC-Mech. 504.6 & bathroom exhaust FBC 1203.4, FBC-Mech. 403
3. Comply with FBC-Gas Sect. 304 for combustion and ventilation air requirements for gas appliances.
4. Protection of mechanical and gas appliances and plumbing components FBC-M 303.4, FBC-Gas 303.4, FBC-P 305.9.

Show plumbing fixture location